

August 1, 2024

The Honorable Debbie-Anne A. Reese  
Acting Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Re: California Independent System Operator Corporation  
Docket No. ER24- \_\_\_\_ -000**

**Tariff Amendment to Implement Track 2 of Interconnection  
Process Enhancements 2023 Initiative**

Dear Secretary Reese:

The California Independent System Operator Corporation (CAISO) submits this tariff amendment to implement reforms essential for the CAISO to adapt to the recent dramatically increased levels of requests to interconnect to the CAISO controlled grid.<sup>1</sup> The CAISO interconnection queue now contains more than three times the capacity expected to achieve California public policy objectives for the next two decades and far exceeds the ability of available and planned transmission to deliver power from all of these projects to customers. The CAISO's proposed reforms will assess transmission availability and allocate limited deliverability by building on the foundation established by the Commission's Order No. 2023 and prioritizing projects seeking deliverability using just and reasonable criteria.

The CAISO's proposed reforms maintain open access in the region, including through an unrestricted ability for projects to pursue the interconnection of projects on an energy-only basis. These reforms will identify the most viable and needed projects, and enable them to advance through the CAISO's interconnection study process in those zones where transmission capacity will be available, providing sufficient resource availability and diversity in the interconnection queue. The California Public Utilities Commission (CPUC)

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<sup>1</sup> The CAISO submits this filing pursuant to section 205 of the Federal Power Act (FPA), 16 U.S.C. § 824d, and Part 35 of the Commission's regulations, 18 C.F.R. Part 35. Capitalized terms not otherwise defined herein have the meanings set forth in appendix A to the CAISO tariff, and references to specific tariff sections and appendices are references to sections and appendices in the existing CAISO tariff unless otherwise specified.

strongly supported the CAISO Board of Governors' approval of these reforms as a means to implement the 2022 Memorandum of Understanding among the CAISO, the CPUC, and the California Energy Commission (CEC), which seeks to tighten linkages among resource and transmission planning activities, interconnection processes, and resource procurement.

The reforms are the result of an extensive and robust stakeholder process that lasted more than a year, and strike an appropriate balance between the competing interests of the various stakeholders while ensuring the needs of ratepayers are met. The CAISO requests that the Commission accept these tariff revisions effective October 1, 2024 (*i.e.*, 61 days after the date of this filing), so the CAISO can resume implementation of its most recent and suspended interconnection queue cluster—cluster 15—subject to the reforms contained in this filing.

## **I. Executive Summary**

This tariff amendment builds upon and complements the new requirements established in Commission Order No. 2023, which set new standards for interconnection processes around the country and for which the CAISO has already submitted tariff changes on compliance. The CAISO's Order No. 2023 compliance revisions are the foundation for the instant filing, but these revisions alone are not enough to address the crisis facing the region's efforts to connect resources to the CAISO controlled grid.

With the dramatic recent increase in projects applying for interconnection and seeking finite deliverability capacity from planned transmission, existing tools to move projects to commercial operation are insufficient. When the Interconnection Process Enhancements (IPE) stakeholder initiative began in May 2023, the CAISO had 185 gigawatts (GW) of active pre-cluster 15 interconnection requests in the interconnection queue, and active interconnection requests totaled 347 GW in cluster 15 alone.<sup>2</sup> The CAISO interconnection queue now contains more than three times the capacity expected to achieve the policy objective of 100 percent clean energy by the end of 2045 established by California state legislation.

These volumes reflect the level of competition and interest in developing potential sites, but are much larger than the quantity of projects that are expected to be needed by California and likely to secure power purchase agreements and interconnect to the grid. These unsustainable increases in interconnection requests have overwhelmed not only the CAISO's current interconnection procedures, but also critical planning and engineering resources across the

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<sup>2</sup> The CAISO's peak demand is 52,061 MW, set on September 6, 2022. See <https://www.caiso.com/documents/californiaisopeakloadhistory.pdf>.

industry. Interconnection requests for projects that are viable and are needed to address both reliability and public policy objectives cannot be processed in a timely manner. There is widespread agreement among stakeholders that all these challenges must be addressed in addition to the issues addressed by Order No. 2023.

In addition to the unsustainable strain on planning and engineering resources, interconnection study results lose accuracy, meaning, and utility when the level of cluster interconnection request capacity is multiple times the existing or planned transmission capacity for an area. Simply put, it is impossible to allocate deliverability—transmission capacity to deliver a generator's energy to load during different system conditions—to all of the interconnection requests currently in the queue. Deliverability is intentionally finite. To protect ratepayers, the CAISO's transmission plan approves the construction of area delivery network upgrades based on local regulatory authority load forecasts and resource plans. In some portions of the CAISO controlled grid, existing and planned deliverability has already been allocated, or there was no existing or planned transmission capacity to provide deliverability in the first place. Yet all 541 interconnection requests in cluster 15 have requested deliverability, just like the hundreds of interconnection requests in the five clusters that preceded them.

As the Commission has recognized, ensuring that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner is necessary to allow rates, terms, and conditions for Commission-jurisdictional services to be just, reasonable, and not unduly discriminatory or preferential.<sup>3</sup> The CAISO, Participating Transmission Owners (Participating TOs), Load Serving Entities (LSEs), and other participants in the electric industry need the reformed process reflected in this tariff amendment to advance viable projects toward interconnection and commercial operation in an efficient, transparent, and timely manner, and to prevent stagnant projects from hindering the progress of viable projects in the interconnection queue. Previous phased approaches to reforming the CAISO's interconnection processes have not sufficiently addressed the unprecedented interconnection queue volumes and the associated challenges those volumes present.

The reforms implemented in this filing reflect state public policies directly impacting the CAISO's interconnection and deliverability allocation procedures. Based on extensive stakeholder feedback, and considering the urgent need to bring unprecedented amounts of new capacity online as quickly and efficiently as possible, the CAISO proposes tariff revisions tailored to the particular

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<sup>3</sup> *Improvements to Generator Interconnection Procs. & Agreements*, Order No. 2023, 184 FERC ¶ 61,054, at P 3 (2023) (Order No. 2023), *order on reh'g & clarification*, Order No. 2023-A, 186 FERC ¶ 61,199 (2024) (Order No. 2023-A). Order Nos. 2023 and 2023-A are sometimes referred to collectively in this Answer as "Order No. 2023," but not where distinguishing between those two Commission issuances is necessary.

circumstances within California to enhance up-front project readiness and alignment with local and state transmission planning efforts. This tariff amendment is the most recent in a series of filings the CAISO has made in the past two decades to enhance its generator interconnection procedures to keep pace with California state law including the renewables portfolio standard and the associated evolution in generation development. Consistent with the Memorandum of Understanding among the CAISO, CPUC, and CEC, the tariff amendment is part of a broader effort to tighten linkages among resource and transmission planning activities, interconnection processes, and resource procurement, as the CAISO works with stakeholders and local, state, and federal authorities to accelerate development and deployment of critical resources.

Because the generating capacity existing or planned on the CAISO controlled grid exceeds the ability of the CAISO controlled grid to deliver power from all resources with pending interconnection requests to load, the reforms to the interconnection process required the development of an approach to allocate scarce deliverability to interconnection customers based on transparent criteria. For example, in the Southern California Edison North transmission zone, there is 2,240 MW of available and planned deliverability currently. But there are already 87 interconnection requests comprising 21,094 MW from previous clusters in that transmission zone, all requesting deliverability. Cluster 15 has another 37 interconnection requests comprising 20,188 MW in that transmission zone. The East of Pisgah transmission zone has *no* deliverability available, but there are 54 cluster 15 interconnection requests comprising 34,652 MW proposing to interconnect there, all seeking deliverability. It is not possible to produce meaningful study results for these interconnection customers without first recognizing that only some or none of these interconnection customers will be able to utilize the area delivery network upgrades approved in the CAISO transmission plan to create deliverability to meet resource adequacy needs. Others will either need to forgo deliverability or finance their own area delivery network upgrades to relieve their significant area constraints. Regardless of the reforms proposed here, cluster 15 interconnection customers generally are at the end of a long line of interconnection customers that sought deliverability earlier.

Given this inherent practical limitation, the CAISO has addressed the challenges by dividing the CAISO controlled grid into zones based on the ISO's annual transmission planning process, for purposes of processing interconnection requests. The tariff amendment will give priority to interconnection requests aligned with priority zones where transmission capacity exists or has been approved for development. This will help shape the interconnection queue as the resource development community responds with proposed projects in areas enabled by existing or approved transmission. The tariff revisions also will drive resource development with the operational characteristics and in geographic locations consistent with resource planning conducted by the CPUC, CEC, and other local regulatory authorities, as well as

the CAISO's transmission planning process based on that resource planning. The CAISO proposes to apply the tariff revisions to cluster 15 and subsequent clusters to prioritize consideration and study of the most viable interconnection projects that best align with system need, while maintaining open access to the transmission grid.

The CAISO's proposed tariff revisions meet both the just and reasonable standard and the independent entity standard.<sup>4</sup> The tariff revisions address issues unique to the CAISO, and were designed to work without significant conflict with the CAISO's tariff provisions modeled on Commission *pro forma* Large Generator Interconnection Procedure and Generator Interconnection Agreement provisions, including under Order Nos. 2003, 845, and 2023. The proposed revisions build upon the CAISO's interconnection procedures, with independent entity variations previously accepted by the Commission.

The tariff amendment has two related components: (1) implementation of a zonal approach to cluster studies to determine where new generation is able to be deliverable based on available transmission capacity, and (2) establishment of cluster study criteria that all interconnection requests must satisfy in order to proceed to the cluster study. Together, these components will help to address the current overwhelming volume of projects in the interconnection queue.

As to the first component, the CAISO proposes to establish a zonal approach that determines where new generation is needed based on the annual transmission plan and deliverability. Specifically, consistent with a central principle developed in the stakeholder process for this tariff amendment and with the Memorandum of Understanding, the CAISO proposes tariff revisions to designate new Transmission Zones as either Deliverable Zones (meaning Transmission Zones with at least 50 MW of available deliverability as identified and published before the cluster application window) or Merchant Zones (meaning Transmission Zones as identified and published with less than 50 MW of available deliverability before the cluster application window).<sup>5</sup>

The CAISO will determine whether a Transmission Zone is a Deliverable Zone or a Merchant Zone based on the availability of capacity associated with the known constraints within each Transmission Zone. The CAISO will provide this information to potential interconnection customers prior to each cluster application window. Projects seeking deliverability to interconnect in Deliverable

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<sup>4</sup> In its generator interconnection rules, the Commission has consistently permitted Independent System Operators and Regional Transmission Organizations to adopt variations from the Commission's *pro forma* approach under an "independent entity variation" standard. See, e.g., Order No. 2023 at P 1764.

<sup>5</sup> As described below, and consistent with Order No. 2023, the CAISO will publish heatmaps before cluster application windows to inform developers which transmission zones will have which designations for potential interconnection requests.

Zones (*i.e.*, selecting the Deliverable Option) can receive cash reimbursement for the cost of constructing needed network upgrades, while projects seeking deliverability to interconnect in Merchant Zones (*i.e.*, selecting the Merchant Option) will self-fund any associated network upgrades needed to deliver their resources to load. The CAISO commits to providing information that helps stakeholders, particularly interconnection customers, identify Transmission Zones with available transmission capacity and enable decisions whether to select the Deliverable Option or the Merchant Option.

The CAISO further proposes four sets of cluster study criteria: (1) criteria for interconnection requests for deliverability in Deliverable Zones; (2) criteria for interconnection requests for deliverability in Merchant Zones; (3) criteria for interconnection requests for energy-only deliverability status (*i.e.*, not having either full capacity deliverability status or partial capacity deliverability status) that are eligible for cash reimbursement for needed network upgrades; and (4) criteria for interconnection requests for energy-only deliverability status that are ineligible for cash reimbursement. Each interconnection request can be evaluated under only one of these cluster study criteria and cannot switch between them after the cluster application window.

The CAISO has designed these criteria to be consistent with open access principles. In Deliverable Zones, the CAISO will allocate scarce deliverability to interconnection requests based on transparent and non-discriminatory criteria. There will be caps on the total interconnection requests processed in each zone for any cluster under cluster study criteria (1) and (3). The CAISO proposes a cap of 150 percent of total available transmission capacity for each Deliverable Zone and for 150 percent of the amount of energy-only resources that are eligible for cash reimbursement. The percentage-based nature of the cap ensures that the studies are scaled to the resource and transmission planning completed by the State and local regulatory authorities, while still enabling competition. The Commission has recognized that an appropriately structured cap used in interconnection processes can be consistent with open access principles. In addition, energy-only interconnection requests not seeking reimbursement for network upgrades will provide projects an opportunity to interconnect in any zone, further ensuring open access.

The CAISO will evaluate projects studied under cluster study criteria (1) and (3) using scoring criteria that will emphasize project readiness and competition for projects to advance to the cluster study process. The scoring criteria provide an appropriate level of granularity and opportunities to measure development progress, and can be readily validated. Project scores will be weighted based on indicators related to project viability (35 percent of the overall scoring weight), system need (35 percent of the overall scoring weight), and commercial interest (30 percent of the overall scoring weight). In evaluating commercial interest, the CAISO will incorporate preliminary, non-binding

feedback on specific projects from LSEs. The CAISO also will provide an opportunity for non-LSE off-takers, such as corporate and industrial commercial customers, to express interest in specific projects, and will award points to projects that can demonstrate such interest from non-LSE off-takers. These commercial selections will improve the scores of certain projects, increasing the likelihood of those projects advancing to the study process and ultimately competing for transmission plan deliverability and off-take agreements.

The highest-ranking projects under cluster study criteria (1) and (3) will advance to the study phase in descending order of project scores until the available and planned transmission capacity for each constraint or Transmission Zone is filled to 150 percent of that capacity—a percentage level the CAISO has determined ensures a sufficient supply of projects advancing through the study process will be competitively procured. Ties will be resolved by calculating and selecting the project with the lowest distribution factor behind the constraint, and if ties still exist under cluster study criteria (1), the CAISO will conduct a market-clearing sealed-bid auction to determine which of the tied projects advances to the cluster study process.

Under cluster study criteria (2), all interconnection requests in Merchant Zones seeking any deliverability will proceed to the cluster study process but are subject to the requirements of the Merchant Option including the obligation to fund on a “merchant” basis the network upgrades needed to provide deliverability. The Merchant Option reflects the interconnection customer’s desire to build deliverability capacity beyond the transmission that local regulatory authorities and the CAISO have planned for. All energy-only interconnection requests under cluster study criteria (4) will proceed to the cluster study process.

The interconnection process tariff enhancements proposed in this filing will produce a needed transformation of the CAISO’s interconnection procedures. These revisions, however, incorporate many features well established in Commission precedent, including:

- Accounting for state public policy needs in Commission-jurisdictional rates, terms, and conditions, as approved in Order No. 1000;
- Recognizing that state integrated resource planning processes serve a critical role in shaping the generation mix and transmission infrastructure and allowing integrated resource planning and state procurement activities to be a factor in Commission-jurisdictional processes, as mandated in Order No. 1920;
- Providing greater transparency in advance of the deadline for submitting interconnection requests to benefit prospective

interconnection customers by helping them to identify ideal points of interconnection based on transmission constraints, thereby expanding on reforms the Commission enacted in Order No. 2023;

- Requiring interconnection customers to pay for the “but for” network upgrade costs required to interconnect their generators without reimbursement in some circumstances, as the Commission has accepted for other Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs); and
- Taking into account distribution factors in Commission-jurisdictional processes recognizing the role of deliverability on a transmission grid.

Although stakeholder positions on the proposals embodied in this tariff amendment cover a broad spectrum, the CAISO believes it has developed a process that will provide greater transparency, certainty, and competition early in the interconnection request process while aligning with state reliability and policy needs. Given the significant changes the CAISO has concluded it must undertake to address the crisis facing interconnection in the region, it is not surprising that some stakeholders will have reservations about some elements of the CAISO’s proposal. For example, some stakeholders object to the role of LSEs in the commercial interest component of the scoring criteria. The LSEs’ critical role in resource procurement in California, and the role they already play in the deliverability allocation process, mean that LSE interest is a key indicator of commercial interest, albeit not the only factor the CAISO will consider. To address stakeholder concerns, however, the CAISO has adopted requirements for LSEs to opt-in to the LSE component of the scoring criteria, and has required each LSE to publish their scoring criteria transparently. The CAISO also has adopted measures to address concerns that LSEs might discriminate in favor of their own generation projects, and will work with the Commission and state regulators in California to prevent actions by the LSEs that result in undue discrimination in the CAISO’s interconnection process.

Based on stakeholder feedback, the CAISO also has been careful to design its policies to avoid focusing solely on the CPUC as the largest local regulatory authority in California, and the utilities it regulates. The CAISO’s proposals contemplate broad participation from all local regulatory authorities and the utilities and LSEs they regulate. The CAISO’s proposals respect jurisdictional boundaries and do not interfere with areas outside of the CAISO’s purview or the jurisdiction of the Federal Power Act.

As explained below, the CAISO intends to continue improving its interconnection procedures and has already begun Track 3 of its Interconnection Process Enhancements stakeholder initiatives. The further enhancements under consideration in Track 3 do not affect the justness and reasonableness of the



package of tariff revisions proposed herein. The CAISO also commits to continued communication with stakeholders and monitoring of clusters 15 and 16 to determine whether there is any additional need for tariff changes.

The revisions proposed in this tariff amendment will enhance the CAISO's generator interconnection process and help ensure that the interconnection queue remains at a volume capable of addressing the generation needs in California. The CAISO requests that the Commission accept the tariff revisions contained in this filing effective October 1, 2024 (*i.e.*, 61 days after the date of this filing), when the CAISO proposes to resume implementation of cluster 15 as soon as reasonably practicable. Because the CAISO's various proposed tariff revisions are novel for the CAISO and the Commission, the Commission should consider certain provisions to be severable from one another and from the full set, as described below in section IV of this transmittal letter. Although the CAISO believes each element of this filing is just and reasonable and carefully considered, the CAISO recognizes that it cannot begin to process and study cluster 15 without implementing most of the reforms presented here in some form.

## **II. Background**

### **A. Overview of the CAISO Generator Interconnection Process**

The CAISO administers day-ahead and real-time wholesale electricity markets and is the transmission service provider for facilities under its operational control within its balancing area. The CAISO's annual transmission planning process (TPP) studies new transmission facilities being constructed for inclusion in the CAISO controlled grid.<sup>6</sup>

The existing CAISO tariff, as revised by the CAISO's filing to comply with

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<sup>6</sup> Existing tariff section 24 *et seq.* As part of the TPP, the CAISO prepares an annual transmission plan (TP) that documents the TPP's outcome. Tariff appendix A, existing definition of Transmission Plan. For the sake of clarity, this transmittal letter distinguishes between existing tariff provisions (*i.e.*, provisions in the current CAISO tariff), revised tariff provisions (*i.e.*, existing tariff provisions the CAISO proposes to revise in this filing), deleted tariff provisions (*i.e.*, tariff provisions the CAISO proposes to delete in this filing), and new tariff provisions (*i.e.*, tariff provisions the CAISO proposes to add in this filing).

The instant tariff amendment includes, as baseline tariff language, the changes proposed in the filing the CAISO submitted to comply with Order No. 2023 in Docket No. ER24-2042 on May 16, 2024 (Order No. 2023 Compliance Filing). The CAISO proposed to make the tariff revisions in the Order No. 2023 Compliance Filing effective May 17, 2024 (*i.e.*, prior to the date the instant tariff amendment was filed), consistent with directives in Order No. 2023-A allowing an effective date earlier than the date the Commission issues an order on the filing to comply with Order No. 2023. See transmittal letter for Order No. 2023 Compliance Filing at 50-51 (citing Order No. 2023-A at P 669). Commission action on the Order No. 2023 Compliance Filing is pending.

Order No. 2023, sets forth generally applicable tariff provisions regarding generator interconnection<sup>7</sup> and other generator interconnection procedures, including the Generator Interconnection and Deliverability Allocation Procedures (GIDAP).<sup>8</sup> In accordance with the annual interconnection queue cluster study process set forth therein,<sup>9</sup> the GIDAP have applied to clusters 5 through 14.<sup>10</sup>

In its May 2024 Order No. 2023 Compliance Filing, the CAISO proposed to add to the tariff the Resource Interconnection Standards (RIS),<sup>11</sup> which will apply their own annual interconnection queue cluster study process in compliance with Order No. 2023 to generator interconnections in cluster 15 and subsequent clusters.<sup>12</sup> The updated GIDAP and the RIS include provisions describing how project developers submit interconnection requests by the close of the annual cluster application window,<sup>13</sup> the CAISO validates and studies the interconnection requests, the CAISO determines cost responsibility for developers whose projects are selected based on the studies, and the CAISO and developers enter into generator interconnection agreements (GIAs) for the selected projects.

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<sup>7</sup> Existing tariff section 25 as revised by the Order No. 2023 Compliance Filing.

<sup>8</sup> Existing tariff appendix DD as revised by the Order No. 2023 Compliance Filing. This transmission letter hereafter refers to tariff appendix DD as the GIDAP.

<sup>9</sup> Cluster studies identify the interconnection facilities and network upgrades necessary to integrate new resources seeking interconnection to the transmission system, estimate the costs of those upgrades, and allocate those costs among interconnection customers sharing upgrades. See GIDAP sections 6-10.

<sup>10</sup> GIDAP section 1.1. Among other subjects, the GIDAP also address the interconnection request process (GIDAP section 3), financial security requirements (GIDAP section 11), GIAs (GIDAP section 13), and construction and financing of interconnection facilities and network upgrades (GIDAP section 14). In addition, GIDAP section 17 sets forth unique procedures applicable to cluster 15.

<sup>11</sup> Tariff appendix KK as added in the Order No. 2023 Compliance Filing. This transmission letter hereafter refers to tariff appendix KK as the RIS.

<sup>12</sup> See RIS sections 1.1 and 6-10. Like the GIDAP but with some differences in its provisions, the RIS also address subjects such as the interconnection request process (RIS section 3), deposit (*i.e.*, financial security) requirements (RIS section 11), GIAs (RIS section 13), and construction and financing of interconnection facilities and network upgrades (RIS section 14). Most of the tariff revisions proposed in this filing are to the RIS. The CAISO also proposes some revisions to the definitions contained in tariff appendix A and to the unique procedures set forth in the GIDAP that are specific to cluster 15.

<sup>13</sup> The cluster application window means the time period for submitting interconnection requests. Tariff appendix A, definition of Cluster Application Window as revised by the Order No. 2023 Compliance Filing. The CAISO and interested interconnection customers will take part in a scoping meeting after the close of the cluster application window and prior to the cluster study (a time period called the customer engagement window in the RIS). Tariff appendix A, new definition of Customer Engagement Window proposed in the Order No. 2023 Compliance Filing; GIDAP section 6.1.2; RIS section 3.5.2 *et seq.*

The GIDAP and the RIS also set forth processes for allocating TP deliverability for interconnection requests.<sup>14</sup> Deliverability refers to the ability of a generating facility to deliver its energy to load during different system conditions at peak demand.<sup>15</sup> LSEs seek deliverable generators to meet their resource adequacy requirements. An interconnection customer seeking TP deliverability<sup>16</sup> is assigned the financing costs for delivery network upgrades, which relieve transmission constraints so the generating facility is eligible to provide resource adequacy capacity.<sup>17</sup> All interconnection requests submitted to the CAISO in clusters 10-15 have sought TP deliverability.<sup>18</sup>

Under existing GIDAP provisions, an interconnection customer seeking TP deliverability must select one of two options: option (A), which means the interconnection customer's generating facility requires TP deliverability to be able to continue to commercial operation and the interconnection customer must make a deposit for the cost responsibility assigned to it in the study process for network upgrades; or option (B), which means the interconnection customer will assume cost responsibility for network upgrades without cash repayment for the construction of interconnection facilities and network upgrades to the extent that sufficient TP deliverability is not allocated to the generating facility to provide its

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<sup>14</sup> TP deliverability means the capability, measured in megawatts (MW), of the CAISO controlled grid as modified by transmission upgrades and additions modeled or identified in the annual CAISO transmission plan to support the interconnection with full capacity deliverability status or partial capacity deliverability status (described below) of additional generating facilities in a specified geographic or electrical area of the CAISO controlled grid. Tariff appendix A, existing definition of TP Deliverability.

<sup>15</sup> Tariff appendix A, existing definition of Deliverability.

<sup>16</sup> I.e., seeking full capacity deliverability status or partial capacity deliverability status, rather than energy-only deliverability status. Having full capacity deliverability status or partial capacity deliverability status means a generator's maximum or partial capacity, respectively, is deliverable to the grid under peak load conditions. These designations qualify the generator's deliverable output to count toward meeting an LSE's resource adequacy capacity requirements in California. In contrast, having energy-only deliverability status means a generator's full output does not count toward meeting an LSE's California resource adequacy requirements. See *Cal. Indep. Sys. Operator Corp.*, 182 FERC ¶ 61,196, at P 2 (2023).

<sup>17</sup> See *Cal. Indep. Sys. Operator Corp.*, 180 FERC ¶ 61,143, at P 10 n.15 (2022). Under the CAISO tariff, upgrades are classified as either distribution upgrades or network upgrades; there are two types of network upgrades – delivery network upgrades (which relieve transmission constraints on the CAISO controlled grid) and reliability network upgrades (which are needed to interconnect generation safely and reliably to the CAISO controlled grid). Tariff appendix A, existing definitions of Upgrade, Network Upgrades, Delivery Network Upgrades, and Reliability Network Upgrade. There are also subcategories of these types of network upgrades (e.g., area delivery network upgrades and local delivery network upgrades are subcategories of delivery network upgrades). See, e.g., GIDAP section 7.2 and RIS section 7.2.

<sup>18</sup> There are two interconnection requests in cluster 15 for energy-only deliverability status that did not initially request that deliverability status.

requested deliverability status.<sup>19</sup> After the final interconnection study reports are issued, the CAISO allocates TP deliverability to option (A) and option (B) generating facilities that meet specified eligibility requirements.<sup>20</sup>

## **B. Increase in Generator Interconnection Requests Driven by State Regulatory Requirements and Policies**

California Senate Bill (SB) 100, which was signed into law in 2018, established a landmark policy requiring eligible renewable energy and zero-carbon resources to supply 100 percent of electric retail sales to end-use customers in California by the end of 2045.<sup>21</sup> SB 100 also accelerated California's current renewables portfolio standard requirements to 50 percent renewable energy by the end of 2026 and 60 percent renewable energy by the end of 2030.<sup>22</sup> The need for additional generation of electricity over the next 10 years has escalated rapidly in California as it continues to transition to the decarbonized resource mix required by SB 100. This in turn has driven a dramatically accelerated pace for new transmission development in current and future planning cycles to allow this resource mix to be deliverable to consumers.

To help ensure the CAISO has sufficient transmission in place to achieve this transition reliably and cost-effectively, the CAISO coordinates with the state's primary energy and planning regulatory entities pursuant to a Memorandum of Understanding with the CPUC and the CEC to implement a more strategic and proactive approach to resource procurement, transmission planning, and generator interconnections overall.<sup>23</sup> The Memorandum of Understanding sets forth a number of expectations, including that the CPUC will provide clear

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<sup>19</sup> GIDAP section 7.2; RIS section 7.2.

<sup>20</sup> GIDAP section 8.9 *et seq.*; RIS section 8.9 *et seq.*

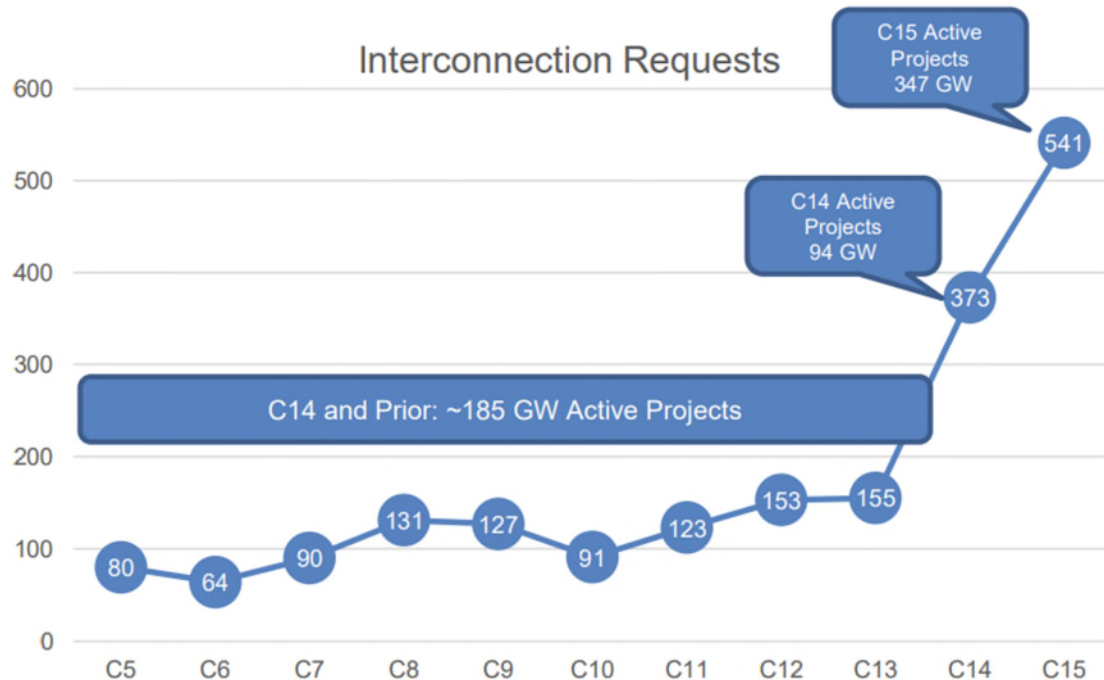
<sup>21</sup> Cal. Pub. Utils. Code, Div. 1, Pt. 1, Ch. 3, Art. 1 (Sec. 454.53). See also [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180SB100](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100); <https://www.energy.ca.gov/sb100>; <https://focus.senate.ca.gov/sb100/faqs>.

<sup>22</sup> The renewables portfolio standard, or RPS, is a California law that requires retail sellers of electricity (including investor-owned utilities, publicly owned utilities, community choice aggregation programs, and electric service providers) to procure increasing amounts of renewable energy over time that will displace fossil fuels or other generation. RPS-eligible resources include wind, solar, geothermal, biomass, renewable methane, small hydroelectric, ocean wave or tidal, or fuel cells using renewable fuels. See Cal. Pub. Utils. Code, Div. 1, Pt. 1, Ch. 2.3, Art. 16 (Sec. 399.11 *et seq.*).

<sup>23</sup> See Memorandum of Understanding Between the California Public Utilities Commission and the California Energy Commission and the California Independent System Operator Regarding Transmission and Resource Planning and Implementation (Dec. 2022) (Memorandum of Understanding), available at <http://www.caiso.com/Documents/ISO-CEC-and-CPUC-Memorandum-of-Understanding-Dec-2022.pdf>. The Memorandum of Understanding and other materials related to the coordinated effort between the CAISO and the California regulatory entities are available on the CAISO website page regarding transmission planning, <http://www.caiso.com/planning/Pages/TransmissionPlanning/Default.aspx>.

direction to its jurisdictional LSEs to concentrate procurement in key transmission zones, that the procurement will focus on the expected quantities enabled by the planned transmission development set forth in the CAISO's transmission planning process, and that state and local agencies—including agencies not subject to CPUC jurisdiction—and LSEs' resource planning and procurement will continue to significantly inform the CAISO's transmission planning process. This approach is necessary because of the long development timeframe of transmission relative to many energy supply resources. Procurement of new energy supply must consider the availability of transmission to ensure reliable delivery of power to the grid. Also, supply resources will be stranded if they are developed before this infrastructure is planned, approved, permitted, and constructed.

California's ambitious decarbonization goals and the large quantities of new renewable energy and zero-carbon resources required to meet them have caused the CAISO to receive unprecedented numbers of interconnection requests from interested resource developers, including many requests in areas that have not been prioritized in the state's resource planning. As shown in the following graph, both the number of interconnection requests submitted to the CAISO and the volume of GW included in those requests have sharply increased during the past decade, especially over the past couple of years:



As the graph illustrates, the number of interconnection requests jumped from 155

in cluster 13 (with 91 GW of active projects in cluster 13 and earlier clusters)<sup>24</sup> to 373 in cluster 14 (representing 94 GW of active projects in cluster 14), and then jumped again to 541 in cluster 15 (representing 347 GW of active projects in cluster 15).

The CAISO interconnection queue now contains roughly three times the capacity needed to achieve California's requirements for 2045 established in SB 100.<sup>25</sup> As a result, the interconnection queue is now greatly oversized and is negatively impacting the CAISO's ability to produce meaningful study results, despite the Commission's acceptance and the CAISO's implementation of tariff amendments the CAISO submitted in recent years to better the situation.<sup>26</sup> As the CAISO explained in the stakeholder proceeding for the instant tariff amendment:

The massive increase in interconnection requests seeking to meet the accelerated cadence of resource development now needed by the state on a sustained basis has overwhelmed critical planning and engineering resources across the industry. Both the volume of capacity and individual interconnection requests in Clusters 14 and 15 compromise the ISO's ability to produce meaningful study results within necessary commercial timeframes, making it challenging to bring resources online in time to meet state policy and reliability needs. The current generator interconnection processes simply cannot efficiently accommodate the latest level of interconnection requests received.<sup>27</sup>

Moreover, as the CAISO explained in the stakeholder proceeding, "[s]tudy results lose accuracy, meaning and utility when the level[s] of cluster IR [Interconnection Request] capacity are multiple times the existing or planned transmission

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<sup>24</sup> I.e., 185 GW of active projects in cluster 14 and prior clusters minus 94 GW of active projects in cluster 14 alone.

<sup>25</sup> Of these, over 400 active interconnection requests comprising over 120,000 MW have completed interconnection studies.

<sup>26</sup> See *Cal. Indep. Sys. Operator Corp.*, 176 FERC ¶ 61,207 (2021) (accepting revisions to generator interconnection procedures for cluster 14); *Cal. Indep. Sys. Operator Corp.*, 180 FERC ¶ 61,143 (accepting enhancements intended to reduce queue volumes before cluster 15); *Cal. Indep. Sys. Operator Corp.*, 184 FERC ¶ 61,069 (2023) (accepting amendments to GIDAP for clusters 14 and 15); *Cal. Indep. Sys. Operator Corp.*, 186 FERC ¶ 61,241 (2024) (accepting tariff revision to forgo a new interconnection request window for cluster 16 in 2024).

<sup>27</sup> *2023 Interconnection Process Enhancements: Summary of June 20 & 21 Track 2 Working Group Meeting Revised Principles and Problem Statements 1 and 2*, at 4 (June 23, 2023). This document is available on the CAISO website page regarding the IPE 2023 stakeholder initiative: <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Interconnection-process-enhancements-2023>. This transmittal letter hereafter refers to the cited website page as the IPE 2023 Stakeholder Page.

capacity for an area.”<sup>28</sup>

The Commission has acknowledged the challenges the CAISO faces with its interconnection queue in recent orders. For example, to implement the results of Track 1 of the IPE 2023 stakeholder initiative, the CAISO filed tariff revisions in June 2023 to extend the remaining interconnection study deadlines for cluster 14 and pause the interconnection study process for cluster 15, which commenced in April 2023 with a record 541 interconnection requests and 347 GW of associated capacity as shown in the graph above.<sup>29</sup> The CAISO explained that pausing cluster 15 would allow the CAISO and its transmission owners to finish cluster 14 interconnection studies and develop enhanced procedures in 2023 for the new reality of voluminous cluster studies, including for cluster 15.

The Commission issued an order in August 2023 accepting the Track 1 tariff revisions and finding the CAISO “explains why it is not possible to process Clusters 14 and 15 under the existing timeframe in its Tariff and proposes revisions that establish a transparent and reasonable approach for addressing the unprecedented challenges raised by Clusters 14 and 15.”<sup>30</sup> Furthermore, the Commission “note[d] that CAISO represents that its stakeholders support prioritizing the completion of Cluster 14 before diverting resources to study Cluster 15 and CAISO states that its proposed revisions will enable CAISO to work with stakeholders to develop meaningful reforms for processing Cluster 15.”<sup>31</sup> Similarly, in its March 2024 order accepting a CAISO tariff amendment to forgo a new interconnection request window for cluster 16 in 2024, the Commission:

... agree[d] with CAISO that its proposed revision will enable CAISO to work with stakeholders to develop and implement meaningful reforms for processing Cluster 15 and will avoid exacerbating the queue's challenges. Further, we find that forgoing the 2024 interconnection request window is a just and reasonable solution to prioritize the significant volume of existing interconnection requests in a timely manner.<sup>32</sup>

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<sup>28</sup> CAISO presentation entitled *2023 Interconnection Process Enhancements Track 2 Working Group*, at 10 (July 11, 2023) (available at the same CAISO website cited in the immediately preceding footnote).

<sup>29</sup> See Docket No. ER22-2058.

<sup>30</sup> *Cal. Indep. Sys. Operator Corp.*, 184 FERC ¶ 61,069, at P 19.

<sup>31</sup> *Id.* at P 20.

<sup>32</sup> *Cal. Indep. Sys. Operator Corp.*, 186 FERC ¶ 61,241, at P 13.

### **C. The IPE 2023 Stakeholder Initiative**

For more than 15 years, the CAISO has continually reviewed and enhanced its generator interconnection procedures in a number of Commission proceedings to keep pace with California's renewables portfolio standard and the associated evolution in generation development.<sup>33</sup> In February 2023 the CAISO established the IPE 2023 initiative as the latest step in this ongoing review and enhancement process to address the issues with the current interconnection queue described above.<sup>34</sup>

The IPE 2023 initiative is part of the larger set of foundational framework improvements being coordinated among the CPUC, the CEC, and the CAISO to help meet California's energy policy objectives in a timely and efficient manner. The overall strategic direction of these efforts is set forth in the Memorandum of Understanding described above. The CAISO also has engaged in numerous discussions with other local regulatory authorities, utilities, and LSEs that are not CPUC-jurisdictional to ensure the CAISO's planning reflects their needs. The IPE 2023 initiative leverages the improved coordinated planning resulting from the Memorandum of Understanding and these discussions, and will result in a more efficient interconnection process while helping to further break down barriers to efficient and timely resource development.

The stakeholder process for Phase 1 of the IPE 2023 initiative has three separate but related tracks.<sup>35</sup> As a result of enhancements developed in Track 1, the CAISO filed tariff revisions in June 2023 to extend the remaining interconnection study deadlines for cluster 14 and pause the interconnection study process for cluster 15, which the Commission accepted as described above.<sup>36</sup> The instant tariff amendment will implement enhancements developed in Track 2 of the stakeholder initiative as described herein. Track 3 of the stakeholder initiative is underway and will consider additional issues raised by stakeholders regarding the allocation of TP deliverability and intra-cluster prioritization for cluster 14 and earlier.<sup>37</sup>

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<sup>33</sup> See, e.g., *Cal. Indep. Sys. Operator Corp.*, 154 FERC ¶ 61,169, at P 2 (2016) (describing CAISO generator interconnection enhancement initiatives since 2008); *Cal. Indep. Sys. Operator Corp.*, 180 FERC ¶ 61,143, at P 2 (describing additional generator interconnection enhancement initiatives); *Cal. Indep. Sys. Operator Corp.*, 182 FERC ¶ 61,196, at P 16 (accepting CAISO tariff revisions to enhance generator interconnection process).

<sup>34</sup> See <https://www.caiso.com/documents/interconnection-process-enhancements-2023-issue-paper-and-straw-proposal-posting-on-030623.html> (CAISO market notice announcing the initiative).

<sup>35</sup> The IPE 2023 initiative consists of two phases, only the first of which is in progress. The CAISO will start the second phase at a future point.

<sup>36</sup> *Cal. Indep. Sys. Operator Corp.*, 184 FERC ¶ 61,069.

<sup>37</sup> On July 5, 2024, the CAISO issued a straw proposal for Track 3.



#### **D. Stakeholder Process for this Tariff Amendment**

The stakeholder process for Track 2 of the IPE 2023 stakeholder initiative was extensive and lasted from May 2023 until June 2024. The stakeholder process began with working group discussions to establish principles and problem statements related to interconnection request intake and queue management. Participants proposed concepts and worked with the CAISO to explore and refine them throughout the course of the initiative. Several stakeholder proposals are reflected in this final filing.

During the stakeholder process, the CAISO held over a dozen stakeholder meetings and posted multiple issue papers and proposals, each revised based on stakeholder feedback and the CAISO's own review. Stakeholders consisted of developers, utilities, local regulatory authorities, and industry trade groups. These stakeholders had numerous opportunities to provide both comments in-person at the meetings and written comments. In addition, stakeholders were given the opportunity to comment on a near-final version of the CAISO's proposed tariff revisions.<sup>38</sup> The CAISO provides responses to stakeholder comments below in this transmittal letter.

The CAISO Governing Board (Board) authorized the CAISO to submit this tariff amendment at its meeting held on June 12, 2024.<sup>39</sup>

### **III. Proposed Tariff Revisions**

#### **A. Implementation of a Zonal Approach to Cluster Studies**

During stakeholder working group meetings in Track 2 of the IPE 2023 initiative, the CAISO and participants developed agreed-upon principles and problem statements to assist in aligning objectives and developing solutions. A central principle developed in the working group meetings and continuing throughout the stakeholder process is to prioritize interconnection of projects in

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<sup>38</sup> Materials related to the stakeholder process are available at the IPE 2023 Stakeholder Page. The stakeholder materials include the CAISO's issuance of the *2023 Interconnection Process Enhancements: Track 2 Final Proposal* (Mar. 28, 2024) (Track 2 Final Proposal), which is also provided in attachment C to this filing, and its companion *2023 Interconnection Process Enhancements: Final Addendum to Track 2 Final Proposal* (June 5, 2024) (Track 2 Final Addendum), which is also provided in attachment D to this filing.

<sup>39</sup> See <https://www.caiso.com/meetings-events/calendar/month/2024/06/01>. The materials provided to the Board included a memorandum from Neil Millar, Vice President of Infrastructure and Operations Planning dated June 6, 2024, which is also provided in attachment E to this filing (Track 2 Board Memorandum). In addition to addressing the subjects reflected in the instant tariff amendment, the Track 2 Final Proposal, Track 2 Final Addendum, and Track 2 Board Memorandum address other subjects to be addressed in a future tariff amendment or amendments.

zones where transmission capacity exists or new transmission has been approved in the transmission planning process. This principle was established in state and local regulatory authority resource planning portfolios and also supplies opportunities to identify and provide a merchant pathway for projects that seek to interconnect where no transmission exists or has been approved.<sup>40</sup> This approach accords with the expectations in the Memorandum of Understanding that the CPUC will provide clear direction to its jurisdictional LSEs to concentrate procurement in key transmission zones, the procurement will focus on the expected quantities enabled by the planned transmission development set forth in the CAISO's transmission planning process, and state and local agencies and LSEs' resource planning and procurement will continue to significantly inform the transmission planning process. For these reasons, the CAISO proposes to implement the zonal approach described below to cluster studies for cluster 15 and subsequent clusters.

### **1. Provision of Data to Facilitate the Zonal Approach**

In the stakeholder process for this tariff amendment, stakeholders emphasized the importance of providing data transparency and accessibility to developers in order to yield informed interconnection requests prior to the opening of the cluster application window. The CAISO agrees that giving prospective interconnection customers timely access to information that helps them to identify areas with available transmission capacity is critical to the success of the zonal approach. Much of the necessary information is currently available through a number of independent documents and workbooks.<sup>41</sup> The CAISO proposes to consolidate the information and make it easier to access.

Specifically, by September 1 each year, the CAISO will publish the following information on the CAISO website (with any confidential information redacted) to inform the preparation of interconnection requests under the cluster study criteria described below:<sup>42</sup>

- (i) Single-line diagrams of each Transmission Zone with the local regulatory authority portfolio resources identified at the substations to which the local regulatory authority has mapped resources in its bus bar mapping process;

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<sup>40</sup> Track 2 Final Proposal at 12-13, 17, and 26. The principles and problem statements established in the working group process are listed on pages 13-14 of the Track 2 Final Proposal.

<sup>41</sup> See *id.* at 17-23.

<sup>42</sup> See section III.B of this transmittal letter.

- (ii) Any area deliverability constraints in each Transmission Zone,<sup>43</sup> the amount of any available deliverability, area delivery network upgrades to increase deliverability,<sup>44</sup> and the estimated cost and time to construct identified area delivery network upgrades;
- (iii) Single-line diagrams identifying the points of interconnection studied for each area deliverability constraint;
- (iv) A list of current substations within each Transmission Zone;
- (v) For each area deliverability constraint, the points of interconnection for current interconnection customers;
- (vi) The TP deliverability already allocated for each area deliverability constraint; and
- (vii) The value of local capacity area resource deficiencies in local capacity areas.<sup>45</sup>

The CAISO has already provided this information for use by interconnection customers in cluster 15.<sup>46</sup> This information will supplement the "heatmap" data required under Order No. 2023, which the CAISO proposed to comply with.

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<sup>43</sup> An area deliverability constraint means a transmission system operating limit that either: (1) would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO controlled grid in a total amount that is greater than the TP Deliverability for those areas; (2) constrains a quantity of generation in a local area of the grid that is larger than the generation amount identified in the applicable transmission planning process portfolio for the entire portfolio area; or (3) constrains all or most of the same generation already constrained by a previously identified area deliverability constraint. Tariff appendix A, existing definition of Area Deliverability Constraint.

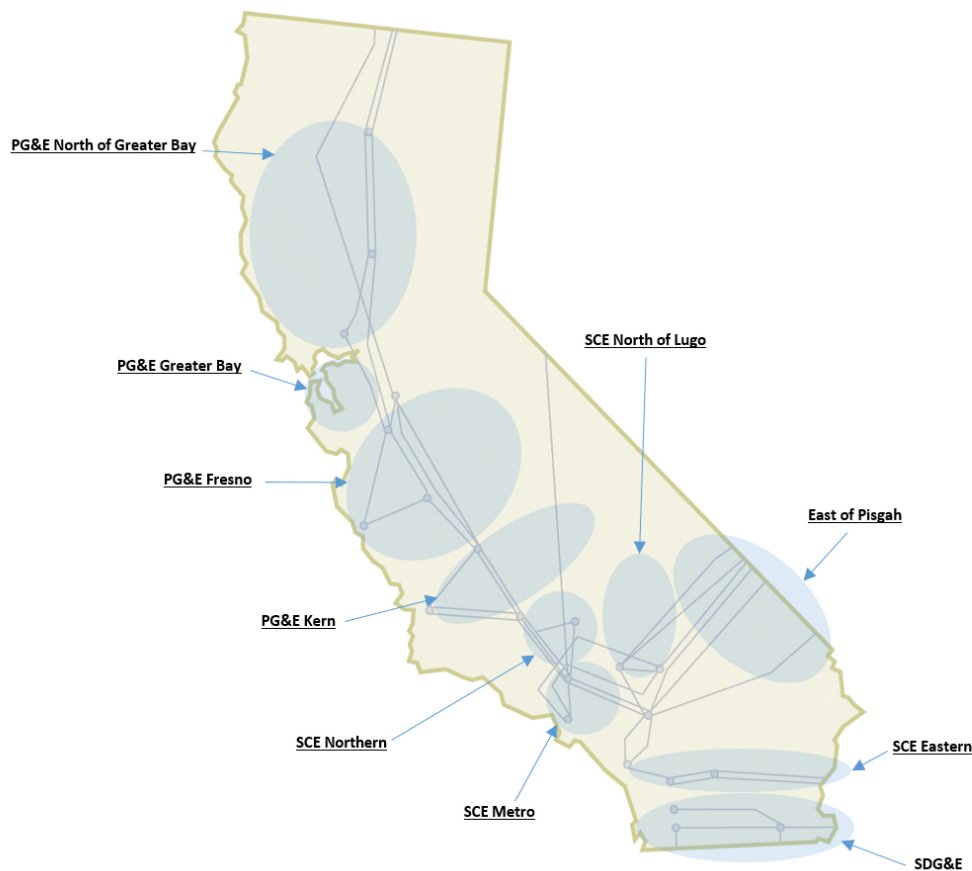
<sup>44</sup> An area delivery network upgrade means "[a] transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint." Tariff appendix A, existing definition of Area Delivery Network Upgrade.

<sup>45</sup> New RIS section 3.6.4. Pursuant to the CAISO tariff provisions on resource adequacy, a local capacity area means a transmission-constrained area as defined in an annual local capacity technical study the CAISO performs to identify local capacity areas, determine the minimum amount of local capacity area resources in MW that must be available to the CAISO within each identified local capacity area, and identify the generating units within each identified local capacity area. Existing tariff section 40.3.1 *et seq.*; tariff appendix A, existing definition of Local Capacity Area. A local capacity area resource deficiency means the monthly difference in MW between any applicable local capacity area requirements for an LSE as established pursuant to the tariff and the quantity of monthly MW shown in the LSE's resource adequacy plan. Existing tariff section 40.3.2; tariff appendix A, existing definition of Local Capacity Area Resource Deficiency.

<sup>46</sup> See the IPE 2023 Stakeholder Page under the heading for Data Accessibility Information.

## 2. Transmission Zones: Deliverable Zones and Merchant Zones

The CAISO adds a new defined term to the tariff to be used in connection with the GIDAP enhancements: Transmission Zone. The CAISO proposes to define a Transmission Zone to mean a study area determined in the transmission plan and used in the transmission planning process and interconnection studies based on electrically proximate constraints, transmission, load, and supply resources.<sup>47</sup> For example, the following diagram shows Transmission Zones that would exist in California for the 2022-23 transmission planning process.



The Transmission Zones will be categorized as either (1) Deliverable Zones, meaning Transmission Zones with at least 50 MW of available deliverability as determined before the cluster application window, or (2) Merchant Zones, meaning Transmission Zones with less than 50 MW of available deliverability as determined before the cluster application window.<sup>48</sup> All of the CAISO controlled grid will be in either a Deliverable Zone or a Merchant

<sup>47</sup> Tariff appendix A, new definition of Transmission Zone.

<sup>48</sup> Tariff appendix A, new definitions of Deliverable Zone and Merchant Zone.

Zone.<sup>49</sup>

The CAISO will determine whether a Transmission Zone is a Deliverable Zone or a Merchant Zone based on the availability of capacity associated with the known constraints within each Transmission Zone. As explained above, the CAISO will provide this information and the underlying data to customers prior to each cluster application window.<sup>50</sup> This method will inform customers of the available interconnection study options based on the Transmission Zones they are considering for their interconnection requests. Upon the close of the cluster application window, the CAISO engineering team will conduct an initial constraint check to ensure that projects seeking to interconnect in Deliverable Zones are not located behind known constraints where there is no available deliverability.<sup>51</sup>

The CAISO's identification of the amount of available transmission capacity, whether currently available or planned, will be based on the available capacity associated with the various known constraints within a given zone.<sup>52</sup>

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<sup>49</sup> The transmission zones are located on the CAISO controlled grid because interconnection requests must include points of interconnection to the CAISO controlled grid. The generators' sites may be elsewhere. Neither the use of the zones nor the remainder of this filing affect the CAISO's current cost allocation rules. Except for merchant upgrades, CAISO transmission owners reimburse interconnection customers for network upgrades on the CAISO controlled grid, then include those costs in their transmission revenue requirements, which are approved by the Commission. The CAISO then collects those revenues through its transmission access charges (based on internal CAISO transmission usage) and the wheeling access charge (based on how external transmission usage).

<sup>50</sup> The provision of information to customers is discussed below in section III.A.3 of this transmittal letter. With regard to deliverability from non-Participating TOs, the CAISO will determine the Transmission Zone eligibility and include the generating facility in the cluster study criteria process and deliverability assessments based on the non-Participating TO's interconnection to the CAISO controlled grid. The generating facility will be eligible for deliverability and cash reimbursement for delivery network upgrades where it satisfies the cluster study criteria discussed below in this transmittal letter. Revised RIS section 9.4(a).

<sup>51</sup> In other words, although there is deliverability in the interconnection customer's zone, there is no deliverability for that interconnection customer because of sub-zonal constraints affecting its individual point of interconnection.

<sup>52</sup> The CAISO's transmission planning process assesses the resources identified within the CPUC portfolios mapped to the substations within the transmission interconnection areas. This is done to determine the capability of the existing transmission system and identify transmission projects for approval to address the constraints identified to deliver the capacity and types of resources to load at the locations identified in the CPUC portfolios. The transmission constraints in the transmission capacity estimates are used by the CPUC in development of its portfolios. While the CAISO is planning the transmission up to the resources identified in the CPUC portfolio in each of the interconnection areas, the specific constraints provide the capability of sub-zones within the interconnection area. A particular interconnection point may be identified behind more than one constraint, as some of the constraints are either nested within or overlap other constraints. The capability of a point of interconnection for resource interconnection needs to consider all of the constraints that it would be behind. The CAISO will utilize the transmission constraint information along with the allocated TP deliverability to determine available

This analysis primarily centers on the existing concepts of area deliverability constraints<sup>53</sup> and the area delivery network upgrades<sup>54</sup> the CAISO transmission planning process approves to relieve those constraints. The CAISO approves area delivery network upgrades based on how much resource adequacy capacity local regulatory authorities have planned for in each zone. Developers try to interconnect to areas with area delivery network upgrades because they can be deliverable and thus compete for power purchase agreements for resource adequacy, which makes them commercially viable. And because the project sponsor designated in the transmission plan will finance the area delivery network upgrade, the interconnection customer essentially gets it for free, making it more competitive.<sup>55</sup>

The CAISO's proposed tariff revisions commit the CAISO to provide transparent and accessible information that will serve as the basis for the CAISO's determination of available capacity within a Transmission Zone and of which Transmission Zones are Deliverable Zones and which are Merchant Zones. The CPUC resource portfolio and other local regulatory authority plans will continue to inform the CAISO's transmission plan, which determines the amount of capacity on the system and in the Transmission Zones.

Under the existing RIS, a scoping meeting occurs within the customer engagement window (and after the cluster application window).<sup>56</sup> In accordance with the zonal approach, the CAISO has revised these provisions to specify that scoping meetings will be segregated by Transmission Zone and cluster study criteria.<sup>57</sup>

### **3. Interconnection Options: Deliverable Option and Merchant Option**

Each of the two types of Transmission Zones is also associated with a corresponding option for a prospective interconnection customer. The first of these interconnection options is the Deliverable Option, which means an election by an interconnection customer seeking deliverability to interconnect in a

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transmission capacity for future clusters to be studied.

<sup>53</sup> The definition of an area deliverability constraint is provided above in section III.A.1 of this transmittal letter.

<sup>54</sup> The definition of an area delivery network upgrade is provided above in section III.A.1 of this transmittal letter.

<sup>55</sup> See, e.g., section 10.1 of the GIDAP and the RIS (each specifying that interconnection customers do not finance area delivery network upgrades unless they are customers under option (B), renamed in this filing as the Merchant Option as discussed in the next section of this transmittal letter).

<sup>56</sup> See existing RIS sections 3.5.2 and 6.1.2.

<sup>57</sup> Revised RIS sections 3.5.2 and 6.1.2.

Deliverable Zone, and receive cash reimbursement or merchant transmission congestion revenue rights (CRRs) for network upgrades,<sup>58</sup> but without any guarantee of deliverability.<sup>59</sup> The Deliverable Option replaces option (A) under the current RIS, and RIS provisions that formerly applied to option (A) will apply to the Deliverable Option.<sup>60</sup> The Deliverable Option recognizes that the interconnection customer elects to compete for the finite amount of available deliverability the CAISO transmission plan has determined will meet ratepayers' needs in a given area, and therefore benefit them.

The second interconnection option is the Merchant Option, which means an election by an interconnection customer seeking deliverability in a Merchant Zone to forgo any cash reimbursement for any area delivery network upgrade costs and instead receive merchant transmission CRRs pursuant to the allocation provisions set forth in the tariff.<sup>61</sup> The Merchant Option replaces option (B) under the RIS, and RIS provisions that formerly applied to option (B) will apply to the Merchant Option.<sup>62</sup> The CAISO created this option, and maintains it here, to enable interconnection customers to build delivery network upgrades

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<sup>58</sup> CRRs are financial instruments that market participants can acquire through a CAISO-administered allocation and auction process or through a secondary registration system. The primary purpose of CRRs is to hedge day-ahead market congestion costs, allowing market participants to address congestion risk. See *generally* existing tariff section 36 *et seq.* Merchant transmission CRRs mean incremental CRRs that are created by the addition of a merchant transmission facility. Merchant transmission CRRs are effective for 30 years or for the pre-specified intended life of the facility, whichever is less. Tariff appendix A, existing definition of Merchant Transmission CRRs. A merchant transmission facility means a transmission facility or upgrade that is part of the CAISO controlled grid and whose costs are paid by a project sponsor that does not recover the cost of the transmission investment through the CAISO's access charge or wheeling access charge or other regulatory cost recovery mechanism. Tariff appendix A, existing definition of Merchant Transmission Facility. As described in more detail in this filing, an interconnection customer funding Network Upgrades is eligible for merchant transmission CRRs in certain circumstances.

<sup>59</sup> Tariff appendix A, new definition of Deliverable Option.

<sup>60</sup> Revised RIS sections 8.9, 9.4(d), 10.1, and 13.1.1; deleted RIS sections 7.2 and 7.3. The CAISO also proposes to clarify that after the interconnection facilities study reports are issued, the CAISO will perform the allocation of TP deliverability to Merchant Option generating facilities that did not require area delivery network upgrades in their interconnection studies. Revised RIS section 8.9.

<sup>61</sup> Tariff appendix A, new definition of Merchant Option (cross-referencing tariff section 36.11).

<sup>62</sup> New RIS section 6.3.2 (containing provisions from deleted RIS section 7.2 with updates to reflect the zonal approach); revised RIS sections 9.4(d), 10.1, 14.2.2, 14.3, 14.3.1(c), and 14.3.2.1; deleted RIS section 7.3. The CAISO also proposes to make certain provisions in the RIS applicable to all generating facilities, regardless of whether they are Deliverable Option or Merchant Option facilities. Revised RIS sections 8.9.4, 8.9.4.1, 8.9.5, and 8.9.6.

beyond what the CAISO transmission plan has designated.<sup>63</sup>

Merchant Option projects will not have to compete for TP deliverability in the allocation process because they will trigger and finance all of the delivery network upgrades they require, without reducing the available deliverability from other delivery network upgrades needed for Deliverable Option projects. Merchant Option projects that require local delivery network upgrades will be eligible for cost recovery of any posted financial security toward the cost of such network upgrades in the same manner as Deliverable Option projects.<sup>64</sup>

The Merchant Option ensures that projects seeking to interconnect in Transmission Zones with no available deliverability capacity have a path forward to become deliverable by providing the opportunity for such projects to build and fund any required area delivery network upgrades as merchant transmission projects. The CAISO will not accept Merchant Option interconnection requests within Transmission Zones that have available or planned transmission capacity. However, any Deliverable Zone where the available capacity is less than 50 MW will be studied as a Merchant Option Transmission Zone.

To prevent arbitrage, interconnection customers will not be allowed to submit interconnection requests as Deliverable Option projects and later switch to the Merchant Option if those projects are not selected to be studied through the scoring process. Allowing such an ability would simply enable interconnection customers to circumvent the screens and rules described here, unfairly prejudicing those interconnection customers that passed them. Similarly, if a Deliverable Option project is selected and studied, but unable to receive a deliverability allocation, it will not be eligible to convert to the Merchant Option.<sup>65</sup>

#### **4. Other Tariff Revisions Related to the Zonal Approach**

The CAISO proposes to revise the existing definition of the term deliverability to clarify that it means transmission capacity enabling the delivery of energy to the aggregate of load on the CAISO controlled grid at peak load, under a variety of modeled stressed conditions.<sup>66</sup> In addition, the CAISO proposes to

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<sup>63</sup> Either because local regulatory authorities have not required additional transmission capacity in that area, or because the interconnection customer needs deliverability beyond what has already been planned for or allocated.

<sup>64</sup> Local delivery network upgrades are more project-specific than area delivery network upgrades that, outside of the Merchant Option process, are developed in the transmission planning process.

<sup>65</sup> New RIS section 4.

<sup>66</sup> Tariff appendix A, revised definition of Deliverability.



revise the definition of deliverability to specify that it includes TP deliverability.<sup>67</sup> These clarifications do not change what deliverability meant in any way, but simply make it easier to find and understand in the defined terms.

Under the interconnection request intake process for Deliverable Zones and Merchant Zones, interconnection customers must submit complete interconnection requests before the close of the cluster application window and no changes in the point of interconnection will be allowed after the window closes.<sup>68</sup> Consistent with this timeline, the CAISO proposes to revise the section of the RIS on interconnection requests to state the interconnection customer will select the definitive point of interconnection to be studied no later than 10 days after the close of the cluster application window, in place of the existing provision stating that the interconnection customer will make this selection by the end of the customer engagement window.<sup>69</sup> This is a practical necessity: the CAISO must know the point of interconnection before it can apply the cluster study criteria, and allowing changes thereafter would unfairly enable interconnection customers to be screened based on one set of constraints and then move to another.

## **5. CAISO Responses to Stakeholder Comments on Implementation of the Zonal Approach**

Although many stakeholders, including the CPUC, supported the zonal approach as a means to incorporate resource and transmission planning inputs into the interconnection process and implement the Memorandum of Understanding, some stakeholders noted concerns around the impact of the zonal approach in reducing the number of interconnection requests that could be evaluated in each cluster. Specifically, one stakeholder expressed concerns that in this next cycle, few if any Transmission Zones will be designated as Deliverable Zones due to the amount of deliverability that has been allocated to cluster 14. In response, the CAISO explained that it understands that cluster 14 TP deliverability allocations are likely to reduce the number of cluster 15 projects that will proceed under the TP deliverability pathway. The CAISO's proposal is designed to right-size the number of projects advancing to the study process with the amount of available and planned transmission capacity while ensuring

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<sup>67</sup> Tariff appendix A, revised definition of Deliverability. The CAISO also proposes to revise the existing definition of TP deliverability to spell out that TP stands for transmission plan.

<sup>68</sup> Track 2 Final Proposal at 37, 38.

<sup>69</sup> Revised RIS section 3.1. The CAISO also proposes conforming changes elsewhere in the RIS to delete provisions indicating the interconnection customer will designate the point of interconnection during the cluster engagement window. Revised RIS sections 6.1.2 and 6.7.2.2. Similarly, the CAISO proposes to delete a provision indicating the interconnection customer can change its deliverability status prior to the end of the customer engagement window. Revised RIS section 6.7.2.2. The CAISO also proposes to delete superfluous and potentially confusing language in revised RIS section 6.7.2.1.

sufficient projects in the interconnection queue. Doing otherwise would ignore the reality that there is exponentially more generation in the current queue than could ever be needed or will ever be procured or constructed, including a healthy amount of generation from previous clusters that likely are more advanced. The CAISO's proposal scales the interconnection queue to the actual needed and planned amount of deliverability. Transmission capacity beyond this is certainly possible, but should not be presumed to benefit ratepayers. For this reason, interconnection customers can build deliverability capacity under the merchant option beyond what has been planned for, but at their expense.

Some stakeholders questioned why, if projects are evaluated at the constraint level, the zones are necessary at all. The CAISO has determined that there are practical reasons to differentiate Deliverable Zones and Merchant Zones. As previously stated, a zone is a study area that has minimal electrical interaction with adjacent zones. The transmission plan uses these zones first in determining public policy upgrades to support local regulatory authority needs. The zones and what deliverability is available inform interconnection customers on the potential of an area before it must identify an actual point of interconnection. For example, studying interconnection requests in a Merchant Zone will identify network upgrades that are only needed by those projects. Area constraints can be nested and overlapping and have considerable electrical interactions. Without the zones, the framework would have Merchant Option constraints and Deliverable Option constraints, and the need for the upgrades identified would be driven by both Merchant and Deliverable Option projects.

Under that alternative framework, in order to study Merchant Option project delivery network upgrade needs, only a subset of the Deliverable Option project generation could be dispatched in the base case in order to avoid exceeding the transmission capability. Otherwise, Merchant Option projects could be paying for upgrade costs that are not their responsibility. To avoid this outcome, two rounds of deliverability studies would be required. The first-round deliverability study would model the Deliverable Option and Merchant Option generators in the zone, identify their local deliverability network upgrade requirements, and establish the transmission or TP deliverability limits. Then a second-round deliverability study would need to be performed with the base case dispatched with Deliverable Option generators up to the transmission limit, and the Merchant Option generators added to determine the delivery network upgrade needs driven by only the Merchant Option generators. However, two rounds of studies for every zone is impractical under any reasonable timeline, and certainly cannot be completed within the 150-day cluster study time period required by Order No. 2023.<sup>70</sup> This known and expected burden simply outweighs any potential and incremental benefit.

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See Order No. 2023 at P 324.

A stakeholder expressed concerns that projects in Merchant Zones must proceed under more onerous rules where interconnection customers will not be reimbursed for area delivery network upgrades. The CAISO recognizes that the Merchant Option is likely more expensive or risky than the Deliverable Option.<sup>71</sup> However, the zonal approach is designed to prioritize interconnections in areas with available transmission capacity, and the design of the Merchant Option will ensure that option is still viable for projects that would like to interconnect outside of the Deliverable Zones. The CAISO notes that the Commission acknowledged in Order No. 2023-A its “long-standing policy that interconnection customers should be responsible for the costs of all network upgrades that would not be required ‘but for’ their interconnection.”<sup>72</sup> Consistent with that policy, a number of RTOs and ISOs—including ISO New England Inc., the New York Independent System Operator, Inc., and PJM Interconnection, L.L.C. (PJM)—have provisions in their tariffs that require interconnecting generators to fully fund, without reimbursement, the network upgrades needed to facilitate their interconnection requests.<sup>73</sup> The CAISO’s Merchant Option is therefore well founded in Commission precedent and only recognizes that the interconnection customer has elected to ask for a study for a generator that exceeds the planned-for deliverability in an area. It is unreasonable to expect ratepayers to fund upgrades beyond the transmission capacity presumed to their benefit or to meet public policy requirements.

A stakeholder noted that projects in Deliverable Zones but behind sub-zonal constraints with insufficient deliverability would not be accepted for study even if they score very high under the scoring rubric and the area delivery network upgrades needed to provide deliverability are relatively economic. The stakeholder claims this treatment could be unfair for projects that chose an over-subscribed point of interconnection in Deliverable Zones. Although the CAISO agrees that such projects would not be accepted for study, the CAISO has been clear about this treatment and has committed to providing information to interconnection customers so they can avoid points of interconnection that have no available transmission capacity prior to the cluster 15 modification window.<sup>74</sup> The CAISO remains committed to providing clear, transparent, and timely data to stakeholders and to monitoring the results of the constraint analysis. In this respect, the CAISO’s proposed tariff revisions build on the transparency requirements in Order No. 2023 by making standardized information, including

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<sup>71</sup> To recover its financing costs, the developer would need to include its costs in the price of its capacity contract or through its energy sales.

<sup>72</sup> Order No. 2023-A at P 509.

<sup>73</sup> See *Tenaska Clear Creek Wind, LLC v. Sw. Power Pool, Inc.*, 182 FERC ¶ 61,084, at P 34 & nn.87-88 (2023) (citing Commission orders authorizing these ISO/RTO tariff provisions).

<sup>74</sup> As explained below, cluster 15 (and future) interconnection customers may modify their points of interconnection within a given transmission zone before the screening procedures begin based on the available data and discussions with the transmission owners.

heatmaps, available to prospective interconnection customers to allow them to assess the viability of proposed generating facilities, including where to site them, across the CAISO region.<sup>75</sup>

A stakeholder suggested that TP deliverability capacity data may be inaccurate at the time of study commitments. The CAISO explained that it is committed to providing up-to-date information on the availability of transmission prior to each interconnection window. The CAISO also has provided a TP deliverability allocation report to account for cluster 14 TP deliverability allocations. Complete, final information to inform cluster 15 will be posted in August 2024, prior to the proposed cluster 15 modification window, which the CAISO plans to open on October 1, 2024. Projects also are able to withdraw their requests into early 2025 at no or minimal cost. Ultimately, however, it is the reality of any interconnection queue that the transmission provider studies earlier clusters before later clusters, and the later cluster studies account for the transmission triggered by or used by earlier clusters. This can benefit later-queued interconnection customers as much as it can hurt them, as they often inherit free capacity from precursor network upgrades earlier interconnection customers triggered and now finance.<sup>76</sup>

## **B. Cluster Study Criteria**

To address the overwhelming number of interconnection requests currently in the CAISO's cluster study queue and advance the most ready projects, the CAISO proposes to establish cluster study criteria that all interconnection requests must meet in order to proceed to the cluster study.<sup>77</sup> Any interconnection requests that do not satisfy the cluster study criteria will be deemed withdrawn without the cure period provided under the RIS by the CAISO; in addition, the interconnection customer's application fee will be forfeited, and the CAISO will return the interconnection customer's deposits.<sup>78</sup>

Each interconnection request can proceed to the cluster study based on only one of the following four sets of cluster study criteria, and the choice of

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<sup>75</sup> See Order No. 2023 at PP 135-39.

<sup>76</sup> Interconnection customers do not finance precursor network upgrades, which are the upgrades triggered by earlier customers and memorialized in executed GIAs. Under the CAISO tariff, these upgrades' costs cannot fall to later-queued interconnection customers that rely on them, and instead fall to the transmission owner. See section 14.2.2 of the GIDAP and the RIS.

<sup>77</sup> New RIS section 4 *et seq.* The CAISO also proposes to revise other provisions in the RIS to cross-reference the requirement to satisfy the cluster study criteria. Revised RIS sections 3.5.2, 3.5.2.1, 6.1.2, and 9.4(a).

<sup>78</sup> New RIS section 4.

cluster study criteria cannot be changed after the cluster application window.<sup>79</sup>

- (1) Criteria for interconnection requests for deliverability in Deliverable Zones;
- (2) Criteria for interconnection requests for deliverability in Merchant Zones;
- (3) Criteria for interconnection requests for energy-only deliverability status that are eligible for cash reimbursement; or
- (4) Criteria for interconnection requests for energy-only deliverability status that are ineligible for cash reimbursement.

Interconnection requests seeking any deliverability<sup>80</sup> for any technology or generating unit at the generating facility will be subject to the criteria for interconnection requests for deliverability—criteria (1) or (2).<sup>81</sup> In contrast, interconnection requests that proceed to the cluster study based on the criteria for interconnection requests for energy-only deliverability status (*i.e.*, either cluster study criteria (3) or cluster study criteria (4) listed above) 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. Again, allowing otherwise would simply create exceptions that would swallow the rules. Interconnection customers could proceed under the less competitive energy-only criteria to avoid competition, then receive deliverability later or after studies.<sup>82</sup> Expansions of generating facilities with energy-only deliverability status may, however, receive deliverability if their interconnection requests proceed to the cluster study based on the criteria for interconnection requests seeking deliverability.<sup>83</sup>

In applying cluster study criteria (1) and (3) listed above, the CAISO will use a scoring system to determine which interconnection requests should move

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<sup>79</sup> Each of the four sets of criteria is discussed further below in this transmittal letter. These criteria are also addressed in new appendix 2 to the RIS (entitled Cluster Study Criteria), which specifies supporting documentation an interconnection customer must provide in the interconnection request process. See revised RIS section 3.5.1(ii) and -(xiii).

<sup>80</sup> *I.e.*, either full capacity deliverability status or partial capacity deliverability status.

<sup>81</sup> New RIS section 4.

<sup>82</sup> A mixed-fuel resource or a multiple-generating-unit resource studied for partial capacity deliverability status (some deliverable and some energy-only) could transfer its deliverability among its generating units because it first had to satisfy the cluster study criteria for a deliverable project. Such a customer would not have circumvented the rules to acquire the deliverability, unlike a completely energy-only interconnection request.

<sup>83</sup> *Id.*

forward to the cluster study. Only certain interconnection requests can move forward in these circumstances due to the limits described below. The scoring system assigns point values in three categories: commercial interest, project viability, and system need.<sup>84</sup> The CAISO has balanced the weights of the categories so that commercial interest aligns with procurement directed by state and local regulatory authorities, while still factoring in project viability and system need as other key components of project development. By taking into account Western resource planning and procurement activities as a key factor in the scoring criteria, the CAISO's proposal is analogous to the consideration of these factors in the transmission planning process required under the Commission's Order No. 1920, and the CAISO's current process for allocating TP deliverability.<sup>85</sup>

Some participants in the stakeholder process argued that certain point values the CAISO proposed under the scoring system were too high, other stakeholders argued certain proposed point values were too low, and still other stakeholders agreed with the CAISO's proposed values. The CAISO took all of these comments into consideration in order to strike a reasonable balance of diverse needs and positions to establish the scoring criteria proposed in this tariff amendment. The Commission has found the balancing of competing interests to be an appropriate approach for the CAISO and other Independent System Operators and Regional Transmission Organizations to take with regard to tariff revisions.<sup>86</sup> The CAISO also is mindful that "[p]ursuant to section 205 of the FPA, the Commission limits its evaluation of a utility's proposed tariff revisions to

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<sup>84</sup> Details regarding the scoring system are discussed below in the transmittal letter.

<sup>85</sup> *Building for the Future Through Elec. Reg'l Transmission Planning & Cost Allocation*, Order No. 1920, 187 FERC ¶ 61,068, at P 130 (2024).

<sup>86</sup> See, e.g., *PJM Interconnection, L.L.C.*, 186 FERC ¶ 61,080, at P 266 (2024) ("PJM's proposal reasonably balances the interests of market participants while aligning the LDA [Locational Deliverability Area] Reliability Requirement with actual reliability needs in an administratively efficient manner that discourages speculation. We thus find this aspect of PJM's proposal just and reasonable."); *Cal. Indep. Sys. Operator Corp.*, 185 FERC ¶ 61,210, at P 307 (2023) ("We find that CAISO's proposal strikes an appropriate balance between preserving a transmission customer's rights under an EDAM [Extended Day-Ahead Market] transmission service provider's OATT [Open Access Transmission Tariff] and ensuring that there is confidence that EDAM transfers will be delivered"); *Sw. Power Pool, Inc.*, 179 FERC ¶ 61,083, at P 40 (2022) (finding that "SPP's proposed minimum capitalization requirements appropriately balance the management of credit risk and protection of market participants with sufficient participation and competition in the TCR [Transmission Congestion Rights] market."); *ISO New Eng. Inc. & New Eng. Power Pool Participants Comm.*, 155 FERC ¶ 61,023, at P 36 (2016) (find that tariff revisions "struck an appropriate balance of competing interests"); *Cal. Indep. Sys. Operator Corp.*, 145 FERC ¶ 61,082, at P 23 (2013) (finding that CAISO tariff revisions strike "a reasonable balance between preventing the exercise of market power and enabling the recovery of costs"); *Cal. Indep. Sys. Operator Corp.*, 127 FERC ¶ 61,178, at P 27 (2009) (explaining that CAISO tariff revisions "strike a reasonable balance that addresses the barriers to development of location-constrained resources, while providing appropriate ratepayer protections to ensure that rates remain just and reasonable").

an inquiry into ‘whether the rates proposed by a utility are reasonable—and not to extend to determining whether a proposed rate schedule is more or less reasonable to alternative rate designs.’”<sup>87</sup> Therefore, “[u]pon finding that CAISO’s Proposal is just and reasonable, [the Commission] need not consider the merits of alternative proposals.”<sup>88</sup> Furthermore, “[t]he courts and th[e] Commission have recognized that there is not a single just and reasonable rate. Instead, [the Commission] evaluate[s] proposals under FPA section 205] to determine whether they fall into a zone of reasonableness. So long as the end result is just and reasonable, the [proposal] will satisfy the statutory standard.”<sup>89</sup> The point values the CAISO proposes below satisfy the standard required by FPA section 205.

Interconnection customers that proceed under either cluster study criteria (1) or cluster study criteria (3) listed above will be required to submit documentation allowing the CAISO to validate their scores, as well as self-assessment score sheets with their interconnection requests to minimize the time required for the CAISO to score and validate what it expects to be a large volume of interconnection requests in a short review window.<sup>90</sup> The CAISO will receive LSE point allocations as described below directly from LSEs rather than from interconnection customers during the cluster application window.<sup>91</sup>

All scoresheets, documentation, and bids submitted will be confidential information consistent with the current RIS provisions of the tariff. Notwithstanding, the CAISO may confirm any information as necessary with

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<sup>87</sup> *Cal. Indep. Sys. Operator Corp.*, 141 FERC ¶ 61,135, at P 44 n.43 (2012) (quoting *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984)). In that same order, the Commission also explained that the revisions proposed by the utility “need not be the only reasonable methodology” and that “even if an intervenor develops an alternative proposal, the Commission must accept a section 205 filing if it is just and reasonable, regardless of the merits of the alternative proposal.” 141 FERC ¶ 61,135, at P 44 n.43 (citing federal court and Commission precedent). See also *New Eng. Power Co.*, 52 FERC ¶ 61,090, at 61,336 (1990), *aff’d sub nom. Town of Norwood v. FERC*, 962 F.2d 20 (D.C. Cir. 1992) (proposed rate design need not be perfect, it merely needs to be just and reasonable); *Louisville Gas & Elec. Co.*, 114 FERC ¶ 61,282, at P 29 (2006) (the just and reasonable standard under the FPA is not so rigid as to limit rates to a “best rate” or “most efficient rate” standard, but rather a range of different approaches often may be just and reasonable).

<sup>88</sup> *Cal. Indep. Sys. Operator Corp.*, 141 FERC ¶ 61,135, at P 44.

<sup>89</sup> *Cal. Indep. Sys. Operator Corp.*, 140 FERC ¶ 61,168, at P 17 (2021) (citing court and Commission precedent).

<sup>90</sup> See revised RIS section 3.5.1(ii) and -(xiii); new appendix 2 to the RIS. The CAISO also proposes to revise RIS section 3.5.1 to specify that the information the interconnection customer must submit during the cluster application window includes not only a flat run plot and a bump test plot, as currently stated in the section, but also a voltage reference step change test plot, frequency reference step change test plot, and voltage ride-through test plot from the positive sequence transient stability simulation application. Revised RIS section 3.5.1(ix).

<sup>91</sup> New RIS section 4.1.1.1.

LSEs, counterparties, or local regulatory authorities. The CAISO will notify the interconnection customer which screen was decisive to its interconnection request, and the CAISO may publish composite data but will not publish or disclose which criteria or screen enabled individual interconnection requests to proceed to the cluster study. To the extent an auction is needed where other scoring criteria are not definitive, the CAISO will publish on the CAISO website the number of bids and the clearing price of all winning bids for each Transmission Zone, but will not publish the names of any interconnection customers in any auctions the CAISO may need to conduct under cluster study criteria (1) or (3) or their corresponding bids.<sup>92</sup>

The four cluster study criteria include different options for financing and receiving reimbursement for the construction of network upgrades, as shown in the following table:

<b>Type of network upgrade</b>	<b>Cluster study criteria (1)</b>	<b>Cluster study criteria (2)</b>	<b>Cluster study criteria (3)</b>	<b>Cluster study criteria (4)</b>
Area delivery network upgrades	Transmission planning project sponsor finances	Interconnection customer finances; ineligible for cash reimbursement	N/A	N/A
Local delivery network upgrades	Interconnection customer finances; eligible for cash reimbursement	Interconnection customer finances; eligible for cash reimbursement	N/A	N/A
Reliability network upgrades	Interconnection customer finances; eligible for cash reimbursement	Interconnection customer finances; eligible for cash reimbursement	Interconnection customer finances; eligible for cash reimbursement	Interconnection customer finances; ineligible for cash reimbursement

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<sup>92</sup> New RIS section 4. See section III.B.1.c of this transmittal letter for a discussion of the proposed auction procedures.



**1. Criteria for Interconnection Requests for Deliverability in Deliverable Zones (i.e., Cluster Study Criteria (1))**

Under cluster study criteria (1), interconnection requests in Deliverable Zones seeking any deliverability will proceed to the cluster study based on the following considerations:<sup>93</sup>

- There must be deliverability available at the interconnection customer's point of interconnection.<sup>94</sup>
- If other interconnection customers in the cluster are interconnecting in the same Deliverable Zone, and there is deliverability available at the interconnection customers' points of interconnection, only interconnection customers constituting 150 percent of the available deliverability at the relevant transmission constraint may proceed to the cluster study. Interconnection customers' capacity relevant to the available deliverability will be based on their requested amount of deliverability.

Regarding the proposed 150 percent cap, the CAISO determined that by studying a percentage above the capacity of each Transmission Zone, the CAISO will ensure sufficient availability of resources in and after the study process, aligning resource sufficiency with competition, and preventing the possibility of insufficient resources in the queue to keep pace with procurement need. A percentage-based cap is necessary to ensure more reasonable study volumes and thereby result in more meaningful and accurate study outcomes. Use of a percentage also ensures scalability with resource portfolios from the CPUC and local regulatory authorities, and can therefore align with system need and associated planned and approved transmission capacity each year, even if these factors fluctuate from year to year. The CAISO and stakeholders determined the 150 percent value ensures a sufficient supply of interconnection projects advancing through the study process will be competitively procured. Unlimited interconnection requests or a higher percentage cap would mean the interconnection queue would continue to grow at an unsustainable rate, slowing study processes and making the study results less accurate. The appropriateness of using the 150 percent cap was supported by an analysis the CAISO performed by applying the 150

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<sup>93</sup> New RIS section 4.1.

<sup>94</sup> A particular point of interconnection may be identified behind more than one constraint, as some of the constraints are either nested within or overlap other constraints. The capability of a point of interconnection for resource interconnection needs to consider all of the constraints that it would be behind.

percent limitation to the projects in cluster 15.<sup>95</sup> This test run reduced the number of interconnection requests to be considered in the cluster from 508 to 112, a figure that re-aligns with historic clusters and possible to study within the faster Order No. 2023 timelines. Many stakeholders supported the 150 percent cap because it reduced the queue sufficiently while still providing a level of competition for procurement within the queue. Although a 100 percent cap would reduce the queue even further, it would leave LSEs without projects to pick from based on the factors they consider after interconnection studies. In other words, they would have to procure all of these projects to meet their future resource adequacy needs. The 150 percent cap avoids this issue.

Furthermore, the Merchant Option will not be subject to the 150 percent limitation and will enable continued open access to the transmission system for interconnection customers who choose the Merchant Option.

- If two or more interconnection customers would exceed the 150 percent limit, only the highest-scoring interconnection customers that reach the 150 percent limit proceed to the cluster study. The CAISO may exceed the 150 percent limit only for the capacity of the last interconnection request that qualifies to reach the limit but which also would exceed it.
- The CAISO will score interconnection customers as described below.<sup>96</sup>
  - If interconnection customers with the same scores would exceed the 150 percent limit, as a tiebreaker the CAISO will use those interconnection customers with the lowest distribution factors until it reaches the 150 percent limit; this RIS provision defines the distribution factor as the percentage of the interconnection customer's incremental increase in output that flows on a particular transmission line or transformer when the displaced generation is spread proportionally across all dispatched resources in the balancing authority area.<sup>97</sup> As this definition indicates, the distribution factor is a measure of the impact of injections of energy from a generator at a particular location which could result in required network changes on the grid. The lower the distribution

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<sup>95</sup> See Track 2 Final Proposal at 40-41.

<sup>96</sup> See section III.B.1(a) of this transmittal letter.

<sup>97</sup> The RIS definition is very similar to the definition of distribution factor contained in the CAISO Generator On-Peak Deliverability Assessment Methodology. See <https://www.caiso.com/Documents/On-Peak-Deliverability-Assessment-Methodology.pdf> at p. 9.

factor, the lower the grid impact. The lowest distribution factor is a commonly used proxy to determine a generating facility's impact on transmission constraints, thereby correlating with its costs to relieve the constraint. The Commission has long accepted the use of distribution factors as a just and reasonable input in jurisdictional terms and conditions. For example, the solution-based distribution factor or "DFAX" method is a key element of the Commission-approved transmission cost allocation provisions used in PJM.<sup>98</sup>

- If interconnection customers with the same scores and same distribution factors would together exceed the 150 percent limit, the CAISO will auction the right for those interconnection customers to be studied as described below.<sup>99</sup>

The CAISO recognizes that the Commission will consider how the proposed 150 percent limit is consistent with open access principles. The CAISO notes that the 150 percent limit in Deliverable Zones is based on inherent practical limitations on the transmission capacity available to deliver capacity from interconnecting resources to load. The CAISO's recognition of the need to consider the limited amount of transmission capacity in Deliverable Zones is consistent with the Commission's finding in Order No. 845 that the use of surplus interconnection service (*i.e.*, any unneeded portion of interconnection service established in a GIA) did not violate open access requirements "in light of the substantial potential benefits of and inherent practical limitations on" such use."<sup>100</sup>

The CAISO also notes that, in a recent proceeding, the Commission rejected revisions proposed by the Midcontinent Independent System Operator, Inc. (MISO) to its tariff to implement a cap on the total MW value of interconnection requests that may be studied in a cluster.<sup>101</sup> However, the Commission also explained it "c[a]me to this conclusion because of the defects in the proposal even though, as discussed below, MISO has provided evidence that a cap in some form could be beneficial."<sup>102</sup> In this regard, the Commission noted "striking" evidence provided by MISO that "the increasing volume of interconnection requests in recent queue cycles has had the potential to overwhelm the generator interconnection process and hinder the development of

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<sup>98</sup> See *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,122, at P 33 (2020).

<sup>99</sup> See section III.B.1(c) of this transmittal letter.

<sup>100</sup> *Reform of Generator Interconnection Procedures & Agreements*, Order No. 845, 163 FERC ¶ 61,043, at P 479 (2018).

<sup>101</sup> *Midcontinent Indep. Sys. Operator, Inc.*, 186 FERC ¶ 61,154, at PP 172-83 (2024).

<sup>102</sup> *Id.* at P 172.

generation in MISO,” as well as MISO’s “suggest[ion] that establishing a cap, in some form, has the potential to mitigate the unprecedented volume of speculative interconnection requests and improve the generator interconnection process for all classes of participants.”<sup>103</sup> The Commission also noted “that a cap on the MW to be included in a cluster cycle does not, in and of itself, pose open access concerns.”<sup>104</sup>

The CAISO’s proposed 150 percent limit does not contain the same features that led the Commission to reject the MISO cap proposal. First, the limit the CAISO proposes is based on available deliverability at the relevant transmission constraint in a zone, not the total MW value of interconnection requests.<sup>105</sup> The 150 percent limit is not subject to exemptions that have the potential to undermine the reasons for imposing a limit.<sup>106</sup> Contrary to the concerns raised in the Commission’s MISO order, there is no potential disconnect between the CAISO’s filed tariff language and the implementation formula.<sup>107</sup> The CAISO’s 150 percent limit is straightforward and will be implemented consistent with the plain language of the proposed tariff provisions. Moreover, the CAISO’s proposal addresses the Commission’s directive to demonstrate how any proposed interconnection cluster limit ensures that an ISO or RTO “can study new generation seeking to interconnect in a manner that appropriately accounts for its future resource adequacy needs.”<sup>108</sup> The CAISO’s proposal takes into account integrated resource planning from California regulatory agencies and local regulatory authorities, and uses scoring criteria to reflect the critical role of LSEs in meeting California resource adequacy requirements. As such, the CAISO’s proposal will improve the ability of the region to address future resource adequacy needs.

**a. Scoring Criteria for Cluster Study Criteria (1)**

Under cluster study criteria (1), each interconnection customer’s score will be the sum of its points based on three criteria: (1) commercial interest (up to 30 points), (2) project viability (up to 35 points), and (3) system need (up to 35 points), for a total maximum score of 100 points. The interconnection customer will submit a scoresheet providing its points in its interconnection request

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<sup>103</sup> *Id.* at P 183.

<sup>104</sup> *Id.* at P 176 n.408.

<sup>105</sup> As explained above, the relevant, “free” deliverability for these customers results from public policy network upgrades approved in the CAISO’s transmission plan. It is this finite pool the CAISO must limit to produce any meaningful study results.

<sup>106</sup> *Id.* at PP 173-79.

<sup>107</sup> *Id.* at P 180.

<sup>108</sup> *Id.* at P 182.

consistent with the process described in the revised RIS tariff provisions.<sup>109</sup> The CAISO has provided a table outlining the scoring process as attachment F to this filing.<sup>110</sup>

#### **i. Scoring of Commercial Interest Points**

Although commercial interest is weighted slightly less heavily than project viability and system need, it is still an important factor in determining viable interconnection requests. The Commission has recognized that the study of interconnection requests for projects that are not commercially viable can have an adverse impact on interconnection processes.<sup>111</sup> The Commission also has already approved the CAISO's broad use of commercial interest to determine how to allocate available deliverability to interconnection customers,<sup>112</sup> and how to retain deliverability if a customer lingers in queue.<sup>113</sup>

The CAISO proposes a flexible approach that provides two opportunities to obtain points in the commercial interest scoring category—an LSE allocation process and an opportunity to earn points by demonstrating commercial interest by a non-LSE off-taker (e.g., a corporate or industrial commercial customer). The CAISO proposes this opportunity for non-LSE off-takers to earn points because, although they do not carry an obligation to serve load or provide resource adequacy as do LSEs whose customers have paid for the transmission system and who need deliverability to meet state and local requirements, non-LSEs are nevertheless actively procuring resources.

Specifically, an interconnection customer may receive up to 30 points for commercial interest based on its ratio of sub-points to 100. In other words, each 10 commercial interest sub-points are the equivalent of 3 points in the overall weighting. The interconnection customer's sub-points may consist of (a) LSE point allocations (up to 100 sub-points) or an LSE full allocation (100 sub-points); and (b) an affidavit from a counterparty that is not an LSE (up to 25 sub-

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<sup>109</sup> New RIS section 4.1.1 (cross-referencing RIS section 3.5 as revised by this tariff amendment).

<sup>110</sup> Details regarding the scoring system are discussed below in the transmittal letter. A table listing the components of the scoring system is provided on pages 15-17 of the Track 2 Final Addendum.

<sup>111</sup> See, e.g., Order No. 2023 at P 47.

<sup>112</sup> Section 8.9.2 of the GIDAP and the RIS. The deliverability allocation process first awards available deliverability to those interconnection customers with power purchase agreements, then to those negotiating or shortlisted for power purchase agreements, then to other projects.

<sup>113</sup> Section 6.7.4 of the GIDAP and the RIS. The commercial viability criteria requires interconnection customers to have an executed power purchase agreement to retain deliverability if they seek to remain in queue beyond seven years.

points).<sup>114</sup> The difference in permissible sub-points between LSEs and non-LSEs reflects the fact that LSEs carry an obligation to provide resource adequacy and must therefore be studied for sufficient deliverability in the study process; in contrast, non-LSEs are not required to provide resource adequacy but nevertheless are actively procuring resources that seek to utilize the available TP deliverability needed for resource adequacy. Non-LSE interest will improve the scores of certain projects, increasing the likelihood of those projects advancing to the study process and ultimately competing for TP deliverability and off-taker agreements.

Points from multiple LSEs may be combined to achieve up to 100 sub-points. Interconnection customers may not combine affidavits from multiple counterparties that are not LSEs,<sup>115</sup> but may combine point allocations from LSEs with an affidavit from a counterparty that is not an LSE.<sup>116</sup>

LSEs will provide their point allocations to the CAISO. Each interconnection customer will then receive up to 100 sub-points in the commercial interest category based on the ratio of its requested interconnection service capacity at the point of interconnection to the number of points allocated to it from the LSE (e.g., if the LSE awards a capacity amount to a project that equals the interconnection customer's requested interconnection service capacity, the interconnection customer will receive 100 sub-points).<sup>117</sup>

If an LSE lacks sufficient points to match the capacity of one project, or

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<sup>114</sup> Affidavits from non-LSEs must be executed by an authorized representative. The affidavit must attest the counterparty is supporting the interconnection request in support of corporate policy goals on sustainability; the capacity of the interconnection request aligns with its individual needs; the counterparty and its holding company, if any, is not affiliated with the interconnection customer or its holding company; and that the off-taker and its holding company and affiliates support this interconnection request only, and no other interconnection requests in this cluster application window. New RIS section 4.1.1(1). As it does currently, the CAISO will scrutinize every non-LSE commercial arrangement proffered to ensure the company is legitimate, procuring the capacity in a meaningful way, and not affiliated with the interconnection customer or its holding company. The CAISO will continue to evaluate and reject illegitimate power purchase agreements and commercial arrangements created to satisfy tariff criteria before being replaced with legitimate arrangements that would actually provide financing of a generator.

<sup>115</sup> In other words, they receive the maximum 25 sub-points for one non-LSE affidavit, making additional non-LSE affidavits pointless.

<sup>116</sup> *Id.* This aggregation would not be necessary, however, if an LSE opted to use the full allocation approach described below, which would automatically award the project 100 percent of its capacity (i.e., 100 sub-points).

<sup>117</sup> *Id.* Interconnection service capacity means the approved maximum instantaneous power output at the point of interconnection for the interconnection customer, as set forth in its interconnection studies. Tariff appendix A, existing definition of Interconnection Service Capacity. Interconnection service capacity of a generating unit cannot exceed the generating unit's documented maximum normal capability (PMax). Tariff appendix A, existing definition of PMax.

otherwise elects, it may indicate a full allocation to a project in lieu of allocating any of its points in that cluster application window. An LSE exercising this option can select one interconnection request only per the cluster application window, and the interconnection customer's interconnection service capacity may not exceed 150 percent of that LSE's points allocation.<sup>118</sup> Multiple LSEs may elect to exercise this option jointly for a single interconnection request that is less than 150 percent of their aggregate points.<sup>119</sup> The purpose of this option is to enable LSEs with small load shares to ensure sufficient resource availability in the study process. It is designed for circumstances where an LSE's need significantly exceeds its capacity allocation (e.g., due to a large resource retirement or the expiration of a power purchase agreement that accounts for a significant portion of an LSE's load). The CAISO does not expect LSEs with larger load shares to use this option, as they will likely have sufficient capacity to award full capacity to more than one project.

There were a number of stakeholder comments on the LSE and non-LSE inputs into the commercial readiness scoring criteria. The CAISO considered this feedback carefully and made a number of refinements to its proposal to address stakeholder concerns, as discussed below.<sup>120</sup>

## **ii. Scoring of Project Viability Points**

The scoring criteria for project viability will help to ensure the most viable projects are studied—increasing the likelihood of projects making continued progress toward commercial operation. The criteria take into account significant factors indicating such progress. These scoring criteria can be validated easily with interconnection requests during the cluster application window.<sup>121</sup> An interconnection customer may receive up to 35 points for project viability based on its ratio of sub-points to 100.<sup>122</sup> Again, 10 sub-points would equal 3.5 points in the overall scoring.

The interconnection customer's sub-points may include up to 50 sub-points for an engineering design plan of the generating facility, and up to 50 sub-points for expanding a generating facility. The interconnection customer will receive up to 50 sub-points based on the percent the plan is complete (e.g., a

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<sup>118</sup> New RIS section 4.1.1(1).

<sup>119</sup> This option is particularly useful for small LSEs nearby one another: rather than each of them procuring their own small project, they may prefer to share one larger project that can efficiently serve their collective demand, or otherwise meet their geographic requirements.

<sup>120</sup> See section III.B.5(a)-(b) of this transmittal letter.

<sup>121</sup> In contrast to verifying whether an interconnection customer has all permitting or environmental certifications, a standard unique to each project and its location, which the CAISO is not in a position to do.

<sup>122</sup> New RIS section 4.1.1(2).

plan that is 15 percent complete will receive 15 sub-points), with each percentage complete constituting one sub-point, as represented in an affidavit attesting to the completeness by a professional engineer.<sup>123</sup>

An interconnection customer will receive 10 sub-points if it is an expansion of a generating facility for which the interconnection customer has executed a GIA and submitted its notice to proceed and commenced construction activities. Alternatively, an interconnection customer will receive 20 sub-points if it is an expansion of an online generating facility. As a further alternative, an interconnection customer will receive 50 sub-points if it is an expansion of a generating facility for which the interconnection customer has executed a GIA, submitted its notice to proceed, and the generating facility commenced construction activities or is online, and the generating facility's tie-line to the CAISO controlled grid has sufficient surplus capacity to accommodate the sum of the maximum capacities of the extant generating facility and the expansion. Interconnection customers seeking expansion sub-points must submit documentation to describe and verify the expansion with their scoresheets.<sup>124</sup> The CAISO will confirm all indicated statuses with the transmission owner. Awarding points for expansions recognizes that these projects are not simply theoretical: the host generating facility demonstrates the project is a viable project and site, having already secured some level (if not all) of permitting and environmental permissions—no small feat in today's landscape. Although the expansions themselves certainly need additional work, it is reasonable to recognize they have a head-start over projects that largely exist "on paper."

### **iii. Scoring of System Need Points**

The scoring criteria for system need will account for resources that present significant value by addressing resource needs on the CAISO controlled grid and warrant consideration because they provide reliability or resource adequacy benefits to consumers, in addition to how system need is accounted for in zonal allocations. An interconnection customer may receive up to 35 points for system need based on its ratio of sub-points to 100.<sup>125</sup>

The interconnection customer will receive 50 sub-points if the generating facility could be a local capacity area resource when the interconnection request is submitted, and the CAISO has projected a local capacity area resource deficiency in that local capacity area.<sup>126</sup> The interconnection customer will

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<sup>123</sup> *Id.* To be sure, interconnection customers can submit affidavits from third-party engineers contracted to provide this service.

<sup>124</sup> *Id.*

<sup>125</sup> New RIS section 4.1.1(3).

<sup>126</sup> *Id.*



receive 100 sub-points if the generating facility is designated by a local regulatory authority as a long lead-time resource, meets the requirements of the local regulatory authority resource portfolio, and corresponds to approved network upgrades in the CAISO's transmission plan specifically designed to meet the long lead-time resource needs of the local regulatory authority, or does not require additional transmission capacity. The CAISO will confirm eligibility for these sub-points with the applicable local regulatory authority.<sup>127</sup>

#### **b. LSE Points for Cluster Study Criteria (1)**

In order for the scoring criteria to work properly, the CAISO needs to determine LSE procurement interest early on to assess project viability and ensure alignment with resource and transmission planning. Although these expressions of LSE interest are non-binding, they provide helpful information in the scoring process.

For these reasons, all LSEs—whether CPUC-jurisdictional or not—electing to participate in the points allocation process are required to participate in the same points allocation process. To allocate commercial interest points to interconnection customers, an LSE must, at least two months prior to the opening of the cluster application window: (i) provide the CAISO written notice of intent to participate in the points allocation; and (ii) publish on the publicly accessible website used by the LSE (a) the selection criteria or consideration factors for awarding points and (b) the contact information for the person or department conducting the points allocation for the LSE.<sup>128</sup> Within five business days after the deadline for LSEs to provide their notices, the CAISO will publish on its own website the contact information, website, and points allocation for each participating LSE.<sup>129</sup> Also, LSEs submitting commercial interest points must do so within ten days after the CAISO provides them with a list of interconnection requests, which will occur after the close of the cluster application window, except for special timing procedures that will apply due to the

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<sup>127</sup> *Id.*

<sup>128</sup> New RIS section 4.1.1.1. Public websites requiring registration are permissible. *Id.* The CAISO encourages LSEs to conduct requests for information (RFIs) prior to the cluster application window for projects expecting to enter the interconnection queue to ensure that LSEs have the necessary information on individual projects in time to make informed decisions during the LSE allocation process. The CAISO urges LSEs to communicate clear evaluation criteria for this process to prospective interconnection customers and to consider revising their tariffs to ensure they award points using fair and reasonable processes. In addition, the CAISO expects interested interconnection customers to participate in LSE RFIs, solicitations, and bilateral discussions with LSEs to market their projects prior to the cluster application window to supplement information LSEs will be provided during the scoring process and therefore increase the interconnection customers' opportunity to obtain LSE-awarded points.

<sup>129</sup> *Id.* LSEs are not required to allocate all of their allocated points. The CAISO will not redistribute forgone or otherwise unused points to other LSEs. *Id.*

planned October 1, 2024 reimplementation of cluster 15.<sup>130</sup>

To determine available Deliverable Option commercial interest points for allocation, the CAISO will take the aggregate available MW of deliverability in each Transmission Zone and multiply it by a scaling factor of 0.5. This scaling factor is a weighting factor to ensure that LSEs are selective in point allocation. The CAISO will then allocate shares of points to each LSE based upon its load ratio share of the CAISO system resource adequacy obligation for the coming year provided by the CEC,<sup>131</sup> based on its most recent coincident peak demand forecast.<sup>132</sup> LSEs are not required to allocate all of their available points, and the CAISO will not redistribute forgone or otherwise unused points to other LSEs.

For each cluster application window, an LSE may allocate points to the greater of three interconnection requests from affiliates, or no more than 25 percent of its points to interconnection requests from affiliates based on their requested interconnection service capacity.<sup>133</sup> This provision is intended to avoid preferential treatment of LSE-owned resources in the LSE allocation process, thereby ensuring continued, healthy levels of competition, and to maintain historical trends regarding LSE-owned and independently developed projects in the interconnection queue. Unlike in other regions, the CAISO sees very few interconnection requests from utilities.<sup>134</sup> Local regulatory authorities, the CPUC, and the utilities themselves supported this cap, recognizing it is prudent to avoid potential increases in utility self-preference, even though the level of utility-sponsored projects in previous clusters has been closer to non-existent than

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<sup>130</sup> New RIS section 3.5.4. For cluster 15 only, LSEs must comply with the cluster study criteria in RIS section 4 by October 1, 2024 and must submit commercial operation points by December 23, 2024. New GIDAP section 17.1(e). The CAISO also proposes to revise the unique procedures applicable to cluster 15 under the GIDAP to state that, between October 1 and December 1, 2024, interconnection customers may modify their interconnection requests to change their points of interconnection within the same Transmission Zone and to change their requested deliverability statuses, but the CAISO will not accept any modification proposed during this time period that would result in increasing the deliverability requested. Revised GIDAP section 17.1(b). These provisions provide developers flexibility to update their projects without enabling them to create what are effectively new interconnection requests. A project that proposed to interconnect in San Diego cannot propose to interconnect in San Francisco and still be the same project.

<sup>131</sup> The CEC provides these figures even if the LSE is not CPUC-jurisdictional, as the CEC and CPUC have different functions and mandates.

<sup>132</sup> Hypothetical examples illustrating the CAISO allocation methodology are provided on pages 57-58 of the Track 2 Final Proposal.

<sup>133</sup> New RIS section 4.1.1.1. Hypothetical examples illustrating LSE allocations are provided on pages 58-60 of the Track 2 Final Proposal. This ratio reflects the amount of resource adequacy capacity each LSE needs, and thus correlates directly with its deliverable generation needs.

<sup>134</sup> *I.e.*, from its transmission owners, utility distribution companies, or load-serving entities (often, but not always, a single holding company).

robust.

The CAISO has designed the LSE requirements carefully to reflect the LSE—and their local regulatory authority’s roles—in procurement. The CAISO’s intent was to avoid dictating how and why LSEs should prefer one project over the other, an area in which the CAISO lacks both expertise or jurisdiction. At the same time, the CAISO’s proposed tariff requirements ensure a transparent, competitive process that local regulatory authorities can easily monitor and regulate. Generation developers, likewise, will be aware of each LSE that intends to participate, and their criteria for awarding points.

### **c. Auction Process for Cluster Study Criteria (1)**

The tariff provisions on the cluster study criteria include an auction process to achieve manageable queue volumes and preserve competition among viable projects in each Transmission Zone, in the event interconnection customers have the same scores and same distribution factors that would exceed the 150 percent limit.<sup>135</sup> The CAISO intends for this auction process to be used only in these limited “tiebreaker” situations. The Commission has long recognized the reasonableness of auction mechanisms in jurisdictional terms and conditions.<sup>136</sup>

Under the auction process, the CAISO will notify any still-tied interconnection customers required to win an auction to be included in the cluster study. Those interconnection customers may each submit a single, sealed bid of a dollar-per-MW value of aggregate generating facility capacity at the point of interconnection, or withdraw. The CAISO will accept the highest bid(s) for the cluster study until it crosses the 150 percent limit.<sup>137</sup>

Interconnection customers that win an auction and proceed to the cluster study must post an auction deposit by the end of the cluster engagement window equal to the product of the dollar value of the lowest winning bid in that Transmission Zone and the MW capacity of the interconnection customer’s own generating facility at the point of interconnection. The auction deposit may be in

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<sup>135</sup> See new RIS section 4.1(5). A hypothetical example illustrating the use of the auction process is provided on pages 68-69 of the Track 2 Final Proposal.

<sup>136</sup> See, e.g., *Cal. Indep. Sys. Operator Corp.*, 124 FERC ¶ 61,094, at P 42 (2008) (stating that under the CAISO market design, marketers “can purchase CRRs either bilaterally or in the CRR auction that follows the allocation process”); *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,318, at P 50 (2007) (“Moreover, the Fixed Resource Requirement is merely an option available to an LSE. An LSE wishing to avoid these requirements can simply participate in the auction process at the just and reasonable rates established by RPM [the PJM Reliability Pricing Model].”).

<sup>137</sup> New RIS section 4.1.2. The CAISO will consider bids based on the dollar-per-MW bid value only, not the product of the dollar value and the generating facility capacity. *Id.*

any form or combination of forms allowed under the RIS, consistent with Order No. 2023.<sup>138</sup>

The CAISO and Participating TO will release or refund with any interest the auction deposit when the interconnection customer achieves commercial operation. If the interconnection customer withdraws its interconnection request or it is deemed withdrawn, the percentage of the auction deposit to be refunded will decrease as specified in the RIS as the interconnection customer progresses in the interconnection queue, similar to interconnection financial security or commercial readiness deposits.<sup>139</sup> The CAISO and Participating TO will process any non-refundable auction deposit funds with other non-refundable interconnection funds, as set forth in the RIS.<sup>140</sup>

**d. Timeline Applicable to Cluster 15 for Cluster Study Criteria (1)**

Cluster 15 is large, has been paused, and will be subject to the tariff revisions contained in this filing after the interconnection requests in cluster 15 were submitted. The CAISO believes it is appropriate to provide additional flexibility in the timeline for cluster 15, in order to provide more time for the first participants in the LSE allocation process that will occur in cluster 15 to manage and adjust to the new process, and those presented in Order No. 2023.

Therefore, the CAISO proposes changes to the study procedures and timelines that apply to cluster 15 under the GIDAP.<sup>141</sup> Based on the proposed October 1 effective date to resume cluster 15, the CAISO proposes to notify interconnection customers they satisfied the scoring criteria, must participate in an auction, or failed the scoring criteria by February 12, 2025. Interconnection customers in cluster 15 participating in an auction must submit bids by February 26, 2025. The CAISO will notify the interconnection customers of the results of their auctions by March 5, 2025.<sup>142</sup> These processes will thus occur in the equivalent of cluster 15's customer engagement window. After the CAISO gains experience with cluster 15, the CAISO intends to file additional tariff revisions to

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<sup>138</sup> *Id.* (cross-referencing existing RIS section 11.1).

<sup>139</sup> New RIS section 4.1.2.

<sup>140</sup> *Id.* (cross-referencing existing RIS section 7.6). As with financial security under the existing provisions of the RIS, any liquidated auction deposit amounts will go to the applicable Participating TO to fund still-needed network upgrades triggered by interconnection customers. Any liquidated auction deposit amounts that exceed the costs of network upgrades will be applied to offset transmission revenue requirements, as recovered through the CAISO's transmission access charge. Both mechanisms directly benefit ratepayers in the form of lower transmission costs resulting from new interconnections.

<sup>141</sup> See existing GIDAP section 17.

<sup>142</sup> New GIDAP section 17.1(f).

set more granular cluster study criteria processing timelines for cluster 16 and future clusters within the customer engagement window.

## **2. Criteria for Interconnection Requests for Deliverability in Merchant Zones (*i.e.*, Cluster Study Criteria (2))**

Under cluster study criteria (2), interconnection requests in Merchant Zones seeking any deliverability all proceed to the cluster study but are subject to the requirements of the Merchant Option, which mean the interconnection customer may not receive any cash reimbursement under the RIS or a GIA for any costs for area delivery network upgrades, and instead may receive merchant transmission CRRs associated with the network upgrades they fund pursuant to the allocation provisions set forth in the tariff.<sup>143</sup> For all other network upgrades, the interconnection customer may receive reimbursement as provided in the RIS and a GIA.<sup>144</sup> This builds on the CAISO's existing processes that provide merchant transmission CRRs for network upgrade costs for which the interconnection customer cannot receive cash reimbursement.<sup>145</sup>

An Interconnection customer that submits an interconnection request seeking deliverability in a Merchant Zone must include an additional Merchant Option deposit of \$10,000/MW of all requested deliverable generating facility capacity, but not less than \$500,000 or more than \$5,000,000.<sup>146</sup> This deposit amount is set at a level high enough to provide an incentive to participate for only those interconnection customers that are confident of their projects' viability under the Merchant Option. They also correlate with the expected high costs of area delivery network upgrades, which relieve significant constraints on the CAISO controlled grid.

The Merchant Option deposit may be in any form or combination of forms allowed under the RIS and is fully refundable prior to the close of the customer engagement window. After the customer engagement window closes, 50 percent of this deposit is non-refundable. Before the cluster restudy commences or if no cluster restudy for that queue cluster occurs, the interconnection facilities study, the interconnection customer must raise its Merchant Option deposit to 50 percent of its current cost responsibility for its assigned area delivery network upgrades, without minimum or limit.<sup>147</sup>

Cluster study criteria (2) allows a Merchant Option interconnection

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<sup>143</sup> New RIS section 4.2 (cross-referencing tariff section 36.11).

<sup>144</sup> New RIS section 4.2.

<sup>145</sup> See, e.g., sections 11.4.1.1 and 14.3 of the GIDAP and the RIS.

<sup>146</sup> New RIS section 4.2.

<sup>147</sup> *Id.* (cross-referencing RIS section 11.1).

customer to be released from its funding obligation for an area delivery network upgrade if that network upgrade is needed to support a CPUC or local regulatory authority base case portfolio. Specifically, if the Merchant Option interconnection customer's assigned area delivery network upgrade is approved in the CAISO's transmission plan before any interconnection customer sharing the area delivery network upgrade executes its GIA, such that the area delivery network upgrade was not in the base case for that transmission plan, the interconnection customer may reduce its Merchant Option deposit to remove the costs for that area delivery network upgrade.<sup>148</sup> This rule avoids penalizing interconnection customers for taking on the initial financing obligations that the transmission plan would have picked up.

Unlike for projects under the Deliverable Option, it is not necessary for the CAISO to cap the number of Merchant Option projects. They are not competing for an already-determined and finite amount of transmission capacity resulting from the CAISO transmission plan. Rather, the CAISO and its transmission owners can simply identify and assign new area delivery network upgrades in the interconnection studies, much like they identify all new reliability network upgrades for interconnection customers.

### **3. Criteria for Interconnection Requests for Energy-Only Deliverability Status that Are Eligible for Cash Reimbursement (Cluster Study Criteria (3))**

Under cluster study criteria (3), interconnection requests for energy-only deliverability status seeking eligibility for cash reimbursement for reliability network upgrades may proceed to the cluster study only where they meet the requirements described below. Reimbursement will still be subject, without limitation, to the RIS. The interconnection request must be in a Transmission Zone where the local regulatory authority has designated for procurement a specific MW quantity of capacity with energy-only deliverability status.<sup>149</sup>

#### **a. Scoring Criteria for Cluster Study Criteria (3)**

An interconnection customer under cluster study criteria (3) must submit all information for scoring required under cluster study criteria (1) described

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<sup>148</sup> New RIS section 4.2. To retain TP deliverability from that area delivery network upgrade, the interconnection customer must meet the TP deliverability allocation criteria under the RIS no later than the affidavit submission deadline for the second TP deliverability allocation process after the approved transmission plan publication. Failure to retain TP deliverability under this rule will result in conversion to energy-only deliverability status. *Id.* (cross-referencing RIS section 8.9.2).

<sup>149</sup> New RIS section 4.3 (cross-referencing RIS section 14.3.2).

above.<sup>150</sup> The CAISO will administer the same scoring and tiebreaking processes as for cluster study criteria (1), with the following exceptions:

- (a) The CAISO will only consider the interconnection requests for energy-only deliverability status subject to cluster study criteria (3), excluding all other interconnection requests submitted in the cluster application window;
- (b) The CAISO will solve for 150 percent of local regulatory authority MW procurement target for capacity with energy-only deliverability status in that Transmission Zone instead of 150 percent of the available deliverability at the relevant transmission constraint;
- (c) Instead of the auction as final tiebreaker, the CAISO will include the remaining tied interconnection request(s) with the least interconnection service capacity until it reaches the 150 percent limit; and
- (d) The CAISO will allocate points for LSEs to demonstrate commercial interest as described below.<sup>151</sup>

Interconnection customers with interconnection requests exceeding the 150 percent of the local regulatory authority's MW procurement target limit and losing all applicable tiebreakers may elect to proceed to cluster study criteria (4) described below and have an absolute right to have their energy-only interconnection requests studied. An interconnection customer must make this election within five business days of being informed that its interconnection request is not eligible for study under cluster study criteria (3).<sup>152</sup>

The cap on energy-only interconnection requests is just and reasonable for several reasons: first, it recognizes that energy-only interconnection requests historically have been non-existent in the CAISO, with zero energy-only interconnection requests in the last five interconnection request windows (including the huge clusters 14 and 15). Moreover, interconnection customers that originally sought deliverability but then converted to energy-only status later in queue have almost never reached commercial operation. The data clearly demonstrates that energy-only generating facilities are rarely, if ever, competitive, and thus do not constitute "first-ready" projects that warrant being "first-served." The CAISO thus seeks to protect against a wave of new energy-only projects as a side effect of the new rules for deliverable projects. At the same time, the CAISO recognizes that local regulatory authorities in the West

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<sup>150</sup> See section III.B.1(a) of this transmittal letter.

<sup>151</sup> New RIS section 4.3. See *also* section III.B.3(b) of this transmittal letter below.

<sup>152</sup> New RIS section 4.3.

have begun contemplating procurement of some level of energy-only generation. It is therefore reasonable to presume this level of procurement benefits ratepayers, and thus should operate under the same financing and reimbursement rules as deliverable projects. However, the CAISO's 150-percent cap in each zone keeps the number of energy-only projects studied at a level commensurate with planned energy-only procurement, with a margin for competition.

#### **b. LSE Points for Cluster Study Criteria (3)**

To allocate commercial interest points to interconnection customers seeking energy-only deliverability status, LSEs must comply with all requirements that apply to LSE points under cluster study criteria (1).<sup>153</sup> To determine available commercial interest points for allocation, the CAISO will take the total aggregate MW of procurement of capacity with energy-only deliverability status in the most recent CAISO transmission plan, as informed by local regulatory authorities. As under cluster study criteria (1), the CAISO will then allocate shares of points to each LSE based upon its load ratio share in the most recent coincident peak demand forecast from the CEC. LSEs are not required to allocate all of their allocated points, and the CAISO will not redistribute forgone or otherwise unused points to other LSEs.<sup>154</sup>

Also, as is the case under cluster study criteria (1) and based on the same rationale, for each cluster application window, an LSE may allocate points to the greater of three interconnection requests from affiliates, or no more than 25 percent of its points to interconnection requests from affiliates based on their requested interconnection service capacity.<sup>155</sup> As explained above, this provision is intended to ensure continued, healthy levels of competition and to maintain historical trends regarding LSE-owned and independently developed projects in the interconnection queue.

#### **4. Criteria for Interconnection Requests for Energy-Only Deliverability Status that Are Ineligible for Cash Reimbursement (Cluster Study Criteria (4))**

The CAISO believes that open access principles require that all projects seeking to interconnect with energy-only deliverability status in any Transmission Zone have the opportunity to do so. Accordingly, under cluster study criteria (4), interconnection requests for energy-only deliverability status in any Transmission Zone may proceed to the cluster study without having to meet any of the

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<sup>153</sup> New RIS section 4.3.1 (cross-referencing RIS section 4.1.1.1). See *also* section III.B.1(b) of this transmittal letter above.

<sup>154</sup> New RIS section 4.3.1.

<sup>155</sup> *Id.*



requirements described above for cluster study (3) by electing to forgo eligibility for cash reimbursement for reliability network upgrades. In other words, all interconnection requests for energy-only deliverability status that are ineligible for cash reimbursement will be included in the cluster study. Interconnection customers electing to proceed to the cluster study under this option may receive merchant transmission CRRs associated with any network upgrades they fund to ensure a reliable interconnection pursuant to the allocation provisions set forth in the tariff.<sup>156</sup> This option is intended to allow open access to the grid for those interconnection customers that may have no interest in meeting procurement goals, and are willing to finance their projects themselves. Because such projects can be presumed not to benefit ratepayers—as they meet no procurement or public policy goals—the interconnection customer should not be entitled to cash reimbursement like other projects.

## **5. CAISO Responses to Stakeholder Comments on Cluster Study Criteria**

### **a. Scoring Criteria for Cluster Study Criteria (1)**

Several resource developers and developer trade associations suggested that the scoring criteria—particularly the commercial interest category—are not yet ready for implementation or should not apply to cluster 15, citing concerns about a potential lack of oversight and transparency or a claimed outsized role of LSEs in determining the fate of interconnection projects. The CAISO maintains, however, that this is a critical piece of the tariff reforms proposed in this filing. Given the LSEs' essential role in resource procurement under California state law and the Commission-approved resource adequacy provisions of the CAISO tariff, LSE interest is a key indicator of commercial interest and the ultimate viability of a generation project seeking interconnection. Awarding points for commercial interest will allow the CAISO to remove speculative projects not likely to be viable earlier in the interconnection process and provide a useful metric in determining whether a project is ready for study. Without sufficient differentiation of projects based on commercial interest, the CAISO would have to rely solely on either locational or financial mechanisms to obtain more reasonable queue volumes. Although those are useful metrics, they are less than ideal proxies to determine which projects are likely to get commercial interest in the end.

In response to calls for improved transparency and rigor in the LSE allocation process and clarifications around oversight of LSE procurement activities, the CAISO made a number of modifications to its proposal in the Track

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<sup>156</sup> New RIS section 4.4 (cross-referencing tariff section 36.11); revised RIS section 14.3.2.1. Similarly, the CAISO proposes to add a provision to the RIS stating that interconnection customers electing to convert to energy-only deliverability status after the completion of their interconnection facilities studies will forgo eligibility for cash reimbursement for all network upgrades, but may receive merchant transmission CRRs. Revised RIS section 6.7.2.6.

2 Final Addendum after the Track 2 Final Proposal was issued to require LSEs to opt-in to the LSE allocation process.<sup>157</sup> As a condition to opting-in and receiving capacity allocations to express commercial interest in specific projects, each LSE must: (1) provide written notice to the CAISO that it intends to participate in the interconnection LSE allocation process; (2) post its selection criteria or considerations for the LSE allocation process, as well as contact information for the department or individuals responsible for coordinating the LSE selection process on a publicly accessible website; and (3) be subject to these non-discriminatory requirements for opting-in for all LSE capacity allocation whether or not the LSE or its affiliates are developing generation projects for which an LSE seeks allocation. The CAISO is also strongly encouraging LSEs to conduct public requests for information, requests for offers, or some other functionally equivalent process to ensure fairness, transparency, and competition in the LSE allocation process.

Some stakeholders suggested that the CAISO remove scoring criteria and rely on the zonal constraint analysis and the zonal auctions to study 150 percent of available transmission capacity. As one stakeholder correctly noted, however, by removing the scoring criteria, the CAISO would sacrifice alignment with resource and transmission planning processes mandated under state law, and given that reliability depends critically on having the right mix of resources on the grid, this alignment with planning is important to the CAISO's operations in a manner which recognizes both federal and state legal requirements and policy objectives.<sup>158</sup>

Some stakeholders voiced concerns that—despite the limitations on LSE-sponsored projects proposed in the tariff revisions—the scoring criteria would discriminate against independent power producers and potentially favor LSE-sponsored projects. The CAISO's intent with the proposed limitation of three projects or 25 percent of an LSE's allocation per cluster was to ensure continued, healthy levels of competition and to maintain historical trends regarding LSE-owned projects in the queue. The CAISO's intent is neither to create new incentives for LSE-ownership, nor disrupt utility ownership. The CAISO notes that the largest LSEs in California are themselves Commission-regulated public utilities that own transmission facilities. They are subject to standards of conduct and other Commission requirements prohibiting undue discrimination. They have in place internal firewalls to avoid undue influence of interconnection projects in the procurement process. The CPUC noted support for the proposed treatment of LSE-owned resources, noting that all investor owned utility projects will undergo CPUC review and approval, providing an additional layer of oversight to justify and ensure utility-owned resources are only permitted as needed. Other

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<sup>157</sup> See attachment D to this filing.

<sup>158</sup> <https://www.prod.cloud.caiso.com/documents/calcca-public-comment-letter-interconnection-process-enhancements-track-2-proposal-may-22-2024.pdf> at p.1.

LSEs also are required to run open and transparent processes and are governed by their own local regulatory authorities. The CAISO will also monitor the LSE role in the enhanced interconnection procedures and will address any discrimination concerns that could emerge by provision further tariff enhancements or taking other appropriate action with the CPUC, local regulatory authorities, and this Commission.

In response to one stakeholder's specific recommendation to award higher points to projects demonstrating power purchase agreements with non-LSEs, the CAISO notes that throughout the initiative, the majority of stakeholders strongly opposed the use of power purchase agreements as a means for projects to acquire points and advance to the study process. Stakeholders expressed concerns that providing incentives for power purchase agreements early in the interconnection process would be premature without specific data on project price and commercial online dates, which could undermine procurement processes. For these reasons, the CAISO does not propose to award points on the basis of a power purchase agreement with an LSE or a non-LSE.

One stakeholder suggested that the CAISO implement cluster study criteria for major purchases of long lead-time equipment, specifically for projects that prioritize equipment that is manufactured domestically. The CAISO considered awarding points for large equipment purchases earlier in the stakeholder initiative and ultimately dropped the proposal from consideration based on significant stakeholder opposition. Stakeholders argued that specific equipment purchases would be premature prior to interconnection request applications, and the CAISO did not find any means to easily validate that such purchases would be dedicated to specific interconnection projects.

Similarly, a stakeholder suggested that the CAISO include permitting indicators as part of the scoring process, which the CAISO considered in earlier issue papers but did not include in the Track 2 Final Proposal. Many stakeholders opposed the use of permitting milestones as indicators because there is no consistent permitting pathway or set of permitting requirements for all projects, and such milestones are currently more appropriately evaluated later in the project development and interconnection process. Based on this feedback and its own assessment, the CAISO chose not to include this factor in the scoring process.

#### **b. LSE Points for Cluster Study Criteria (1)**

Several LSEs provided support for the scoring criteria and emphasized the importance of incorporating commercial viability screens early in the process. LSE representatives expressed a commitment to running an open and transparent process with the oversight of their local regulatory authorities. Other non-LSE stakeholders expressed support for the LSE allocation process and

confidence in the ability of LSEs to run open and fair processes to select projects prior to the interconnection study process. The CPUC also engaged in the stakeholder initiative, offering support for the LSE allocation process and expressing a commitment to continued coordination and oversight going forward.

A number of resource developers and trade associations called for increased transparency in the LSE scoring process. The CAISO considered stakeholder feedback on this matter and included changes in the Track 2 Final Addendum to: (1) require an LSE interested in participating in the LSE allocation process to opt-in to the process by providing notice to the CAISO of its intent to participate and contact information for the LSE staff coordinating the LSE allocation process; and (2) require participating LSEs to post selection criteria on a publicly accessible website by a date certain.<sup>159</sup> The opt-in requirement and the requirement to post selection criteria are both reflected in tariff revisions proposed in this filing.<sup>160</sup> These requirements will respect jurisdictional authority of the CPUC and local regulatory authorities over procurement while ensuring increased transparency and rigor for the LSE allocation process, which the CAISO expects will lead LSEs to make thoughtful and transparent decisions that best align with their individual procurement needs.

Several resource developers expressed concerns that LSEs would be making decisions on projects with minimal data on interconnection costs and timelines. Some LSEs noted several other factors LSEs can use to assess how a project will fit with and complement existing portfolios at the time of the interconnection request. The CAISO addressed these concerns directly in the Track 2 Final Addendum, noting that LSEs should seek projects that best align with procurement and resource needs, as indicated by integrated resource plans or other relevant planning documents, and emphasizing that it would be premature to expect agreement between LSEs and interconnection customers on contract terms (e.g., contract price, term length, and commercial operation date) in the early stages of project development.<sup>161</sup>

As recommended by some stakeholders, the CAISO commits to monitoring and adapting to the results of the LSE allocation process and coordinating with the CPUC, local regulatory authorities, and stakeholders to ensure competition and open access for both cluster 15 (which will not yield new utility-sponsored interconnection request applications because the CAISO is not accepting new applications as part of the cluster 15 modification window) and cluster 16, when stakeholders will be familiar with the tariff revisions proposed in

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<sup>159</sup> Track 2 Final Addendum at 9-10.

<sup>160</sup> See new RIS section 4.1.1.1.

<sup>161</sup> Track 2 Final Addendum at 11.

this filing prior to the cluster application window for cluster 16.<sup>162</sup>

**c. Auction Process for Cluster Study Criteria (1)**

One stakeholder argued that the auction process will increase interconnection costs while other stakeholders suggested removing the scoring process and proceeding with the auction. The CAISO believes that each element of the proposed interconnection request intake process is critical to ensuring resource diversity, reliability, competition, and meaningful study results. Specifically, the CAISO developed the proposed intake process in a manner that would first emphasize alignment with resource and transmission plans and project readiness, only relying on the auction to break ties. This is consistent with stakeholder feedback the CAISO heard from the majority of stakeholders throughout the process.

**d. Treatment of Projects Seeking Energy-Only Deliverability Status Under Cluster Study Criteria (3) and (4)**

Some stakeholders argued there was a lack of clarity as to how mixed-fuel resources (e.g., hybrid and co-located solar and storage) would be scored whether they submit a single interconnection request for multiple generating units, some deliverable and some energy-only. In response to feedback provided in a stakeholder workshop, the CAISO clarified in the Track 2 Final Addendum that all projects will be scored based on their interconnection service capacity. If an interconnection customer seeks any deliverability in any amount, it will need to go through the Deliverable Option or Merchant Option process rather than be treated as a resource with energy-only deliverability status. It is not possible for the CAISO to screen a single interconnection request under two cluster study criteria simultaneously, and allowing such an option only would incentivize every interconnection customer to submit such dual requests to see which may be successful. The CAISO's proposal ensures capacity with energy-only deliverability status is genuine and not meant to circumvent the screens for deliverable projects.<sup>163</sup> Basing the interconnection request's points on its interconnection service capacity rather than requested deliverability also prevents interconnection customers from circumventing the energy-only screening criteria to avoid competition by using a small amount of deliverability for a large project.<sup>164</sup>

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<sup>162</sup> Details regarding the CAISO's monitoring commitments are provided on pages 7-8 of the Track 2 Final Addendum.

<sup>163</sup> Track 2 Final Addendum at 19.

<sup>164</sup> For example, had the CAISO based its proposal on requested deliverability in lieu of interconnection service capacity, an interconnection customer could submit a 1,010 MW project: 1,000 MW energy-only and 10 MW deliverable. With only 10 points required for the deliverable

The CAISO developed the proposal for energy-only deliverability status based on stakeholder feedback throughout the initiative and believes it to be an essential component of interconnection reform and an important means to enable continued flexibility for project developers. The CPUC noted that the proposal aligns with the Memorandum of Understanding by incentivizing resources with energy-only deliverability status in areas where the CPUC or local regulatory authorities have indicated a need for such resources.

Some transmission owners suggested that the CAISO should cap the study of non-reimbursable projects with energy-only deliverability status to ensure more reasonable numbers of projects to study. The CAISO responded that that it has seen no interest in projects with energy-only deliverability status in the last five interconnection study cycles. However, future CPUC portfolios do show some resources with energy-only deliverability status. As such, the CAISO believes the risk of too many projects with energy-only deliverability status is low.

The CAISO will continue to monitor trends in interconnection requests for energy-only deliverability status for alignment with resource portfolios, and will address any necessary changes to the treatment of projects with energy-only deliverability status in future initiatives if necessary.

#### **IV. Effective Date and Severability**

The CAISO requests that the Commission accept the tariff revisions contained in this filing effective October 1, 2024 (*i.e.*, 61 days after the date of this filing), when the CAISO proposes to re-engage with cluster 15 subject to the reforms contained in this filing. Timely reimplementing of cluster 15 is essential to maintain progress on interconnection and to onboard the resources necessary to meet near-time reliability and longer-term policy needs. A delay resulting from a deficiency letter or a rejection of this filing would inhibit the CAISO's ability to study cluster 15.<sup>165</sup> It simply is not possible for the CAISO to make realistic study

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portion, the 1,000 MW energy-only portion would be studied and eligible for cash reimbursement even though it never went through any of the relevant cluster study criteria, avoided all competition, and may surpass any planned level of procurement for that capacity.

<sup>165</sup> In contrast, the CAISO does not require an order on its Order No. 2023 Compliance Filing before re-engaging with cluster 15. Because the CAISO proposed a May 17, 2024 effective date for its Order No. 2023 revisions, cluster 15 is on notice that those revisions will be the filed rate for its cluster study. If the Commission's order requires revisions on compliance, those revisions also will be effective back to May 17, 2024, regardless of when the order is issued. Moreover, the CAISO proposed very few independent entity variations, and mirrored the Commission's revisions to its *pro forma* tariff as much as possible. The CAISO also completely adopted the central reforms of Order No. 2023 by adopting the Commission's prescribed timelines, completely eliminating the reasonable efforts standard, and adopting the Commission's numerous other reforms. The CAISO spent additional time through its stakeholder process to include refinements

assumptions, let alone produce realistic study results, without first returning the volume of interconnection requests to levels that the CAISO's available and planned transmission capacity can accommodate. As the CAISO explained in its Order No. 2023 Compliance Filing, the CAISO is re-engaging with cluster 15 now to re-align the timeline for the interconnection studies with the transmission planning process.<sup>166</sup> Further delay to cluster 15 would disjoin the CAISO's interconnection studies and transmission planning process, causing cascading delays to both processes until re-alignment is possible.

Recognizing the novel nature of the CAISO's proposal, and the need to begin cluster 15 studies, a subset of four of the tariff revisions contained in this filing are severable from each other and from the full set: specifically, the revisions regarding (1) commercial interest points, (2) LSEs' awarding points to affiliates, (3) permissible modifications for cluster 15, and (4) partial capacity deliverability status generator cluster study criteria are severable.<sup>167</sup> The severable nature of these components should not be understood to suggest the elements taken separately or collectively are unjust or unreasonable. Each element individually and all four components taken together were carefully developed with the input of stakeholders to ensure a first-ready, first-served process. Severability is proposed to provide the Commission additional space to fully consider these components individually and in the context of the rest of the CAISO's proposal.

The first severable component of the CAISO's tariff revisions is the commercial interest point provisions under the Deliverable Option and the energy-only option (*i.e.*, cluster study criteria (1) and (3), respectively).<sup>168</sup> Although it would significantly diminish the value of the CAISO's proposal, and likely result in far more ties based on points, the CAISO could screen interconnection requests based on the 70 available points for project viability and system need, then use the DFAX and auction tiebreakers.

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that reflect the totality of the comments received in an effort to present the Commission with a complete and thoroughly vetted proposal. As such, the CAISO believes that any later changes to its compliance filing should not significantly impact cluster 15.

<sup>166</sup> Transmittal letter for Order No. 2023 Compliance Filing at 46.

<sup>167</sup> See *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108 (D.C. Cir. 2017). The CAISO conducted outreach to interested entities and believes that its proposal regarding severability of each EDAM access charge component is either supported or not opposed by those contacted.

<sup>168</sup> New RIS sections 4.1.1(1), 4.1.1.1, and 4.3.1, and the Commercial Interest portion of Appendix 2 of the RIS. If the Commission were to reject the commercial interest sub-points from LSEs, it also should reject the commercial interest sub-points from non-LSEs. Interest from LSEs with resource adequacy requirements is intended to be the germane factor for deliverability, so it would be a perverse result to be left with commercial interest points from non-LSEs only. The reverse is not true, however, and the Commission could accept sub-points from LSEs without accepting points from non-LSEs.

The second severable component is the limit on LSEs' awarding commercial interest points to their affiliates.<sup>169</sup> The Commission could remove, or otherwise order the CAISO to modify this provision, independent from the rest of the filing. The CAISO reiterates that historically there has been almost no generation development from LSEs or incumbent utilities in the CAISO, and the CAISO's proposed limits are based on the historic levels that were presumably just and reasonable, having never been an issue previously.

The third severable component is the set of permissible modifications for cluster 15—namely, which modifications cluster 15 interconnection customers can make before the CAISO begins to process them through the cluster study criteria.<sup>170</sup> The CAISO proposed these permissible modifications based on the modifications typically allowed during the customer engagement window. The provisions provide developers flexibility to update their projects without enabling them to create what are effectively new or larger interconnection requests. Allowing significant changes to points of interconnection all over the CAISO system likely would result in effectively new projects competing with projects that originally proposed to interconnect in an area. The CAISO believes this would be an unfair result, and thus proposed to carry over the existing rule requiring changes to points of interconnection within the same Transmission Zone.<sup>171</sup> If, however, the Commission rejects or modifies this limitation, the CAISO can allow such modifications and still screen interconnection customers based on the cluster study criteria.<sup>172</sup>

The fourth and last severable component is the scoring of partial capacity deliverability status generators under the cluster study criteria.<sup>173</sup> These generally are mixed-fuel resources<sup>174</sup> seeking deliverability for one of their

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<sup>169</sup> The last paragraphs in new RIS sections 4.1.1.1 and 4.3.1.

<sup>170</sup> Revised GIDAP section 17.1(b).

<sup>171</sup> See existing GIDAP section 6.1.2. This rule exists for practical reasons as well. The interconnection customer generally gets feedback from its transmission owner, and based on the generating facility site. Transmission owners cannot advise on interconnecting to other transmission owners' systems or moving the entire generating facility.

<sup>172</sup> Points of interconnection cannot change, however, based on (*i.e.*, after) the results of the cluster study criteria process because the CAISO cannot re-run that process for interconnection customers seeking to try again with a new point.

<sup>173</sup> New RIS sections 4 (specifying interconnection customers proceed under one set or cluster study criteria only and that interconnection customers requesting any deliverability proceed under the criteria for deliverable projects), and 4.1.1(1) (specifying interconnection customers receive points based on their interconnection service capacity).

<sup>174</sup> Typically either solar and storage or wind and storage.



generating units but not the other.<sup>175</sup> There are not many of these interconnection customers—less than five percent of cluster 15, for example—because most interconnection customers simply seek full capacity deliverability status equal to the interconnection service capacity requested at their point of interconnection. Under the CAISO's proposed rules, a partially deliverable interconnection customer would be subject to the deliverability criteria, and its commercial interest score would be based on its requested interconnection service capacity. Some developers argue, however, that this scoring treatment could require LSEs to award deliverable points to non-deliverable capacity depending on the composition of the generating facility.<sup>176</sup> They argue the CAISO should score the generating facility only based on its requested deliverability, or score each generating unit separately—one under the energy-only criteria and one under the Deliverable Option criteria.

As explained above,<sup>177</sup> basing the interconnection request's points on its interconnection service capacity rather than requested deliverability prevents interconnection customers from circumventing the energy-only screening criteria to avoid competition by using a small amount of deliverability for a large project. It also avoids creating incentives for developers to always submit partial capacity interconnection requests so they can effectively double their odds of passing the cluster study criteria within a single interconnection request. Interconnection customers also have the options to reduce their interconnection service capacity, reduce their requested deliverability, or remove or modify their generating units before cluster 15 re-commences. In any case, the treatment of partial capacity deliverability status generating facilities affects a small minority of interconnection customers, and could be modified on compliance to a Commission order approving the remainder of the CAISO's tariff revisions.

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<sup>175</sup> In other words, one generating unit would be deliverable and the other energy-only. Typically interconnection customers elect to have the storage be deliverable and the intermittent resource energy-only.

<sup>176</sup> For example, if an interconnection customer requested 100 MW of interconnection service capacity for a 100 MW deliverable battery and a 100 MW energy-only solar plant, it would need 100 MW of deliverability points from an LSE to maximize its commercial interest score (100 MW being its interconnection service capacity). But if the interconnection customer requested 100 MW of interconnection service capacity for a 50 MW deliverable battery and a 100 MW energy-only solar plant, it still would need 100 MW of deliverability points from an LSE to maximize its commercial interest score.

<sup>177</sup> See section III.B.5(d) of this transmittal letter.

## **V. Communications**

Pursuant to Rule 203(b)(3) of the Commission's Rules of Practice and Procedure,<sup>178</sup> the CAISO requests that all correspondence, pleadings, and other communications regarding this filing should be directed to following:

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## **VI. Service**

The CAISO has served copies of this filing on the CPUC, the CEC, and all parties with scheduling coordinator agreements under the CAISO tariff. In addition, the CAISO has posted a copy of the filing on the CAISO website.

## **VII. Contents of Filing**

In addition to this transmittal letter, this filing includes the following attachments:

Attachment A	Clean CAISO tariff sheets incorporating this tariff amendment
Attachment B	Red-lined document showing the revisions in this tariff amendment <sup>179</sup>
Attachment C	Track 2 Final Proposal
Attachment D	Track 2 Final Addendum

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<sup>178</sup> 18 C.F.R. § 385.203(b)(3).

<sup>179</sup> As explained above in section II.A of this transmittal letter, the instant filing includes, as baseline tariff language, the changes proposed in the CAISO's Order No. 2023 Compliance Filing, which the CAISO proposed to make effective May 17, 2024 (*i.e.*, prior to the date the instant tariff amendment was filed). The CAISO respectfully requests that the Commission accept the Order No. 2023 Compliance Filing on or before the date it accepts the instant filing.

Attachment E          Track 2 Board Memorandum

Attachment F          Table listing components of scoring system

## **VIII. Conclusion**

For the reasons set forth above, the CAISO respectfully requests that the Commission accept the tariff revisions implementing needed reforms to address the unsustainable crisis in the region's interconnection queue effective October 1, 2024, which will allow the CAISO to move forward with cluster 15 expeditiously.

Respectfully submitted,

**/s/ William H. Weaver**

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**Attachment A – Clean Tariff Language**

**Tariff Amendment – Track 2 of Interconnection Process Enhancements 2023 Initiative**

**California Independent System Operator Corporation**

**August 1, 2024**

# Appendix A<sup>1</sup>

## - Deliverability

Transmission capacity enabling the delivery of Energy to the aggregate of Load on the CAISO Controlled Grid at peak Load, under a variety of modeled stressed conditions. Deliverability includes (1) the annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability Assessment and measured in MW, which specifies the amount of resource adequacy capacity the Generating Facility is eligible to provide; (2) the annual Maximum Import Capability of an Intertie, which specifies the amount of resource adequacy capacity, measured in MW, that Load Serving Entities collectively can procure from imports at that Intertie to meet their resource adequacy requirements; and (3) TP Deliverability.

\* \* \* \*

## – Deliverable Option

An election by an Interconnection Customer seeking Deliverability to interconnect in a Deliverable Zone, and receive cash reimbursement or Merchant Transmission CRRs for Network Upgrades, but without any guarantee of Deliverability.

– **Deliverable Zone** A Transmission Zone with at least 50 MW of available Deliverability before the Cluster Application Window.

\* \* \* \*

## - Energy-Only Deliverability Status (Energy Only)

A condition elected by an Interconnection Customer for a Generating Facility interconnected with the CAISO Controlled Grid the result of which is that the Interconnection Customer is responsible only for the costs of Reliability Network Upgrades and is not responsible for the costs of Delivery Network Upgrades, but the Generating Facility will be deemed to have a Net Qualifying Capacity of zero, and, therefore, cannot be considered to be a Resource Adequacy Resource.

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<sup>1</sup> All tariff revisions in this document are based on the CAISO's pending tariff revisions, including Order No. 2023 compliance. Any changes to pending tariff revisions directed by FERC after these tariff revisions are filed will be addressed through a reconciliation filing.

**- Merchant Option**

An election by an Interconnection Customer seeking Deliverability to interconnect in a Merchant Zone and forgo any cash reimbursement for any Area Delivery Network Upgrade costs and instead receive Merchant Transmission CRRs under Section 36.11 of the CAISO Tariff.

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**- Merchant Zone**

A Transmission Zone with less than 50 MW of available Deliverability before the Cluster Application Window.

\* \* \* \*

**- TP Deliverability (Transmission Plan Deliverability)**

The capability, measured in MW, of the CAISO Controlled Grid as modified by transmission upgrades and additions modeled or identified in the annual Transmission Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified geographic or electrical area of the CAISO Controlled Grid.

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**- Transmission Zone**

A study area determined in the Transmission Plan and used in the Transmission Planning Process and Interconnection Studies based on electrically proximate constraints, transmission, load, and supply resources.

# Appendix DD

## Section 17. Cluster 15 Unique Procedures

Notwithstanding Section 3.3.1, the CAISO will not open a Queue Cluster Application Window in 2024. Except for this Section 17, Cluster 15 will be subject to the RIS and not the GIDAP.

### 17.1 Study Procedures and Timelines

- a) Consistent with the process set forth in Section 3.5.2, the CAISO will validate Cluster 15 Interconnection Requests between January 1, 2025 and May 1, 2025. Interconnection Requests with deficiencies after that date will be deemed invalid and will not be included in Cluster 15. Interconnection Customers in Cluster 15 must submit any element required under Section 3.5.1 of the RIS not previously submitted before May 1, 2025.
- b) Between October 1, 2024 and December 1, 2024, Interconnection Customers may submit any element required under Section 3.5.1 of the RIS not previously submitted. During this time, Interconnection Customers also may modify their Interconnection Requests (a) as permissible under Section 6.7.2.2 of this GIDAP; (b) to change generating technology or fuel; (c) to add or increase energy storage capacity; (d) to change their Points of Interconnection within the same Transmission Zone; and (e) to change their requested Deliverability Statuses. The CAISO will not accept any modification under this Section 17.1(b) that would result in increasing the Interconnection Service Capacity or Deliverability requested. Interconnection Customers modifying their Interconnection Requests must submit updated information required under Section 3.5 to reflect the modification. Except for changes to the Point of Interconnection, which must be submitted by December 1, 2024, modifications effected pursuant to this provision will not affect Interconnection Customers' rights to modify their Interconnection Requests after December 1, 2024 under the RIS.
- c) An Interconnection Customer that withdraws its Interconnection Request prior to January 1, 2025 will receive a refund of its Interconnection Study Deposit, including any interest earned, minus any costs expended on the Interconnection Customer's behalf. If an Interconnection Customer submitted a Site Exclusivity Deposit, it will receive a complete refund of its Site Exclusivity Deposit, including any interest earned. Withdrawals effected pursuant to this provision will not affect Interconnection Customers' rights to withdraw after January 1, 2025, and receive any corresponding refund and interest under the RIS.
- d) The CAISO will begin the Cluster 15 Cluster Study on June 1, 2025. With the commencement of the Cluster Study, the CAISO, Participating TOs, and Interconnection Customers will comply with all RIS provisions, schedules, rights, and obligations.
- e) Load Serving Entities must comply with Section 4 of the RIS by October 1, 2024, and with Section 3.5.4 of the RIS by December 23, 2024.
- f) Pursuant to Sections 3.5 and 4 of the RIS, the CAISO will notify Interconnection Customers they satisfied the scoring criteria, must participate in an auction, or failed the scoring criteria by February 12, 2025. Interconnection Customers participating in an auction must submit bids by February 26, 2025. The CAISO will notify Interconnection Customers of the results of their auctions by March 5, 2025.

# Appendix KK

## Section 3 Interconnection Requests

### 3.1 General

Pursuant to CAISO Tariff Section 25.1, a duly authorized officer or agent of the Interconnection Customer will submit to the CAISO (1) an Interconnection Request consistent with Appendix 1 to this RIS, including (2) an executed Cluster Study Agreement consistent with Appendix 3 to this RIS. All forms may be submitted electronically as provided on the CAISO Website. Interconnection customers will submit Appendix B to the Cluster Study Agreement, the Interconnection Facilities Study Agreement, pursuant to Section 8 of this RIS. The CAISO will forward a copy of the Interconnection Request to the applicable Participating TO within five (5) Business Days of receipt.

The Interconnection Customer shall submit a separate Interconnection Request for each site. Where multiple Generating Units share a site, the Interconnection Customer(s) may submit separate Interconnection Requests or a single Interconnection Request. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

At the Interconnection Customer's option, the CAISO, Participating TO, and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations within the Customer Engagement Window to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. The Interconnection Customer will select the definitive Point of Interconnection to be studied no later than ten (10) days after the close of the Cluster Application Window. For purposes of clustering Interconnection Requests, the CAISO and Participating TO may propose changes to the requested Point of Interconnection to facilitate efficient interconnection of Interconnection Customers at common Point(s) of Interconnection within the same Transmission Zone. The CAISO will notify Interconnection Customers in writing of any intended changes to the requested Point of Interconnection within the Customer Engagement Window, and the Point of Interconnection will only change upon mutual agreement.

Interconnection Customers may request Interconnection Service Capacity below the Generating Facility Capacity. The CAISO will study these requests for Interconnection Service at the level of Interconnection Service Capacity requested for purposes of Interconnection Studies, Network Upgrades, and associated costs. If the Generating Facility Capacity requires additional Network Upgrades beyond the Interconnection Service Capacity, the CAISO will provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrade cost required for safety and reliability will be assigned to the Interconnection Customer and eligible for reimbursement consistent with the treatment of Interconnection Facilities and Network Upgrade provided in this RIS. Interconnection Customers may be subject to additional control technologies, as well as testing and validation of those technologies consistent with Article 6 of the GIA and Article 2 of the SGIA. The necessary control technologies and protection systems shall be established in Appendix C of that executed, or requested to be filed unexecuted, GIA.

The CAISO will study Generating Units that include at least one electric storage resource using operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) that reflect the proposed charging behavior of the Generating Facility as requested by the Interconnection Customer, unless the CAISO and Participating TO determine that Good Utility Practice, including Applicable Reliability Standards, otherwise requires the use of different operating assumptions. If the CAISO and Participating TO find the Interconnection Customer's requested operating assumptions conflict with Good Utility Practice, they must provide the Interconnection Customer an explanation in writing of why the submitted operating assumptions are insufficient or inappropriate by no later than thirty (30) calendar days before the end of the Customer Engagement Window and allow the Interconnection Customer to revise and resubmit requested operating assumptions one time at least ten (10) calendar days prior to the end of the Customer Engagement Window. The CAISO and Participating TO will study



these requests for Interconnection Service, with the study costs borne by the Interconnection Customer, using the submitted operating assumptions for purposes of Interconnection Facilities, Network Upgrades, and associated costs. These requests for Interconnection Service also may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer. The Interconnection Customer's Generating Facility may be subject to additional control technologies as well as testing and validation of such additional control technologies consistent with Article 6 of the LGIA. The necessary control technologies and protection systems will be set forth in Appendix C of the Interconnection Customer's LGIA.

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### **3.5 Processing of Interconnection Requests**

#### **3.5.1 Initiating an Interconnection Request.**

An Interconnection Customer seeking to join a Queue Cluster will submit its Interconnection Request to the CAISO within, and no later than the close of, the Cluster Application Window. Interconnection Requests submitted outside of the Cluster Application Window will not be considered. To initiate an Interconnection Request except as set forth for the Fast Track Process in Section 5, and have the Interconnection Request considered for validation under Section 3.5.2, the Interconnection Customer must submit all of the following during the Cluster Application Window:

- (i) Applicable Interconnection Study Deposit amount, pursuant to Section 3.5.1.1 of this RIS.
- (ii) A completed application in the forms of Appendix 1 and Appendix 2, including requested Deliverability statuses, requested study process (either Queue Cluster or Fast Track Study Process), preferred Point of Interconnection and voltage level, and all other required technical data, including all data requested in Attachment A to Appendix 1 in Excel format.
- (iii) Demonstration of no less than ninety percent (90%) Site Control; or (1) a signed affidavit from an officer of the company indicating that Site Control is unobtainable due to regulatory limitations as defined in the Business Practice Manuals; (2) documentation sufficiently describing and explaining the source and effects of such regulatory limitations, including a description of any conditions that must be met to satisfy the regulatory limitations and the anticipated time by which the Interconnection Customer expects to satisfy the regulatory requirements; and (3) a deposit in lieu of Site Control of \$10,000 per MW, subject to a minimum of \$500,000 and a maximum of \$2,000,000. Interconnection Requests from multiple Interconnection Customers for multiple Generating Facilities that share a site must include a contract or other agreement that allows for shared land use
- (iv) A load flow model.
- (v) A dynamic data file.
- (vi) A reactive power capability document.
- (vii) A site drawing.
- (viii) A single-line diagram.

- (ix) A flat run plot, bump test plot, voltage reference step change test plot, frequency reference step change test, and a voltage ride-through test plot from the positive sequence transient stability simulation application.
- (x) A plot showing the requested MW at the Point of Interconnection from the positive sequence load flow application.
- (xi) A Commercial Readiness Deposit equal to two times the study deposit described in Section 3.5.1.1 of this RIS in the form of an irrevocable letter of credit, cash, a surety bond, or other form of security that is reasonably acceptable to the CAISO under Section 11.1 of this RIS. This Commercial Readiness Deposit is refunded to Interconnection Customer according to Section 3.8 of this RIS,
- (xii) If applicable, (a) the requested operating assumptions (*i.e.*, whether the interconnecting Generating Facility will or will not charge at peak load) to be used by the CAISO and Participating TO that reflect the proposed charging behavior of the Generating Facility that includes at least one electric storage resource, and (2) a description of any control technologies (software and/or hardware) that will limit the operation of the Generating Facility to the operating assumptions submitted by the Interconnection Customer.
- (xiii) All supporting documentation required for the Interconnection Customer's selections on Appendix 2, as required by Section 4 of this RIS.

The CAISO requires the foregoing information to be complete and specific to the Interconnection Request. The CAISO will first determine whether a submitted Interconnection Request is complete. The CAISO will not initiate any review of an Interconnection Request for completeness until the Interconnection Study Deposit is received by the CAISO. Consistent with Section 3.5.3, the CAISO will review each Interconnection Request and notify the Interconnection Customer whether it is complete or contains omissions within five (5) Business Days of submission. Any Interconnection Customer that has not submitted a complete Interconnection Request by October 15 (or the next Business Day if October 15 is not a Business Day) will be deemed incomplete with no opportunity to cure or otherwise be included in that year's Queue Cluster.

The CAISO requires Interconnection Study Deposits to review and validate the Interconnection Request. Notwithstanding Section 3.5.2 of this RIS or any other provision regarding validation or the ability to cure deficiencies, the CAISO will not review, process, or validate an Interconnection Request absent the Interconnection Study Deposit. Any interconnection Customer that has not submitted a complete Interconnection Study Deposit by October 15 (or the next Business Day if October 15 is not a Business Day) will be deemed invalid with no opportunity to cure or otherwise be included in that year's Queue Cluster.

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### **3.5.2 Customer Engagement Window.**

Upon the close of each Cluster Application Window, the CAISO will open a ninety (90) calendar day period (Customer Engagement Window). During the Customer Engagement Window, the CAISO will hold Scoping Meetings with all interested Interconnection Customers. Scoping Meetings will be segregated by Transmission Zone and Cluster Study criteria. Notwithstanding the preceding requirements and upon written

consent of all Interconnection Customers within the Cluster, the CAISO may shorten the Customer Engagement Window and begin the Cluster Study. Within ten (10) Business Days of the opening of the Customer Engagement Window, the CAISO will post on its Website a list of Interconnection Requests for that Cluster. The list will identify, for each anonymized Interconnection Request: (1) the requested amount of Interconnection Service; (2) the location by county and state; (3) the station or transmission line or lines where the interconnection will be made; (4) the projected In-Service Date; (5) the Deliverability Status requested; and (6) the type of Generating Facility or Facilities to be constructed, including fuel types, such as coal, natural gas, solar, or wind. The CAISO must ensure that project information is anonymized and does not reveal the identity or commercial information of interconnection customers with submitted requests. During the Customer Engagement Window, the CAISO will provide to Interconnection Customer a non-binding updated good faith estimate of the cost and timeframe for completing the Cluster Study. Interconnection Customers can access and execute the Cluster Study Agreement through the CAISO Website. Interconnection Customers must execute the Cluster Study Agreement prior to the close of the Customer Engagement Window.

At the end of the Customer Engagement Window, all Interconnection Requests (1) deemed valid, (2) that have executed a Cluster Study Agreement in the form of Appendix 3 to this RIS, and (3) that have satisfied the Cluster Study criteria in Section 4, will be included in the Cluster Study. Any Interconnection Requests not deemed valid at the close of the Customer Engagement Window will be deemed withdrawn (without the cure period provided under Section 3.8 of this RIS) by the CAISO, the application fee will be forfeited to the CAISO, and the CAISO will return the Interconnection Study Deposit and Commercial Readiness Deposit to the Interconnection Customer. Immediately following the Customer Engagement Window, the CAISO will initiate the Cluster Study described in Section 6 of this RIS.

For each Interconnection Request that is deemed complete pursuant to Section 3.5.1, the CAISO and Participating TO will determine whether the Interconnection Request is valid. An Interconnection Request will be deemed valid if it does not contain deficiencies that would prevent its inclusion in the Cluster Study. Deficiencies include but are not limited to modeling errors, inaccurate data, and unusable files.

The Interconnection Customer will provide the CAISO the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice but no later than the end of the Customer Engagement Window. At any time, if the CAISO finds that the technical data provided by Interconnection Customer is incomplete or contains errors, the Interconnection Customer, Participating TO, and the CAISO will work expeditiously and in good faith to remedy such issues. In the event that the Interconnection Customer fails to comply with this Section, the CAISO will deem the Interconnection Request withdrawn (without the cure period provided under Section 3.8 of this RIS), the application fee is forfeited to the CAISO, and the Interconnection Study and Commercial Readiness Deposit will be returned to Interconnection Customer.

#### **3.5.2.1 Validation Process.**

The CAISO will validate Interconnection Requests that satisfy the Cluster Study criteria in Section 4 of this RIS. The CAISO and Participating TO will notify the Interconnection Customer whether its Interconnection Request is valid or contains deficiencies within ten (10) Business Days of October 15 or when the Interconnection Request satisfies the Cluster Study criteria, whichever is later. All Interconnection Requests must be deemed valid by the end of the Customer Engagement Window to be included in that year's Queue Cluster.

### **3.5.2.2 Deficiencies in Interconnection Request.**

If an Interconnection Request has deficiencies, the CAISO shall include in its notification to the Interconnection Customer that the Interconnection Request does not constitute a valid request and explain the deficiencies. The Interconnection Customer shall provide the CAISO the corrected requested information needed to constitute a valid request. Consistent with Section 3.5, whenever corrected requested information is provided by the Interconnection Customer, the CAISO shall notify the Interconnection Customer within five (5) Business Days of receipt of the corrected requested information whether the Interconnection Request is valid. If the Interconnection Request continues to provide deficient information, the CAISO shall include in its notification to the Interconnection Customer the reasons for such failure. If an Interconnection Request is not deemed valid, the Interconnection Customer must cure all deficiencies no later than the close of the Customer Engagement Window. Interconnection Requests with deficiencies after that date will be deemed invalid and will not be included in an Interconnection Study Cycle or otherwise studied.

Interconnection Requests deemed invalid under this Section 3.5.2.2 are not subject to Section 3.8. Interconnection Customers with invalid Interconnection Request under this Section 3.5.2.2 may seek relief under Section 15.5 by so notifying the CAISO within two (2) Business Days of the notice of invalidity.

### **3.5.3 Day-for-day Extensions**

To the extent the CAISO and Participating TO cannot meet any deadline in this Section 3.5.2, the Interconnection Customer will receive a day-for-day extension on all remaining deadlines requiring its response.

### **3.5.4 Scoring Process**

Pursuant to Section 4 of this RIS, the CAISO will score Interconnection Requests to determine their eligibility for the Cluster Study. The CAISO will provide Load Serving Entities with a list of Interconnection Requests after the close of the Cluster Application Window. Load Serving Entities submitting commercial interest points must do so no later than ten (10) days after the CAISO provides the list of Interconnection Requests.

\* \* \* \*

### **3.6.4 Study Criteria Data**

By September 1 each year, the CAISO will publish the following information on the CAISO Website to inform the preparation of Interconnection Requests under the Cluster Study criteria in Section 4:

- (i) Single-line diagrams of each Transmission Zone with the Local Regulatory Authority portfolio resources identified at the substations to which the Local Regulatory Authority has mapped resources in its busbar mapping process;
- (ii) Any Area Deliverability Constraints in each Transmission Zone, the amount of any available Deliverability, ADNUs to increase Deliverability in Merchant Zones, and the estimated cost and time to construct identified ADNUs;
- (iii) Single-line diagrams identifying the Points of Interconnection studied for each Area

Deliverability Constraint;

- (iv) A list of current substations within each Transmission Zone;
- (v) For each Area Deliverability Constraint, the Points of Interconnection for current Interconnection Customers;
- (vi) The TP Deliverability already allocated for each Area Deliverability Constraint; and
- (vii) The value of Local Capacity Area Resource Deficiencies in Transmission Zones and Local Capacity Areas.

\* \* \* \*

## **Section 4 Cluster Study Criteria**

Only those Interconnection Requests that meet the criteria in this Section 4 will proceed to the Cluster Study. Any Interconnection Requests that do not meet the criteria or otherwise fail to comply with this Section 4 will be deemed withdrawn without the cure period provided under Section 3.8 of this RIS by the CAISO, the application fee will be forfeited to the CAISO, and the CAISO will return the Interconnection Study Deposit and Commercial Readiness Deposit to the Interconnection Customer.

Each Interconnection Request can proceed to the Cluster Study based on one set of criteria only: the criteria for Deliverability in Deliverable Zones, Deliverability in Merchant Zones, Energy Only eligible for cash reimbursement, or Energy Only ineligible for cash reimbursement. Interconnection Requests seeking any Deliverability for any technology or Generating Unit at the Generating Facility will be subject to the criteria for Interconnection Requests for Deliverability. Interconnection Customers may not change their selected criteria after the Cluster Application Window.

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.

All scoresheets, documentation, and bids submitted will be Confidential Information consistent with Section 15.1 of this RIS. Notwithstanding, the CAISO may confirm any information as necessary with Load Serving Entities, counterparties, or Local Regulatory Authorities. The CAISO will notify the Interconnection Customer which screen was decisive to its Interconnection Request. The CAISO may publish composite data but will not publish or disclose which criteria or screen enabled individual Interconnection Requests to proceed to the Cluster Study. The CAISO will publish on the CAISO Website the number of bids and the clearing price of all winning bids for each Transmission Zone, but will not publish the names of any Interconnection Customers in the auctions or their corresponding bids.

### **Section 4.1 Criteria for Requests for Deliverability in Deliverable Zones**

Interconnection Requests in Deliverable Zones seeking any Deliverability will proceed to the Cluster Study only where they pass the screens of this Section.

- 1) There must be Deliverability available at the Interconnection Customer's Point of Interconnection.
- 2) If other Interconnection Customers in the Cluster are interconnecting in the same Deliverable Zone, and pass step one, only Interconnection Customers comprising one hundred fifty percent (150%) of the available Deliverability at their relevant Transmission Constraint may proceed to the Cluster Study. Interconnection Customers' capacity relevant to the available Deliverability will be based on their requested amount of Deliverability.
- 3) If two or more Interconnection Customers would exceed the 150% limit, only the highest-scoring Interconnection Customers that reach the 150% limit proceed to the Cluster Study. The CAISO may exceed the 150% limit only for the capacity of the last Interconnection Request that qualifies to reach the limit but which also would exceed it. To determine which Interconnection Customers proceed to the Cluster Study, the CAISO will score Interconnection Customers pursuant to Section 4.1.1 of this RIS.
- 4) If Interconnection Customers with the same scores would exceed the 150% limit, the CAISO will use those Interconnection Customers with the lowest distribution factors until it reaches the 150% limit. The distribution factor is the percentage of the Interconnection Customer's incremental increase in output that flows on a particular transmission line or transformer when the displaced generation is spread proportionally across all dispatched resources in the Control Area.
- 5) If Interconnection Customers with the same scores and same distribution factors would together exceed the 150% limit, the CAISO will auction the right for those Interconnection Customers to be studied pursuant to Section 4.1.2 of this RIS.

#### **Section 4.1.1 Scoring Criteria**

Each Interconnection Customer's score under Section 4.1 will be the sum of its points based on three criteria: (1) commercial interest (up to 30 points), (2) project viability (up to 35 points), and (3) system need (up to 35 points). The Interconnection Customer will submit a scoresheet providing its points in its Interconnection Request consistent with Section 3.5. Interconnection Customers will receive sub-points toward the points in the three criteria as follows:

- 1) An Interconnection Customer may receive up to 30 points for commercial interest based on its ratio of sub-points to 100. The Interconnection Customer's sub-points may consist of (a) Load Serving Entity point allocations (up to 100 sub-points) or a Load Serving Entity full allocation (100 sub-points); and (b) an affidavit from a counterparty that is not a Load Serving Entity (up to 25 sub-points). Points from multiple Load Serving Entities may be combined to achieve up to 100 sub-points. Interconnection Customers may not combine affidavits from multiple counterparties that are not Load Serving Entities, but may combine point allocations from Load Serving Entities with an affidavit from a counterparty that is not a Load Serving Entity.

Load Serving Entities will provide the CAISO their point allocations consistent with Section 3.5. The Interconnection Customers will receive up to 100 sub-points in the commercial interest category based on the ratio of its requested Interconnection Service Capacity at the Point of Interconnection to the number of points allocated to it from the Load Serving Entity.

If a Load Serving Entity lacks sufficient points to match the capacity of one project, or otherwise elects, it may indicate a full allocation to a project in lieu of allocating any of its points in that Cluster Application Window. A Load Serving Entity exercising this option can select one Interconnection Request only per Cluster Application Window, and the Interconnection Customer's Interconnection Service Capacity may not exceed one hundred fifty percent (150%) of that Load Serving Entity's points allocation. Multiple Load Serving Entities may elect to exercise this option jointly for a single Interconnection Request less than one hundred fifty percent (150%) of their aggregate points. An

Interconnection Request with a full allocation will receive 100 sub-points in the commercial interest category.

Affidavits from non-Load Serving Entities must be executed by an authorized representative. The affidavit must attest the counterparty is supporting the Interconnection Request in support of corporate policy goals on sustainability; the capacity of the Interconnection Request aligns with its individual needs; the counterparty and its holding company, if any, is not affiliated with the Interconnection Customer or its holding company; and that the counterparty and its holding company and affiliates support this Interconnection Request only, and no other Interconnection Requests in this Cluster Application Window.

- 2) An Interconnection Customer may receive up to 35 points for project viability based on its ratio of sub-points to 100. The Interconnection Customer's sub-points may include up to 50 sub-points for an engineering design plan of the Generating Facility, and up to 50 sub-points for expanding a Generating Facility. The Interconnection Customers will receive up to 50 sub-points for an engineering design plan based on the percent the plan is complete, with each percentage complete comprising one sub-point, as represented in an affidavit attesting to the completeness by a professional engineer. An Interconnection Customer will receive 10 sub-points if it is an expansion of a Generating Facility that has executed a GIA and submitted its notice to proceed and commenced Construction Activities, as confirmed by the Participating TO. Alternatively, an Interconnection Customer will receive 20 sub-points if it is an expansion of an online Generating Facility. Alternatively, an Interconnection Customer will receive 50 sub-points if it is an expansion of a Generating Facility that has executed a GIA, submitted its notice to proceed, commenced Construction Activities, as confirmed by the Participating TO, or is online, and the Generating Facility's generator tie line to the CAISO Controlled Grid has sufficient surplus capacity to accommodate the sum of the maximum capacities of the extant Generating Facility and the expansion. Interconnection Customers seeking expansion sub-points must submit documentation to describe and verify the expansion with their scoresheets.
- 3) An Interconnection Customer may receive up to 35 points for system need based on its ratio of sub-points to 100. The Interconnection Customer will receive 50 sub-points if the Generating Facility could be a Local Capacity Area Resource when the Interconnection Request is submitted, and the CAISO has projected a Local Capacity Area Resource Deficiency in that Local Capacity Area. The Interconnection Customer will receive 100 sub-points if the Generating Facility is designated by a Local Regulatory Authority as a long lead-time resource; meets the requirements of the Local Regulatory Authority resource portfolio; and corresponds to approved Network Upgrades in the Transmission Plan specifically designed to meet the long lead-time resource needs of the Local Regulatory Authority, or does not require additional transmission capacity. The CAISO will confirm eligibility for these sub-points with the applicable Local Regulatory Authority.

#### **Section 4.1.1.1 Load Serving Entity Points**

To allocate commercial interest points to Interconnection Customers, a Load Serving Entity must do the following at least two months prior to the Cluster Application Window's opening:

- 1) Provide the CAISO written, electronic notice of intent to participate in the points allocation. The notice must include (a) the publicly accessible website used by the Load Serving Entity; and (b) the contact information for the person or department conducting the points allocation for the Load Serving Entity.
- 2) Publish on the publicly accessible website (a) the selection criteria or consideration factors for awarding points; and (b) the contact information for the person or department conducting the points allocation for the Load Serving Entity. Public

websites requiring registration are permissible.

Within five (5) Business Days after the deadline for Load Serving Entities to provide their notices, the CAISO will publish on the CAISO Website the contact information, website, and points allocation for each participating Load Serving Entity. To determine available Deliverable Option commercial interest points for allocation, the CAISO will take the aggregate available MW of Deliverability in each Transmission Zone and multiply it by a scaling factor of 0.5. The CAISO will then allocate shares of points to each Load Serving Entity based upon on their relative load ratio shares in the most recent coincident peak demand forecast from the California Energy Commission. Load Serving Entities are not required to allocate all of their allocated points. The CAISO will not redistribute forgone or otherwise unused points to other Load Serving Entities.

For each Cluster Application Window, a Load Serving Entity may allocate points to the greater of three (3) Interconnection Requests from Affiliates, or no more than twenty-five percent (25%) of its points to Interconnection Requests from Affiliates based on their requested Interconnection Service Capacity.

#### **Section 4.1.2 Auction Process**

After the points assessment and distribution factor analysis, the CAISO will notify any still tied Interconnection Customers required to win an auction to be included in the Cluster Study. Those Interconnection Customers may submit a single, sealed bid of a \$/MW value of aggregate Generating Facility Capacity at the Point of Interconnection, or withdraw. The CAISO will consider bids based on the dollar per MW bid value only, and not the product of the dollar value and the Generating Facility capacity. The CAISO will accept the highest bid(s) for the Cluster Study until it reaches the one hundred fifty percent (150%) limit.

Interconnection Customers that win an auction and proceed to the Cluster Study must post an auction deposit by the end of the Cluster Engagement Window. The auction deposit may be in any form or combination of forms under Section 11.1. The value of the auction deposit is the product of the dollar value of the lowest winning bid in that Transmission Zone and the MW capacity of the Interconnection Customer's own Generating Facility at the Point of Interconnection. The CAISO and Participating TO will release or refund with any interest the auction deposit when the Interconnection Customer achieves Commercial Operation. If an Interconnection Customer withdraws its Interconnection Request, or is deemed withdrawn, it will lose the following portion of the auction deposit:

- a) Fifteen percent (15%) prior to the commencement of the Cluster Restudy, or if no Cluster Restudy for that Queue Cluster takes place, the Interconnection Facilities Study;
- b) Thirty percent (30%) between commencement of the Cluster Restudy, or if no Cluster Restudy takes place then the end of the Cluster Study, and commencement of the Interconnection Facility Study;
- c) Fifty percent (50%) between commencement of the Interconnection Facilities Study and execution or the filing of an unexecuted GIA for the Interconnection Customer;
- d) One hundred percent (100%) after the Interconnection Customer executes a GIA or an unexecuted GIA is filed on its behalf.

The CAISO and Participating TO will process any non-refundable auction deposit funds pursuant to Section 7.6 of this RIS.

#### **Section 4.2 Criteria for Requests for Deliverability in Merchant Zones**

Interconnection Requests in Merchant Zones seeking any Deliverability proceed to the Cluster Study but are subject to the Merchant Option, and may not receive any cash reimbursement under this RIS or the GIA for any costs for Area Delivery Network Upgrades, and instead may receive Merchant Transmission CRRs pursuant to Section 36.11 of the CAISO Tariff. For all



other Network Upgrades, the Interconnection Customer may receive reimbursement as provided in this RIS and its GIA.

An Interconnection Customer that submits an Interconnection Request seeking Deliverability in a Merchant Zone must include an additional Merchant Option deposit of \$10,000/MW of all requested deliverable Generating Facility capacity, but not less than \$500,000 or more than \$5,000,000. The deposit may be in any form or combination of forms under Section 11.1. The Merchant Option deposit is fully refundable prior to the close of the Customer Engagement Window. After the Customer Engagement Window, fifty percent (50%) is non-refundable. Before the Cluster Restudy commences or if no Cluster Restudy for that Queue Cluster occurs, the Interconnection Customer must raise its Merchant Option deposit to fifty percent (50%) of its Current Cost Responsibility for its assigned Area Delivery Network Upgrades, without minimum or limit.

If the Merchant Option Interconnection Customer's assigned Area Delivery Network Upgrade is approved in the CAISO's Transmission Plan before any Interconnection Customer sharing the Area Delivery Network Upgrade executes its GIA, such that the Area Delivery Network Upgrade was not in the Base Case for that Transmission Plan, the Interconnection Customer may reduce its Merchant Option deposit to remove the costs for that Area Delivery Network Upgrade. To retain TP Deliverability from that Area Delivery Network Upgrade, the Interconnection Customer must meet the TP Deliverability allocation criteria under Section 8.9.2 (A) or (B) no later than the affidavit submission deadline for the second TP Deliverability allocation process after the approved Transmission Plan publication. Failure to retain TP Deliverability under this rule will result in conversion to Energy Only.

#### **Section 4.3 Criteria for Energy Only Requests Eligible for Cash Reimbursement**

Energy Only Interconnection Requests seeking eligibility for cash reimbursement for Reliability Network Upgrades may proceed to the Cluster Study only where they meet the requirements of this Section. Reimbursement will still be subject, without limitation, to Section 14.3.2 of this RIS. The Interconnection Request must be in a Transmission Zone where the Local Regulatory Authority has designated a specific MW quantity of Energy Only capacity for procurement.

The Interconnection Customer will submit all information for scoring required by Section 4.1. The CAISO will administer the same scoring and tiebreaking processes in Section 4.1 with the following exceptions:

- a) the CAISO will only consider the Energy Only Interconnection Requests subject to this Section 4.3, excluding all other Interconnection Requests submitted in the Cluster Application Window;
- b) the CAISO will solve for one hundred fifty percent (150%) of Local Regulatory Authority Energy Only MW procurement target in that Transmission Zone instead of one hundred fifty percent (150%) of the available Deliverability at their relevant Transmission Constraint;
- c) Instead of the auction as final tiebreaker, the CAISO will include the remaining tied Interconnection Request(s) with the least Interconnection Service Capacity until it satisfies the one hundred fifty percent (150%) threshold; and
- d) The CAISO will allocate points for Load Serving Entities to demonstrate commercial interest pursuant to Section 4.3.1.

Interconnection Requests exceeding the one hundred fifty percent (150%) limit and losing all applicable tiebreakers may elect to proceed to the Cluster Study subject to Section 4.4. Interconnection Customers must make this election within five (5) Business Days of being informed that the Interconnection Request is not eligible for study under this Section 4.3.

### **Section 4.3.1 Load Serving Entity Points**

To allocate commercial interest points to Energy Only Interconnection Customers, Load Serving Entities must comply with all requirements in Section 4.1.1.1. To determine available commercial interest points for allocation, the CAISO will take the total aggregate MW of Energy Only capacity procurement in the most recent CAISO Transmission Plan, as informed by Local Regulatory Authorities. The CAISO will then allocate shares of points to each Load Serving Entity based upon on their relative load ratio shares in the most recent coincident peak demand forecast from the California Energy Commission. Load Serving Entities are not required to allocate all of their allocated points. The CAISO will not redistribute forgone or otherwise unused points to other Load Serving Entities.

For each Cluster Application Window, a Load Serving Entity may allocate points to the greater of three (3) Interconnection Requests from Affiliates, or no more than twenty-five percent (25%) of its points to Interconnection Requests from Affiliates based on their requested Interconnection Service Capacity.

### **Section 4.4 Criteria for Energy Only Requests Ineligible for Cash Reimbursement**

In any Transmission Zone, Energy Only Interconnection Requests may proceed to the Cluster Study without meeting the requirements of Section 4.3 where they elect to forgo eligibility for cash reimbursement for Reliability Network Upgrades. Interconnection Customers electing to proceed to the Cluster Study under this option may receive Merchant Transmission CRRs pursuant to Section 36.11 of the CAISO Tariff.

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## **Section 6 Cluster Study Process**

### **6.1 Initial Activities Following the Close of the Cluster Application Window**

#### **6.1.1 [Intentionally Omitted]**

#### **6.1.2 Scoping Meeting**

During the Customer Engagement Window, the CAISO will hold Scoping Meetings with all Interconnection Customers whose valid Interconnection Requests were received in that Cluster Application Window and satisfied the Cluster Study criteria in Section 4 of this RIS. Scoping Meetings will be segregated by Transmission Zone and Cluster Study criteria.

The purpose of the Cluster Study Scoping Meeting will be to discuss alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would reasonably be expected to impact such interconnection options, to discuss the Cluster Study materials posted to the CAISO Website pursuant to Section 3.5 and 3.6 of this RIS, if applicable, and to analyze such information. The CAISO and the Interconnection Customer(s) will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. The CAISO and the Interconnection Customer(s) also will bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. The duration of the meeting will be sufficient to accomplish its purpose. All Interconnection Customers must execute the non-disclosure agreement under Section 2.3 of this RIS prior to a group Cluster Study Scoping Meeting, which

provides for confidentiality of identifying information or commercially sensitive information pertaining to any other Interconnection Customers.

\* \* \* \*

## **6.3 Identification of and Cost Allocation for Network Upgrades**

### **6.3.1 Reliability Network Upgrades (RNUs).**

The CAISO, in coordination with the applicable Participating TO(s), will perform short circuit and stability analyses for each Interconnection Request either individually or as part of a subgroup to preliminarily identify the RNUs needed to interconnect the Generating Facilities to the CAISO Controlled Grid. The CAISO, in coordination with the applicable Participating TO(s), shall also perform power flow analyses, under a variety of system conditions, for each Interconnection Request either individually or as part of a subgroup to identify Reliability Criteria violations, including applicable thermal overloads, that must be mitigated by RNUs.

The cost of all RNUs identified in the Cluster Study shall be estimated in accordance with Section 6.4. The estimated costs of short circuit related GRNUs identified through a subgroup shall be assigned to all Interconnection Requests in that subgroup pro rata on the basis of the short circuit duty contribution of each Generating Facility. The estimated costs of all other GRNUs identified through a subgroup shall be assigned to all Interconnection Requests in that subgroup pro rata on the basis of the maximum megawatt electrical output of each proposed new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request. The estimated costs of RNUs identified as a result of an Interconnection Request studied separately shall be assigned solely to that Interconnection Request.

Interconnection Customers assigned IRNUs in their Cluster Study will be allocated the full cost of the IRNUs in their Maximum Cost Responsibility. The Maximum Cost Exposure will include the full costs of conditionally assigned IRNUs. The Current Cost Responsibility will include their allocated share of IRNU costs.

### **6.3.2 Delivery Network Upgrades.**

The Cluster Study will identify ADNUs for Interconnection Customers in Merchant Zones that have selected the Merchant Option. The Base Cases will include Deliverable Option Generating Facilities in the current Interconnection Study Cycle and earlier queued Generating Facilities that will utilize TP Deliverability in a total amount that fully utilizes but does not exceed the available TP Deliverability. The CAISO will reserve TP Deliverability for those Merchant Option Interconnection Customers that triggered and finance ADNUs.

If the MW capacity of the Deliverable Option Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area is less than or equal to the total TP Deliverability in any electrical area, the Base Case will include all Deliverable Option and earlier queued Generating Facilities in the electrical area.

If the MW capacity of the Deliverable Option Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area exceeds the TP Deliverability in any electrical area, the Base Case will include a representative subset of Generating Facilities that fully utilizes but does not exceed the TP Deliverability.

After the CAISO has modeled the Deliverable Option Generating Facilities, the CAISO will add Merchant Option Generating Facilities to the Base Case. ADNUs that are identified as needed for each electrical area shall be assigned to Merchant Option Generating Facilities based upon their flow impacts.

The cost responsibility for Area Delivery Network Upgrades identified in the Cluster Study will be assigned to Interconnection Customers who have selected the Merchant Option Full Capacity or Partial Capacity Deliverability Status based on the flow impact of each such Generating Facility on each Area Delivery Network Upgrade as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

\* \* \* \*

## **6.7.2 Modifications.**

**6.7.2.1** During the course of the Interconnection Studies, the Interconnection Customer, Participating TO, or the CAISO may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the CAISO, the Participating TO, and the Interconnection Customer, such acceptance not to be unreasonably withheld, the CAISO will modify the Point of Interconnection.

**6.7.2.2** Prior to the end of the Customer Engagement Window, modifications permitted under this Section shall include specifically:

- (a) a decrease in the electrical output (MW) of the proposed project; through either (1) a decrease in Generating Facility Capacity or (2) a decrease in Interconnection Service Capacity (consistent with the process described in Section 3.1) accomplished by CAISO-approved limiting equipment;
- (b) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics;
- (c) modifying the interconnection configuration;
- (d) modifying the In-Service Date, Initial Synchronization Date, Trial Operation Date, and/or Commercial Operation Date that meets the criteria set forth in Section 3.5.1.4 and is acceptable to the applicable Participating TO(s) and the CAISO, such acceptance not to be unreasonably withheld; and
- (e) Permissible Technological Advancements consistent with Section 6.7.2.4.

\* \* \* \*

**6.7.2.6** In addition to the options provided in this RIS, an Interconnection Customer may convert to Energy Only, Partial Capacity Deliverability Status, or a lower fraction of Partial Capacity Deliverability Status after the completion of its Interconnection Facilities Study. This conversion will become effective through the reassessment process described in Section 7.4. Interconnection Customers electing to convert to Energy Only after the completion of their Interconnection Facilities Studies will forgo eligibility for cash reimbursement for all Network Upgrades, but may receive Merchant Transmission CRRs pursuant to Section 36.11 of the CAISO Tariff. Except (i) as provided in Section 8.9.3.2 (ii) due to not receiving the requested TP Deliverability allocation, or (iii) due to declining a TP Deliverability allocation, Interconnection Customers that become Energy Only after their Interconnection Facilities Study may not reduce their cost responsibility for any assigned Delivery Network Upgrades as a result of converting to Energy Only unless the CAISO and Participating TO(s) determine that the Interconnection Customer's assigned Delivery Network Upgrade(s) is no longer needed for current Interconnection Customers.

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## **Section 7 Annual Reassessment, Cluster Restudy, and Activities in Preparation for the Interconnection Facilities Study**

**7.1** [Not Used]

**7.2** [Not Used]

\* \* \* \*

**7.5** [Not Used]

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## **Section 8 Interconnection Facilities Study and TP Deliverability Allocation Processes**

\* \* \* \*

### **8.9 Allocation Process for TP Deliverability**

After the Interconnection Facilities Study reports are issued, the CAISO will perform the allocation of the TP Deliverability to Deliverable Option Generating Facilities that meet the eligibility criteria set forth in Section 8.9.2, and Merchant Option Generating Facilities that did not require ADNUs in their Interconnection Studies. The TP Deliverability available for allocation will be determined from the most recent Transmission Plan. Once a Generating Facility is allocated TP Deliverability, the facility will be required to comply with retention criteria specific in Section 8.9.3 in order to retain the allocation.

Allocation of TP Deliverability shall not provide any Interconnection Customer or Generating Facility with any right to a specific MW of capacity on the CAISO Controlled Grid or any other rights (such as title, ownership, rights to lease, transfer or encumber).

The CAISO will issue a market notice to inform interested parties as to the timeline for commencement of allocation activities, for Interconnection Customer submittal of eligibility status and retention information, and anticipated release of allocation results to Interconnection Customers. There are two components to the allocation process.

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#### **8.9.4 Parking for Generating Facilities**

For a Generating Facility in the current Interconnection Study Cycle that either was allocated less TP Deliverability than requested or does not desire to accept the amount allocated the Interconnection Customer shall select one of the following options:

- (1) Withdraw its Interconnection Request
- (2) Enter into a GIA, in which case the Interconnection Request shall automatically convert to Energy Only Deliverability Status. In such circumstances, upon execution of the GIA, any Commercial Readiness Deposit will be adjusted to remove the obligation pertaining to LDNUs
- (3) Park the Interconnection Request; in which case the Interconnection Request may remain in the Interconnection queue until the next allocation of TP Deliverability in which it may participate in accordance with the requirements of Section 8.9.2. Parking an Interconnection Request does not confer a preference with respect to any other Interconnection Request with respect to allocation of TP Deliverability.

An Interconnection Customer that selects option (2) or (3) above may, at the time it selects the option, elect to reduce the generating capacity of its Generating Facility. . Parked Interconnection Customers may not submit modification requests except for the following modifications:

- (1) reducing the Interconnection Service Capacity;
- (2) changing fuel type or technology;
- (3) Permissible Technological Advancements; or
- (4) changing the Point of Interconnection.

Parked Interconnection Customers must post their Commercial Readiness Deposit prior to submitting any of these modification requests, and submit a modification request pursuant to Section 6.7.2.3 of this RIS.

##### **8.9.4.1 Extended Parking for Generating Facilities**

A Generating Facility that parked its Interconnection Request and participated in a second allocation of TP Deliverability may remain parked for one final (third) allocation of TP Deliverability where: (a) the most recent TP Deliverability allocation shows that TP Deliverability will still be available to the Generating Facility; and (b) the Generating Facility has not been assigned Network Upgrades identified as needed by other Interconnection Customers in the Generating Facility's cluster study group or later cluster study groups. Criterion (b) will not apply where the Generating Facility has been assigned Network Upgrades identified as needed only by other Interconnection Customers in the Generating Facility's own cluster study group and all of those active

Interconnection Customers also elect to remain parked.

#### **8.9.5 Partial Allocations of Transmission Based Deliverability to Generating Facilities**

If a Generating Facility is allocated TP Deliverability in the current Interconnection Study Cycle in an amount less than the amount of Deliverability requested, then the Interconnection Customer must choose one of the following options:

- (i) Accept the allocated amount of TP Deliverability and reduce the MW generating capacity of the proposed Generating Facility such that the allocated amount of TP Deliverability will provide Full Capacity Deliverability Status to the reduced generating capacity;
- (ii) Accept the allocated amount of TP Deliverability and adjust the Deliverability status of the proposed Generating Facility to achieve Partial Capacity Deliverability corresponding to the allocated TP Deliverability;
- (iii) For Generating Facilities, accept the allocated amount of TP Deliverability and seek additional TP Deliverability for the remainder of the requested Deliverability of the Interconnection Request in the next allocation cycle. In such instance, the Interconnection Customer shall execute a GIA for the entire Generating Facility having Partial Capacity Deliverability corresponding to the allocated amount of TP Deliverability. Following the next cycle of TP Deliverability allocation, the GIA shall be amended as needed to adjust its Deliverability status to reflect any additional allocation of TP Deliverability. At this time the Interconnection Customer may also adopt options (i) or (ii) above based on the final amount of TP Deliverability allocated to the Generating Facility. There will be no further opportunity for this Generating Facility to participate in any subsequent cycle of TP Deliverability allocation; or
- (iv) Decline the allocated amount of TP Deliverability and either withdraw the Interconnection Request or convert to Energy Only Deliverability Status. An Interconnection Customer having a Generating Facility that has not previously parked may decline the allocation of TP Deliverability and park until the next cycle of TP Deliverability allocation in the next Interconnection Study Cycle.

An Interconnection Customer that selects option (iii) or (iv) above may, at the time it selects the option, elect to reduce the generating capacity of its Generating Facility.

Interconnection Customers accepting a partial allocation of TP Deliverability may pursue additional deliverability as described in Section 8.9.2.

#### **8.9.6 Declining TP Deliverability Allocation**

An Interconnection Customer having a Generating Facility and allocated the entire amount of requested TP Deliverability may decline all or a portion of the TP Deliverability allocation and park the Generating Facility Request as described in Section 8.9.4(3). An Interconnection Customer that selects this option may, at the time it selects the option, elect to reduce the generating capacity of its Generating Facility.

\* \* \* \*

## Section 9 Additional Deliverability Assessment Options

\* \* \* \*

### 9.4 Deliverability from Non-Participating TOs

This process applies to Generating Facilities that interconnect to the transmission facilities of a Non-Participating TO located within the CAISO Balancing Authority Area that wish to obtain Full Capacity Deliverability Status or Partial Capacity Deliverability Status under the CAISO Tariff. Such Generating Facilities will be eligible to be studied by the CAISO for Full or Partial Capacity Deliverability Status pursuant to the following provisions:

- (a) The Generating Facility seeking Full or Partial Capacity Deliverability Status under the CAISO Tariff must submit a request to the CAISO to study it for such Status. Such study request will be in the form of the CAISO's pro forma Interconnection Request, including Cluster Study criteria under Section 4 of this RIS. The Interconnection Request must be submitted during the Cluster Application Window and must include the Generating Facility's intended Point of Delivery to the CAISO Controlled Grid, and must be submitted during a Cluster Application Window. The Generating Facility will be required to satisfy the same study deposit and Commercial Readiness Deposit posting requirements as an Interconnection Customer. The CAISO will determine the Transmission Zone eligibility and include the Generating Facility in the Cluster Study criteria process and Deliverability assessments based upon the Non-Participating TO's interconnection to the CAISO Controlled Grid. The Generating Facility will be eligible for Deliverability and cash reimbursement for Delivery Network Upgrades where it satisfies the Cluster Study criteria in Section 4.
- (b) The Non-Participating TO that serves as the interconnection provider to the Generating Facility must treat the CAISO as an Affected System in the interconnection study process for the Generating Facility.
- (c) As part of the Non-Participating TO's interconnection study process, the CAISO, in its sole discretion and on a case-by-case basis, will determine the adequacy of transmission on the Non-Participating TO's system for the Generating Facility to be deemed fully deliverable to the elected Point of Delivery to the CAISO Controlled Grid. Only those proposed Generating Facilities (or proposed increases in Generating Facility capacity) for which the CAISO has determined there is adequate transmission capacity on the Non-Participating TO system to provide full Deliverability to the applicable Point of Delivery will be eligible to be assessed for Full or Partial Capacity Deliverability Status under the CAISO Tariff.
- (d) If the Generating Facility is eligible for study for Full or Partial Capacity Deliverability Status, the CAISO will include the Generating Facility in the Interconnection Study process for the Queue Cluster associated with the Cluster Application Window in which the Generating Facility has submitted its study request. The Point of Delivery with the CAISO will be treated as the Point of Interconnection for purposes of including the Generating Facility in a Cluster Study with any applicable CAISO Interconnection Customers in the relevant Queue Cluster. Pursuant to the Queue Cluster Interconnection Study process the Generating Facility will be allocated its cost responsibility share of any applicable LDNUs or ADNUs.
- (e) The CAISO, Participating TO, and Interconnection Customer will execute any necessary agreements for reimbursement of study costs incurred by it to assure



cost attribution for any Network Upgrades relating to any Deliverability status conferred to each such interconnection customer under the Non-Participating TO's tariff.

- (f) The Non-Participating TO's interconnection customer will receive repayment of funds expended for the construction of the LDNUs , and, as applicable, ADNUs, on the CAISO Controlled Grid in the same manner as CAISO Interconnection Customers, as specified in Section 14.3.2.

\* \* \* \*

## **Section 10 Cost Responsibility for Interconnection Customers**

### **10.1 Interconnection Customers in a Queue Cluster.**

- (a) RNUs and LDNUs. The Interconnection Studies will establish Interconnection Customers' Current Cost Responsibility, Maximum Cost Responsibility, and Maximum Cost Exposure consistent with the cost allocations described in Section 8. The CAISO will adjust Interconnection Customers' cost responsibilities as described in this RIS. Interconnection Customers will post Commercial Readiness Deposit and GIA Deposit based on their Current Cost Responsibility.
- (b) ADNUs. Interconnection Customers selecting the Deliverable Option do not include ADNUs in the Commercial Readiness Deposit and GIA Deposit. The Current Cost Responsibility provided in the Cluster Studies establishes the basis for the initial Commercial Readiness Deposit. For Interconnection Customers selecting the Merchant Option, the Interconnection Facilities Study and annual reassessment shall refresh the Current Cost Responsibility for ADNUs.

The ADNU cost estimates provided in any Interconnection Study report are estimates only and do not provide a maximum value for cost responsibility to an Interconnection Customer for ADNUs. However, subsequent to the Interconnection Customer's receipt of its Interconnection Facilities Study report, an Interconnection Customer having selected the Merchant Option may have its ADNUs adjusted in the reassessment process undertaken under Section 7.4. Accordingly, for such Interconnection Customers, the most recent annual reassessment undertaken under Section 7.4 shall provide the most recent cost estimates for the Interconnection Customer's ADNUs.

\* \* \* \*

## **Section 13 Generator Interconnection Agreement (GIA)**

### **13.1 Tender**

#### **13.1.1**

The Interconnection Customer will tender comments on the draft Interconnection Facilities Study Report within thirty (30) calendar days of receipt of the report. Within thirty (30) calendar days after the latter of (a) the comments are submitted, (b) the Interconnection Customer notifies the CAISO it will not provide comments, the Participating TO will tender a draft GIA, together with draft appendices. The draft GIA will be in the form of the CAISO's FERC-approved standard form GIA, which is in Appendix LL or MM, as applicable. The Interconnection Customer will execute and return the GIA

and completed draft appendices within thirty (30) calendar days, unless (1) the sixty (60) calendar day negotiation period under Section 13.2 of this RIS has commenced, or (2) GIA execution, or filing unexecuted, has been delayed to await the Affected System Study Report pursuant to Section 13.2.1 of this RIS.

- 13.1.2** Consistent with Section 13.1.1, when the transmission system of a Participating TO, in which the Point of Interconnection is not located, is affected, such Participating TO shall tender a separate agreement, in the form of the GIA, as appropriately modified.

\* \* \* \*

## **Section 14 Construction and Neighboring System Impacts**

\* \* \* \*

### **14.2.2 Construction of Network Upgrades that are or were an Obligation of an Entity other than the Interconnection Customer**

The applicable Participating TO(s) shall be responsible for financing and constructing any Network Upgrades necessary to support the interconnection of the Generating Facility of an Interconnection Customer with a GIA whenever the Network Upgrades were included in the Interconnection Base Case Data for an Interconnection Study on the basis that they were Network Upgrades associated with Generating Facilities of Interconnection Customers that have an executed GIA (or its equivalent predecessor agreement) or unexecuted GIA (or its equivalent predecessor agreement) filed with FERC, and such GIA specifies that the Participating TO would construct the Network Upgrades, and either:

- (i) the Network Upgrades will not otherwise be completed because such GIA or equivalent predecessor agreement was subsequently terminated or the Interconnection Request has otherwise been withdrawn; or
- (ii) the Network Upgrades will not otherwise be completed in time to support the Interconnection Customer's In-Service Date because construction has not commenced in accordance with the terms of such GIA (or its equivalent predecessor agreement).

Where the Participating TO is constructing ADNUs for Merchant Option Interconnection Customers and one of the two conditions above occurs, the Participating TO shall continue to construct such ADNUs with financing provided from the Commercial Readiness Deposit and Merchant Option deposit of those Merchant Option Interconnection Customers' Interconnection referred to above, with any additional financing requirements to be reapportioned among those remaining Merchant Option Interconnection Customers who still need the ADNUs.

The obligation under this Section arises only after the CAISO, in coordination with the applicable Participating TO(s), determines that the Network Upgrades remain needed to support the interconnection of the Interconnection Customer's Generating Facility notwithstanding, as applicable, the absence or delay of the Generating Facility that is contractually, or was previously contractually, associated with the Network Upgrades.

Further, to the extent the timing of such Network Upgrades was not accounted for in determining a reasonable Commercial Operation Date among the CAISO, applicable

Participating TO(s), and the Interconnection Customer as part of the Interconnection Study, the applicable Participating TO(s) will use Reasonable Efforts to ensure that the construction of such Network Upgrades can accommodate the Interconnection Customer's proposed Commercial Operation Date. If, despite Reasonable Efforts, it is anticipated that the Network Upgrades cannot be constructed in time to accommodate the Interconnection Customer's proposed Commercial Operation Date, the Interconnection Customer may commit to pay the applicable Participating TO(s) any costs associated with expediting construction of the Network Upgrades to meet the original proposed Commercial Operation Date. The expediting costs under Section shall be in addition to the Interconnection Customer's cost responsibility.

#### **14.2.3 Advancing Construction of Network Upgrades that are Part of the CAISO's Transmission Plan**

An Interconnection Customer with a GIA, in order to maintain its In-Service Date as specified in the GIA, may request that the CAISO and applicable Participating TO(s) advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an approved CAISO Transmission Plan covering the PTO Service Territory of the applicable Participating TO(s), in time to support such In-Service Date. Upon such request, the applicable Participating TO(s) will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the applicable Participating TO(s) any associated expediting costs. The Interconnection Customer shall be entitled to refunds, if any, in accordance with the GIA, for any expediting costs paid.

#### **14.2.4 Limited Operation Study**

**14.2.4.1** Pursuant to Article 5.9 of the Large Generator Interconnection Agreement set forth in Appendices V, BB, CC, and EE, Generating Facilities may request a limited operation study. The Participating TO and/or the CAISO, as applicable, will, upon the request and at the expense of the Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Generating Unit and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Participating TO's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice. The Participating TO and the CAISO will permit the Interconnection Customer to operate the Generating Unit and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies. To the extent study assumptions change, the CAISO and Participating TO will update study results as needed.

**14.2.4.2** The Generating Unit owner will provide the CAISO a \$10,000 deposit for the limited operation study with the request. Except as provided below, any limited operation study will be concluded, and a response provided to the Generating Unit owner in writing, within forty-five (45) calendar days from when the CAISO receives all of the following: the Generating Unit owner's written approval of the limited operation study plan, technical data required to assess the request, and the \$10,000 deposit. If the limited operation study cannot be completed within that time period, the CAISO will notify the Generating Unit owner and provide an estimated completion date and an explanation of the reasons why additional time is required.

Notwithstanding any other provision, all refunds pursuant to this Appendix KK will be processed in accordance with the CAISO's generally accepted accounting

practices, including monthly batched deposit refund disbursements. Any CAISO deadline will be tolled to the extent the Interconnection Customer has not provided the CAISO with the appropriate documents to facilitate the Interconnection Customer's refund, or if the Interconnection Customer has any outstanding invoice balance due to the CAISO on another project owned by the same Interconnection Customer.

**14.2.4.3** The Generating Unit owner will be responsible for the actual costs incurred by the CAISO and the Participating TO(s) in conducting the modification assessment. If the actual costs of the limited operation study are less than the deposit provided by the Generating Unit owner, the Generating Unit owner will be refunded the balance. If the actual costs of the limited operation study are greater than the deposit provided by the Generating Unit owner, the Generating Unit owner shall pay the balance within thirty (30) days of being invoiced. The CAISO will coordinate the request with the Participating TO(s). The Participating TO(s) will invoice the CAISO for any limited operation study work within seventy-five (75) calendar days of completion of the study, and, within thirty (30) days of payment of the Participating TO(s) invoice, the CAISO will issue an invoice or refund to the Generating Unit owner, as applicable, based upon such submitted Participating TO invoices and the CAISO's costs for the assessment.

### **14.3 Network Upgrades**

With the exception of LDNUs and ADNUs for Merchant Option Generating Facilities that were not allocated TP Deliverability, Network Upgrades will be constructed by the applicable Participating TO(s). Interconnection Customers may, at their discretion, select parties other than the applicable PTOs to construct certain LDNUs and ADNUs required by their Merchant Option Generating Facilities that are not allocated TP Deliverability, if such LDNUs and ADNUs are eligible for construction by parties other than the applicable PTO pursuant to Section 24.5.2 of the CAISO Tariff. Such ADNUs and LDNUs will be incorporated into the CAISO Controlled Grid pursuant to the provisions for Merchant Transmission Facilities in CAISO Tariff Sections 24.4.6.1, and 36.11. Unless the Interconnection Customer elects construction by a party other than the applicable Participating TO, the applicable Participating TO(s) will be obligated to construct the LDNUs and ADNUs. This Section shall not apply to an Interconnection Customer's right to build Stand Alone Network Upgrade(s) in accordance with the LGIA.

#### **14.3.1 Initial Funding**

Assigned Network Upgrades shall be funded by the Interconnection Customer(s) either by means of drawing down the Commercial Readiness Deposit or GIA Deposit or by the provision of additional capital, at each Interconnection Customer's election, up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to each Interconnection Customer(s). Current Cost Responsibility may be adjusted consistent with this RIS and up to the Interconnection Customer's Maximum Cost Responsibility, but the applicable Participating TO(s) shall be responsible for funding any capital costs for the Assigned Network Upgrades that exceed the Current Cost Responsibility assigned to the Interconnection Customer(s).

- (a) Where the funding responsibility for any RNUs and LDNUs has been assigned to a single Interconnection Customer, the applicable Participating TO(s) shall invoice the Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to each Interconnection Customer(s) for the RNUs or LDNUs, respectively.

- (b) Where the funding responsibility for an RNU or LDNU has been assigned to more than one Interconnection Customer in accordance with this RIS, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such Network Upgrades in accordance with their respective Current Cost Responsibilities. Each Interconnection Customer may be invoiced up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to that Interconnection Customer.
- (c) Where the funding responsibility for an ADNU being constructed by one or more Participating TO has been assigned to more than one Merchant Option Interconnection Customer, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such ADNUs based on their respective Current Cost Responsibilities.

Any permissible extension of the Commercial Operation Date of a Generating Facility will not alter the Interconnection Customer's obligation to finance its Assigned Network Upgrades where the Network Upgrades are required to meet the earlier Commercial Operation Date(s) of other Generating Facilities that have also been assigned cost responsibility for the Network Upgrades.

#### **14.3.2 Repayment of Amounts Advanced for Network Upgrades and Refund of Interconnection Financial Security**

##### **14.3.2.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities**

Interconnection Customers will be entitled to repayment for the Interconnection Customer's contribution to the cost of Network Upgrades placed in service on or before the Commercial Operation Date of its Generating Facility, commencing upon the Commercial Operation Date of the Generating Facility. Repayment for the Interconnection Customer's contribution to the cost of Network Upgrades placed into service after the Commercial Operation Date of its Generating Facility shall, for each of these Network Upgrades, commence no later than the later of: (i) the first month of the calendar year following the year in which the Network Upgrade is placed into service or (ii) 90 days after the Network Upgrade is placed into service.

An Interconnection Customer subject to this Section 14.3.2.1 shall be entitled to repayment for its contribution to the cost of Network Upgrades as follows:

- (1) For RNUs, in accordance with the Interconnection Customer's cost responsibility assigned up to a maximum of \$60,000 per MW of generating capacity as specified in the GIA. The CAISO will publish an annual inflation factor and adjusted amount for this figure with the per unit cost publication on the CAISO Website pursuant to Section 6.4 of this RIS. Interconnection Customers will be entitled to repayment subject to the figure corresponding to their Commercial Operation Date. Energy Only Interconnection Customers that proceeded to the Cluster Study under Section 4.4 are ineligible for cash repayment for any RNU costs.
- (2) For LDNUs in accordance with the Interconnection Customer's Current Cost Responsibility.

- (3) Merchant Option Generating Facilities will not receive repayment for ADNUs.

Unless an Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, such amounts shall include any tax gross-up or other tax-related payments associated with the Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the applicable Participating TO(s) on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the applicable date as provided for in this Section 14.3.2.1; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years of the applicable commencement date.

For Network Upgrades the Interconnection Customer funded but did not receive repayment, the Interconnection Customer will be eligible to receive Merchant Transmission Congestion Revenue Rights (CRRs) in accordance with CAISO Tariff Section 36.11 associated with those Network Upgrades, or portions thereof that were funded by the Interconnection Customer. Such CRRs would take effect upon the Commercial Operation Date of the Generating Facility in accordance with the GIA.

\* \* \* \*

## **Appendix 2 Cluster Study Criteria**

1. Select one set of cluster study criteria pursuant to Section 4 of this RIS:
  - (a) \_\_\_ Request for Deliverability in Deliverable Zone
  - (b) \_\_\_ Request for Deliverability in Merchant Zone
  - (c) \_\_\_ Energy Only Interconnection Request eligible for cash reimbursement
  - (d) \_\_\_ Energy Only Interconnection Request ineligible for cash reimbursement
2. For Interconnection Customers selecting criteria (1)(a) or (1)(c), select which of the following are applicable and include all supporting documentation and deposits required by Section 4 of the RIS. The CAISO will validate all selections consistent with the RIS. Interconnection Customers expecting a Load Serving Entity to indicate commercial interest may select (2)(a) on an advisory basis to the CAISO. The CAISO will receive binding commercial interest points from Load Serving Entities pursuant to the RIS regardless of the indication here.

Commercial Interest (select one):

- (a) \_\_\_ The Interconnection Customer expects [\_\_\_\_], a Load Serving Entity to indicate commercial interest (up to 100 sub-points for commercial interest).
- (b) \_\_\_ The Interconnection Request has commercial interest from an entity that is not a Load Serving Entity (25 sub-points for commercial interest).
- (c) \_\_\_ The Interconnection Request does not have commercial interest at this time.

Project Viability Engineering Plan (select one):

- (a) \_\_\_ The Interconnection Request has an engineering design plan [\_\_\_] percent complete (up to 50 sub-points for project viability).
- (b) \_\_\_ The Interconnection Request does not have an engineering design plan at this time.

Project Viability Expansion (select one):

- (a) \_\_\_ The Interconnection Request is an expansion of a Generating Facility that has executed a GIA and submitted its notice to proceed and is under active construction (10 sub-points for project viability).
- (b) \_\_\_ The Interconnection Request is an expansion of an online Generating Facility (20 sub-points for project viability).
- (c) \_\_\_ The Interconnection Request is an expansion of a Generating Facility that has executed a GIA and submitted its notice to proceed and is under active construction or is online, and the Generating Facility's generator tie line to the CAISO Controlled Grid has sufficient surplus capacity to accommodate the sum of the maximum capacities of the extant Generating Facility and the expansion (50 sub-points for project viability).
- (d) \_\_\_ The Interconnection Request is not (a), (b), or (c).

System Need (select one):

- (a) \_\_\_ The Interconnection Request may provide Local Resource Adequacy in a local area the CAISO has designated in need of Local Resource Adequacy (50 sub-points for system

need).

- (b) \_\_\_\_ The Local Regulatory Authority has designed the Interconnection Request as a potential long-lead-time resource and the CAISO Transmission Plan includes Network Upgrades to support its potential interconnection (100 sub-points for system need). Interconnection Customers selecting (b) must provide supporting documentation of their Commercial Operation Date pursuant to Section 3.5.1.4 of this RIS.
- (c) \_\_\_\_ Neither (a) nor (b) apply at this time.



**Attachment B – Marked Tariff Language**

**Tariff Amendment – Track 2 of Interconnection Process Enhancements 2023 Initiative**

**California Independent System Operator Corporation**

**August 1, 2024**

# Appendix A<sup>1</sup>

## - Deliverability

Transmission capacity enabling the delivery of Energy to the aggregate of Load on the CAISO Controlled Grid at peak Load, under a variety of modeled stressed conditions. Deliverability includes (1) ~~t~~The annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability Assessment and measured in MW, which specifies the amount of resource adequacy capacity the Generating Facility is eligible to provide; (2) ~~t~~The annual Maximum Import Capability of an Intertie, which specifies the amount of resource adequacy capacity, measured in MW, that Load-Serving Entities collectively can procure from imports at that Intertie to meet their resource adequacy requirements; and (3) TP Deliverability.

\* \* \* \*

## - Deliverable Option

An election by an Interconnection Customer seeking Deliverability to interconnect in a Deliverable Zone, and receive cash reimbursement or Merchant Transmission CRRs for Network Upgrades, but without any guarantee of Deliverability.

## - Deliverable Zone

A Transmission Zone with at least 50 MW of available Deliverability before the Cluster Application Window.

\* \* \* \*

## - Energy-Only Deliverability Status (Energy Only)

A condition elected by an Interconnection Customer for a Generating Facility interconnected with the CAISO Controlled Grid the result of which is that the Interconnection Customer is responsible only for the costs of Reliability Network Upgrades and is not responsible for the costs of Delivery Network Upgrades, but the Generating Facility will be deemed to have a Net Qualifying Capacity of zero, and, therefore, cannot be considered to be a Resource Adequacy Resource.

\* \* \* \*

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<sup>1</sup> All tariff revisions in this document are based on the CAISO's pending tariff revisions, including Order No. 2023 compliance. Any changes to pending tariff revisions directed by FERC after these tariff revisions are filed will be addressed through a reconciliation filing.

**- Merchant Option**

An election by an Interconnection Customer seeking Deliverability to interconnect in a Merchant Zone and forgo any cash reimbursement for any Area Delivery Network Upgrade costs and instead receive Merchant Transmission CRRs under Section 36.11 of the CAISO Tariff.

\* \* \* \*

**- Merchant Zone**

A Transmission Zone with less than 50 MW of available Deliverability before the Cluster Application Window.

\* \* \* \*

**- TP Deliverability (Transmission Plan Deliverability)**

The capability, measured in MW, of the CAISO Controlled Grid as modified by transmission upgrades and additions modeled or identified in the annual Transmission Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified geographic or electrical area of the CAISO Controlled Grid.

\* \* \* \*

**- Transmission Zone**

A study area determined in the Transmission Plan and used in the Transmission Planning Process and Interconnection Studies based on electrically proximate constraints, transmission, load, and supply resources.

# Appendix DD

## Section 17. Cluster 15 Unique Procedures

Notwithstanding Section 3.3.1, the CAISO will not open a Queue Cluster Application Window in 2024. Except for this Section 17, Cluster 15 will be subject to the RIS and not the GIDAP.

### 17.1 Study Procedures and Timelines

- a) Consistent with the process set forth in Section 3.5.2, the CAISO will validate Cluster 15 Interconnection Requests between January 1, 2025 and May 1, 2025. Interconnection Requests with deficiencies after that date will be deemed invalid and will not be included in Cluster 15. Interconnection Customers in Cluster 15 must submit any element required under Section 3.5.1 of the RIS not previously submitted before May 1, 2025.
- b) Between October 1, 2024 and December 1, 2024, Interconnection Customers may submit any element required under Section 3.5.1 of the RIS not previously submitted. During this time, Interconnection Customers also may modify their Interconnection Requests (a) as permissible under Section 6.7.2.2~~(a) — (h)~~ of this GIDAP; (b) to change generating technology or fuel; ~~and~~ (c) to add or increase energy storage capacity; (d) to change their Points of Interconnection within the same Transmission Zone; and (e) to change their requested Deliverability Statuses. The CAISO will not accept any modification under this Section 17.1(b) that would result in increasing the Interconnection Service Capacity or Deliverability requested. Interconnection Customers modifying their Interconnection Requests must submit updated information required under Section 3.5 to reflect the modification. Except for changes to the Point of Interconnection, which must be submitted by December 1, 2024, Modifications effected pursuant to this provision will not affect Interconnection Customers' rights to modify their Interconnection Requests after December 1, 2024 under the RIS.
- c) An Interconnection Customer that withdraws its Interconnection Request prior to January 1, 2025 will receive a refund of its Interconnection Study Deposit, including any interest earned, minus any costs expended on the Interconnection Customer's behalf. If an Interconnection Customer submitted a Site Exclusivity Deposit, it will receive a complete refund of its Site Exclusivity Deposit, including any interest earned. Withdrawals effected pursuant to this provision will not affect Interconnection Customers' rights to withdraw after January 1, 2025, and receive any corresponding refund and interest under the RIS.
- d) The CAISO will begin the Cluster 15 Cluster Study on June 1, 2025. With the commencement of the Cluster Study, the CAISO, Participating TOs, and Interconnection Customers will comply with all RIS provisions, schedules, rights, and obligations.
- e) Load Serving Entities must comply with Section 4 of the RIS by October 1, 2024, and with Section 3.5.4 of the RIS by December 23, 2024.
- f) Pursuant to Sections 3.5 and 4 of the RIS, the CAISO will notify Interconnection Customers they satisfied the scoring criteria, must participate in an auction, or failed the scoring criteria by February 12, 2025. Interconnection Customers participating in an auction must submit bids by February 26, 2025. The CAISO will notify Interconnection Customers of the results of their auctions by March 5, 2025.

# Appendix KK

## Section 3 Interconnection Requests

### 3.1 General

Pursuant to CAISO Tariff Section 25.1, a duly authorized officer or agent of the Interconnection Customer will submit to the CAISO (1) an Interconnection Request consistent with Appendix 1 to this RIS, including (2) an executed Cluster Study Agreement consistent with Appendix 3 to this RIS. All forms may be submitted electronically as provided on the CAISO Website. Interconnection customers will submit Appendix B to the Cluster Study Agreement, the Interconnection Facilities Study Agreement, pursuant to Section 8 of this RIS. The CAISO will forward a copy of the Interconnection Request to the applicable Participating TO within five (5) Business Days of receipt.

The Interconnection Customer shall submit a separate Interconnection Request for each site. Where multiple Generating Units share a site, the Interconnection Customer(s) may submit separate Interconnection Requests or a single Interconnection Request. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

At the Interconnection Customer's option, the CAISO, Participating TO, and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at a Scoping Meeting within the Customer Engagement Window to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. The Interconnection Customer will select the definitive Point of Interconnection to be studied no later than the execution of the end of the Customer Engagement Window ten (10) days after the close of the Cluster Application Window. For purposes of clustering Interconnection Requests, the CAISO and Participating TO may propose changes to the requested Point of Interconnection to facilitate efficient interconnection of Interconnection Customers at common Point(s) of Interconnection within the same Transmission Zone. The CAISO will notify Interconnection Customers in writing of any intended changes to the requested Point of Interconnection within the Customer Engagement Window, and the Point of Interconnection will only change upon mutual agreement.

Interconnection Customers may request Interconnection Service Capacity below the Generating Facility Capacity. The CAISO will study these requests for Interconnection Service at the level of Interconnection Service Capacity requested for purposes of Interconnection Studies, Network Upgrades, and associated costs. If the Generating Facility Capacity requires additional Network Upgrades beyond the Interconnection Service Capacity, the CAISO will provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrade cost required for safety and reliability will be assigned to the Interconnection Customer and eligible for reimbursement consistent with the treatment of Interconnection Facilities and Network Upgrade provided in this RIS. Interconnection Customers may be subject to additional control technologies, as well as testing and validation of those technologies consistent with Article 6 of the GIA and Article 2 of the SGIA. The necessary control technologies and protection systems shall be established in Appendix C of that executed, or requested to be filed unexecuted, GIA.

The CAISO will study Generating Units that include at least one electric storage resource using operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) that reflect the proposed charging behavior of the Generating Facility as requested by the Interconnection Customer, unless the CAISO and Participating TO determine that Good Utility Practice, including Applicable Reliability Standards, otherwise requires the use of different operating assumptions. If the CAISO and Participating TO find the Interconnection Customer's requested operating assumptions conflict with Good Utility Practice, they must provide the Interconnection Customer an explanation in writing of why the submitted operating assumptions are insufficient or inappropriate by no later than thirty (30) calendar days before the end of the Customer Engagement Window and allow the Interconnection Customer to revise and resubmit requested operating assumptions one time at least ten (10) calendar

days prior to the end of the Customer Engagement Window. The CAISO and Participating TO will study these requests for Interconnection Service, with the study costs borne by the Interconnection Customer, using the submitted operating assumptions for purposes of Interconnection Facilities, Network Upgrades, and associated costs. These requests for Interconnection Service also may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer. The Interconnection Customer's Generating Facility may be subject to additional control technologies as well as testing and validation of such additional control technologies consistent with Article 6 of the LGIA. The necessary control technologies and protection systems will be set forth in Appendix C of the Interconnection Customer's LGIA.

\* \* \* \*

### **3.5 Processing of Interconnection Requests**

#### **3.5.1 Initiating an Interconnection Request.**

An Interconnection Customer seeking to join a Queue Cluster will submit its Interconnection Request to the CAISO within, and no later than the close of, the Cluster Application Window. Interconnection Requests submitted outside of the Cluster Application Window will not be considered. To initiate an Interconnection Request except as set forth for the Fast Track Process in Section 5, and have the Interconnection Request considered for validation under Section 3.5.2, the Interconnection Customer must submit all of the following during the Cluster Application Window:

- (i) Applicable Interconnection Study Deposit amount, pursuant to Section 3.5.1.1 of this RIS.
- (ii) A completed application in the forms of Appendix 1 and Appendix 2, including requested Deliverability statuses, requested study process (either Queue Cluster or Fast Track Study Process), preferred Point of Interconnection and voltage level, and all other required technical data, including all data requested in Attachment A to Appendix 1 in Excel format.
- (iii) Demonstration of no less than ninety percent (90%) Site Control; or (1) a signed affidavit from an officer of the company indicating that Site Control is unobtainable due to regulatory limitations as defined in the Business Practice Manuals; (2) documentation sufficiently describing and explaining the source and effects of such regulatory limitations, including a description of any conditions that must be met to satisfy the regulatory limitations and the anticipated time by which the Interconnection Customer expects to satisfy the regulatory requirements; and (3) a deposit in lieu of Site Control of \$10,000 per MW, subject to a minimum of \$500,000 and a maximum of \$2,000,000. Interconnection Requests from multiple Interconnection Customers for multiple Generating Facilities that share a site must include a contract or other agreement that allows for shared land use
- (iv) A load flow model.
- (v) A dynamic data file.
- (vi) A reactive power capability document.
- (vii) A site drawing.

- (viii) A single-line diagram.
- (ix) A flat run plot, ~~and a~~ bump test plot, voltage reference step change test plot, frequency reference step change test, and a voltage ride-through test plot from the positive sequence transient stability simulation application.
- (x) A plot showing the requested MW at the Point of Interconnection from the positive sequence load flow application.
- (xi) A Commercial Readiness Deposit equal to two times the study deposit described in Section 3.5.1.1 of this RIS in the form of an irrevocable letter of credit, cash, a surety bond, or other form of security that is reasonably acceptable to the CAISO under Section 11.1 of this RIS. This Commercial Readiness Deposit is refunded to Interconnection Customer according to Section 3.8 of this RIS,
- (xii) If applicable, (a) the requested operating assumptions (*i.e.*, whether the interconnecting Generating Facility will or will not charge at peak load) to be used by the CAISO and Participating TO that reflect the proposed charging behavior of the Generating Facility that includes at least one electric storage resource, and (2) a description of any control technologies (software and/or hardware) that will limit the operation of the Generating Facility to the operating assumptions submitted by the Interconnection Customer.
- (xiii) All supporting documentation required for the Interconnection Customer's selections on Appendix 2, as required by Section 4 of this RIS.

The CAISO requires the foregoing information to be complete and specific to the Interconnection Request. The CAISO will first determine whether a submitted Interconnection Request is complete. The CAISO will not initiate any review of an Interconnection Request for completeness until the Interconnection Study Deposit is received by the CAISO. Consistent with Section 3.5.3, the CAISO will review each Interconnection Request and notify the Interconnection Customer whether it is complete or contains omissions within five (5) Business Days of submission. Any Interconnection Customer that has not submitted a complete Interconnection Request by October 15 (or the next Business Day if October 15 is not a Business Day) will be deemed incomplete with no opportunity to cure or otherwise be included in that year's Queue Cluster.

The CAISO requires Interconnection Study Deposits to review and validate the Interconnection Request. Notwithstanding Section 3.5.2 of this RIS or any other provision regarding validation or the ability to cure deficiencies, the CAISO will not review, process, or validate an Interconnection Request absent the Interconnection Study Deposit. Any interconnection Customer that has not submitted a complete Interconnection Study Deposit by October 15 (or the next Business Day if October 15 is not a Business Day) will be deemed invalid with no opportunity to cure or otherwise be included in that year's Queue Cluster.

\* \* \* \*

### 3.5.2 Customer Engagement Window.

Upon the close of each Cluster Application Window, the CAISO will open a ninety (90) calendar day period (Customer Engagement Window). During the Customer Engagement Window, the CAISO will hold ~~a~~ Scoping Meetings with all interested Interconnection Customers. Scoping Meetings will be segregated by Transmission Zone

and Cluster Study criteria. Notwithstanding the preceding requirements and upon written consent of all Interconnection Customers within the Cluster, the CAISO may shorten the Customer Engagement Window and begin the Cluster Study. Within ten (10) Business Days of the opening of the Customer Engagement Window, the CAISO will post on its Website a list of Interconnection Requests for that Cluster. The list will identify, for each anonymized Interconnection Request: (1) the requested amount of Interconnection Service; (2) the location by county and state; (3) the station or transmission line or lines where the interconnection will be made; (4) the projected In-Service Date; (5) the Deliverability Status requested; and (6) the type of Generating Facility or Facilities to be constructed, including fuel types, such as coal, natural gas, solar, or wind. The CAISO must ensure that project information is anonymized and does not reveal the identity or commercial information of interconnection customers with submitted requests. During the Customer Engagement Window, the CAISO will provide to Interconnection Customer a non-binding updated good faith estimate of the cost and timeframe for completing the Cluster Study. Interconnection Customers can access and execute the Cluster Study Agreement through the CAISO Website. Interconnection Customers must execute the Cluster Study Agreement prior to the close of the Customer Engagement Window.

At the end of the Customer Engagement Window, all Interconnection Requests (1) deemed valid, (2) that have executed a Cluster Study Agreement in the form of Appendix 3 to this RIS, and (3) that have satisfied the Cluster Study criteria in Section 4, will be included in the Cluster Study. Any Interconnection Requests not deemed valid at the close of the Customer Engagement Window will be deemed withdrawn (without the cure period provided under Section 3.8 of this RIS) by the CAISO, the application fee will be forfeited to the CAISO, and the CAISO will return the Interconnection Study Deposit and Commercial Readiness Deposit to the Interconnection Customer. Immediately following the Customer Engagement Window, the CAISO will initiate the Cluster Study described in Section 6 of this RIS.

For each Interconnection Request that is deemed complete pursuant to Section 3.5.1, the CAISO and Participating TO will determine whether the Interconnection Request is valid. An Interconnection Request will be deemed valid if it does not contain deficiencies that would prevent its inclusion in the Cluster Study. Deficiencies include but are not limited to modeling errors, inaccurate data, and unusable files.

The Interconnection Customer will provide the CAISO the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice but no later than the end of the Customer Engagement Window. At any time, if the CAISO finds that the technical data provided by Interconnection Customer is incomplete or contains errors, the Interconnection Customer, Participating TO, and the CAISO will work expeditiously and in good faith to remedy such issues. In the event that the Interconnection Customer fails to comply with this Section, the CAISO will deem the Interconnection Request withdrawn (without the cure period provided under Section 3.8 of this RIS), the application fee is forfeited to the CAISO, and the Interconnection Study and Commercial Readiness Deposit will be returned to Interconnection Customer.

#### **3.5.2.1 Validation Process.**

The CAISO will validate Interconnection Requests that satisfy the Cluster Study criteria in Section 4 of this RIS. The CAISO and Participating TO will notify the Interconnection Customer whether its Interconnection Request is valid or contains deficiencies within ten (10) Business Days of October 15 or when the Interconnection Request ~~is deemed complete~~satisfies the Cluster Study criteria, whichever is later. All Interconnection Requests must be deemed valid by the end of the Customer Engagement Window to be included in that year's Queue Cluster.



### **3.5.2.2 Deficiencies in Interconnection Request.**

If an Interconnection Request has deficiencies, the CAISO shall include in its notification to the Interconnection Customer that the Interconnection Request does not constitute a valid request and explain the deficiencies. The Interconnection Customer shall provide the CAISO the corrected requested information needed to constitute a valid request. Consistent with Section 3.5, whenever corrected requested information is provided by the Interconnection Customer, the CAISO shall notify the Interconnection Customer within five (5) Business Days of receipt of the corrected requested information whether the Interconnection Request is valid. If the Interconnection Request continues to provide deficient information, the CAISO shall include in its notification to the Interconnection Customer the reasons for such failure. If an Interconnection Request is not deemed valid, the Interconnection Customer must cure all deficiencies no later than the close of the Customer Engagement Window. Interconnection Requests with deficiencies after that date will be deemed invalid and will not be included in an Interconnection Study Cycle or otherwise studied.

Interconnection Requests deemed invalid under this Section 3.5.2.2 are not subject to Section 3.8. Interconnection Customers with invalid Interconnection Request under this Section 3.5.2.2 may seek relief under Section 15.5 by so notifying the CAISO within two (2) Business Days of the notice of invalidity.

### **3.5.3 Day-for-day Extensions**

To the extent the CAISO and Participating TO cannot meet any deadline in this Section 3.5.2, the Interconnection Customer will receive a day-for-day extension on all remaining deadlines requiring its response.

### **3.5.4 Scoring Process**

Pursuant to Section 4 of this RIS, the CAISO will score Interconnection Requests to determine their eligibility for the Cluster Study. The CAISO will provide Load Serving Entities with a list of Interconnection Requests after the close of the Cluster Application Window. Load Serving Entities submitting commercial interest points must do so no later than ten (10) days after the CAISO provides the list of Interconnection Requests.

\* \* \* \*

### **3.6.4 Study Criteria Data**

By September 1 each year, the CAISO will publish the following information on the CAISO Website to inform the preparation of Interconnection Requests under the Cluster Study criteria in Section 4:

- (i) Single-line diagrams of each Transmission Zone with the Local Regulatory Authority portfolio resources identified at the substations to which the Local Regulatory Authority has mapped resources in its busbar mapping process;
- (ii) Any Area Deliverability Constraints in each Transmission Zone, the amount of any available Deliverability, ADNUs to increase Deliverability in Merchant Zones, and the estimated cost and time to construct identified ADNUs;
- (iii) Single-line diagrams identifying the Points of Interconnection studied for each Area

Deliverability Constraint;

- (iv) A list of current substations within each Transmission Zone;
- (v) For each Area Deliverability Constraint, the Points of Interconnection for current Interconnection Customers;
- (vi) The TP Deliverability already allocated for each Area Deliverability Constraint; and
- (vii) The value of Local Capacity Area Resource Deficiencies in Transmission Zones and Local Capacity Areas.

\* \* \* \*

#### **Section 4 ~~[Not Used]~~ Cluster Study Criteria**

Only those Interconnection Requests that meet the criteria in this Section 4 will proceed to the Cluster Study. Any Interconnection Requests that do not meet the criteria or otherwise fail to comply with this Section 4 will be deemed withdrawn without the cure period provided under Section 3.8 of this RIS by the CAISO, the application fee will be forfeited to the CAISO, and the CAISO will return the Interconnection Study Deposit and Commercial Readiness Deposit to the Interconnection Customer.

Each Interconnection Request can proceed to the Cluster Study based on one set of criteria only: the criteria for Deliverability in Deliverable Zones, Deliverability in Merchant Zones, Energy Only eligible for cash reimbursement, or Energy Only ineligible for cash reimbursement. Interconnection Requests seeking any Deliverability for any technology or Generating Unit at the Generating Facility will be subject to the criteria for Interconnection Requests for Deliverability. Interconnection Customers may not change their selected criteria after the Cluster Application Window.

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.

All scoresheets, documentation, and bids submitted will be Confidential Information consistent with Section 15.1 of this RIS. Notwithstanding, the CAISO may confirm any information as necessary with Load Serving Entities, counterparties, or Local Regulatory Authorities. The CAISO will notify the Interconnection Customer which screen was decisive to its Interconnection Request. The CAISO may publish composite data but will not publish or disclose which criteria or screen enabled individual Interconnection Requests to proceed to the Cluster Study. The CAISO will publish on the CAISO Website the number of bids and the clearing price of all winning bids for each Transmission Zone, but will not publish the names of any Interconnection Customers in the auctions or their corresponding bids.

#### **Section 4.1 Criteria for Requests for Deliverability in Deliverable Zones**

Interconnection Requests in Deliverable Zones seeking any Deliverability will proceed to the Cluster Study only where they pass the screens of this Section.

- 1) There must be Deliverability available at the Interconnection Customer's Point of Interconnection.
- 2) If other Interconnection Customers in the Cluster are interconnecting in the same Deliverable Zone, and pass step one, only Interconnection Customers comprising one hundred fifty percent (150%) of the available Deliverability at their relevant Transmission Constraint may proceed to the Cluster Study. Interconnection Customers' capacity relevant to the available Deliverability will be based on their requested amount of Deliverability.
- 3) If two or more Interconnection Customers would exceed the 150% limit, only the highest-scoring Interconnection Customers that reach the 150% limit proceed to the Cluster Study. The CAISO may exceed the 150% limit only for the capacity of the last Interconnection Request that qualifies to reach the limit but which also would exceed it. To determine which Interconnection Customers proceed to the Cluster Study, the CAISO will score Interconnection Customers pursuant to Section 4.1.1 of this RIS.
- 4) If Interconnection Customers with the same scores would exceed the 150% limit, the CAISO will use those Interconnection Customers with the lowest distribution factors until it reaches the 150% limit. The distribution factor is the percentage of the Interconnection Customer's incremental increase in output that flows on a particular transmission line or transformer when the displaced generation is spread proportionally across all dispatched resources in the Control Area.
- 5) If Interconnection Customers with the same scores and same distribution factors would together exceed the 150% limit, the CAISO will auction the right for those Interconnection Customers to be studied pursuant to Section 4.1.2 of this RIS.

#### **Section 4.1.1 Scoring Criteria**

Each Interconnection Customer's score under Section 4.1 will be the sum of its points based on three criteria: (1) commercial interest (up to 30 points), (2) project viability (up to 35 points), and (3) system need (up to 35 points). The Interconnection Customer will submit a scoresheet providing its points in its Interconnection Request consistent with Section 3.5. Interconnection Customers will receive sub-points toward the points in the three criteria as follows:

- 1) An Interconnection Customer may receive up to 30 points for commercial interest based on its ratio of sub-points to 100. The Interconnection Customer's sub-points may consist of (a) Load Serving Entity point allocations (up to 100 sub-points) or a Load Serving Entity full allocation (100 sub-points); and (b) an affidavit from a counterparty that is not a Load Serving Entity (up to 25 sub-points). Points from multiple Load Serving Entities may be combined to achieve up to 100 sub-points. Interconnection Customers may not combine affidavits from multiple counterparties that are not Load Serving Entities, but may combine point allocations from Load Serving Entities with an affidavit from a counterparty that is not a Load Serving Entity.

Load Serving Entities will provide the CAISO their point allocations consistent with Section 3.5. The Interconnection Customers will receive up to 100 sub-points in the commercial interest category based on the ratio of its requested Interconnection Service Capacity at the Point of Interconnection to the number of points allocated to it from the Load Serving Entity.

If a Load Serving Entity lacks sufficient points to match the capacity of one project, or otherwise elects, it may indicate a full allocation to a project in lieu of allocating any of its points in that Cluster Application Window. A Load Serving Entity exercising this option can select one Interconnection Request only per Cluster Application Window, and the Interconnection Customer's Interconnection Service Capacity may not exceed one hundred fifty percent (150%) of that Load Serving Entity's points allocation. Multiple Load Serving Entities may elect to exercise this option jointly for a single Interconnection Request less than one hundred fifty percent (150%) of their aggregate points. An

Interconnection Request with a full allocation will receive 100 sub-points in the commercial interest category.

Affidavits from non-Load Serving Entities must be executed by an authorized representative. The affidavit must attest the counterparty is supporting the Interconnection Request in support of corporate policy goals on sustainability; the capacity of the Interconnection Request aligns with its individual needs; the counterparty and its holding company, if any, is not affiliated with the Interconnection Customer or its holding company; and that the counterparty and its holding company and affiliates support this Interconnection Request only, and no other Interconnection Requests in this Cluster Application Window.

- 2) An Interconnection Customer may receive up to 35 points for project viability based on its ratio of sub-points to 100. The Interconnection Customer's sub-points may include up to 50 sub-points for an engineering design plan of the Generating Facility, and up to 50 sub-points for expanding a Generating Facility. The Interconnection Customers will receive up to 50 sub-points for an engineering design plan based on the percent the plan is complete, with each percentage complete comprising one sub-point, as represented in an affidavit attesting to the completeness by a professional engineer. An Interconnection Customer will receive 10 sub-points if it is an expansion of a Generating Facility that has executed a GIA and submitted its notice to proceed and commenced Construction Activities, as confirmed by the Participating TO. Alternatively, an Interconnection Customer will receive 20 sub-points if it is an expansion of an online Generating Facility. Alternatively, an Interconnection Customer will receive 50 sub-points if it is an expansion of a Generating Facility that has executed a GIA, submitted its notice to proceed, commenced Construction Activities, as confirmed by the Participating TO, or is online, and the Generating Facility's generator tie line to the CAISO Controlled Grid has sufficient surplus capacity to accommodate the sum of the maximum capacities of the extant Generating Facility and the expansion. Interconnection Customers seeking expansion sub-points must submit documentation to describe and verify the expansion with their scoresheets.
- 3) An Interconnection Customer may receive up to 35 points for system need based on its ratio of sub-points to 100. The Interconnection Customer will receive 50 sub-points if the Generating Facility could be a Local Capacity Area Resource when the Interconnection Request is submitted, and the CAISO has projected a Local Capacity Area Resource Deficiency in that Local Capacity Area. The Interconnection Customer will receive 100 sub-points if the Generating Facility is designated by a Local Regulatory Authority as a long lead-time resource; meets the requirements of the Local Regulatory Authority resource portfolio; and corresponds to approved Network Upgrades in the Transmission Plan specifically designed to meet the long lead-time resource needs of the Local Regulatory Authority, or does not require additional transmission capacity. The CAISO will confirm eligibility for these sub-points with the applicable Local Regulatory Authority.

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#### **Section 4.1.1.1      Load Serving Entity Points**

To allocate commercial interest points to Interconnection Customers, a Load Serving Entity must do the following at least two months prior to the Cluster Application Window's opening:

- 1) Provide the CAISO written, electronic notice of intent to participate in the points allocation. The notice must include (a) the publicly accessible website used by the Load Serving Entity; and (b) the contact information for the person or department conducting the points allocation for the Load Serving Entity.
- 2) Publish on the publicly accessible website (a) the selection criteria or consideration factors for awarding points; and (b) the contact information for the person or department conducting the points allocation for the Load Serving Entity. Public

websites requiring registration are permissible.

Within five (5) Business Days after the deadline for Load Serving Entities to provide their notices, the CAISO will publish on the CAISO Website the contact information, website, and points allocation for each participating Load Serving Entity. To determine available Deliverable Option commercial interest points for allocation, the CAISO will take the aggregate available MW of Deliverability in each Transmission Zone and multiply it by a scaling factor of 0.5. The CAISO will then allocate shares of points to each Load Serving Entity based upon on their relative load ratio shares in the most recent coincident peak demand forecast from the California Energy Commission. Load Serving Entities are not required to allocate all of their allocated points. The CAISO will not redistribute forgone or otherwise unused points to other Load Serving Entities.

For each Cluster Application Window, a Load Serving Entity may allocate points to the greater of three (3) Interconnection Requests from Affiliates, or no more than twenty-five percent (25%) of its points to Interconnection Requests from Affiliates based on their requested Interconnection Service Capacity.

#### **Section 4.1.2 Auction Process**

After the points assessment and distribution factor analysis, the CAISO will notify any still tied Interconnection Customers required to win an auction to be included in the Cluster Study. Those Interconnection Customers may submit a single, sealed bid of a \$/MW value of aggregate Generating Facility Capacity at the Point of Interconnection, or withdraw. The CAISO will consider bids based on the dollar per MW bid value only, and not the product of the dollar value and the Generating Facility capacity. The CAISO will accept the highest bid(s) for the Cluster Study until it reaches the one hundred fifty percent (150%) limit.

Interconnection Customers that win an auction and proceed to the Cluster Study must post an auction deposit by the end of the Cluster Engagement Window. The auction deposit may be in any form or combination of forms under Section 11.1. The value of the auction deposit is the product of the dollar value of the lowest winning bid in that Transmission Zone and the MW capacity of the Interconnection Customer's own Generating Facility at the Point of Interconnection. The CAISO and Participating TO will release or refund with any interest the auction deposit when the Interconnection Customer achieves Commercial Operation. If an Interconnection Customer withdraws its Interconnection Request, or is deemed withdrawn, it will lose the following portion of the auction deposit:

- a) Fifteen percent (15%) prior to the commencement of the Cluster Restudy, or if no Cluster Restudy for that Queue Cluster takes places, the Interconnection Facilities Study;
- b) Thirty percent (30%) between commencement of the Cluster Restudy, or if no Cluster Restudy takes place then the end of the Cluster Study, and commencement of the Interconnection Facility Study;
- c) Fifty percent (50%) between commencement of the Interconnection Facilities Study and execution or the filing of an unexecuted GIA for the Interconnection Customer;
- d) One hundred percent (100%) after the Interconnection Customer executes a GIA or an unexecuted GIA is filed on its behalf.

The CAISO and Participating TO will process any non-refundable auction deposit funds pursuant to Section 7.6 of this RIS.

#### **Section 4.2 Criteria for Requests for Deliverability in Merchant Zones**

Interconnection Requests in Merchant Zones seeking any Deliverability proceed to the Cluster Study but are subject to the Merchant Option, and may not receive any cash reimbursement under this RIS or the GIA for any costs for Area Delivery Network Upgrades, and instead may

receive Merchant Transmission CRRs pursuant to Section 36.11 of the CAISO Tariff. For all other Network Upgrades, the Interconnection Customer may receive reimbursement as provided in this RIS and its GIA.

An Interconnection Customer that submits an Interconnection Request seeking Deliverability in a Merchant Zone must include an additional Merchant Option deposit of \$10,000/MW of all requested deliverable Generating Facility capacity, but not less than \$500,000 or more than \$5,000,000. The deposit may be in any form or combination of forms under Section 11.1. The Merchant Option deposit is fully refundable prior to the close of the Customer Engagement Window. After the Customer Engagement Window, fifty percent (50%) is non-refundable. Before the Cluster Restudy commences or if no Cluster Restudy for that Queue Cluster occurs, the Interconnection Customer must raise its Merchant Option deposit to fifty percent (50%) of its Current Cost Responsibility for its assigned Area Delivery Network Upgrades, without minimum or limit.

If the Merchant Option Interconnection Customer's assigned Area Delivery Network Upgrade is approved in the CAISO's Transmission Plan before any Interconnection Customer sharing the Area Delivery Network Upgrade executes its GIA, such that the Area Delivery Network Upgrade was not in the Base Case for that Transmission Plan, the Interconnection Customer may reduce its Merchant Option deposit to remove the costs for that Area Delivery Network Upgrade. To retain TP Deliverability from that Area Delivery Network Upgrade, the Interconnection Customer must meet the TP Deliverability allocation criteria under Section 8.9.2 (A) or (B) no later than the affidavit submission deadline for the second TP Deliverability allocation process after the approved Transmission Plan publication. Failure to retain TP Deliverability under this rule will result in conversion to Energy Only.

### **Section 4.3 Criteria for Energy Only Requests Eligible for Cash Reimbursement**

Energy Only Interconnection Requests seeking eligibility for cash reimbursement for Reliability Network Upgrades may proceed to the Cluster Study only where they meet the requirements of this Section. Reimbursement will still be subject, without limitation, to Section 14.3.2 of this RIS. The Interconnection Request must be in a Transmission Zone where the Local Regulatory Authority has designated a specific MW quantity of Energy Only capacity for procurement.

The Interconnection Customer will submit all information for scoring required by Section 4.1. The CAISO will administer the same scoring and tiebreaking processes in Section 4.1 with the following exceptions:

- a) the CAISO will only consider the Energy Only Interconnection Requests subject to this Section 4.3, excluding all other Interconnection Requests submitted in the Cluster Application Window;
- b) the CAISO will solve for one hundred fifty percent (150%) of Local Regulatory Authority Energy Only MW procurement target in that Transmission Zone instead of one hundred fifty percent (150%) of the available Deliverability at their relevant Transmission Constraint;
- c) Instead of the auction as final tiebreaker, the CAISO will include the remaining tied Interconnection Request(s) with the least Interconnection Service Capacity until it satisfies the one hundred fifty percent (150%) threshold; and
- d) The CAISO will allocate points for Load Serving Entities to demonstrate commercial interest pursuant to Section 4.3.1.

Interconnection Requests exceeding the one hundred fifty percent (150%) limit and losing all applicable tiebreakers may elect to proceed to the Cluster Study subject to Section 4.4. Interconnection Customers must make this election within five (5) Business Days of being informed that the Interconnection Request is not eligible for study under this Section 4.3.

### **Section 4.3.1 Load Serving Entity Points**

To allocate commercial interest points to Energy Only Interconnection Customers, Load Serving Entities must comply with all requirements in Section 4.1.1.1. To determine available commercial interest points for allocation, the CAISO will take the total aggregate MW of Energy Only capacity procurement in the most recent CAISO Transmission Plan, as informed by Local Regulatory Authorities. The CAISO will then allocate shares of points to each Load Serving Entity based upon on their relative load ratio shares in the most recent coincident peak demand forecast from the California Energy Commission. Load Serving Entities are not required to allocate all of their allocated points. The CAISO will not redistribute forgone or otherwise unused points to other Load Serving Entities.

For each Cluster Application Window, a Load Serving Entity may allocate points to the greater of three (3) Interconnection Requests from Affiliates, or no more than twenty-five percent (25%) of its points to Interconnection Requests from Affiliates based on their requested Interconnection Service Capacity.

### **Section 4.4 Criteria for Energy Only Requests Ineligible for Cash Reimbursement**

In any Transmission Zone, Energy Only Interconnection Requests may proceed to the Cluster Study without meeting the requirements of Section 4.3 where they elect to forgo eligibility for cash reimbursement for Reliability Network Upgrades. Interconnection Customers electing to proceed to the Cluster Study under this option may receive Merchant Transmission CRRs pursuant to Section 36.11 of the CAISO Tariff.

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## **Section 6 Cluster Study Process**

### **6.1 Initial Activities Following the Close of the Cluster Application Window**

#### **6.1.1 [Intentionally Omitted]**

##### **6.1.2 Scoping Meeting**

During the Customer Engagement Window, the CAISO will hold ~~a~~ Scoping Meetings with all Interconnection Customers whose valid Interconnection Requests were received in that Cluster Application Window and satisfied the Cluster Study criteria in Section 4 of this RIS. Scoping Meetings will be segregated by Transmission Zone and Cluster Study criteria.

The purpose of the Cluster Study Scoping Meeting will be to discuss alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would reasonably be expected to impact such interconnection options, to discuss the Cluster Study materials posted to the CAISO Website pursuant to Section 3.5 and 3.6 of this RIS, if applicable, and to analyze such information. The CAISO and the Interconnection Customer(s) will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. The CAISO and the Interconnection Customer(s) also will bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. ~~On the basis of the meeting, the Interconnection Customer(s) will designate its Point of Interconnection.~~ The duration of the meeting will be



sufficient to accomplish its purpose. All Interconnection Customers must execute the non-disclosure agreement under Section 2.3 of this RIS prior to a group Cluster Study Scoping Meeting, which provides for confidentiality of identifying information or commercially sensitive information pertaining to any other Interconnection Customers.

\* \* \* \*

## **6.3 Identification of and Cost Allocation for Network Upgrades**

### **6.3.1 Reliability Network Upgrades (RNUs).**

The CAISO, in coordination with the applicable Participating TO(s), will perform short circuit and stability analyses for each Interconnection Request either individually or as part of a subgroup to preliminarily identify the RNUs needed to interconnect the Generating Facilities to the CAISO Controlled Grid. The CAISO, in coordination with the applicable Participating TO(s), shall also perform power flow analyses, under a variety of system conditions, for each Interconnection Request either individually or as part of a subgroup to identify Reliability Criteria violations, including applicable thermal overloads, that must be mitigated by RNUs.

The cost of all RNUs identified in the Cluster Study shall be estimated in accordance with Section 6.4. The estimated costs of short circuit related GRNUs identified through a subgroup shall be assigned to all Interconnection Requests in that subgroup pro rata on the basis of the short circuit duty contribution of each Generating Facility. The estimated costs of all other GRNUs identified through a subgroup shall be assigned to all Interconnection Requests in that subgroup pro rata on the basis of the maximum megawatt electrical output of each proposed new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request. The estimated costs of RNUs identified as a result of an Interconnection Request studied separately shall be assigned solely to that Interconnection Request.

Interconnection Customers assigned IRNUs in their Cluster Study will be allocated the full cost of the IRNUs in their Maximum Cost Responsibility. The Maximum Cost Exposure will include the full costs of conditionally assigned IRNUs. The Current Cost Responsibility will include their allocated share of IRNU costs.

### **6.3.2 Delivery Network Upgrades.**

The Cluster Study will identify ADNUs for Interconnection Customers in Merchant Zones that have selected the Merchant Option. The Base Cases will include Deliverable Option Generating Facilities in the current Interconnection Study Cycle and earlier queued Generating Facilities that will utilize TP Deliverability in a total amount that fully utilizes but does not exceed the available TP Deliverability. The CAISO will reserve TP Deliverability for those Merchant Option Interconnection Customers that triggered and finance ADNUs.

If the MW capacity of the Deliverable Option Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area is less than or equal to the total TP Deliverability in any electrical area, the Base Case will include all Deliverable Option and earlier queued Generating Facilities in the electrical area.

If the MW capacity of the Deliverable Option Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area exceeds the TP Deliverability in any electrical area,



the Base Case will include a representative subset of Generating Facilities that fully utilizes but does not exceed the TP Deliverability.

After the CAISO has modeled the Deliverable Option Generating Facilities, the CAISO will add Merchant Option Generating Facilities to the Base Case. ADNUs that are identified as needed for each electrical area shall be assigned to Merchant Option Generating Facilities based upon their flow impacts.

The cost responsibility for Area Delivery Network Upgrades identified in the Cluster Study will be assigned to Interconnection Customers who have selected the Merchant Option Full Capacity or Partial Capacity Deliverability Status based on the flow impact of each such Generating Facility on each Area Delivery Network Upgrade as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

\* \* \* \*

## 6.7.2 Modifications.

**6.7.2.1** ~~At any time during the course of the Interconnection Studies, the Interconnection Customer, the applicable Participating TO(s), or the CAISO may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request while retaining its Queue Position. Notwithstanding the above,~~  
During the course of the Interconnection Studies, the Interconnection Customer, Participating TO, or the CAISO may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the CAISO, the Participating TO, and the Interconnection Customer, such acceptance not to be unreasonably withheld, the CAISO will modify the Point of Interconnection ~~prior to the end of the Customer Engagement Window.~~

**6.7.2.2** Prior to the end of the Customer Engagement Window, modifications permitted under this Section shall include specifically:

- (a) a decrease in the electrical output (MW) of the proposed project; through either (1) a decrease in Generating Facility Capacity or (2) a decrease in Interconnection Service Capacity (consistent with the process described in Section 3.1) accomplished by CAISO-approved limiting equipment;
- (b) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics;
- (c) modifying the interconnection configuration;
- (d) modifying the In-Service Date, Initial Synchronization Date, Trial Operation Date, and/or Commercial Operation Date that meets the criteria set forth in Section 3.5.1.4 and is acceptable to the applicable Participating TO(s) and the CAISO, such acceptance not to be unreasonably withheld; and
- ~~(e) change in Point of Interconnection as set forth in Section 6.7.2.1;~~
- ~~(f) change in Deliverability Status to Energy Only Deliverability Status, Partial Capacity Deliverability Status, or a lower fraction of Partial Capacity Deliverability Status; and~~
- ~~(eg)~~ Permissible Technological Advancements consistent with Section 6.7.2.4.

\* \* \* \*

**6.7.2.6** In addition to the options provided in this RIS, an Interconnection Customer may convert to Energy Only, Partial Capacity Deliverability Status, or a lower fraction of Partial Capacity Deliverability Status after the completion of its Interconnection Facilities Study. This conversion will become effective through the reassessment process described in Section 7.4. Interconnection Customers electing to convert to Energy Only after the completion of their Interconnection Facilities Studies will forgo eligibility for cash reimbursement for all Network Upgrades, but may receive Merchant Transmission CRRs pursuant to Section 36.11 of the CAISO Tariff. Except (i) as provided in Section 8.9.3.2 (ii) due to not receiving the requested TP Deliverability allocation, or (iii) due to declining a TP Deliverability allocation, Interconnection Customers that become Energy Only after their Interconnection Facilities Study may not reduce their cost responsibility for any assigned Delivery Network Upgrades as a result of converting to Energy Only unless the CAISO and Participating TO(s) determine that the Interconnection Customer's assigned Delivery Network Upgrade(s) is no longer needed for current Interconnection Customers.

\* \* \* \*

## **Section 7 Annual Reassessment, Cluster Restudy, and Activities in Preparation for the Interconnection Facilities Study**

### **7.1 [Not Used]**

### **7.2 ~~Full/Partial Capacity Deliverability Options for Interconnection Customers~~ [Not Used]**

~~This section applies to Interconnection Requests for which the Generating Facility Deliverability Status is either Full Capacity or Partial Capacity.~~

~~Within Appendix B, the Interconnection Facilities Study Agreement, the Interconnection Customer must select one of two options with respect to its Generating Facility:~~

~~Option (A), which means that the Generating Facility requires TP Deliverability to be able to continue to Commercial Operation. If the Interconnection Customer selects Option (A), then the Interconnection Customer shall be required to make a Commercial Readiness Deposit and GIA Deposit for the cost responsibility assigned to it in the Cluster Study for RNUs and LDNUs; or,~~

~~Option (B), which means that the Interconnection Customer will assume cost responsibility for Delivery Network Upgrades (both ADNUs and LDNUs, to the extent applicable) without cash repayment under Section 14.2.1 to the extent that sufficient TP Deliverability is not allocated to the Generating Facility to provide its requested Deliverability Status. If the Interconnection Customer selects Option (B) then the Interconnection Customer shall be required to make a Commercial Readiness Deposit and GIA Deposit for the cost responsibility assigned to it in the Cluster Study for RNUs, LDNUs and ADNUs. To qualify to receive any allocation of TP Deliverability, Interconnection Customers selecting Option (B) must still meet the minimum criteria identified in Section 8.9.2.~~

\* \* \* \*

### **7.5 ~~Option (B) Customers~~[Not Used]**

~~The annual reassessment will identify ADNUs for Interconnection Customers who have selected Option (B). The Base Case for the reassessment will include Option (A) Generating Facilities in the current Interconnection Study Cycle and earlier queued Generating Facilities that will utilize~~

~~TP Deliverability in a total amount that fully utilizes but does not exceed the available TP Deliverability.~~

~~If the MW capacity of the Option (A) Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area is less than or equal to the total TP Deliverability in any electrical area, the Base Case will include all Option (A) and earlier queued Generating Facilities in the electrical area.~~

~~If the MW capacity of the Option (A) Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area exceeds the TP Deliverability in any electrical area, the Base Case will include a representative subset of Generating Facilities that fully utilizes but does not exceed the TP Deliverability.~~

~~After the CAISO has modeled the Option (A) Generating Facilities, as described above, the CAISO will add Option (B) Generating Facilities to the Base Case. ADNUs that are identified as needed for each electrical area shall be assigned to Option (B) Generating Facilities based upon their flow impacts.~~

~~The cost responsibility for Area Delivery Network Upgrades identified in the reassessment will be assigned to Interconnection Customers who have selected Option (B) Full Capacity or Partial Capacity Deliverability Status based on the flow impact of each such Generating Facility on each Area Delivery Network Upgrade as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.~~

\* \* \* \*

## Section 8 Interconnection Facilities Study and TP Deliverability Allocation Processes

\* \* \* \*

### 8.9 Allocation Process for TP Deliverability

After the Interconnection Facilities Study reports are issued, the CAISO will perform the allocation of the TP Deliverability to ~~Option (A)~~Deliverable Option and ~~Option (B)~~ Generating Facilities that meet the eligibility criteria set forth in Section 8.9.2, and Merchant Option Generating Facilities that did not require ADNUs in their Interconnection Studies. The TP Deliverability available for allocation will be determined from the most recent Transmission Plan. Once a Generating Facility is allocated TP Deliverability, the facility will be required to comply with retention criteria specific in Section 8.9.3 in order to retain the allocation.

Allocation of TP Deliverability shall not provide any Interconnection Customer or Generating Facility with any right to a specific MW of capacity on the CAISO Controlled Grid or any other rights (such as title, ownership, rights to lease, transfer or encumber).

The CAISO will issue a market notice to inform interested parties as to the timeline for commencement of allocation activities, for Interconnection Customer submittal of eligibility status and retention information, and anticipated release of allocation results to Interconnection Customers. There are two components to the allocation process.

\*\*\*

#### 8.9.4 Parking for ~~Option (A)~~ Generating Facilities

For an ~~Option (A)~~ Generating Facility in the current Interconnection Study Cycle that either was allocated less TP Deliverability than requested or does not desire to accept the amount allocated the Interconnection Customer shall select one of the following options:

- (1) Withdraw its Interconnection Request
- (2) Enter into a GIA, in which case the Interconnection Request shall automatically convert to Energy Only Deliverability Status. In such circumstances, upon execution of the GIA, any Commercial Readiness Deposit will be adjusted to remove the obligation pertaining to LDNUs
- (3) Park the Interconnection Request; in which case the Interconnection Request may remain in the Interconnection queue until the next allocation of TP Deliverability in which it may participate in accordance with the requirements of Section 8.9.2. Parking an Interconnection Request does not confer a preference with respect to any other Interconnection Request with respect to allocation of TP Deliverability.

An Interconnection Customer that selects option (2) or (3) above may, at the time it selects the option, elect to reduce the generating capacity of its Generating Facility. . Parked Interconnection Customers may not submit modification requests except for the following modifications:

- (1) reducing the Interconnection Service Capacity;
- (2) changing fuel type or technology;
- (3) Permissible Technological Advancements; or
- (4) changing the Point of Interconnection.

Parked Interconnection Customers must post their Commercial Readiness Deposit prior to submitting any of these modification requests, and submit a modification request pursuant to Section 6.7.2.3 of this RIS.

##### 8.9.4.1 Extended Parking for ~~Option (A)~~ Generating Facilities

An ~~Option (A)~~ Generating Facility that parked its Interconnection Request and participated in a second allocation of TP Deliverability may remain parked for one final (third) allocation of TP Deliverability where: (a) the most recent TP Deliverability allocation shows that TP Deliverability will still be available to the Generating Facility; and (b) the Generating Facility has not been assigned Network Upgrades identified as needed by other Interconnection Customers in the Generating Facility's cluster study group or later cluster study groups. Criterion (b) will not apply where the Generating Facility has been assigned Network Upgrades identified as needed only by other Interconnection Customers in the Generating Facility's own cluster study group and all of those active Interconnection Customers also elect to remain parked.

#### 8.9.5 Partial Allocations of Transmission Based Deliverability to ~~Option (A)~~ and ~~Option (B)~~ Generating Facilities

If a Generating Facility is allocated TP Deliverability in the current Interconnection Study

Cycle in an amount less than the amount of Deliverability requested, then the Interconnection Customer must choose one of the following options:

- (i) Accept the allocated amount of TP Deliverability and reduce the MW generating capacity of the proposed Generating Facility such that the allocated amount of TP Deliverability will provide Full Capacity Deliverability Status to the reduced generating capacity;
- (ii) Accept the allocated amount of TP Deliverability and adjust the Deliverability status of the proposed Generating Facility to achieve Partial Capacity Deliverability corresponding to the allocated TP Deliverability;
- (iii) For ~~Option (A)~~ Generating Facilities, accept the allocated amount of TP Deliverability and seek additional TP Deliverability for the remainder of the requested Deliverability of the Interconnection Request in the next allocation cycle. In such instance, the Interconnection Customer shall execute a GIA for the entire Generating Facility having Partial Capacity Deliverability corresponding to the allocated amount of TP Deliverability. Following the next cycle of TP Deliverability allocation, the GIA shall be amended as needed to adjust its Deliverability status to reflect any additional allocation of TP Deliverability. At this time the Interconnection Customer may also adopt options (i) or (ii) above based on the final amount of TP Deliverability allocated to the Generating Facility. There will be no further opportunity for this Generating Facility to participate in any subsequent cycle of TP Deliverability allocation; or
- (iv) Decline the allocated amount of TP Deliverability and either withdraw the Interconnection Request or convert to Energy Only Deliverability Status. An Interconnection Customer having an ~~an-Option (A)~~ Generating Facility that has not previously parked may decline the allocation of TP Deliverability and park until the next cycle of TP Deliverability allocation in the next Interconnection Study Cycle.

An Interconnection Customer that selects option (iii) or (iv) above may, at the time it selects the option, elect to reduce the generating capacity of its Generating Facility.

Interconnection Customers accepting a partial allocation of TP Deliverability may pursue additional deliverability as described in Section 8.9.2.

#### **8.9.6 Declining TP Deliverability Allocation**

An Interconnection Customer having an ~~an-Option (A)~~ Generating Facility and allocated the entire amount of requested TP Deliverability may decline all or a portion of the TP Deliverability allocation and park the Generating Facility Request as described in Section 8.9.4(3). An Interconnection Customer that selects this option may, at the time it selects the option, elect to reduce the generating capacity of its Generating Facility.

\* \* \* \*

## Section 9 Additional Deliverability Assessment Options

\* \* \* \*

### 9.4 Deliverability from Non-Participating TOs

This process applies to Generating Facilities that interconnect to the transmission facilities of a Non-Participating TO located within the CAISO Balancing Authority Area that wish to obtain Full Capacity Deliverability Status or Partial Capacity Deliverability Status under the CAISO Tariff. Such Generating Facilities will be eligible to be studied by the CAISO for Full or Partial Capacity Deliverability Status pursuant to the following provisions:

- (a) The Generating Facility seeking Full or Partial Capacity Deliverability Status under the CAISO Tariff must submit a request to the CAISO to study it for such Status. Such study request will be in the form of the CAISO's pro forma Interconnection Request, including Cluster Study criteria under Section 4 of this RIS. The Interconnection Request must be submitted during the Cluster Application Window and must include the Generating Facility's intended Point of Delivery to the CAISO Controlled Grid, and must be submitted during a Cluster Application Window. The Generating Facility will be required to satisfy the same study deposit and Commercial Readiness Deposit posting requirements as an Interconnection Customer. The CAISO will determine the Transmission Zone eligibility and include the Generating Facility in the Cluster Study criteria process and Deliverability assessments based upon the Non-Participating TO's interconnection to the CAISO Controlled Grid. The Generating Facility will be eligible for Deliverability and cash reimbursement for Delivery Network Upgrades where it satisfies the Cluster Study criteria in Section 4.
- (b) The Non-Participating TO that serves as the interconnection provider to the Generating Facility must treat the CAISO as an Affected System in the interconnection study process for the Generating Facility.
- (c) As part of the Non-Participating TO's interconnection study process, the CAISO, in its sole discretion and on a case-by-case basis, will determine the adequacy of transmission on the Non-Participating TO's system for the Generating Facility to be deemed fully deliverable to the elected Point of Delivery to the CAISO Controlled Grid. Only those proposed Generating Facilities (or proposed increases in Generating Facility capacity) for which the CAISO has determined there is adequate transmission capacity on the Non-Participating TO system to provide full Deliverability to the applicable Point of Delivery will be eligible to be assessed for Full or Partial Capacity Deliverability Status under the CAISO Tariff.
- (d) If the Generating Facility is eligible for study for Full or Partial Capacity Deliverability Status, the CAISO will include the Generating Facility in the Interconnection Study process for the Queue Cluster associated with the Cluster Application Window in which the Generating Facility has submitted its study request. The Point of Delivery with the CAISO will be treated as the Point of Interconnection for purposes of including the Generating Facility in a Cluster Study with any applicable CAISO Interconnection Customers in the relevant Queue Cluster. Pursuant to the Queue Cluster Interconnection Study process the Generating Facility will be allocated its cost responsibility share of any applicable LDNUs or ADNUs.

The Generating Facility shall be permitted to select an Option (A) or Option (B) Deliverability option under Section 7.2 (and will be treated as an Option (B) Generating Facility if a selection is not provided to the CAISO) and permitted to participate in TP

~~Deliverability allocation under Section 8.~~

- (e) The CAISO, Participating TO, and Interconnection Customer will execute any necessary agreements for reimbursement of study costs incurred by it to assure cost attribution for any Network Upgrades relating to any Deliverability status conferred to each such interconnection customer under the Non-Participating TO's tariff.
- (f) The Non-Participating TO's interconnection customer will receive repayment of funds expended for the construction of the LDNUs, and, as applicable, ADNUs, on the CAISO Controlled Grid in the same manner as CAISO Interconnection Customers, as specified in Section 14.3.2.

\* \* \* \*

## Section 10 Cost Responsibility for Interconnection Customers

### 10.1 Interconnection Customers in a Queue Cluster.

- (a) RNUs and LDNUs. The Interconnection Studies will establish Interconnection Customers' Current Cost Responsibility, Maximum Cost Responsibility, and Maximum Cost Exposure consistent with the cost allocations described in Section 8. The CAISO will adjust Interconnection Customers' cost responsibilities as described in this RIS. Interconnection Customers will post Commercial Readiness Deposit and GIA Deposit based on their Current Cost Responsibility.
- (b) ADNUs. Interconnection Customers selecting the Option (A) Deliverable Option do not include ADNUs in the Commercial Readiness Deposit and GIA Deposit. The Current Cost Responsibility provided in the Cluster Studies establishes the basis for the initial Commercial Readiness Deposit. For Interconnection Customers selecting the Option (B) Merchant Option, the Interconnection Facilities Study and annual reassessment shall refresh the Current Cost Responsibility for ADNUs.

The ADNU cost estimates provided in any Interconnection Study report are estimates only and do not provide a maximum value for cost responsibility to an Interconnection Customer for ADNUs. However, subsequent to the Interconnection Customer's receipt of its Interconnection Facilities Study report, an Interconnection Customer having selected the Option (B) Merchant Option may have its ADNUs adjusted in the reassessment process undertaken under Section 7.4. Accordingly, for such Interconnection Customers, the most recent annual reassessment undertaken under Section 7.4 shall provide the most recent cost estimates for the Interconnection Customer's ADNUs.

\* \* \* \*

## Section 13 Generator Interconnection Agreement (GIA)

### 13.1 Tender

#### 13.1.1

The Interconnection Customer will tender comments on the draft Interconnection Facilities Study Report within thirty (30) calendar days of receipt of the report. Within thirty (30) calendar days after the latter of (a) the comments are submitted, (b) the



Interconnection Customer notifies the CAISO it will not provide comments, the Participating TO will tender a draft GIA, together with draft appendices. The draft GIA will be in the form of the CAISO's FERC-approved standard form GIA, which is in Appendix LL or MM, as applicable. The Interconnection Customer will execute and return the GIA and completed draft appendices within thirty (30) calendar days, unless (1) the sixty (60) calendar day negotiation period under Section 13.2 of this RIS has commenced, or (2) GIA execution, or filing unexecuted, has been delayed to await the Affected System Study Report pursuant to Section 13.2.1 of this RIS. ~~The CAISO and Participating TO will suspend negotiations for an Option (A) Generating Facility that has been tendered a GIA and subsequently elects to park its Interconnection Request. The draft GIA will be in the form of the FERC approved GIA set forth in CAISO Tariff Appendix EE or Appendix FF, as applicable.~~

- 13.1.2** Consistent with Section 13.1.1, when the transmission system of a Participating TO, in which the Point of Interconnection is not located, is affected, such Participating TO shall tender a separate agreement, in the form of the GIA, as appropriately modified.

\* \* \* \*

## Section 14 Construction and Neighboring System Impacts

\* \* \* \*

### **14.2.2 Construction of Network Upgrades that are or were an Obligation of an Entity other than the Interconnection Customer**

The applicable Participating TO(s) shall be responsible for financing and constructing any Network Upgrades necessary to support the interconnection of the Generating Facility of an Interconnection Customer with a GIA whenever the Network Upgrades were included in the Interconnection Base Case Data for an Interconnection Study on the basis that they were Network Upgrades associated with Generating Facilities of Interconnection Customers that have an executed GIA (or its equivalent predecessor agreement) or unexecuted GIA (or its equivalent predecessor agreement) filed with FERC, and such GIA specifies that the Participating TO would construct the Network Upgrades, and either:

- (i) the Network Upgrades will not otherwise be completed because such GIA or equivalent predecessor agreement was subsequently terminated or the Interconnection Request has otherwise been withdrawn; or
- (ii) the Network Upgrades will not otherwise be completed in time to support the Interconnection Customer's In-Service Date because construction has not commenced in accordance with the terms of such GIA (or its equivalent predecessor agreement).

Where the Participating TO is constructing ADNUs for ~~Option (B)~~Merchant Option Interconnection Customers and one of the two conditions above occurs, the Participating TO shall continue to construct such ADNUs with financing provided from the Commercial Readiness Deposit and Merchant Option deposit of those ~~Option (B)~~Merchant Option Interconnection Customers' Interconnection referred to above, with any additional financing requirements to be reapportioned among those remaining ~~Option (B)~~Merchant Option Interconnection Customers who still need the ADNUs.



The obligation under this Section arises only after the CAISO, in coordination with the applicable Participating TO(s), determines that the Network Upgrades remain needed to support the interconnection of the Interconnection Customer's Generating Facility notwithstanding, as applicable, the absence or delay of the Generating Facility that is contractually, or was previously contractually, associated with the Network Upgrades.

Further, to the extent the timing of such Network Upgrades was not accounted for in determining a reasonable Commercial Operation Date among the CAISO, applicable Participating TO(s), and the Interconnection Customer as part of the Interconnection Study, the applicable Participating TO(s) will use Reasonable Efforts to ensure that the construction of such Network Upgrades can accommodate the Interconnection Customer's proposed Commercial Operation Date. If, despite Reasonable Efforts, it is anticipated that the Network Upgrades cannot be constructed in time to accommodate the Interconnection Customer's proposed Commercial Operation Date, the Interconnection Customer may commit to pay the applicable Participating TO(s) any costs associated with expediting construction of the Network Upgrades to meet the original proposed Commercial Operation Date. The expediting costs under Section shall be in addition to the Interconnection Customer's cost responsibility.

#### **14.2.3 Advancing Construction of Network Upgrades that are Part of the CAISO's Transmission Plan**

An Interconnection Customer with a GIA, in order to maintain its In-Service Date as specified in the GIA, may request that the CAISO and applicable Participating TO(s) advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an approved CAISO Transmission Plan covering the PTO Service Territory of the applicable Participating TO(s), in time to support such In-Service Date. Upon such request, the applicable Participating TO(s) will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the applicable Participating TO(s) any associated expediting costs. The Interconnection Customer shall be entitled to refunds, if any, in accordance with the GIA, for any expediting costs paid.

#### **14.2.4 Limited Operation Study**

**14.2.4.1** Pursuant to Article 5.9 of the Large Generator Interconnection Agreement set forth in Appendices V, BB, CC, and EE, Generating Facilities may request a limited operation study. The Participating TO and/or the CAISO, as applicable, will, upon the request and at the expense of the Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Generating Unit and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Participating TO's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice. The Participating TO and the CAISO will permit the Interconnection Customer to operate the Generating Unit and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies. To the extent study assumptions change, the CAISO and Participating TO will update study results as needed.

**14.2.4.2** The Generating Unit owner will provide the CAISO a \$10,000 deposit for the limited operation study with the request. Except as provided below, any limited operation study will be concluded, and a response provided to the Generating Unit owner in writing, within forty-five (45) calendar days from when the CAISO receives all of the following: the Generating Unit owner's written

approval of the limited operation study plan, technical data required to assess the request, and the \$10,000 deposit. If the limited operation study cannot be completed within that time period, the CAISO will notify the Generating Unit owner and provide an estimated completion date and an explanation of the reasons why additional time is required.

Notwithstanding any other provision, all refunds pursuant to this Appendix KK will be processed in accordance with the CAISO's generally accepted accounting practices, including monthly batched deposit refund disbursements. Any CAISO deadline will be tolled to the extent the Interconnection Customer has not provided the CAISO with the appropriate documents to facilitate the Interconnection Customer's refund, or if the Interconnection Customer has any outstanding invoice balance due to the CAISO on another project owned by the same Interconnection Customer.

- 14.2.4.3** The Generating Unit owner will be responsible for the actual costs incurred by the CAISO and the Participating TO(s) in conducting the modification assessment. If the actual costs of the limited operation study are less than the deposit provided by the Generating Unit owner, the Generating Unit owner will be refunded the balance. If the actual costs of the limited operation study are greater than the deposit provided by the Generating Unit owner, the Generating Unit owner shall pay the balance within thirty (30) days of being invoiced. The CAISO will coordinate the request with the Participating TO(s). The Participating TO(s) will invoice the CAISO for any limited operation study work within seventy-five (75) calendar days of completion of the study, and, within thirty (30) days of payment of the Participating TO(s) invoice, the CAISO will issue an invoice or refund to the Generating Unit owner, as applicable, based upon such submitted Participating TO invoices and the CAISO's costs for the assessment.

### **14.3 Network Upgrades**

With the exception of LDNUs and ADNUs for ~~Option (B) Merchant Option~~ Generating Facilities that were not allocated TP Deliverability, Network Upgrades will be constructed by the applicable Participating TO(s). Interconnection Customers may, at their discretion, select parties other than the applicable PTOs to construct certain LDNUs and ADNUs required by their ~~Option (B) Merchant Option~~ Generating Facilities that are not allocated TP Deliverability, if such LDNUs and ADNUs are eligible for construction by parties other than the applicable PTO pursuant to Section 24.5.2 of the CAISO Tariff. Such ADNUs and LDNUs will be incorporated into the CAISO Controlled Grid pursuant to the provisions for Merchant Transmission Facilities in CAISO Tariff Sections 24.4.6.1, and 36.11. Unless the Interconnection Customer elects construction by a party other than the applicable Participating TO, the applicable Participating TO(s) will be obligated to construct the LDNUs and ADNUs. This Section shall not apply to an Interconnection Customer's right to build Stand Alone Network Upgrade(s) in accordance with the LGIA.

#### **14.3.1 Initial Funding**

Assigned Network Upgrades shall be funded by the Interconnection Customer(s) either by means of drawing down the Commercial Readiness Deposit or GIA Deposit or by the provision of additional capital, at each Interconnection Customer's election, up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to each Interconnection Customer(s). Current Cost Responsibility may be adjusted consistent with this RIS and up to the Interconnection Customer's Maximum Cost Responsibility, but the applicable Participating TO(s) shall be responsible for funding any capital costs for the Assigned Network Upgrades that exceed the Current Cost Responsibility assigned to the Interconnection Customer(s).

- (a) Where the funding responsibility for any RNUs, and LDNUs has been assigned to a single Interconnection Customer, the applicable Participating TO(s) shall invoice the Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to each Interconnection Customer(s) for the RNUs or LDNUs, respectively.
- (b) Where the funding responsibility for an RNU or LDNU has been assigned to more than one Interconnection Customer in accordance with this RIS, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such Network Upgrades in accordance with their respective Current Cost Responsibilities. Each Interconnection Customer may be invoiced up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to that Interconnection Customer.
- (c) Where the funding responsibility for an ADNU being constructed by one or more Participating TO has been assigned to more than one ~~Option (B)~~ Merchant Option Interconnection Customer, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such ADNUs based on their respective Current Cost Responsibilities.

Any permissible extension of the Commercial Operation Date of a Generating Facility will not alter the Interconnection Customer's obligation to finance its Assigned Network Upgrades where the Network Upgrades are required to meet the earlier Commercial Operation Date(s) of other Generating Facilities that have also been assigned cost responsibility for the Network Upgrades.

#### **14.3.2 Repayment of Amounts Advanced for Network Upgrades and Refund of Interconnection Financial Security**

##### **14.3.2.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities**

Interconnection Customers will be entitled to repayment for the Interconnection Customer's contribution to the cost of Network Upgrades placed in service on or before the Commercial Operation Date of its Generating Facility, commencing upon the Commercial Operation Date of the Generating Facility. Repayment for the Interconnection Customer's contribution to the cost of Network Upgrades placed into service after the Commercial Operation Date of its Generating Facility shall, for each of these Network Upgrades, commence no later than the later of: (i) the first month of the calendar year following the year in which the Network Upgrade is placed into service or (ii) 90 days after the Network Upgrade is placed into service.

An Interconnection Customer subject to this Section 14.3.2.1 shall be entitled to repayment for its contribution to the cost of Network Upgrades as follows:

- (1) For RNUs, in accordance with the Interconnection Customer's cost responsibility assigned up to a maximum of \$60,000 per MW of generating capacity as specified in the GIA. The CAISO will publish an annual inflation factor and adjusted amount for this figure with the per unit cost publication on the CAISO Website pursuant to Section 6.4 of this RIS. Interconnection Customers will be entitled to repayment

subject to the figure corresponding to their Commercial Operation Date.  
Energy Only Interconnection Customers that proceeded to the Cluster Study under Section 4.4 are ineligible for cash repayment for any RNU costs.

- (2) For LDNUs, ~~except for LDNUs for Option (B) Generating Facilities that were not allocated TP Deliverability,~~ in accordance with the Interconnection Customer's Current Cost Responsibility.
- (3) ~~Option (B) Merchant Option~~ Generating Facilities ~~that were not allocated TP Deliverability~~ will not receive repayment for ~~LDNUs or~~ ADNUs.

Unless an Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, such amounts shall include any tax gross-up or other tax-related payments associated with the Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the applicable Participating TO(s) on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the applicable date as provided for in this Section 14.3.2.1; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years of the applicable commencement date.

For Network Upgrades the Interconnection Customer funded but did not receive repayment, the Interconnection Customer will be eligible to receive Merchant Transmission Congestion Revenue Rights (CRRs) in accordance with CAISO Tariff Section 36.11 associated with those Network Upgrades, or portions thereof that were funded by the Interconnection Customer. Such CRRs would take effect upon the Commercial Operation Date of the Generating Facility in accordance with the GIA.

\* \* \* \*

**Appendix 2**  
**~~[Intentionally Omitted]~~Cluster Study Criteria**

1. Select one set of cluster study criteria pursuant to Section 4 of this RIS:

- (a) Request for Deliverability in Deliverable Zone
- (b) Request for Deliverability in Merchant Zone
- (c) Energy Only Interconnection Request eligible for cash reimbursement
- (d) Energy Only Interconnection Request ineligible for cash reimbursement

2. For Interconnection Customers selecting criteria (1)(a) or (1)(c), select which of the following are applicable and include all supporting documentation and deposits required by Section 4 of the RIS. The CAISO will validate all selections consistent with the RIS. Interconnection Customers expecting a Load Serving Entity to indicate commercial interest may select (2)(a) on an advisory basis to the CAISO. The CAISO will receive binding commercial interest points from Load Serving Entities pursuant to the RIS regardless of the indication here.

Commercial Interest (select one):

- (a) The Interconnection Customer expects [ ] a Load Serving Entity to indicate commercial interest (up to 100 sub-points for commercial interest).
- (b) The Interconnection Request has commercial interest from an entity that is not a Load Serving Entity (25 sub-points for commercial interest).
- (c) The Interconnection Request does not have commercial interest at this time.

Project Viability Engineering Plan (select one):

- (a) The Interconnection Request has an engineering design plan [ ] percent complete (up to 50 sub-points for project viability).
- (b) The Interconnection Request does not have an engineering design plan at this time.

Project Viability Expansion (select one):

- (a) The Interconnection Request is an expansion of a Generating Facility that has executed a GIA and submitted its notice to proceed and is under active construction (10 sub-points for project viability).
- (b) The Interconnection Request is an expansion of an online Generating Facility (20 sub-points for project viability).
- (c) The Interconnection Request is an expansion of a Generating Facility that has executed a GIA and submitted its notice to proceed and is under active construction or is online, and the Generating Facility's generator tie line to the CAISO Controlled Grid has sufficient surplus capacity to accommodate the sum of the maximum capacities of the extant Generating Facility and the expansion (50 sub-points for project viability).
- (d) The Interconnection Request is not (a), (b), or (c).

System Need (select one):

- (a) The Interconnection Request may provide Local Resource Adequacy in a local area the CAISO has designated in need of Local Resource Adequacy (50 sub-points for system

need).

(b) \_\_\_\_ The Local Regulatory Authority has designed the Interconnection Request as a potential long-lead-time resource and the CAISO Transmission Plan includes Network Upgrades to support its potential interconnection (100 sub-points for system need). Interconnection Customers selecting (b) must provide supporting documentation of their Commercial Operation Date pursuant to Section 3.5.1.4 of this RIS.

(c) \_\_\_\_ Neither (a) nor (b) apply at this time.

**Attachment C – Track 2 Final Proposal**

**Tariff Amendment – Track 2 of Interconnection Process Enhancements 2023 Initiative**

**California Independent System Operator Corporation**

**August 1, 2024**



California ISO

# 2023 Interconnection Process Enhancements

Track 2 Final Proposal

March 28, 2024

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## **Executive Summary**

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

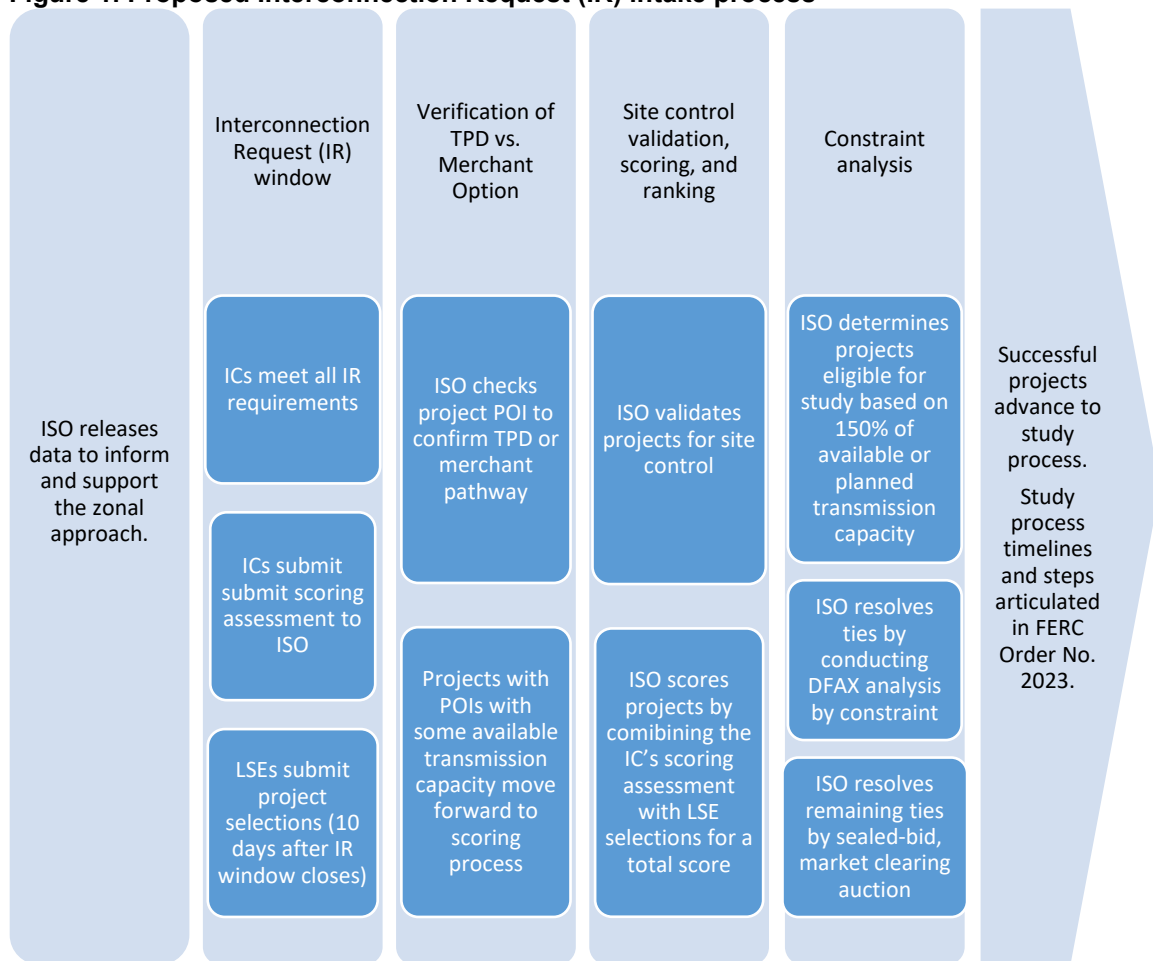
This policy initiative builds upon the new requirements established in FERC Order No. 2023, issued in July of 2023, which sets new standards for interconnection processes around the country. The ISO intends to complement FERC Order No. 2023 requirements with these additional interconnection process enhancements.

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

Between June 2023 and March 2024, the ISO held 13 public stakeholder meetings, with approximately 175 individuals attending each meeting virtually and in-person. Within that timeframe, the ISO posted five papers and received and responded to 6 rounds of written comments from a total of 70 organizations. Early in the initiative, stakeholders participated in working group discussions to establish principles and problem statements related to interconnection request intake and queue management. Participants also proposed concepts and worked with the ISO to explore and refine them throughout the course of the initiative.

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

**Figure 1. Proposed Interconnection Request (IR) intake process**



Prior to the opening of the interconnection request window, the ISO will provide information that helps stakeholders identify areas with available transmission capacity. Generation projects seeking to interconnect outside of the priority “transmission plan deliverability (TPD) zones” may proceed as merchant projects, and will self-fund their associated network upgrades.

With the introduction of new scoring criteria, the reformed process will emphasize project readiness and competition for projects to advance to the study stage. Project scores will be based on indicators related to commercial interest, project viability, and system need. Notably, in evaluating commercial interest, the ISO will incorporate preliminary, non-binding feedback on specific projects from load-serving entities (LSEs). In addition, the ISO provides an opportunity for non-LSE offtakers (e.g. commercial entities) to express an interest in specific projects. These commercial selections will improve the scores of certain projects, increasing the likelihood of those projects advancing to the study process and

ultimately competing for transmission plan deliverability (TPD) and offtake agreements.

Highest ranking projects will advance to the study phase in descending order of a project's score, until the available and planned transmission capacity for each constraint is filled to 150% of that capacity. Ties will be resolved by calculating and selecting the lowest Distribution Factors (DFAX). If ties still exist, the ISO will conduct a market-clearing sealed-bid auction to advance to the study process that will align with the process required under FERC Order No. 2023.

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

The ISO recognizes that several topics unearthed in this initiative require more discussion, particularly around TPD allocations. In order to continue to improve and reform the interconnection effort, and to rapidly onboard increasing amounts of new generation, the ISO will initiate a new track of this initiative shortly after completion of track two, to continue discussions on the deliverability allocation methodology modifications that were proposed in the Draft Final Proposal and addressed by stakeholders in response to these proposed modifications.

Changes from the draft final proposal are based on stakeholder comments, and include the following:

- Refinements to a proposed timeline of the reformed interconnection process as it is expected to align with FERC Order No. 2023 requirements;
- Further explanation of the 150% zonal limitation and how to fulfill 150% of each constraint;
- Modifications to the proposed treatment of Energy Only resources;
- Additional details on the Cluster 15 intake process and schedule;

**2023 Interconnection Process Enhancements**  
***Final Proposal***

- Adjustments to a set of objective indicators for scoring criteria to evaluate project readiness;
- Updates to the viability criteria and a time-in-queue requirement for all projects in the queue.

During the course of this initiative, stakeholders raised a number of important issues regarding the allocation of transmission plan deliverability (TPD). The ISO intends to initiate a new track of this Interconnection Process Enhancements initiative, track 3, to address these issues in the spring and summer of 2024.



## **1. Introduction and Background**

With this paper, the California ISO provides its Track 2 final proposal for the 2023 Interconnection Process Enhancements (IPE) initiative. Given the rapid acceleration of clean energy development to meet reliability and policy needs and the high level of resource development activities reflected in interconnection requests to the ISO, this Track 2 final proposal advances concepts for significant and transformative improvements to the ISO's role in resource planning coordination, transmission planning, interconnection queuing and management, and power procurement.<sup>1</sup>

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, including many requests in areas that have not been prioritized in the state's resource planning. The 2023 IPE initiative is part of a larger set of foundational framework improvements being coordinated among the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and the ISO to help meet California's energy policy objectives in a timely and efficient manner. The overall strategic direction of these efforts is set forth in a joint Memorandum of Understanding (MOU)<sup>2</sup> signed by the three parties in December 2022. The ISO is now taking on additional reforms to the interconnection queuing process that will leverage the improved coordinated planning resulting from the MOU and help further break down barriers to efficient and timely resource development.

The expectations set out in the MOU are:

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<sup>1</sup> The 2023 IPE initiative is utilizing two tracks. Track 1 focused on immediate adjustments to the Cluster 15 study schedule. The Track 1 tariff changes were approved by the ISO Board on May 18, 2023, and will soon be filed with the Federal Energy Regulatory Commission (FERC). Track 2 focuses on targeted modifications to the interconnection and queue management processes. The Track 2 modifications need to be in place when the Cluster 15 studies resume so they can be applied to those studies. It is currently anticipated that the processing for Cluster 15 interconnections requests will resume second quarter, 2024.

<sup>2</sup> The MOU (<http://www.caiso.com/Documents/ISO-CEC-and-CPUC-Memorandum-of-Understanding-Dec-2022.pdf>) is an updated version of a similar 2010 MOU between the parties.

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

This approach is necessary because of the long development timeframe of transmission relative to many energy supply resources. Procurement of new energy supply must consider the availability of transmission to ensure reliable delivery of power to the grid. Also, supply resources will be stranded if they are developed before this infrastructure is planned, approved, permitted, and constructed.

The ISO's strategic intent is for the revised interconnection procedures to give greater priority to interconnection requests aligned with priority zones where transmission capacity exists or has been approved for development. This will help shape the interconnection queue as the resource development community responds with proposed projects in areas enabled by existing or approved transmission. Additionally, the revised procedures will drive resource development with the operational characteristics and in geographic locations consistent with resource planning conducted by the CEC, CPUC, and other local regulatory authorities (LRAs) and the ISO's transmission planning, which is based on that resource planning.

This initiative is focused on the specific changes necessary for the ISO's cluster study and queue management processes to achieve these outcomes while maintaining open access to the transmission grid. With the dramatic increase in projects in the queue, existing tools to move projects to commercial operation are insufficient. There are, for example, 188 gigawatts (GW) in the queue pre-Cluster 15, and 354 GW in Cluster 15 alone. The ISO, LSEs, and industry need a significantly reformed process to advance viable projects and prevent those that are stagnant from hindering the progress of viable projects in the queue.

The ISO also understands the need to ensure consistent treatment on matters of generator interconnection and transmission planning of all offtakers within the ISO footprint, including CPUC jurisdictional LSEs, non-CPUC jurisdictional LSEs,

and non-LSEs. Additionally, the ISO seeks to ensure opportunities for non-CPUC jurisdictional entities to have their project needs considered in the TPP.<sup>3</sup>

This initiative proposes certain tariff amendments to enhance the process for studying and approving interconnection requests and developing additional tools for managing the queue. ISO staff believes that these proposed tariff changes will be submitted for approval to the Board of Governors only and that the WEIM Governing Body will have no role in the decision. This final proposal describes a number of new or modified elements to the ISO's interconnection process. In Section 1, the ISO describes the stakeholder working group process and implications of FERC Order No. 2023 on the IPE initiative. Section 2 includes details of the final proposal elements related to interconnection request intake, and Section 3 outlines a number of proposed changes to the ISO's contract and queue management practices. Sections 4 and 5 outline next steps for the initiative and approvals.

## **1.1. Working Group Process**

Recognizing the potential implications of significant interconnection reform on the ISO's stakeholders, the ISO engaged interested parties in an intensive working group process to inform multiple iterations of this proposal. The ISO views FERC Order No. 2023 as the new baseline for its interconnection process. The FERC Order necessitates additional changes to the ISO's interconnection process, which impacts the scope of this initiative.

During stakeholder working group meetings in summer 2023, the ISO and participants developed agreed-upon principles and problem statements as listed below to assist in aligning objectives and developing solutions. Problem statements addressed two categories of challenges with the interconnection process – interconnection request intake and queue management. Once the agreed-upon principles and problem statements were established, working group

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<sup>3</sup> Several stakeholders have noted the need for consistent treatment of various types of offtakers, including CPUC-jurisdictional, non-CPUC jurisdictional, and non-LSE offtakers. Currently, the ISO reviews power purchase agreements (PPAs) with entities without a RA obligation to verify the agreement requires Full Capacity Deliverability Status, and to ensure there are no corporate relationships between the contracting entities. The ISO rejects agreements that it deems are designed to circumvent the ISO's tariff and purpose of prioritizing TPD allocation by groups to ensure that projects are considered for an allocation in order of viability based on contracting status.

meetings focused on proposed concepts and solutions. Stakeholders participated by providing informal survey responses, candid feedback, their experience, expertise, and thoughtful proposals that aligned with the agreed-upon principles and problem statements. The ISO greatly appreciates the time and effort participants spent to shape this proposal and improve the ISO's interconnection process.

### **1.1.1. Principles**

1. Prioritize interconnection in zones where transmission capacity exists or new transmission has been approved, while providing opportunities to identify and provide alternative POI or upgrades;
2. Ensure meaningful study results that take into account system capability, resource planning from the CEC, CPUC, and other LRAs engaged in these activities; and procurement;
3. Align interconnection and transmission plan deliverability processes with resource procurement functions;
4. Enhance procedures, including contracting and queue management, for ensuring projects proceed to commercial operation and determine how to appropriately handle those that do not;
5. Enhance ability of the interconnection process to support the procurement necessary to meet CPUC resource portfolios, CEC Senate Bill 100<sup>4</sup> portfolios, and portfolios established by non-CPUC jurisdictional LRAs;
6. Enhance public awareness and accessibility of data and information to support and enable the above principles;
7. All parties share increased responsibility to improve the interconnection process.

Parties agreed that the reforms must also:

- Continue to ensure open access and avoid unduly discriminatory or preferential treatment, and
- Result in a process that is manageable, meaningful, and sustainable to the ISO and stakeholders.

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<sup>4</sup> California Renewables Portfolio Standard Program. 2018.  
<https://legiscan.com/CA/text/SB100/id/1819458>

### **1.1.2. Problem Statements: Interconnection Request Intake**

1. Unsustainable increases in interconnection requests have overwhelmed Generator Interconnection and Deliverability Allocation Procedures;
2. Increases in interconnection requests have overwhelmed critical planning and engineering resources across the industry;
3. The Generator Interconnection and Deliverability Allocation Procedures, as currently designed, cannot efficiently accommodate the increased amount of interconnection requests;
4. Study results lose accuracy, meaning and utility when the level of cluster interconnection request capacity is multiple times the existing or planned transmission capacity for an area;
5. Lack of accurate, actionable information on the location and amounts of available interconnection and deliverability capacity prior to opening the interconnection request windows results in increased numbers of interconnection requests;
6. Although the issue of project viability is a widely discussed industry topic, it is not well defined and not currently considered for interconnection request acceptance criteria in the Generator Interconnection and Deliverability Allocation Procedures;
7. Stakeholders need to define which viability criteria are appropriate for a new interconnection request, the point in the process viability is tested and determine if process revisions are needed;
8. Technology solutions to enhance interconnection request intake, validation and study process may exist and should be explored for opportunities to increase efficiencies and reduce time and staff requirements;
9. Timelines for design and construction of interconnection customer required upgrades continue to increase, negatively impacting achievable commercial online dates (CODs).

### **1.1.3 Problem Statements: Queue Management**

1. Following the study process, a number of projects in the interconnection queue do not proceed to commercial operations as expected (e.g., delay

- executing a GIA, meeting contract milestones) and remain in the queue without indication of their intent to proceed to contracting or construction;
2. The current processes for managing the queue present certain challenges for projects proceeding to commercial operation (e.g., modifications, limited operation study, commercial viability criteria) and challenges for the ISO's enforcement of projects that are not;
  3. There is a lack of common understanding of what it means for a project to maintain 'viability' as it moves through the stages to achieve commercial operation.

## **1.2. FERC Order No. 2023 [Updated]**

On July 27, 2023, the Federal Energy Regulatory Commission (FERC) issued Order No. 2023, [Improvements to Generator Interconnection Procedures and Agreements](#).<sup>5</sup> On March 21, 2024, FERC issued Order No. 2023-A, revising some requirements.<sup>6</sup> The ISO intends to comply with the order as fully and quickly as possible, with a compliance filing this spring.<sup>7</sup> The vast majority of the ISO's resulting tariff revisions under Order No. 2023 will mirror FERC's revisions to its own *pro forma* procedures.

Proposed Order No. 2023 reforms are therefore considered beyond the scope of this initiative. At a high level, these reforms include:

- Interconnection request requirements;
- Information availability and heat map;<sup>8</sup>
- Entry fees and deposits for queue entry;
- Site control requirements as defined in FERC Order No. 2023;

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<sup>5</sup> The order was subsequently published in the Federal Register on September 6, 2023.

<sup>6</sup> Because Order No. 2023-A was issued shortly before the publication of this paper, this paper generally reflects Order No. 2023's original requirements. The ISO is reviewing Order No. 2023-A.

<sup>7</sup> The compliance deadline will be 30 days from the date Order No. 2023-A is published in the Federal Register. Generally, this occurs within 1-2 weeks of FERC's issuing the order. The ISO would expect to submit its compliance filing in late April or early May.

<sup>8</sup> The ISO notes, however, that additional information-sharing is proposed in this final proposal, to provide stakeholders with necessary information in advance of the interconnection request application window and to effectuate the zonal approach.

- Study process timelines;
- Financial posting requirements and withdrawal penalties;
- Affected system processes;
- Consideration of grid-enhancing technologies; and
- Consideration of planned storage operation

The ISO does not foresee Order No. 2023 compliance having a significant impact on Clusters 14 or earlier.

The ISO proposes that Clusters 14 and earlier generally remain subject to the GIDAP requirements, and Clusters 15 and beyond will be subject to a new set of procedures and GIAs adopting Order No. 2023 revisions. The ISO will modify both the GIDAP and the new procedures as necessary based on this IPE initiative. It is important to note, however, that these plans ultimately are subject to FERC's direction in Order No. 2023.

Because the ISO must comply with Order No. 2023 and implement the proposals in this paper before commencing the Cluster 15 interconnection study, the ISO will maintain high volume in the queue in 2024. As such, the ISO received ISO Board of Governors approval and is seeking FERC approval to not open an interconnection request window in 2024. The tariff requirements for such a cluster would be in flux, and additional queue volume would compound the challenges described below.

The ISO Tariff Appendix DD, Section 17. Cluster 15 Unique Procedures, Subsection 17.1 Study Procedures and Timelines, provides for the following:

- c. An Interconnection Customer that withdraws its Interconnection Request prior to April 1, 2024 will receive a refund of its Interconnection Study Deposit, including any interest earned, minus any costs expended under the GIDAP on the Interconnection Customer's behalf. If an Interconnection Customer submitted a Site Exclusivity Deposit, it will receive a complete refund of its Site Exclusivity Deposit, including any interest earned. Withdrawals effected pursuant to this provision will not affect Interconnection Customers' rights to withdraw after April 1, 2024, and receive any corresponding refund and interest under the GIDAP, including without limitation Section 3.5.1.1.

While other tariff sections would allow for similar treatment of withdrawing projects after April 1, 2024, the ISO proposes to revise this and other dates in

Section 17 to align with the commencement of the interconnection studies for Cluster 15. These changes will likely be included in the ISO's compliance filing to FERC Order No. 2023. This will provide the ISO and interconnection customers with an appropriate milestone for the applicable deadlines and the flexibility to determine what the appropriate date should be within the IPE initiative. The ISO's intent is to provide reasonable timelines for interconnection customers to withdraw or proceed, modify their projects, and comply with all new requirements for Cluster 15's cluster study.

## **2. Interconnection Request Intake**

### **2.1. The Zonal Approach: Data Accessibility [Updated]**

#### ***Background***

As noted in the first principle stated above, a central tenet of the ISO's reform is the zonal approach: the prioritization of projects that seek to utilize available capacity and are in zones where there are planned capacity additions approved in the ISO transmission planning process as established in state and local regulatory authority resource planning portfolios. The ISO will continue to provide a merchant pathway for projects that seek to interconnect where no transmission exists or has been approved.

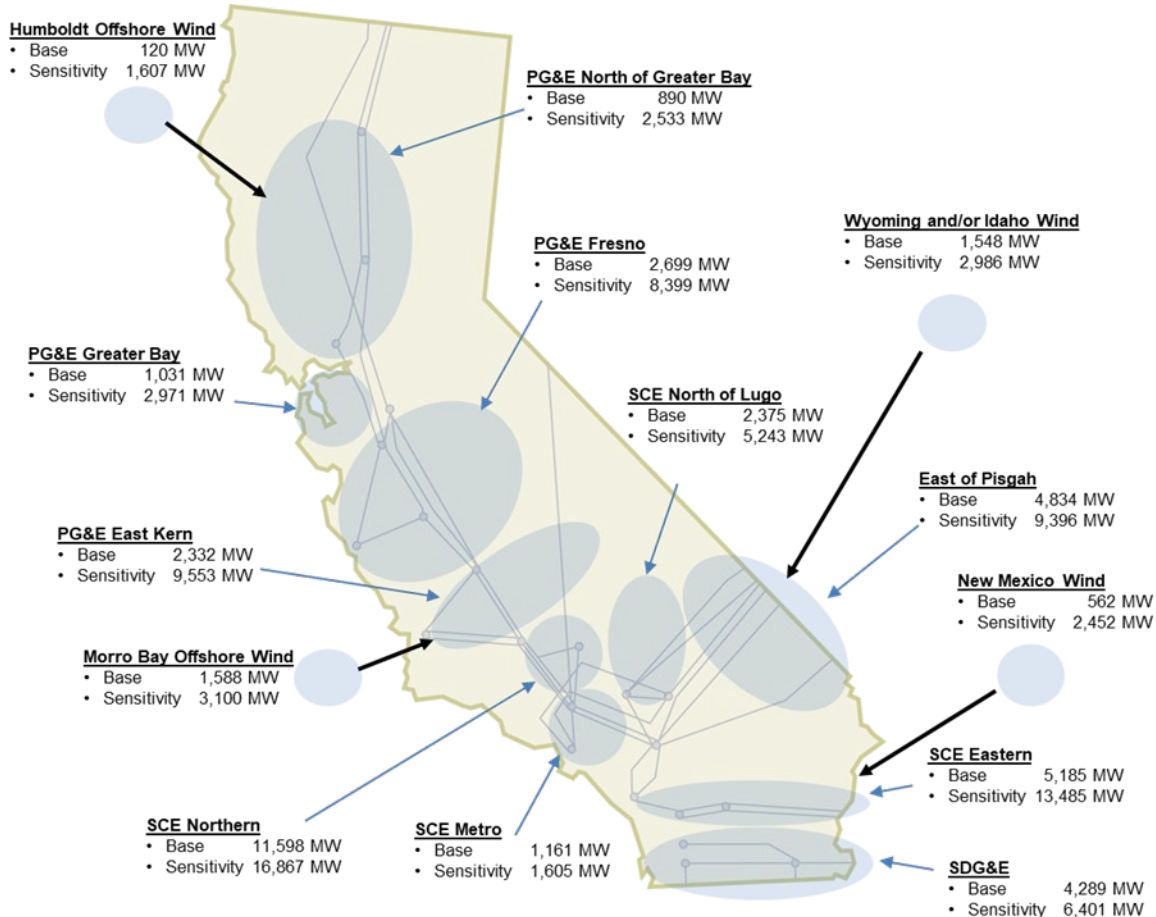
The ISO relies in particular on the CPUC for its lead role in developing resource forecasts for the 10-year planning horizon, with both the ISO and CEC providing input to the CPUC for those resource forecasts. The ISO also relies on the CEC for its lead role in forecasting customer load requirements. The MOU signed by the three parties in December 2022 reaffirms our respective roles and commitment to ensure we are working in concert with one another.

The ISO's 2022-2023 Transmission Plan took a zonal approach to planning for the resources in the portfolio provided by the CPUC for this planning cycle, setting the foundation for the alignment of procurement and interconnection process enhancements, as envisioned in the MOU. Figure 2 identifies the transmission zones and the installed capacity of resources in the base and sensitivity portfolios provided by the CPUC for the 2022-2023 transmission



planning process (TPP).<sup>9</sup> The transmission zones illustrated below are also aligned with the transmission interconnection areas used in the generation interconnection process.

**Figure 2. Transmission Zones and installed capacity of resources for the 2022-2023 Transmission Planning Process.**



The CPUC has mapped the portfolios it generates with input from the CEC and the ISO to the substations<sup>10</sup> within each of the transmission areas or zones

<sup>9</sup> Figure 3.4-1 on page 63 of the ISO's Board Approved 2022-2023 Transmission Plan.  
<http://www.caiso.com/InitiativeDocuments/ISO-Board-Approved-2022-2023-Transmission-Plan.pdf>

<sup>10</sup> The resource-to-busbar mapping process is documented in the CPUC report "Methodology for Resource-to-Busbar Mapping & Assumptions for the Annual TPP" with further refinements as

identifying the installed capacity and technology of the resources in the portfolios. Table 1 lists the interconnection planning areas that the resources have been mapped to, based on the CPUC’s busbar mapping effort. The table lists the transmission area/zone, substation, technology and capacity in the workbooks provided by the CPUC for the mapping of the resources.

**Table 1. Example interconnection planning areas based on CPUC busbar mapping effort.<sup>11</sup>**

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

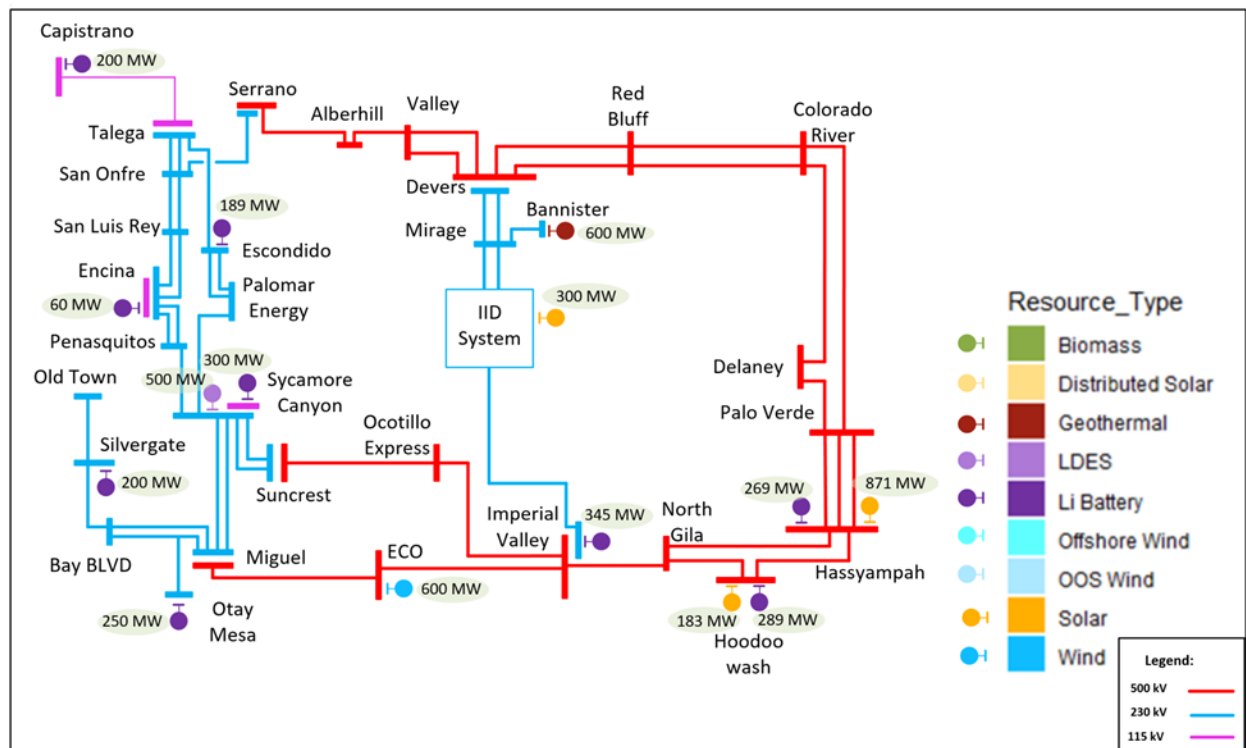
The ISO’s 2022-2023 Transmission Plan provided a single-line diagram for each of the transmission zones, indicating the capacity and technology type where the resources in the portfolio were mapped to the electrical grid in the zone. Figure 3, below, is an example of the resource mapping in the San Diego transmission zone from the 2022-2023 Transmission Plan.<sup>12</sup>

described in the CPUC staff report “Modeling Assumptions for the 2022-2023 Transmission Planning Process”.  
[https://files.cpuc.ca.gov/energy/modeling/Busbar%20Mapping%20Methodology%20for%20the%200TPP\\_V2021\\_12\\_21.pdf](https://files.cpuc.ca.gov/energy/modeling/Busbar%20Mapping%20Methodology%20for%20the%200TPP_V2021_12_21.pdf)  
<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M451/K485/451485713.PDF>

<sup>11</sup>[https://files.cpuc.ca.gov/energy/modeling/BusbarMapping\\_Dashboard\\_38MMT\\_V2022\\_02\\_08\\_v2.xlsx](https://files.cpuc.ca.gov/energy/modeling/BusbarMapping_Dashboard_38MMT_V2022_02_08_v2.xlsx)

<sup>12</sup> Figure 3.5-15 on page 96 of the ISO’s Board Approved 2022-2023 Transmission Plan.  
<http://www.caiso.com/InitiativeDocuments/ISO-Board-Approved-2022-2023-Transmission-Plan.pdf>

Figure 3. Example of resource mapping in the San Diego transmission zone.



In the ISO's annual transmission plan, the ISO assesses the reliability of the transmission system to meet the forecasted load requirements and ability to deliver resources to load for the resources identified in the CPUC portfolios. If needs are identified in the base resource portfolio, the ISO assesses alternatives to determine the transmission mitigation solution to be recommended to the ISO's Board of Governors for approval in the transmission plan.

The ISO also provides data on the capability within the transmission zones in the ISO's Transmission Capability Estimates for the CPUC's Resource Planning Process<sup>13</sup> and for the ISO's annual Transmission Plan Deliverability (TPD) Allocation Report.<sup>14</sup> Within the workbook for the transmission capability estimates for identified constraints in each of the transmission zones/areas, the available TPD is identified associated with the constraint along with the area deliverability

<sup>13</sup> <https://www.caiso.com/Documents/White-Paper-2023-Transmission-Capability-Estimates-for-use-in-the-CPUCs-Resource-Planning-Process.pdf>

<sup>14</sup> <https://mpp.caiso.com/tp/Documents/2023%20TPD%20Allocation%20Report.pdf> (on Market Participant Portal)

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network upgrade (ADNU) that would be needed to increase the TPD. For each ADNU, the estimated increase in TPD and the estimated cost and duration to construct the ADNU are provided. Some constraints may overlap more than one transmission zone. Table 2 illustrates the constraints in the San Diego transmission zone, as an example.

**Table 2. Constraints in the San Diego Transmission Zone<sup>15</sup>**

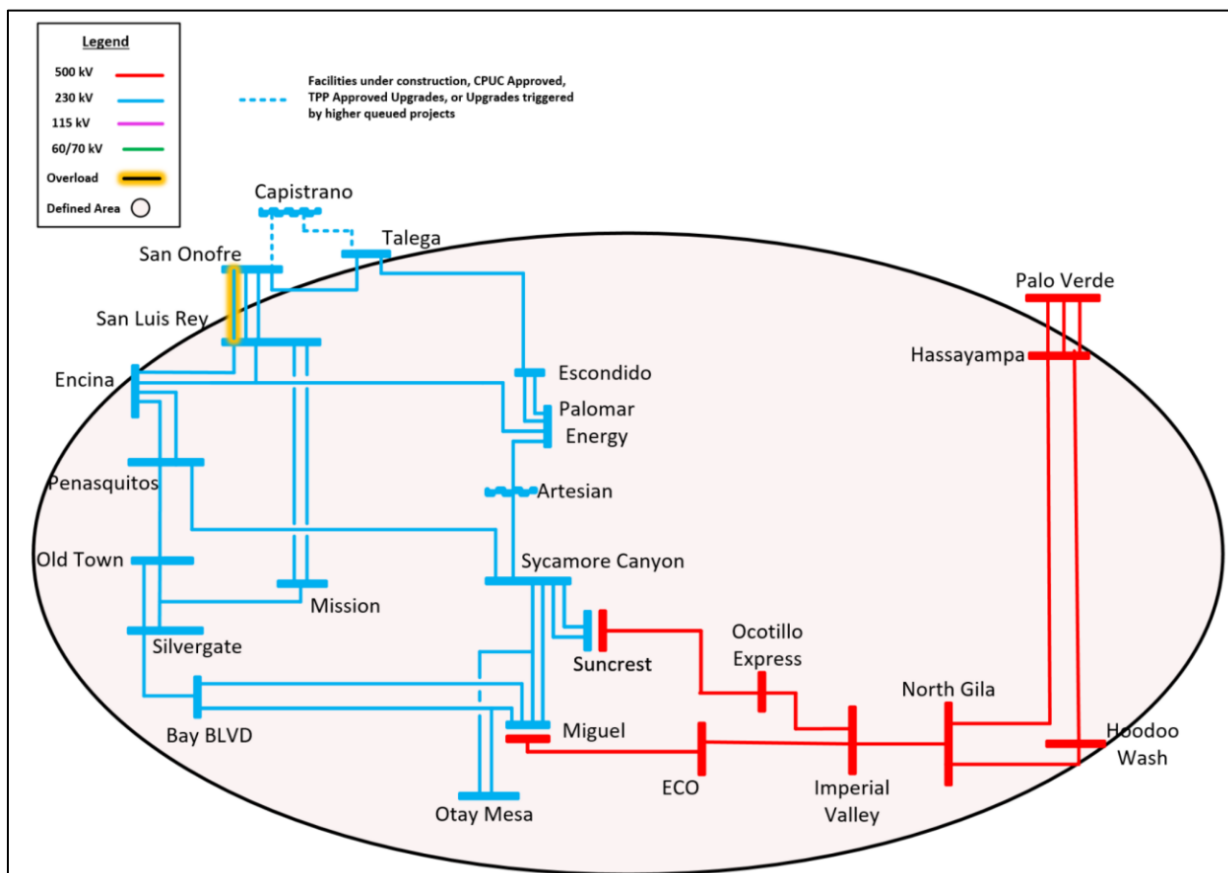
Transmission capability estimates for use in the CPUC's IRP process - Revised 6/28/2023						
Transmission Constraint	Affected Resource Locations	Condition Under Which Constraint is Binding (On-peak and/or Off-peak)	Estimated FCDS Capability Based on On-peak Study Resource Output (MW)**		ADNU & Cost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

Below, Figure 4 and Table 3 from the 2023 Transmission Plan Deliverability Report<sup>16</sup> illustrate the transmission system area for one constraint within the San Diego transmission zone. Table 3 also includes the requested TPD, allocated TPD, and remaining TPD for one of the transmission constraints in the transmission zone. The report indicated that TPD is allocated to the TPD candidates after first preserving capacity for the 2,148 MW prior commitment that is not yet operational, and that there is no available TPD for the eligible candidates.

<sup>15</sup> <http://www.caiso.com/Documents/Transmission-Capability-Estimates-for-use-in-the-CPUCs-Integrated-Resource-Planning-Process.xlsx>

<sup>16</sup> Figure 4.1 and Table 4.2 on page 22 of the 2023 Transmission Plan Deliverability Allocation Report. <https://mpp.caiso.com/tp/Documents/2023%20TPD%20Allocation%20Report.pdf>

**Figure 4. Map of transmission system area for one constraint within the San Diego transmission zone**



**Table 3.** Available TPD for one constraint within the San Diego transmission zone

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

The participating transmission owners (PTO) provide additional information on interconnection requirements in their respective Transmission Interconnection Handbooks.<sup>17</sup> This includes information on specific POI that cannot accommodate further interconnections. The ISO suggests that stakeholders review the information above when assessing potential points of interconnection they are considering. The ISO will reference or document this guidance to interconnection customers prior to the request window.

In summary, for each major constraint limiting TPD capacity in a zone, the following information is available:

- the constraint;
- the limit imposed by the constraint;
- the cost and timeline associated with mitigating the constraint;
- the amount of TPD capacity that has already been allocated; and
- any capacity remaining and available for future allocation.

### ***Stakeholder feedback and discussion***

Throughout working group discussions, stakeholders have emphasized the importance of (1) data transparency and accessibility to inform developers on where transmission capacity would be located, the costs and timing of interconnection, and (2) an alternative self-funding path to enable projects to interconnect outside of the priority zones.

Many stakeholders including American Clean Power (ACP) California, AES, California Community Choice Association (CalCCA), California Energy Storage Alliance (CESA), Clearway Energy Group, EDF-Renewables (EDF-R), Large-scale Solar Association (LSA), NextEra Energy Resources noted their support for the ISO providing additional information as early as possible to yield thoughtful interconnection requests when the request window opens.

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<sup>17</sup> Pacific Gas & Electric. Transmission Interconnection Handbook, Section G2  
Southern California Edison. The Interconnection Handbook (Rev 12)  
San Diego Gas & Electric Company. Generation Interconnection Handbook. 24 April 2023.

Several parties, including the Solar Energy Industries Association (SEIA), also asked the ISO to provide a list of all substations within each identified zone, and summarize substation feasibility information, at a minimum for all substations included in the CPUC's portfolio mapping. The ISO will provide the list of substations within each zone. The ISO will post the redacted individual cluster reports as indicated below.

SEIA also asked for short-circuit data and breaker ratings. The short-circuit models and breaker ratings are posted with the short-circuit models on the ISO market participant portal (MPP) for each cluster study. Recurrent also asked that, in addition to sharing the substations, the ISO share the Local Capacity Requirement Areas (LCRAs) they come under so developers can assess whether their projects may really qualify for the system need scoring item. The local capacity areas are defined in the local capacity requirement technical study reports.<sup>18</sup> Recurrent also asked if interconnection customers can find the 'Constraint-Boundary-Substation-List' for SCE and SDGE. The ISO will post the list for SCE and SDG&E in addition to the list for PG&E.

Cluster 15 interconnection customers ask how they can best determine the transmission capability for the area the project belongs to. In addition to the transmission constraint information already available, the ISO will provide the TPD that has already been allocated behind the constraints as discussed at the December 18 stakeholder call.

Several parties, including Clearway, supported the proposal to post redacted individual interconnection reports. Recurrent asked when the ISO will upload redacted interconnection reports on the MPP Portal. The ISO will begin working on posting the redacted Cluster 14 Phase II reports after the posting of this final proposal, with a target to post by June 1.

AES recommended a vintage-based approach to TPD allocations, which the ISO suggested discussing in track 3 of the IPE initiative. Track 3 will begin shortly after track 2 concludes.

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<sup>18</sup> <https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/Local-capacity-requirements-process-2024>

BAMx supported the zonal approach and the option to self-fund network upgrades through a modified merchant deliverability process for projects outside of zones. CalCCA also supported the provision of data prior to interconnection request submittals to ensure alignment with resource and transmission planning and procurement.

AES also supported the ISO providing a single capacity number for each zone, but seeks clarification if each zone's capacity number will be the accepted MWs for each Transmission Plan Deliverability (TPD) zone. If so, AES seeks clarification on when the ISO will provide the single capacity numbers for each zone for each year. The ISO is not able to share a single capacity number for each zone because there can be multiple constraint-based capacity limitations within a zone and across zones, making it inappropriate to publish a single number per zone.

In addition, AES sought a list of substations where there is no available capacity to interconnect from PTOs, and suggested that at a minimum, the ISO should include the breaker ratings in the short-circuit models in the cluster Interconnection Area Reports and all attachments to the published Appendix A individual interconnection reports with confidential information removed. The ISO has seen information on POIs with no capacity shared in PTO handbooks and encourages stakeholders to reach out to the PTOs to ask them to include this information in their interconnection handbooks if they do not already. Regarding inclusion of additional information, the ISO has proposed to include all attachments to Appendix A reports (with confidential information redacted). The ISO already provides the breaker ratings in short-circuit models in the cluster study.

Power Applications and Research Systems, Inc. (PARS) suggested that the ISO clearly distinguish between "zones" and "study areas." The ISO notes that the transmission zones and the GIDAP study areas are the same and are described in Chapter 3 of the 2022-2023 TPP report.

Power Flow Development, LLC noted a broader concern that following the 2024 deliverability allocations, limited deliverability will remain in the ISO. The ISO understands this concern and will continue the TPD allocation modifications discussion in an IPE track 3, which will work to develop a process that functions well with the new procedures proposed in this Track 2 initiative.

Recurrent also asked if projects connecting to substations with no prior queue requests can seek information from Participating Transmission Owners (PTOs) on Interconnection Reliability Network Upgrade (IRNU) requirements to connect



their projects. There is no formal process or requirement for this, however, PTOs may be able to provide available information on specific substations on a best efforts basis.

## ***Proposal***

A central tenet of this initiative is the prioritization of projects in areas with available transmission capacity for progression into the study process. This proposal reflects the first principle established by the working group to “Prioritize interconnection in areas where transmission capacity exists or new transmission has been approved, while providing opportunities to identify and provide alternative points of interconnection or upgrades.” Projects or interconnection requests outside the zones will still have the option to self-fund network upgrades through a modified “Merchant Deliverability” process, as explained below. The ISO understands that access to information is critical for the zonal approach, and will provide stakeholders with information on the available transmission capacity within the transmission zones prior to the interconnection request window.

### **Accessible information**

Much of the information necessary to understand where transmission capacity exists or has been approved is currently available through a number of independent documents and workbooks. The ISO will consolidate the information for each of the interconnection areas into one document so it is easier to assess the available interconnection capability at points of interconnection. This will include:

- Single-line diagrams of the interconnection area with the CPUC portfolio resources identified at the substations to which the CPUC has mapped resources in its busbar mapping process;
- Transmission constraints that have been identified within each interconnection area, with the available TPD, the area deliverability network upgrade (ADNU) identified to increase beyond the current TPD along with the estimated cost and time to construct the identified ADNU; and
- Single-line diagrams that identify the points of interconnections that were studied and that are behind each of the identified constraints.

The ISO will also provide:

- A list of substations within each of the identified transmission interconnection areas;
- For each transmission constraint, points of interconnection where resources in the queue were located in the studies behind the constraints;
- The TPD that has been allocated for each transmission constraint.

The ISO proposes to provide the first consolidated report by April 1, 2024 to inform Cluster 15.

As indicated, the resources identified within the CPUC portfolios mapped to the substations within the transmission interconnection areas are assessed in the annual transmission planning process. This is done to determine the capability of the existing transmission system and identify transmission projects for approval to address the constraints identified to deliver the capacity and types of resources to load at the locations identified in the CPUC portfolios. The transmission constraints in the Transmission Capabilities Estimates are used by the CPUC in development of its portfolios. While the ISO is planning the transmission up to the resource identified in the CPUC portfolio in each of the interconnection areas, the specific constraints provide the capability of sub-zones within the interconnection area. A particular interconnection point may be identified behind more than one constraint, as some of the constraints are either nested within or overlap other constraints. The capability of a POI for resource interconnection needs to consider all of the constraints that it would be behind. The ISO will utilize the transmission constraint information along with the allocated TPD to determine available transmission capability for future clusters to be studied, as described below.

Because of the issues described above, the identification of the amount of available transmission capacity, whether currently available or planned, needs to be based on the available capacity associated with the various constraints within a given zone. The ISO had anticipated using the CPUC resource portfolio to determine the available capacity by subtracting the amount of allocated TPD in each zone from the new resource capacity identified for each zone in the CPUC's portfolio. This method would be used for determining which zones have available capacity and would be designated a TPD option zone for the study process. Zones with no available capacity, based on this methodology, would be designated as Merchant option zones. However, the ability for a project to be able to proceed to the study process begins with determining if there is available

capacity for the project based on the constraints associated with the project's POI. There are cases where the determination of available capacity based on the CPUC portfolio does not align with the amount of available capacity associated with the particular constraints within the zone. This can be due to the lag between the publication of the portfolio and the completion of the ISO transmission plan based on that portfolio. As a result, the available transmission for a zone would be overstated until the transmission plan based on that portfolio is approved by the ISO Board of Governors. There are also issues where a project approved in the transmission plan provides more available capacity than the portfolio seeks because the best transmission project provides somewhat more capacity than the portfolio calls for.

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

### **Updated Queue Reports**

The ISO updated the information within the Queue Report in Q2 of 2023 to include additional details for each project in the active queue, including:

- Which projects have TPD allocated to them as FCDS, PCDS (with percentages), or are Energy Only;
- The interconnection area where the queue project is located. The interconnection areas that are in the queue report do not reflect the current interconnection areas identified in Figure 2.

The ISO proposes to identify in the queue report where FCDS has been allocated and where it has been requested and not yet allocated to each interconnection customer. The ISO will also update in the Resource Interconnection Management System (RIMS) the area information based on the current interconnection areas.

### **Interconnection Heat Map**

FERC Order No. 2023 requires transmission operators to make available a heat map, along with specific associated information, 30 days after the cluster study and 30 days after the Restudy. The ISO is in the process of developing requirements for the heat map and associated information and is working to provide an initial heat map based on the Cluster 14 Phase II base cases as well as the 2024 Reassessment base cases. Because this initial heat map is not part of compliance with FERC Order No. 2023,<sup>19</sup> it will likely not be available 30 days after the Cluster 14 Phase II reports are issued. The ISO is targeting for the initial heat map information to be available within Q3 of 2024. The heat map will provide information at the POI level of available capacity based upon the generation that was included in the latest cluster study and after the restudy. In addition to providing the heat map based on the latest cluster study and restudy, the ISO proposes to provide the heat map information after the annual TPD allocation study. Additional information will be provided to generators assessing potential points of interconnection by virtue of having the heat map information of available capabilities based on the resources that were studied in the latest Cluster Study/Restudy, as well as the available capacity after the TPD has been allocated. After Order No. 2023 compliance, the ISO will continue to provide the data described in this proposal in addition to data required under Order No. 2023.

### **Interconnection Area Reports**

Interconnection Area Reports from each Cluster Study are currently made publicly available on the ISO's market participant portal. This provides details of the Cluster Study and the associated network upgrades that have been identified. The interconnection area reports do not include the specific interconnection network upgrades required to interconnect the generator at the specified POI.

The ISO proposes to post the individual interconnection reports on the ISO market participant portal in Appendix A of interconnection reports in redacted form to remove confidential information. Appendix DD of the ISO tariff in Section 3.6 states: "Except in the case of an Affiliate, the list will not disclose the identity of the interconnection customer until the interconnection customer executes a GIA or requests that the applicable Participating TO(s) and the ISO file an

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<sup>19</sup> Order No. 2023 does not require heat maps until "after the first cluster study after the Commission-approved effective date of the transmission provider's filing."

unexecuted GIA with FERC.” At a minimum, this information will be redacted, unless an LGIA has been executed, and the ISO will assess if any additional information in the reports should be considered confidential. This will provide generators information on available interconnection capability and potential interconnection requirements at points of interconnection being considered.

### **Non-CPUC jurisdictional LSE Resource Plans**

In addition to the portfolios received by the CPUC for the annual transmission planning process, the ISO will coordinate with other LRAs and non-CPUC jurisdictional entities to determine their approved resources in their individual Integrated Resources Plans (IRP) to include in the transmission planning analysis. As part of the 2024-2025 transmission planning process, the ISO will request non-CPUC jurisdictional entities to provide their current approved resource plans as input into the development of the study plan that the ISO will engage stakeholders on in February.

## **2.2. Interconnection Process Timeline**

### ***Background***

The ISO provided a generic timeline of the interconnection process in the draft final proposal, taking into account FERC Order No. 2023 requirements and layering in the need to provide updated information to inform stakeholders and implement the zonal approach to interconnection.

### ***Stakeholder feedback and discussion***

The California Public Utilities Commission Public Advocates Office supported the proposed generic timeline and information accessibility.

ACP-California asked the ISO to provide a timeline for Cluster 16 as soon as possible. The ISO includes Cluster 16 in a proposed timeline below, which would be subject to FERC’s rulings on the ISO’s IPE and Order No. 2023 filings.

In terms of sequencing, AES, CESA, Middle River Power, New Leaf Energy, NextEra, Q Cells USA Corp (Qcells), SEIA, Strata Clean Energy, Terra-Gen, and Vistra suggested opening the request window after the TPD allocation study for stakeholders to view deliverability information before submitting interconnection requests. New Leaf Energy also suggested opening the interconnection request window after the ISO releases the draft Transmission Plan in late March. The

ISO agrees, as depicted in the revised proposed timeline below. In addition, Rev Renewables (Rev) and the SEIA requested that the ISO share the cut-off point for determining the available capacity for the next cluster. The ISO plans to release the results of the TPD allocation study in July of each year, and the ISO will complete the heat map roughly one month later, which gives the interconnection customers roughly two months to use the information.

AES asked for clarity around the single phased study process, specifically how restudies would be performed and whether the existing cost cap for network upgrades would apply. Issues associated with study timelines are dictated primarily by FERC Order No. 2023, and the timeline provided below seeks to incorporate those FERC Order No. 2023 requirements as well as necessary IPE reforms. Items related to the study plan and cost cap will be addressed in the ISO's Order No. 2023 filing. In addition to these timeline questions, AES made some recommendations regarding TPD allocations, which would be appropriate items to discuss in track 3 of the IPE initiative, which the ISO intends to initiate shortly after conclusion of track 2.

AES recommended the ISO to update the list of substations in each interconnection priority zone after the TPD allocation study results so customers can accurately locate the interconnection priority zones for Cluster 15. The ISO clarifies that these substations will not change based on the TPD allocation study results. The ISO will not be able to provide information on the amount of a capacity each substation can receive because this is project specific.

CalWEA recommended that the timeline also include the timing of when the three TPD allocation opportunities start for a particular cluster, when the CPUC provides IRP resource portfolios, and when available capacity information will be published by the ISO. The timeline includes detail on the information the ISO will provide for interconnection purposes, including the first opportunity for each cluster to seek TPD allocations. Because the ISO's transmission planning process uses the CPUC's resource portfolio as an input, stakeholders should infer that the CPUC's Preferred System Plan is adopted prior to each year's transmission plan.

CESA asked whether summary data from the submitted TPD affidavits could be provided to better inform whether an interconnection request is submitted. The ISO provides as much information as currently possible in the TPD Allocation Report, but can explore additional transparency in track 3 of this initiative, which will focus on deliverability allocations.

Clearway requested that the ISO confirm that the TPD Allocation study to be performed in 2025 be tied to the timing of the Board of Governors' approval of the 2024-2025 Transmission Plan and will include all the approved projects as topology assumptions to allocate TPD to generation projects that are mature in the study process. The revised timeline envisions this sequencing.

NextEra and Recurrent raised specific questions around the timeline as it relates to Clusters 15 or 16. The revised timeline below clarifies the different timeframes for each cluster cycle.

Recurrent asked specific questions regarding scoping calls and Interconnection Financial Security (IFS) posting with restudy and interconnection facility studies. This is part of the ISO's Order No. 2023 compliance filing and the details on the specific timeframes and milestones will be included in that.

The Six Cities asked whether the proposed timeline suggests a gap in the 2024-2025 Transmission Plan and what the ISO will do to address such a gap. In particular, if there is no transmission capacity within a zone, and a non-CPUC jurisdictional LSE has identified a required project, Six Cities asked how the ISO will ensure that such a project can advance through the interconnection study process on a non-discriminatory basis. The ISO has coordinated with non-CPUC jurisdictional LSEs and they have submitted their resource plans into the 2024-2025 transmission planning process. The ISO will continue to coordinate with non-CPUC jurisdictional LSEs in this manner.

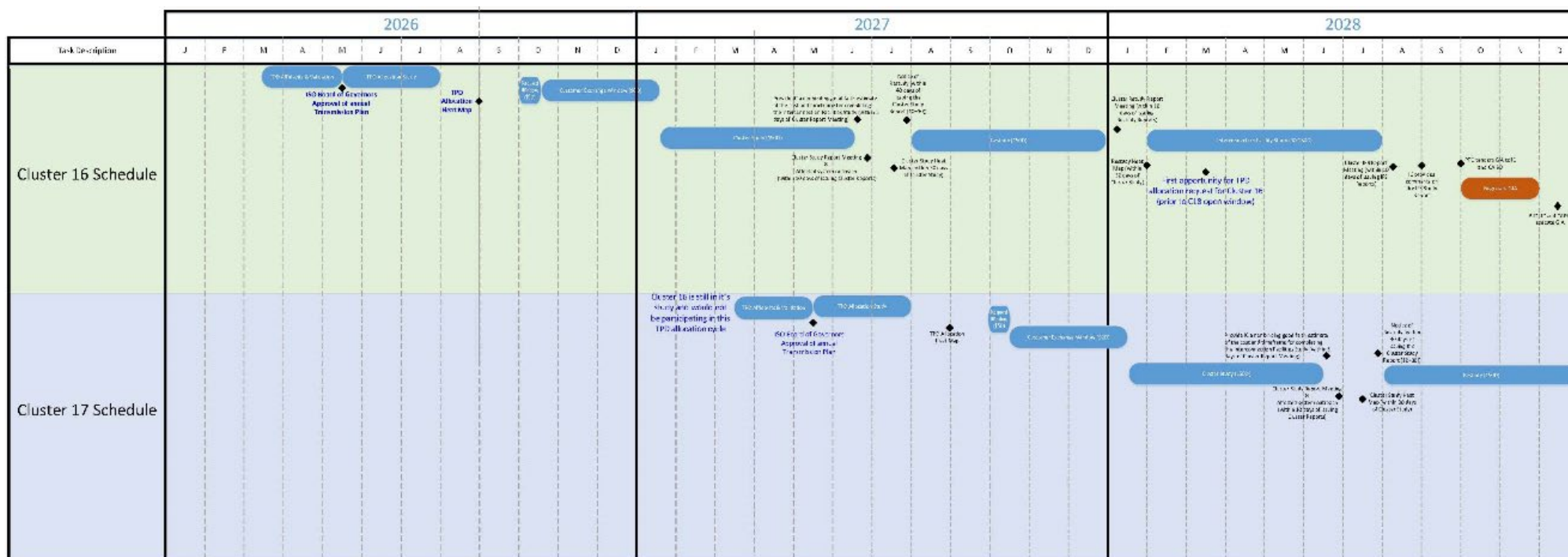
Terra-Gen requested that the ISO add the timing and details of security postings to the timeline. This information will be included in the ISO's compliance filing for Order No. 2023.

Vistra suggested modifications to the timeline to differentiate cluster timelines for previous clusters, adding the interconnection facility study, and adding years 3-7 and proceeding to the Generator Interconnection Agreement (GIA) timeline. The revised timeline includes differentiated cluster timelines, including Cluster 15.

## ***Proposal***

The ISO offers a revised proposed schedule in Figure 5 to demonstrate the relative timing of information availability related to key milestones and reports throughout the transmission planning, TPD allocation, and interconnection process.

**Figure 5.** Proposed basic schedule for information availability and interconnection study process.





## **2.3 Interconnection Request Requirements and Review [Updated]**

Throughout this initiative and working group process, the ISO and stakeholders have explored new or elevated requirements (financial and non-financial) for a complete interconnection request to require a greater level of project readiness before study. In addition, stakeholders considered mechanisms to incorporate LSE input on priority projects, scoring criteria, and higher fees and deposits.

The detailed proposals below seek to comply with new FERC requirements, address stakeholder concerns and proposals, and gather information necessary to evaluate project readiness and inform prioritization of projects that advance to the study phase. In addition to FERC's new requirements, the ISO proposes that interconnection customers must submit a score-sheet in their interconnection request. This will be similar to the TPD scoring affidavits submitted today, but with different criteria.

Upon submittal of an interconnection request, the ISO proposes to apply scoring criteria to advance the most "ready" projects into the study process for each zone. If the scoring criteria do not sufficiently reduce the capacity to be studied in each zone, the ISO proposes a sealed-bid auction.

As discussed below, the ISO does not propose to require interconnection customers to submit sealed bids for the potential zonal auction with interconnection requests. The ISO explains each component, below.

### **2.3.1. Site Control**

FERC Order No. 2023 increases the site control requirement to 90% upon submission of an interconnection request; therefore, the IPE process will no longer consider changes to the current site exclusivity requirement. The ISO will comply with the site control requirements established in Order No. 2023. Cluster 15 interconnection customers will need to provide site control documentation before their cluster study commences, or they will not be included in the Cluster 15 study.

Several stakeholders requested sufficient notice and clarification of whether and when Cluster 14 projects would be required to obtain site control as required under Order No. 2023. The ISO does not propose to apply this requirement to Cluster 14 projects as part of the IPE initiative. The ISO also does not intend to subject Clusters 14 and earlier to new site control requirements through Order No. 2023. However, the ISO will be subject to FERC's compliance directives,

which may differ from the ISO's proposed compliance. The ISO does not believe additional site control measures must apply to earlier clusters given where they are in the queue, commercial viability criteria requirements for site control, and the fact that Cluster 14 site exclusivity deposits are now non-refundable.<sup>20</sup>

### **2.3.2. Entry Fees and Deposits**

Order No. 2023 imposes several new entry fees and study deposits. Stakeholders have suggested that the ISO reconsider current levels of entry fees and study deposits, but the ISO does not propose such changes at this point.

### **2.3.3. Treatment of Full Capacity Deliverability Status and Energy Only resources [New]**

#### ***Background***

In the draft final proposal, the ISO proposed to process all interconnection requests in the same manner, regardless of whether they seek Full Capacity Deliverability Status (FCDS), Partial Capacity Deliverability Status (PCDS) or Energy Only status within zones with available transmission capacity, with Energy Only resource capacity not counting toward the 150% cap.

#### ***Stakeholder feedback and discussion***

In their comments, AES, CalWEA, CESA, LRE, LSA, and SEIA raised concerns that under the proposed scoring criteria, an Energy Only project will likely be unable to receive enough points to ever be studied.

ACP-California requested additional details regarding how Energy Only projects seeking to interconnect under the Merchant Deliverability option would be treated and requested the Final Proposal ensure that Energy Only projects can interconnect in Merchant Deliverability zones but that they cannot use this approach to “free ride” on the upgrades paid for by others under the Merchant Deliverability approach.

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<sup>20</sup> Section 16.1(l) of the GIDAP.

PG&E opposed allowing for all Energy Only projects scoring high enough to be studied without counting towards the 150% zonal cap and stated that the addition of Energy Only projects is not necessary for meeting energy-only resource needs identified in the CPUC's Integrated Resource Planning (IRP) process, as at least one-third of projects that are being studied in a TPD option zone will potentially not get deliverability. PG&E further stated that FERC Order 2023 mandates completion of cluster studies in 150 calendar days. Not putting a limit on Energy Only projects puts the PTOs at potential risk of not meeting the mandated study deadlines.

The ISO has considered stakeholder concerns along with the various stakeholder suggestions for improving the process for Energy Only projects and puts forth the following revised proposal for processing Energy Only interconnection requests.

### ***Proposal***

The proposal continues to require FCDS, PCDS, and Energy Only projects to meet the same site control requirements, provide the same entry fees and study deposits, and provide a self-assessment interconnection request score sheet.

FCDS, PCDS interconnection requests in TPD option zones continue to go through the scoring process and compete to be studied. Projects that have co-located technologies, such as solar PV and BESS that are seeking different deliverability statuses for those technologies (e.g. Partial Capacity Deliverability Status (PCDS)), will be scored as a single aggregated project.

The interconnection procedures for Energy Only projects will include two options. The first option is for projects that seek to interconnect in zones where the CPUC IRP base case portfolio identifies the need for Energy Only resources. Projects in this path will be eligible for reimbursement of the cost of reliability network upgrades (RNUs) funded by the interconnection customer. This option is the Reimbursement option.

The second option is for all other Energy Only resources seeking to interconnect in zones where the CPUC's IRP base case portfolio has not identified the need for Energy Only resources or that seek to interconnect in zones that the CPUC has identified the need for Energy Only resources, but opt to be studied and without having to be scored and to interconnect without being eligible for reimbursement of the cost of RNUs funded by the interconnection customer. This option is the Non-reimbursement option. Other than the use of the CPUC

portfolios, the identification of zones where Energy Only resources are eligible for reimbursement is totally decoupled from the TPD zone/Merchant zone criteria.

Energy Only projects seeking to interconnect under the Non-reimbursement option will not be required to submit scoring information because all such projects will be eligible to be studied. Projects seeking to be studied under the Reimbursement option will compete to be studied using the same scoring metrics used for FCDS projects. However, Reimbursement Energy Only projects will only be scored against the other such projects in their zone. These interconnection requests will be accepted up to a 150% study limit based on the amount of Energy Only capacity in the CPUC portfolio for each zone. Projects seeking to interconnect using the Non-reimbursement option can be studied in zones that are eligible under the Reimbursement option. Such projects would not have to compete to be studied in the scoring process and would continue to be ineligible for reimbursement of RNUs.

## **2.4. Interconnection Request Intake Process [New]**

Below, the ISO outlines the interconnection request intake process for projects seeking to interconnect in TPD option zones and merchant zones. The process described below provides more information on the steps the ISO will implement during the interconnection request intake process and does not modify the intake proposal. However, the steps for Energy Only projects are related to the revised proposal for Energy Only projects in the prior section.

### **Process for projects seeking to interconnect as FCDS in TPD option zones**

The TPD option zones are such zones where at least 50 MW of available capacity exists within the zone based on an assessment of the known constraints within the zone.

1. Projects must meet the complete IR requirements before the close of the IR window and no changes in point of interconnection (POI) will be allowed after the window closes.
2. The ISO will check projects seeking to interconnect in TPD option zones to determine if their POI are behind any known constraint with no available transmission capacity. Projects with POI behind no known constraints or constraints with some available transmission capacity move forward.

3. The ISO will validate complete and confirmed projects for Site Control. Those that meet requirements move forward.
4. The ISO will score projects that met the above requirements using the IC's scoring information, which the ISO will validate and combine with any scores from the LSE selection process for a total score.
5. The ISO will rank project scores for each TPD option zone that has IRs.
6. Using the projects scores, the ISO will determine the projects that are eligible for study based on the 150% of available or planned transmission capacity behind each known constraint.
  - In the case of scores being tied and not enough available transmission capacity for all tied projects to be selected, project's DFAX will be used to break the ties.
  - Any ties that remain due to having same DFAX are designated to move into the auction process.
7. The ISO will conduct an auction if necessary to complete list of projects to be studied.
8. The ISO will validate the remaining technical data for each IR that has been determined to be eligible for study.
9. The ISO will conduct zonal level group scoping meetings for all zones (TPD and Merchant, including all Energy Only projects).

**Process for projects seeking to interconnect as FCDS in merchant option zones**

The Merchant option zones are such zones where less than 50 MW of available capacity exists within the zone based on an assessment of the known constraints within the zone.

1. Projects must meet the complete IR requirements before the close of the IR window, including the additional Commercial Readiness Deposit (\$10,000 per MW) and no changes in point of interconnection (POI) will be allowed after the window closes.
2. The ISO will check projects to confirm their POIs are in a Merchant option zone.

3. The ISO will validate complete and confirmed projects for Site Control – those that meet requirements move forward.
4. The ISO will validate the technical data for each IR that has been determined to be eligible for study.
5. The ISO will conduct zonal level group scoping meetings for all zones (TPD and Merchant, including all Energy Only projects).

### **Process for projects seeking to interconnect as Energy Only**

Eligibility for Energy Only projects under the Reimbursement option includes projects seeking to interconnect in zones where the CPUC portfolio's amount of Energy Only Delivery Status resources are greater than zero MW in that zone. Energy Only projects under the Non-reimbursement option may seek to interconnect in any zone, regardless of the findings of the CPUC IRP process.

1. Projects must meet the complete IR requirements before the close of the IR window and no changes in point of interconnection (POI) will be allowed after the window closes.
2. The ISO will check Reimbursement option projects to confirm whether their POI is in a Reimbursement eligible zone.
3. The ISO will validate complete and confirmed projects for Site Control – those that meet requirements move forward.
4. The ISO will score projects that met the above Reimbursement option requirements using the IC's scoring information, which must pass validation. The ISO will then combine project scores with any scores from the LSE selection process for a total score.
5. The ISO will not score projects seeking to interconnect under the Non-reimbursement option.
6. The ISO will rank scores of projects in Reimbursement zones against other Energy Only projects within the same zone.
7. The ISO will determine the projects that are eligible for study based on the 150% threshold limit per Reimbursement zone.
  - a. The ISO will use project DFAX to break any ties.

- b. If any ties remain, projects will be selected starting with the smallest and moving upwards in size until the 150% threshold is met or surpassed.
8. Reimbursement option projects that are not selected for study in the scoring process may convert to the Non-reimbursement option.
9. The ISO will validate the technical data for each IR that has been determined to be eligible for study.
10. The ISO will hold zonal level group scoping meetings for all zones (TPD and Merchant, including all Energy Only projects).

### **2.4.1. Fulfillment of 150% of Available and Planned Transmission Capacity [Updated]**

#### ***Background***

To fulfill each of the zones described in Section 2.1, the ISO proposes to analyze individual transmission zones with sub-zonal constraints. In the interest of transparency, the ISO will use the same information provided to stakeholders prior to the interconnection process.

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

#### ***Stakeholder feedback and discussion***

Stakeholders were divided in their support for fulfillment of 150% of available and planned transmission capacity.

The ISO issued a survey to Cluster 15 interconnection customers to understand how Cluster 15 projects would score and compete based on available

transmission capacity. In addition, the ISO ran a test of the constraint analysis using Cluster 15 projects and survey results. Results are shown in Table 4.

The test started with 508 Cluster 15 projects. The initial constraint check brought 508 down to 200, which we applied scores to (based on Cluster 15 survey results) and moved those 200 into the study process based on highest scores until we reached 150% of each constraint, which left 112 projects. The initial constraint check eliminated so many projects (300 projects, from 508-200) because there were several large areas behind constraints that have no available transmission capability. Notably, in this test run, the DFAX was only used to resolve one tie, and no auction would have been needed. The TPD and Merchant zones are not reflected in this test.

**Table 4.** Results of Cluster 15 test run

	Initial number of IRs	Advance to scoring	Advance to study (150%)
Total	508	200	112

## ***Proposal***

The ISO continues to propose the 150% sub-zonal constraint limitations as a means to reasonably filter the most ready projects to the study process, maintain open access, and ensure competition after the studies are complete. Further analysis of Cluster 15 data and survey results will inform any potential final modifications to the 150% sub-zonal constraint limitation.

The ISO modifies its proposal so any TPD zone where the available capacity is 50 MW or less will be studied as a Merchant option zone. The ISO also clarifies that the TPD option zones are zones where at least 50 MW of available capacity exists within the zone based on an assessment of the known constraints within the zone. Merchant option zones are zones where less than 50 MW of available capacity exists within the zone based on an assessment of the known constraints within the zone.

### **2.5. Cluster 15 Intake Process and Schedule**

The following is the Cluster 15 intake process and schedule the ISO plans to submit to FERC in its FERC Order No. 2023-A compliance filing.



1. Between October 1, 2024 and December 1, 2024, interconnection customers may modify their interconnection requests in accordance with ISO Tariff Appendix DD Section 17.1(b).
  - a. All interconnection request scoring information is due to the ISO by December 1, 2024.
  - b. Any information required by Order No. 2023 and not already submitted to the ISO is due to the ISO by December 1, 2024 (*e.g.*, changes to deposit requirements, site control documentation).
  - c. All interconnection requests must be complete by December 1, 2024, with no opportunity to cure (for completeness, *i.e.*, missing information).
2. All LSE project selection information is due to the ISO by December 11, 2024.
3. Between January 1, 2025 and May 1, 2025, the ISO will;
  - a. check interconnection requests against all proposed criteria (see outline in Section 2.4) to determine which interconnection request are eligible to move forward to validation, and
  - b. iterate with interconnection customers to validate all complete interconnection requests and cure any technical errors.
4. An interconnection customer that withdraws its interconnection request prior to January 1, 2025, will receive a refund of all interconnection deposits including any interest earned, minus any costs expended on the interconnection customer's behalf. After this date, interconnection customers' rights to withdraw and receive refunds will be based on the applicable tariff provision.
5. The ISO will complete all zonal level group scoping meetings for all zones (TPD and Merchant, including all Energy Only projects) by no later than May 31, 2025.
6. The development of the Cluster 15 base case to be completed and the cluster study to begin by June 1, 2025.

### **2.5.1. Scoring Criteria for Prioritization to the Study Process [Updated]**

#### ***Background***

In the Discussion Document, the ISO raised the possibility of a scoring process based on criteria that would rank interconnection requests on their readiness. The ISO explored with stakeholders the various factors that indicate project viability and readiness, and conducted a survey of stakeholders to better understand various approaches and considerations in the development process.

The ISO is asking stakeholders to adapt to a process under which interconnection requests should be based on real and ready projects. The intent is to encourage interconnection customers to invest time and money in individual projects prior to submitting an interconnection request. The ISO believes this is consistent with the new site control requirements in FERC Order No. 2023. However, while the ISO expects to advance the most ready projects, stakeholder feedback was clear that the ISO should not expect binding commercial discussions to have taken place prior to an interconnection request. The ISO sought feedback from stakeholders on how best to incorporate LSE interest earlier in the process. Such LSE feedback will help satisfy the MOU goal of aligning resource and transmission planning with procurement and interconnection. The ISO also seeks scoring criteria and individual indicators that are objective and minimize the potential of protracted exchanges regarding interpretations of certain criteria. Finally, stakeholders – particularly current or future interconnection customers – have suggested scoring criteria that is sufficiently granular to minimize ties and effectively distinguish projects from one another. The previous proposals have explored three key categories for evaluating projects to advance to the study process: commercial interest, which includes an opportunity for LSEs and non-LSEs to express interest in particular projects; project viability, and system need.

#### ***Stakeholder feedback and discussion***

Several stakeholders were broadly supportive of the scoring criteria, with modifications, including ACP-California, CalCCA, PG&E, SDG&E, and SDG&E. Other stakeholders, such as AES, CalWEA, ENGIE NA, Intersect Power, SEIA, Strata Clean Energy, and Terra-Gen expressed concerns that the scoring criteria do not provide enough granularity and place too much emphasis on LSE interest very early in the project development cycle.

EsVolta, MN8, Rev Renewables, and Q Cells USA Corp. expressed opposition to zonal limitations, scoring criteria, and the auction approach. MN8, Strata Clean Energy, and Terra-Gen recommended implementation of implementing Order 2023 before returning to the stakeholder process. The ISO reminds stakeholders of the magnitude of Clusters 14 and 15 and the urgency of moving new projects through the intake process in order to meet reliability needs and rapidly transmission to clean electricity. Previous phased approaches have not sufficiently addressed the unprecedented interconnection queue volumes, and the associated challenges those volumes present to the process, ISO staff, PTOs and interconnection customers.

The ISO has reflected on the voluminous feedback from stakeholders throughout the IPE initiative, and understands that prospective scoring criteria will impact stakeholders' commercial positions. In many cases, certain stakeholders argued that a certain point value was too high while other stakeholders argued it was too low. Nevertheless, the ISO continues to try to strike the right balance of diverse needs and positions in a manner that will result in granular, objective, and simple criteria to determine which projects are best positioned to advance to the study process.

### **Commercial interest**

#### ***LSE Allocation Process***

AES, CalWEA, ENGIE NA, Intersect Power, MN8, Power Flow Development, Rev Renewables, SEIA, Strata Clean Energy, Terra-Gen expressed concerns that the commercial interest category – particularly the LSE allocation – would determine which projects advance to the study process. Several of these stakeholders recommended reducing the LSE interest category down to 20% or 10% of the total scoring process. The ISO understands this concern and seeks to balance the weights of the relative categories so the commercial interest would align with procurement directed by state and local regulatory authorities, and provide the granularity necessary to differentiate projects, while still factoring in other key elements of project development, such as project viability and system need.

LSEs largely supported the LSE allocation process, with suggested modifications to the proposed changes to the full allocation election, limits on LSE-build projects, and non-LSE interest points, described below.

CalWEA asked the ISO to explain how total available capacity on the system is calculated and provide a realistic estimate of that capacity. The ISO provides additional clarity in the proposal below.

Six Cities requests information on how the ISO will determine available and planned transmission capacity for the purpose of the LSE allocation process, and identify and provide an estimate of the amounts currently available. The ISO provides this clarification in the proposal below.

SDG&E noted broad support for use of the scoring criteria, but expressed concerns with disparities in service territory associated with departed load, noting the need to comply with a system-wide RA obligation and sometimes having to procure as a backstop procurement entity for the region. Although the ISO's objective is to ensure and enable feedback from LSEs, the ISO does not see this as a gap in the ISO capacity allocation determination. Those regional LSEs from whom load has departed will still have an opportunity to provide allocations for projects in which they are interested. The ISO understands the challenges for small LSEs, which are addressed below in the full allocation election section.

Terra-Gen reiterates prior comments that additional indications of LSE interest provide little differentiation between the viability of projects given the CPUC portfolio must be achieved to meet state policy objectives, and such interest will most likely be non-binding since costs and timing are uncertain. The ISO has been clear with stakeholders around the need to incorporate LSE procurement interest earlier in the process in order to both assess viability and, importantly, to ensure alignment with the resource and transmission planning. While these expressions of interest are non-binding, they provide some helpful granularity to the scoring process to avoid ties and auctions. The ISO has also proposed a weighting that is designed to enable projects to move through the scoring process without LSE allocations.

Recurrent asks at what point the project finds out whether scores were awarded to a project and what score the project received from an LSE. The ISO proposes that this information is communicated directly from the LSE to the interconnection customer, but the ISO will record LSE allocations in its interconnection management system.

#### ***Non-LSE Interest***

ACP-California, Golden State Clean Energy, Independent Energy Producers, Rev Renewables, SEIA, and Terra-Gen<sup>21</sup> supported inclusion of points for non-LSE offtakers, with many stakeholders suggesting increasing the points value for commercial interest to 50 or 100 to put LSE interest and non-LSE interest on 'equal footing'.

PG&E, SCE, SDG&E, and CalCCA expressed concerns with the opportunity for interconnection customers to receive points for non-LSE interest. In particular, LSEs note that these offtakers do not have the same RA obligations as LSEs whose customers have paid for the transmission system and who need deliverability to meet state and local requirements. The ISO understands this but also recognizes that non-LSEs are actively procuring resources and therefore offers a lower maximum point value for projects that can demonstrate interest from non-LSEs.

SCE requested limiting the type of projects non-LSEs can assign points to Energy Only project or co-located projects with an FCDS application that includes a renewable project, and suggested additional requirements to the affidavit. The ISO has considered the likelihood that non-LSEs may be interested in non-Energy Only resources, however the ISO does not propose to limit the eligibility of certain projects to receive non-LSE interest points.

PG&E suggested that the proposal is contrary to the intent of the MOU, noting that the introduction of non-LSE points for projects at the cluster stage of the process introduces inappropriate influence for competition of TPP expansion capacity from a group of participants who were not involved in the planning stage and for whom the TPP-approved projects were not designed.” The ISO appreciates this recognition of the linkage to the MOU, but finds it important to retain a pathway for non-LSEs to express interest in projects, which may occasionally fall outside of the resource planning process. PG&E continues to note concerns with the proposal in that there is no limit on the number of non-LSEs that can participate, there is no limit on the number of projects that each entity can give a letter to, and there is no natural limit on projects because the allocation of points would not be based on load share or any reasonable and

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<sup>21</sup> Note that Terra-Gen opposed the broader framework for intake, but suggested retaining the proposed limit on LSE-built projects, non-LSE interest, and full allocation election items if the ISO moves forward with the concept of scoring criteria.

quantifiable measure. This results in an easier logistical hurdle for non-LSEs to receive higher priority on their project(s) over an LSE.

SDG&E sought clarity on whether one non-LSE can award points to multiple projects. As reflected below, the ISO does propose to limit non-LSE interest to one project, and includes additional requirements for the information that must be provided in the affidavit to prevent abuse of the allocation.

NextEra and SCE requested clarification that a project can only receive non-LSE interest points from one non-LSE offtaker. The ISO clarifies below that a project can only receive a maximum of 25 points for this category. The ISO agrees that this detail is important to prevent outsized representation in the scoring process.

NPCA noted that the draft final proposal makes tradeoffs, and highlighted the multiple checks on the LSE allocation process and the other opportunities for projects to earn points through non-LSE interest and/or project viability and system need points. NPCA suggests that the limits on the LSE interest points provide more than ample opportunity for non-LSE supported projects to earn points from other sources and be prioritized for study. The ISO agrees and is seeking a balance between various types of resources and procurement entities. The fundamental goal is to gather initial feedback from potential offtakers on the relative commercial interest in projects. The ISO reiterates that these allocations are not binding nor are they designed to guarantee that any particular projects moves to the study process. Rather, the ISO seeks a holistic assessment of readiness that will depend on multiple criteria.

CalCCA and SDG&E urged the ISO to better define the process that will be used to allow and verify non-LSEs to assign points so that the process is transparent and subject to a tariff. The ISO understands this concern and will provide guidance based on experience. Non-LSE procurement can take many shapes, so prescriptive, narrow definitions would result in false positives or favor certain non-LSEs over others. The ISO's intent is to ensure it does not prevent legitimate non-LSE procurement.

AES asked whether non-LSEs need to have Market Base Rates filed at FERC. The ISO is not the regulator of whether any entity needs market based rates. It is not a requirement to qualify to award points, as proposed here.

SDG&E requested clarification on whether the LSE capacity allocation will be made public. The ISO does not intend to make capacity allocations public, and believes this information should be treated as confidential information to the ISO, the LSE, and the project receiving points. The ISO notes that FERC-jurisdictional entities may need to modify their tariffs to provide processes that award points in a just and reasonable manner. The ISO defers to them on that issue and how they award points or publish the information.

Further, CalCCA suggested revisiting the prioritization of non-LSE projects with RA contracts in the deliverability allocation process. LSA and Terra-Gen suggested the ISO require a deposit if the developer or non-LSE does not have a RA arrangement with an LSE.

Intersect Power noted the need to reconcile the interconnection request intake scoring with the TPD allocation scoring process. PG&E noted that the 2021 IPE Track 2 tariff changes allowing non-LSEs to obtain TPD with certain restrictions is independent from establishing a process for selecting which projects proceed to the cluster study and should not be precedential. Also, that TPD allocation process will still exist for all projects at a later point in the process, and that process does not contravene the MOU. The ISO agrees that these are appropriate considerations for Track 3, which will explore the deliverability allocation methodology.

ACP noted that the ISO can monitor for any “crowding out” of LSE projects in future cycles and adjust accordingly. The ISO agrees that this approach does represent its best attempt to balance the real commercial interest that exists in California with the known and very critical need for new resource development that is driven by state and local resource planning, guided by the ISO’s transmission plan, and effectuated by LSE procurement.

#### ***Full Allocation Election***

In the draft final proposal, the ISO proposed a full allocation election, which would allow an LSE to award 100 points to one project if an LSE has a high priority interest in that project but does not have sufficient capacity to allocate to that project’s full MW size. The ISO proposed to limit use of this full allocation election to one project per cycle per LSE, and limiting this election to projects less than 150% of that LSE’s individual capacity allocation for that particular cycle.

Terra-Gen recommended that the ISO continue to include the full allocation election. NCPA, BAMx and Six Cities had questions and requested clarifications on this approach.

As an alternative to the minimum point allocation, BAMx and NCPA suggested that if the ISO moves forward with the full allocation election, multiple LSEs should be allowed to aggregate their full allocation election priority interest in one project when the individual LSEs participating in the aggregation do not have sufficient aggregate capacity to allocate that projects' full MW size. The ISO clarifies this in the proposal below, noting that the intent of the LSE allocation process is to allow multiple LSEs to express interest in the same project, so a single project could receive capacity allocations (points) from multiple LSEs, up to 100% of the project's capacity (100 points). This type of aggregation would not be necessary, however, if an LSE opted to use the full allocation election, which would automatically award the project 100% of its capacity (100 points). Therefore, LSEs could partner with other LSEs to ensure a project receives 100 points or a single LSE could elect to award its full allocation to a specific project.

NCPA noted that its initial proposal to award each LSE with a minimum number of points (e.g., twenty points or its load ratio share, whichever is larger) is both conceptually cleaner and simpler to administer. The ISO understands how this approach would address the specific challenge that this methodology presents for small LSEs but is concerned that it would result in undue preference.

#### *Limits on LSE-owned projects*

Generally, the development community strongly supported the one-project limit on LSEs self-owned/self-built projects per cycle, and LSEs overwhelmingly opposed the limitation on the grounds that it was arbitrary and discriminatory.

CPUC-jurisdictional LSEs note that the CPUC already holds them to high standards regarding self-built projects. The ISO understands that utility-owned generation contracts receive scrutiny during the procurement process, but the ISO's specific concern is that no such scrutiny exists this early in the interconnection process, and without some sensible limit or meaningful oversight, the LSEs could skew the market toward utility-owned projects such that independent power producers are not afforded a fair opportunity to compete.

Rev Renewables proposed a further restriction that no utility-owned project should be more than 50% available capacity in a transmission zone to ensure the utility-owned project does not dominate the zone, particularly in years with low



amounts of available capacity. The ISO understands the concern behind this suggestion; however the ISO does not view this as an issue with LSE-owned generation, per se. If the ISO were to address the concern of dominating a particular zone, such a limit should be applied to any individual project, whether independently developed or LSE-owned.

Despite CalCCA and SCE's opposition to the proposed one-project limitation of LSE-owned resources, they both propose an alternative capacity cap on LSE-owned resources, based on a percentage of ISO allocated capacity. Both entities proposed an initial limit of 50% of the LSE's capacity allocation.

In reviewing the data, the ISO has seen a maximum of three projects proposed by a single CPUC-jurisdictional LSE in Clusters 10-14 (constituting more than 15% of the estimated capacity allocation for that LSE for Cluster 15) and a maximum of six projects in Cluster 15, (86% of that LSE's estimated capacity allocation). Because Cluster 15 was an exceptional year, the ISO will use data from Clusters 10-14 to inform the final proposal.

The ISO understands that mechanisms currently exist to ensure sufficient competition in the procurement process, particularly the CPUC-jurisdictional LSEs. While the ISO believes that some reasonable limitation is prudent, it recognizes that the draft final proposal to apply a limit of one project across a diverse set of LSEs may be overly restrictive in certain instances. The ISO instead proposes a more flexible, modified approach based on historical data that can be scaled to each LSE's capacity allocation, and offers LSEs a choice between a number of projects and percentage of each LSE's allocation that can be applied to LSE-owned projects in each LSE allocation cycle (cluster).

### **Project viability**

Independent Energy Producers Association (IEPA), Intersect Power, NextEra, and Vistra suggested highlighting the project viability category above commercial interest and system need. Several other parties suggested revising the relative weighting between commercial interest, project viability, and system need.

The ISO received mixed feedback on the value of awarding points for initiating an engineering design plan. GSCE supported the engineering design plan but recommends a single "check the box" requirement for demonstrating certain requirements. PARS notes that the electrical design world looks at increments of 15%, 30%, 60%, 90%, and 100% completion. SEIA suggested gradated scoring,

particular for project viability factors, such as the engineering design plan. Leeward Renewable Energy (LRE) did not see value in awarding points for engineering design plan completeness.

AES, esVolta, Golden State Clean Energy recommended the ISO revise the project viability category to enable a graduated score based on the percentage of site control of the gen-tie. GSCE noted that this can be demonstrated in the engineering design plan. EDF-R recommended deleting this indicator from the proposal, as developers do not have sufficient information to meet this requirement until the information is provided in the study report. Capstone Power did not support the criterion of 100% of site control of the gen-tie, and esVolta asked whether there is a separate site control requirement for site control of the gen-tie for public vs. private sites. Additionally, esVolta sought clarity on where the gen-tie would be measured to and from. The ISO has reconsidered this criterion and proposes to delete it because, as noted by EDF-R, the path of the gen-tie is highly uncertain prior to completion of interconnection studies. In addition, it would be time-consuming and imprecise to validate the level of site control secured for a gen-tie.

EsVolta opposed awarding points for expansion projects, claiming that the proposal is discriminatory, in conflict with the objectives of the MOU, and could lead to gaming or market power. In response, esVolta suggested that the ISO require any expansion project to have received market based rate authorization from FERC. Further, esVolta suggested that expansion projects should be fully permitted, which could be validated by an affidavit from the interconnection customer swearing that the project has received all permits necessary to commence construction. The ISO notes that the criteria for awarding point in this category require a project to be under construction or in operation – both of which are past the permitting phase for a project. The ISO also does not believe market-based rate authority is a useful signal, nor within the ISO's purview.

NextEra and Rev Renewables suggested that the ISO add 10 points for facilities with executed LGIAs/NTPs, and combining 'Expansion of a generation facility that is currently under construction' with 'Expansion of an operating facility', for an award of awarded 20 points. The ISO does not agree with this approach and views these as two distinct levels of development and viability.

Clearway, Intersect, LRE, LSA, and PARS noted that several parties have suggested incorporating developer experience into the project viability score. The ISO does not propose this approach on the grounds that it is highly subjective

and difficult to measure, particularly given the likelihood of change of ownership and acquisition of specific companies and interconnection staff. The transmission planning processes that evaluate experience, for example, are highly time-intensive and expensive—funded by the applicants—and only evaluate a few projects at a time. Instead, the ISO expects developer experience to be a factor in the rest of the scoring criteria, with more experienced companies demonstrating their ability to better navigate the process of data analysis, scoring, and LSE interest discussions.

Clearway, LRE, and LSA also recommended reinstating the criteria for major purchases (Master Service Agreement or Purchase Order) of long lead-time equipment. The ISO discussed its rationale for removing that indicator in the draft final proposal, which was heavily informed by stakeholder feedback.

Prologis suggested that the ISO impose site control requirements on Cluster 14 projects as the simplest way to eliminate non-viable projects. The ISO notes that Cluster 14 site exclusivity requirements are non-refundable, and Cluster 14 will be subject to the commercial viability requirements proposed in this paper.

### **System need**

NextEra noted that system need is already accounted for in zonal allocations and should be reduced in the scoring criteria. Conceptually, the ISO agrees that most system need should be accounted for in the resource planning process as the basis for the zonal model, however there are certain resources that present significant value to the ISO that warrant additional consideration in the scoring process. Local RA is important to prioritize to ensure near-term and mid-term reliability through near-term deployment. Long lead-time resources align with resource and transmission plans, but these resources are not likely to score well with other indicators because they have different development considerations.

NextEra also suggested that every project is likely to score the same for the system need category. The ISO agrees that there is not much granularity in these scoring indicators, however these are important considerations for ensuring alignment with the MOU.

MN8 suggested that points for projects that address a limited set of specific system needs be capped in proportion to the size of a given need, and that specific entities be responsible for awarding points to Local RA and long lead-time projects (i.e. the CPUC and LRAs award points for long lead-time resources and LSEs with local capacity needs award points to ICs). The ISO appreciates

the desire to scale points to given need, but as described above, extra allocations may be necessary to ensure that certain projects are studied, to provide for the specific needs called for in the portfolio. Regarding which entities award the projects, the ISO does not want to intervene in the process of awarding points by dictating which entities can award points to specific projects. The process described in the proposal below enables LSEs to demonstrate their interest in specific resource types. The ISO recognizes, however, that FERC-jurisdictional LSEs may be required to memorialize in their tariffs just and reasonable methods to allocate points.

### ***Local RA***

Regarding the point allocation for resources that can provide Local RA, New Leaf Energy asks for additional clarification in several areas; the ISO clarifies that in order to define “ISO demonstrated need,” the ISO will use the annual local capacity technical studies.

Additionally, NLE suggested the following:

- Projects in both LCRAs and sub-LCRAs showing deficiencies should be eligible for points. The ISO has precisely defined the LCRA boundaries but has not defined the precise sub-LCRA boundaries. However, projects clearly effective on a deficient sub-LCRA constraint could also be considered for points.
- The ISO should include a buffer of a reasonable amount (e.g. 10%) on the reported LCRA deficiencies when performing the need determination, as the deficiencies reported in the study are only estimates that are based on load and available supply estimates. The LCR reports do not currently include a buffer, and including one could add additional areas as being deficient when they are not. Therefore, the ISO does not adopt this approach.
- The ISO should clarify which reported deficiency years it will use in the need determination. The ISO intends to use 2029 in the needs determination.
- The ISO should not adopt the IPE Track 2 Revised Straw Proposal’s requirement that “sufficient capacity is available in the LCRA to charge any proposed new energy storage facilities without needed additional transmission as outlined in the annual local capacity technical study.”[3]

The ISO response to these comments is that a battery that is not able to be counted as local capacity because of charging restrictions is of no more value than a battery that is outside of the LCR Area. Therefore, such a battery should not be eligible for additional points.

- The ISO should expand eligibility for this criterion to include more LCRAs and sub-LCRAs using the three additional methods to define “ISO-demonstrated need.”

The ISO does not agree with these comments. This scoring needs to be based on studies that are already planned to be performed on a regular schedule. The studies proposed would be based on speculative information and are not currently planned to be performed on a regular schedule, if at all.

### ***Long Lead-Time Resources***

CalCCA supports the long lead-time resource category, understanding the intent to ensure resource diversity. ACP-California and CalCCA request more clarity around the categorization of these resources. LSA and Clearway suggested that the capacity (MW) of points awarded to long lead-time resources be limited based on the size of the identified need. New Leaf Energy recommended a time constraint on long lead-time resources, limiting them to a certain number of years in the CPUC’s resource portfolios provided to the ISO for use in the TPP. ACP-California suggests more definition around the category to ensure that the sphere of resources eligible to receive points is appropriately narrow and limited to resources that should receive such treatment. Similarly, New Leaf Energy suggested reducing the number of points available to long lead-time resources by half to avoid a situation where these resources prevent all other projects in a zone from being studied. The ISO understands these concerns and will confer with the CPUC and LRAs to ensure appropriate criteria to determine eligibility for this scoring indicator, which the ISO will communicate to stakeholders in advance of the interconnection request window.

ACP-California suggested that rather than limiting long lead-time resources to areas where the TPP has already approved the necessary transmission, the ISO should allow resources to qualify in areas where the ISO knows transmission approvals will be required based on recent portfolios. ACP-California notes that it is not imperative for this transmission to be approved in order to award points. The ISO will not take this approach. It is critical that the ISO adhere to the process described in the MOU, where the ISO approves transmission based on the resource planning portfolio of the CPUC and other LRAs. The ISO is not in the

position to speculate on or preempt regulatory planning processes. Further, transmission for long lead-time resources should be approved with development cycles in mind, which should give long lead-time resource developers sufficient time to enter into and advance through the interconnection process.

Golden State Wind noted that the long lead-time proposal appears to be the continuation of the capacity-reservation proposal in the TPP enhancements initiative, and notes that a point addition is not the same as a reservation. CalWEA also references the potential to reserve TPD for long lead-time resources. GSW suggested an alternative where the ISO would separately evaluate long lead-time technologies as competing against one another for access to deliverability. The ISO notes that it will address deliverability allocations, including clarifications around allocations for specific long lead-time resources, in a subsequent track of this initiative.

NCPA noted that points for long-lead time resources should not be limited to projects in the CPUC resource portfolio, but should also be available for the portfolios approved by other LRAs and incorporated into the TPP. The ISO agrees and commits to consulting with LRAs as well as the CPUC prior to the scoring process to ensure alignment on eligibility and definitions.

#### **Distribution factor (DFAX) tie-breaker**

LSA and Terra-Gen noted a preference for simpler methods like pro-rata awards and acceptance of all projects “on the margin” if the scoring process and DFAX tiebreaker still result in ties, however the ISO did not receive significant additional feedback on this item.

### ***Proposal***

The ISO continues to propose refined scoring criteria as a key mechanism to ensure that the most ready projects advance to the study process. The revised criteria, described below, attempt to enable the appropriate level of scoring granularity and opportunities to measure development progress while maintaining a simple process to validate scores.

The ISO proposes requiring interconnection customers to submit documentation supporting their score, as well as a self-assessment score sheet with their interconnection request(s) to minimize time required for the ISO to score and validate a large batch of requests in a narrow window. As discussed in greater detail below, the ISO proposes to receive LSE point allocations directly from

LSEs rather than interconnection customers during the interconnection request application window.

### **Commercial interest**

The ISO proposes two opportunities to obtain points in the commercial interest scoring category: an LSE Allocation Process and an opportunity to earn points by demonstrating commercial interest from a non-LSE/commercial offtaker.

Interconnection projects may only receive 100 points for the Commercial Interest category, though those points may come from a combination of the LSE allocation process and the non-LSE interest indicators. If a project scores 125 points, the ISO will reduce that score to 100. An interconnection project may only obtain 25 points maximum for demonstrations of non-LSE interest, even if more than one non-LSE offtaker is interested in that project, and that any non-LSE/commercial offtaker can only express interest in one project per cluster. Non-LSE/commercial offtakers may not be affiliated with the interconnection customer or its holding company. The ISO proposes that the commercial interest category constitute 30% of the overall project score.

### ***LSE allocation process***

As part of the scoring process, the ISO plans to collect feedback in the form of “points” from LSEs to allocate to individual interconnection requests.

Prior to the interconnection request application window, the ISO encourages LSEs to conduct Requests for Information (RFIs) for projects expecting to enter the queue to ensure that LSEs have the necessary information on individual projects in time to make informed decisions during the LSE allocation process of the scoring criteria. The ISO urges the LSEs to communicate clear evaluation criteria for this process to prospective interconnection customers. LSEs should consider revising their tariffs to ensure they award points using fair and reasonable processes.

In addition, the ISO expects interested interconnection customers to participate in LSE RFIs, solicitations, and bilateral discussions with LSEs to market their projects prior to the interconnection request application window to supplement information LSEs will be provided during the scoring process and therefore increase the projects’ opportunity to obtain LSE-awarded points.

Each LSE (CPUC jurisdictional and non-CPUC jurisdictional) will receive a capacity amount to allocate to projects based on available and planned

transmission capacity for a given cluster. The ISO will review and total these scores once it receives information from LSEs. The ISO proposes that non-CPUC jurisdictional LSEs participate in this process in the same manner as CPUC-jurisdictional LSEs.

The ISO proposes to require LSEs to provide the ISO with their elections no later than ten calendar days after the close of the interconnection request window. The ISO will provide LSEs with a standard form for LSEs to use in submitting their project capacity selections. Capacity awarded to projects by LSEs, resulting in points in the scoring process, will not be known or confirmed by the interconnection customer during the interconnection request application window, and therefore will not be included in the interconnection customer's self-assessment.

#### *Allocation methodology*

The ISO proposes the following allocation methodology

(a) The ISO calculates total LSE capacity allocation.

In this process, the ISO would determine how much capacity (MW) can be allocated across the ISO footprint, based on available and planned transmission capacity from the previous year's transmission plan base portfolio. To ensure that LSEs are selective in point allocation, 50% of the total TPD capacity for each LSE can be eligible to receive points, as an LSE weighting factor.

#### *Example:*

*Assume total TPD capacity across ISO footprint is 25,000 MW.*

*Total LSE Capacity Allocation = TPD Capacity x LSE Weighting  
Factor = 25,000 x 0.50 = 12,500 MW (to be shared by all LSEs)*

(b) The ISO calculates individual LSE capacity allocation.

In this step, the ISO would determine how much capacity (MW) the ISO can award to each individual LSE based on its load share<sup>22</sup>.

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<sup>22</sup> Load share based on the California Energy Commission's forecast of LSE annual peak load shares provided to the ISO for determining LSE Year-Ahead RA requirement.



*Example 1:*

*LSE 1 Load Share = 30%*

*LSE 1 Capacity Allocation = Total LSE Capacity Allocation x LSE Load Share = 12,500 MW x 0.30 = 3,750 MW*

*LSE 1 is eligible to allocate 3,750 MW of project capacity*

*Example 2:*

*LSE 2 Load Share = 5%*

*LSE 2 Capacity Allocation = Total LSE Capacity Allocation x LSE Load Share = 12,500 MW x 0.05 = 625 MW*

*LSE 2 is eligible to allocate 625 MW of project capacity*

*Example 3:*

*LSE 3 Load Share = 1.0%*

*LSE 3 Capacity Allocation = Total LSE Capacity Allocation x LSE Load Share = 12,500 MW x 0.01 = 125 MW*

*LSE 3 is eligible to allocate 125 MW of project capacity*

- (c) LSE allocates capacity to selected interconnection requests submitted in the cluster window for new applications

Each LSE determines how they want to allocate their points to selected interconnection requests.

*Scenario 1*

*LSE 1 Load Share = 30%, 3,750 MW (provided by ISO in step b)*

*LSE 1: Selects two 300 MW Projects (P1 and P2)*

*Full Support of P1 and P2*

*Capacity allocation needed to fully support P1 and P2 = Total capacity in each Application x Number of Applications = 300 MW x 2 = 600 MW (LSE 1 has 3,150 MW capacity allocation remaining)*

*P1 and P2 receive the full points available to a project in the scoring criteria (because 100% of the capacity of each project was selected by an LSE)*

*Scenario 2*

*LSE 2 Load Share = 5%, 625 MW (provided by ISO in step b)*

*LSE 2: Selects one 1,000 MW project (Project 3) and LSE 2 has partial interest of 500 MW of the project (50% of project capacity was selected by LSE 2)*

*Partial Support for Project P3*

*Capacity allocation needed to support P3 = Partial Interest  
MW Interest = 500 MW (LSE 2 has 125 MW capacity  
allocation remaining)*

*Partial Capacity Interest / Full Project Capacity x Max. Points  
in Off Taker interest Category*

*P3 points =  $500/1000 = 50\%$  of the points available to a  
project in the scoring criteria (because 50% of the capacity of  
P3 was selected by LSE 2)*

*If P3 does not receive any additional interest from other LSEs to  
increase its score, the interconnection customer would have the  
option to be scored based on 50% of the points available to a  
project in the scoring criteria or to downsize to 500 MW and receive  
the full points available to a project. (There are intermediate  
downsize options where P3 could downsize to 750 MW and receive  
 $750/1000 = 75\%$  of the points available to a project in the scoring  
criteria.)*

#### **Scenario 3**

*LSE 3 Load Share = 1%, 125 MW (provided by ISO in step b)*

*LSE 3: Selects one 100 MW project (Project 4) and LSE 3, having  
full interest in all 100 MW of the project*

*Capacity allocation needed to fully support P4 = 100 MW (LSE  
3 has 25 MW capacity allocation remaining)*

*P4 receives the full points available to a project in the scoring  
criteria (because 100% of the capacity of each project was  
selected by an LSE)*

#### **Scenario 4**

*LSE 4 Load Share = 0.5%, 63 MW (provided by ISO in step b)*

*LSE 4: Selects one 100 MW project (Project 5), having full interest  
in all 100 MW of the project.*

*In this scenario the LSE opted to use its full allocation election for one project, which would automatically award the project 100% of its capacity and the project would receive 100 points.*

#### *Full allocation election*

If an LSE has a high priority interest in one project and does not have sufficient capacity to allocate to that project's full capacity at its POI, the LSE may award all of its capacity towards that one project—and only that one project—and elect to have the project receive the full 100 points. The ISO proposes to limit use of this full allocation election to one project per cycle. The option to award full points to a single project applies to all LSEs, whether CPUC-jurisdictional or not. If an LSE is going to use the full allocation election, it must give its full capacity allocation to that one project. The ISO does not expect larger LSEs to make this election, as they will likely have sufficient capacity to award full capacity to several projects. If LSEs do award capacity to multiple projects, they cannot exceed their capacity allocation and cannot take advantage of the full allocation election. It is specifically designed for circumstances where an LSE's need significantly exceeds their capacity allocation, such as in circumstances of a large resource retirement or the expiration of a power purchase agreement that accounts for a significant portion of an LSE's load.

An LSE must specify to the ISO that it is making this special election. The ISO will include a space for this election on the LSE Interconnection Allocation Form

#### *Limits on LSE-owned projects in the LSE allocation process*

To avoid preferential treatment of LSE-owned resources in the LSE allocation process, the ISO proposes that in each LSE allocation cycle (each cluster) LSEs may only award capacity to either three self-built projects or 25% of the LSE's capacity allocation per cycle, whichever is greater.

This limitation also applies to both CPUC-jurisdictional and non CPUC-jurisdictional LSEs. The ISO will review data around utility self-build projects after the initial scoring process to determine if the limitations should be reevaluated. In addition to these limitations, the ISO recommends clear and transparent RFI processes leading up to the LSE allocation process. FERC-jurisdictional LSEs, in particular, should consider updating their tariffs to establish clear and fair processes for allocating points.

### **Commercial interest from a non-LSE offtaker**

The ISO proposes an additional opportunity for interconnection requests to obtain points in the Commercial Interest category for projects that are being marketed to non-LSE offtakers, such as corporate and industrial users. Because commercial offtakers do not carry an obligation to serve load or provide RA, the ISO does not propose allowing them to participate in the same allocation process as LSEs. Instead, the ISO will award a maximum of 25 points to each interconnection request for documented, verifiable demonstration of commercial interest from a valid non-LSE offtaker. The project will receive a maximum of 25 points even if more than one demonstration of commercial interest from a non-LSE offtaker is provided. A non-LSE/commercial offtaker can only express interest in one project per cluster.

The ISO will continue to scrutinize every non-LSE commercial arrangement proffered to ensure the company is legitimate, procuring the capacity in a meaningful way, and not affiliated with the interconnection customer or its holding company. The ISO will continue to reject illegitimate power purchase agreements and commercial arrangements created to satisfy tariff criteria artificially before being replaced with legitimate, arrangements that would actually provide financing of a generator.

### **Project Viability**

The ISO proposes refinements to criteria that are most appropriate early in the interconnection process. The ISO requires criteria that can be easily validated with interconnection requests during the cluster request window. To assist in the ISO's validation process, the ISO will require interconnection customers to provide both a self-assessment and proof of each scoring criterion below.

The ISO proposes four indicators of project viability, with the entire category comprising 35% of the overall scoring weight.

- Percent completion of engineering design plan, with points commensurate with percent completion of engineering design plan up to a maximum of 50, to be validated based on a set of pre-determined guidelines (e.g. 15% complete=15 points) Expansion of a generation facility that is currently under construction;
- Expansion of an operating facility;

- Expansion of an existing facility where the existing Gen-Tie already has sufficient surplus capability to accommodate the additional resource;

### **System Need**

The ISO proposes two indicators of system need, which together would make up 35% of the overall scoring weight:

- Ability to provide Local RA in an LCRA with an ISO- demonstrated need for additional capacity in that local area.
- Long lead-time resources: Meets the requirements of the CPUC resource portfolios where the TPP has approved transmission projects to provide necessary transmission requirements. Only long lead-time resources that are required to meet the CPUC resource portfolio requirements are eligible, including resource types that are considered for central procurement under Assembly Bill 1373 (2023), or as specifically identified by the CPUC in the portfolios provided to the ISO for use in the transmission planning process.

Figure 6 provides the ISO's current proposal. The total score is to demonstrate the concept, where in this example a project qualifies for each scoring criterion. The ISO proposes to use weighted scoring, multiplying the total points value by the weight to calculate the total score for each category.

**Figure 5. Proposed Scoring Criteria**

Indicators of Readiness	Points	Weight (%)	Max Points	Validation
<b>Commercial Interest (Max points= 100)</b>				
<input type="checkbox"/> LSE allocations: Points based on the percentage of capacity allocated by LSEs to the project (e.g. a 500 MW project receiving 500 MW capacity allocation would earn 100 points for this category. A 500 MW project receiving 250 MW capacity allocation would earn 50 points for this category.)  <input type="checkbox"/> <b>Check for Full Allocation Election:</b> In instances where an LSE does not have enough points to award to an entire project, each LSE may award full capacity for one project per interconnection request application window.	100	30%	30	The ISO will provide LSEs with a form to fill out to assign points to desired interconnection requests, to return to the ISO 10 calendar days after the close of the interconnection request application window. The ISO will add the points to each project's score as part of the scoring process.
<input type="checkbox"/> Non-LSE Interest: Points	25			The ISO will provide a form requiring a signed affidavit from a representative that is authorized to execute power purchase agreements, indicating and affirming commercial interest: a. Attest non-LSE off-taker is supporting this project in support of corporate policy goals on sustainability b. Attest that the size of application is aligned with the non-LSE off-taker needs c. Attest that non-LSE off-taker is not affiliated with the IC or its holding company d. Attest that the non-LSE off-taker has not supported more than one application.

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<b>Project Viability (Max points=100)<sup>23</sup></b>				
Engineering Design Plan Completeness, with points commensurate with percent completion of engineering design plan up to a maximum of 50, to be validated based on a set of pre-determined guidelines (e.g. 15% complete=15 points)	50	35%	35	Signed affidavit accompanied by documentation of the project's engineering design plan level of completeness certified with a professional engineer's stamp.
Chose no more than one of the three expansion of a generation facility items				
<input type="checkbox"/> Expansion of a generation facility that is currently under construction	10			IC submits information indicating that new IR uses same or directly adjacent site as a facility under construction
<input type="checkbox"/> Expansion of an operating facility	20			IC submits information indicating that new IR uses same or directly adjacent site as an operating facility
<input type="checkbox"/> Expansion of a facility that is under construction or in operation, where the Gen-Tie already has sufficient surplus capability to accommodate the additional resource	50			IC submits information indicating that new IR uses same or directly adjacent site as an existing facility and documents the capacity of the gen-tie, the existing (under construction or in operation) facility and the new facility
<b>System Need (Check one. Max points=100)<sup>24</sup></b>				
<input type="checkbox"/> Ability to provide Local Resource Adequacy (RA) in an LCRA with an ISO demonstrated need for additional capacity in that local area	50	35%	35	The ISO will post information describing the areas/sub-areas that have a deficiency of generator capacity and the amount of additional capacity needed to eliminate the deficiency and validate IRs against that information.

<sup>23</sup> Maximum points of 100 for Project Viability = Engineering Design Plan 50% complete (50 points) + Expansion of an existing facility where the existing Gen-Tie already has sufficient surplus capability to accommodate the additional resource (50 points)

<sup>24</sup> The ISO assumes that these two categories are mutually exclusive and that projects would not be able to select both.

<u>Long Lead-time Resources</u>  <input type="checkbox"/> Meets the requirements of the CPUC and other LRA resource portfolios where the TPP has approved transmission projects to provide the necessary transmission requirements. <sup>25</sup>	100			The ISO will work with the CPUC and LRAs to determine a list of eligibility requirements for this category of resources prior to the interconnection window opening.
<b>Total</b>		100%	<b>100</b>	
Distribution Factor	Value	Tie-Breaker		
<input type="checkbox"/> Value used as tie-breaker (lowest DFAX selected first)				Interconnection request

### Distribution factors

The ISO will use each project's distribution factor (DFAX)<sup>26</sup> as a tie-breaker when the selection process reaches the 150% threshold with two or more projects tied and less capacity needed to reach 150% than the sum of the tied project's capacity. DFAX is a measure of the impact of injections of energy from a generator at a particular location which could result in required network changes on the grid. The lower the DFAX, the lower the impact to the grid. The projects will be selected in order of the lowest DFAX with the selection process ending with the project that caused the 150% threshold to be exceeded, regardless of the size of the last project selected and the amount by which 150% is exceeded. The ISO will determine the DFAX for any projects that are tied and determine the project(s) that will be studied: interconnection customers should not provide this information. If project ties still exist after the use of projects' DFAX, the auction process will be used to break the ties.

The ISO proposes to apply the following scoring criteria on a points system to select projects that can fulfill 150% of the available and/or planned transmission capacity associated with each constraint.

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<sup>25</sup> Only long lead-time resources that are required to meet the CPUC and other LRA resource portfolio requirements are eligible, including resource types that are considered for central procurement under Assembly Bill 1373 (2023), or as specifically identified by the CPUC or LRAs in the portfolios provided to the ISO for use in the transmission planning process.

<sup>26</sup> Distribution Factor (DFAX): Percentage of a particular generation unit's incremental increase in output that flows on a particular transmission line or transformer when the displaced generation is spread proportionally, across all dispatched resources in the Control Area.



## 2.5.2. Auctions

### ***Background***

In the May 2023 discussion paper, the ISO raised the concept of an auction to reduce the number of interconnection requests to a more manageable level. The ISO and stakeholders discussed the concept during workshops and working group meetings.

The straw proposal and revised straw proposal refined an auction design with the following key attributes:

- A market-clearing, sealed-bid auction for the right to be studied;
- Each zone would be studied at 150% of the individual constraint based and portfolio-driven available and planned capacity;
- Auctions would be conducted only if there is excess proposed capacity after applying a points-based viability scoring system that utilizes a distribution factor (DFAX) as an initial tie-breaker, and only for projects that are deemed equal in viability and DFAX ratings;
- Only tied projects that cause the total MW to cross the capacity limit will participate in the auction;
- Only Interconnection Customers participating in the auction will submit bids on a dollars-per-MW basis;
- Interconnection Customers that win an auction will be studied in their entirety, and will submit at-risk financial security accordingly;
- Interconnection Customers that reach commercial operation will be refunded their at-risk auction financial security;
- Interconnection Customers that withdraw (or are deemed withdrawn) will partially lose their at-risk financial security depending on the timing of the withdrawal; and,
- Use of non-refundable auction funds will offset and support still-needed network upgrades.

### ***Stakeholder feedback and discussion***

Stakeholders remain divided in their positions around the zonal auction, as proposed in the revised straw proposal and slightly modified in the draft final proposal.

Several parties, including CalCCA, suggested that instead of developing an auction, the ISO should focus on development of robust scoring criteria. Several of these stakeholders suggest that if projects receive the same score, the ISO should study all tied projects.

ENGIE, LSA, CESA, Q Cells, REV, and Terra-Gen opposed the auction as a tie-breaker due to the relative complexity of an auction and the likelihood of resolving ties through DFAX. ENGIE recommended the ISO delay the complexity involved with the implementation of an auction to a future queue cycle as it may not be needed.

The following entities expressed support for the auction earlier in this initiative: ACP-California, CPUC (Energy Division), Clearway Energy Group, ENGIE NA, PG&E, Shell Energy, and SCE. Shell Energy supported the auction concept as well, noting that while the use will likely be limited, it represents a novel and elegant manner to allocate scarce interconnection capacity.

The ISO agrees that managing the auction will create an increased administrative burden, but believes it to be less burdensome and more manageable than the alternative of managing and studying far more projects than necessary. The results of the study process will also be more accurate and meaningful as a result of a smaller pool of projects to study and will enable the ISO, utilities and other LSEs and the regulatory community to effectively prioritize and focus their finite resources on successful commercial development of the key infrastructure projects necessary to achieve the state's policy and reliability objectives.

EDF-R requested clarification of whether, if a winning bid fails to post security required by their bid, the ISO would move to provide the opportunity to be studied by the highest bidder.

### ***Proposal***

The ISO continues to propose an auction as an essential component to a process that achieves manageable queue volumes and preserves competition among of viable projects in each zone.

## Auction Design

After applying both the viability scoring system and the DFAX tie-breaker, if there are still ties, the tied projects will be allowed to participate in a market-clearing, sealed-bid auction as the final tie-breaker for the right to be studied. Shortly after the viability scoring and DFAX processes are completed, the ISO will notify any remaining tied interconnection customers they can participate in the auction tie-breaker and will be requested to submit an auction bid on a dollars per MW basis within two weeks of the ISO notification. If sufficient interconnection customers forego participating in the auction in a zone, the remaining interconnection customers would simply “win” the auction and not be required to post auction funds.

Because it is unlikely that the requested MW capacity in a zone will exactly equal the 150% MW cap, the ISO proposes that projects that submit the highest bids and are either within or the first project that crosses the 150% MW capacity be accepted to be studied *in their entirety* for that transmission zone. These interconnection customers must post financial security equal to the auction clearing price (the lower of the winning bids) prior to being studied. The ISO also proposes to post on the ISO website the clearing price of any auctions conducted, but not the individual project bids.

If a project reaches commercial operation, its auction financial security will be refunded with any applicable earned interest to the interconnection customer within 90 days of the interconnection customer notifying the ISO the project reached commercial operation. Interest will not be accrued if the financial security selected below does not earn interest (such as a letter of credit). If the project withdraws from the queue (or is deemed withdrawn), it would partially lose its auction financial security, depending on timing of the withdrawal, similar to the ISO’s current financial security requirements or Order No. 2023’s withdrawal penalty structure.

### *Example*

- *Assume there is 266 MW of available transmission capacity, and thus 400 MW capacity deemed reasonable to study.*
- *Seven 100 MW projects apply in this capacity*
  - *Projects A and B have a viability score of 70*
  - *Projects C, D, and E have a viability score of 60*
  - *Project F and G have a viability score of 50*

- *Projects A and B are selected to be studied since they have the highest viability score, and therefore do not need to compete in the auction.*
- *Only projects C, D, and E will be considered in the auction because their projects cross 400 MW. The two projects with the highest auction bids will win the auction, be studied, and must post the clearing price (the lower of the two winning bids) prior to being studied.*
- *Projects F and G will not be considered in the auction and will not be studied.*

### **Use of Auction Revenues**

The ISO proposes that non-refundable auction funds resulting from project withdrawals offset and support still-needed network upgrades, lowering costs for ratepayers. Projects that successfully compete in an auction and reach commercial operation will be refunded their auction-posted security. Even if setting aside the value of the posted auction security for several years may slightly increase a project's development cost, the ISO believes the benefits of this proposal outweigh that cost. The ISO notes that auction security can take any of the forms currently allowed for interconnection financial security, allowing developers to elect the most financially efficient form for their needs.

Like financial security, the ISO proposes that any liquidated auction funds go to the applicable PTO to fund still-needed network upgrades. Any amounts that exceed the costs of still-needed network upgrades will be applied to offset Transmission Revenue Requirements, as recovered through the ISO's Transmission Access Charges. The PTO would only liquidate and use auction security if the customer withdraws. If the project instead reaches commercial operation, the interconnection customer will be entitled to a release of the posted auction financial security.

The ISO does not propose that auction financial security be instantly 100 percent non-refundable. Like interconnection financial security, the refundability would decrease as the customer progresses in queue. The proposed forfeiture amounts are intentionally set to be significant to further discourage interconnection customers from submitting less viable projects. The ISO proposes the following refundability percentages:

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

### **Acceptable interconnection financial security instruments**

The auction funds posted by an interconnection customer may be any combination of the following types of financial security instruments provided in favor of the applicable Participating TO(s):

- a. an irrevocable and unconditional letter of credit issued by a bank or financial institution that has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's;
- b. an irrevocable and unconditional surety bond issued by an insurance company that has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's;
- c. an unconditional and irrevocable guaranty issued by a company that has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's;
- d. a cash deposit standing to the credit of the applicable Participating TO(s) in an interest-bearing escrow account maintained at a bank or financial institution that is reasonably acceptable to the applicable Participating TO(s);
- e. a certificate of deposit in the name of the applicable Participating TO(s) issued by a bank or financial institution that has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's; or
- f. a payment bond certificate in the name of the applicable Participating TO(s) issued by a bank or financial institution that has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's.

If at any time the guarantor of the auction fund financial security fails to maintain the credit rating required above, the Interconnection customer shall provide to the applicable Participating TO(s) replacement Interconnection Financial Security meeting the requirements within five business days of the credit rating change.

### **2.5.3. Prioritization of Projects for the Study Process [Updated]**

The ISO will review and score Interconnection Request information to identify projects most ready to proceed into the study process. The straw proposal and revised straw proposal suggested studying 150% of the available and planned transmission capacity in each zone as a means to right-size the number of studies with the necessary development to achieve resource planning portfolios. Such scaling will ensure more meaningful study results to interconnection customers as they move through a compressed study process required by FERC Order No. 2023. By studying a percentage above the capacity for each zone, the ISO will ensure sufficient availability of resources in and after the study process, balancing resource sufficiency with competition.

#### ***Stakeholder feedback***

In comments on previous iterations of this proposal, stakeholders asked the ISO to justify a rationale for the 150% capacity limitation, with some expressing concern that this cap would “arbitrarily” reduce the number of projects that can compete. They also flagged the cap’s potential to drive-up RA costs due to limited supply. The ISO understands these concerns, but notes that the rationale for selecting 150% is to ensure continued competition and supply and each cluster will result in a surplus of studied capacity that will accumulate over time. Unlimited interconnection requests or a higher percentage would continue to grow the queue at an unsustainable rate, slowing study processes and making results less accurate. The ISO intends to create fair and reasonable limits on the amount of new generation it can study on a timely basis, and tested the effect of the 150% cap using Cluster 15 data and a survey of Cluster 15 interconnection customers.

#### ***Proposal***

The ISO will apply the scoring criteria, DFAX tie-breaker, and if necessary, auction to select projects that can fulfill 150% of the available and planned transmission capacity in each zone.

## **2.5.4. Modifications to the “Merchant Deliverability”<sup>27</sup> Option [Updated]**

### ***Background***

As discussed above, the zonal approach is foundational to this IPE proposal, so the ISO proposes to prioritize the study process to focus on interconnection requests that seek to interconnect in areas that have available transmission capacity, including planned capacity that will be available for allocation in the TPD allocation process. However, stakeholders emphasized the importance of retaining and providing opportunities to identify and provide alternative points of interconnection or upgrades.

The designation used for projects that seek to interconnect and meet the conditions required for the zonal studies where transmission capacity exists is the “Transmission Plan Deliverability option” (TPD option). Projects that seek to interconnect in zones that have no TPD available may only proceed under the designated “Merchant Deliverability option” (Merchant option).

### ***Stakeholder feedback and discussion***

AES, CalCCA, ENGIE, GSCE, Intersect, Rev, and SEIA continue to want projects not selected for study in TPD zones to be able to pursue the Merchant option, but most recognize that a current or future mechanism to limit Merchant projects could be needed. BAMx, Cal Advocates, and SCE supported the proposal. The ISO continues to disagree with that proposed approach. The scoring criteria are designed to limit the number of projects studied in zones with available capacity (TPD areas) to 150% of the available capacity. Allowing Merchant option projects in TPD areas defeats that purpose by studying more capacity in these areas than the CPUC portfolio had determined the system needs. Too many projects results in inaccurate study results and goes against the foundational principles agreed to at the beginning of the IPE initiative. The request to allow TPD option projects to switch to the Merchant option would open the door to projects trying to bypass the scoring criteria.

ACP-California and New Leaf Energy stated that the policy needs to ensure that Energy Only projects getting deliverability under Group C (or otherwise) do not

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<sup>27</sup> Formerly referred to as Option B



utilize the TPD that another project paid for and has yet to secure for its project. The ISO agrees. As long as a Merchant option project has cost responsibility to fund an ADNU, the ISO will not make that capacity available to non-Merchant projects.

LRE and LSA suggested that the GIDAP Section 7.6 should be revised to allow the full benefit of forfeited ADNU security to go to remaining Merchant option projects, where there are multiple sponsoring projects and one or more withdraws. The ISO must revise Section 7.6 of Appendix DD to comply with the FERC Order 2023 requirements, and it would not be appropriate to make additional changes to this section in the IPE 2023 FERC tariff filing. This issue can be taken up in a future IPE initiative if it is determined to be needed.

REV disagreed with ISO's position that the execution of a GIA is used to determine whether a project is released from its obligation to fund an ADNU, stating that once the ISO sees the need for the ADNU, a project should be released from the responsibility to fund the upgrade. The ISO clarifies that once a GIA associated with any network upgrade is executed the network upgrade becomes part of the TPP base case. From that point forward the studies assume the network upgrade will be built and as such, there is no need to further study the need of a transmission element that the model assumes is in service.

The Six Cities opposed the ISO's proposals related to the Merchant option to the extent that the ISO will require a non-CPUC jurisdictional LRA approved project to proceed as a merchant project if it seeks to interconnect in an area with no existing or planned transmission capacity, even if the project is being developed by an LSE pursuant to an LRA-approved resource plan and is located within the LSE's service territory, such as the service territory of a municipal utility. Six Cities claim that the ISO has not historically planned the transmission system to accommodate the resource plans of non-CPUC LRAs, so Six Cities does not believe it is appropriate to apply the merchant deliverability requirements to projects being developed by LSEs pursuant to LRA-approved resource plans. The ISO has increased outreach and coordination in the TPP with the non-CPUC jurisdictional LSEs in the 2024-25 TPP and projects of non-CPUC jurisdictional LSEs will be included in the 2024-25 TPP. The ISO is not aware of any non-CPUC jurisdictional LSE project in Cluster 15 and the 2024-25 TPP will be timely in accommodating any such project proposed for Cluster 16.

Recurrent asked the following questions:

- Does Scoring Criteria apply to Merchant option?

The scoring criteria will not be used for projects applying for the Merchant option. As described in item (5) below, Merchant option projects will be required to make an additional Commercial Readiness Deposit towards the cost of the ADNU with the submittal of its interconnection request. The deposit is set to an amount deemed to be high enough to be an incentive to only those interconnection customers that are confident of their project's viability under the Merchant option.

- Is the Commercial Readiness Deposit refundable post COD of the Merchant deliverable project? Or is the entire amount non-refundable post cluster study even if the project comes into service?

The Commercial Readiness Deposit will be a portion of the overall funding used by the PTO to construction of the ADNU. It will not be refundable.

- Can ISO help interconnection customers understand why the repayments of ADNU funded under Merchant Deliverability Option can only be done via CRR's?

The Merchant Deliverability process is an existing, FERC-approved process, which provides Merchant Transmission CRRs as a form of reimbursement. Creating a new process to determine benefits, costs owed, and new ownership structures is beyond the scope of this initiative.

## ***Proposal***

The Merchant option ensures that projects seeking to interconnect in areas/zones with no available deliverability capacity have a path forward to become deliverable by providing the opportunity for such projects to build any required ADNUs as a merchant transmission project. The ISO will not accept Merchant option interconnection requests within zones that have available or planned transmission capacity. However, any TPD zone where the available capacity is less than 50 MW will be studied as a Merchant option zone.

Projects will not be allowed to submit an interconnection request as a TPD option project and later switch to the Merchant option if they are not selected to be studied through the scoring process. In addition, if a TPD option project is

selected and studied, but unable to receive a TPD allocation, it will not be eligible to convert to the Merchant Deliverability option.<sup>28</sup>

1. Merchant Deliverability option projects will not have to compete for TPD in the allocation process because they will trigger and finance all of the delivery network upgrades they require, without reducing the available deliverability from other delivery network upgrades needed by TPD option projects.
2. Merchant option projects that require Local Delivery Network Upgrades (LDNUs) will be eligible for cost recovery of any posted financial security towards the cost of the LDNU in the same manner as TPD option projects. LDNUs are more project specific than ADNUs that, outside of the Merchant Deliverability process, are developed in the TPP. In the transition to the study approach based on the available deliverability within zones, the ISO believes it is appropriate to allow developers to be reimbursed for LDNUs. This will also result in the Merchant option being more viable.
3. A Merchant Deliverability project's funding of the construction of its required ADNU will not receive repayment. The interconnection customer will be eligible to receive Merchant Transmission CRRs in accordance with ISO Tariff Section 36.11. The ISO does not propose to revisit its policy that the interconnection process cannot enable new transmission owners. Developers can propose transmission projects in the TPP or as Subscriber PTOs.
4. Merchant Deliverability projects will be given a project status of FCDS or PCDS, as specified in their GIA and in accordance with the RA counting rules.
5. The project will be required to make an additional Commercial Readiness Deposit towards the cost of the ADNU with the submittal of its interconnection request during the cluster application window. The additional amount will be \$10,000 per MW, but not less than \$500,000 and

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<sup>28</sup> Transmission Plan Deliverability projects will still be able to exercise Article 11.4.3 of the LGIA should they ultimately wish to forego cash reimbursement in favor of CRRs. This article does not impact intake or study processes.

not to exceed \$5,000,000, based on the capacity amount of deliverability requested in its interconnection request. Fifty percent of this additional Commercial Readiness Deposit would be non-refundable if the project withdraws after the due date for interconnection request validations to be complete. The deposit is set to an amount deemed to be high enough to provide an incentive for only those interconnection customers that are confident of their project's viability under the Merchant option.

6. Merchant Deliverability projects that complete the cluster study process will be required to increase their Commercial Readiness Deposit associated with their merchant ADNU(s) to 50% of its cost responsibility for the ADNUs (e.g., if the project provided \$5,000,000 in accordance with (5) above and 50% of the projects cost responsibility of the ADNU is \$20,000,000, then the project would be required to increase its Commercial Readiness Deposit by \$15,000,000). Fifty percent of the Commercial Readiness Deposit associated with the merchant ADNU would be non-refundable if the project withdraws.
7. If a future TPP determines an ADNU that a Merchant Deliverability project is funding is needed to support a CPUC portfolio, then the following criteria would be used.
  - a. Once Merchant option projects have executed GIAs, the ADNU they are sponsoring would be included in the base case for the next TPP, and the Merchant option projects must then fund the ADNU and proceed as Merchant option project(s). However, if the Merchant option project did not execute GIAs by the time the base case for the current TPP is established (so the ADNU was not included in this TPP base case) and the ADNU is approved as needed in the current TPP, the Merchant option project would:
    - i. Be released from its funding obligation, and its ADNU security would be released.
    - ii. Retain its TPD allocation, if it demonstrates TPD allocation Group A or B compliance within two years. (The deadline would be the affidavit due date of the second TPD allocation cycle after the ISO Board of Governors approves the transmission plan with the ADNU (e.g. for a May 2026 TPP

Plan Board approval date, the Merchant option project must meet retention requirements by the 2028 affidavit due date).

- iii. If a Merchant option project is unable to retain its deliverability or obtain an allocation of TPD within the timeframe for its cluster to obtain an allocation of TPD, the Merchant option project will be converted to Energy Only in the same manner as TPD option projects that are unable to obtain an allocation of TPD.
8. The Merchant option project's eligibility to self-build the merchant ADNU will be governed by the Stand Alone Network Upgrade provisions of the ISO Tariff Appendix DD.

#### **2.5.5. Criteria for Energy Only Projects in Non-reimbursement Zones [New]**

Based on concerns by stakeholders that Energy Only projects would have difficulty competing to be studied under the Draft Final Proposal's process where Energy Only projects would be scored and ranked with FCDS projects in TPD zones, the ISO has revised the procedures for Energy Only projects. In Section 2.3.3 the ISO proposes that Energy Only projects could seek to be studied under two options, interconnecting under the Reimbursement option or under the Non-reimbursement option. Eligibility for Energy Only projects under the Reimbursement option are projects seeking to interconnect in zones where the CPUC portfolio's amount of Energy Only Delivery Status resources are greater than zero MW in that zone. Energy Only projects under the Non-reimbursement option may seek to interconnect in any zone, regardless of the findings of the CPUC IRP process. This section provides the ISO proposal related to procedures for Energy Only projects seeking to interconnect in Non-reimbursement zones.

The CPUC's IRP base case portfolio identifies zones where Energy Only resources have been determined to be needed to meet state goals. Energy Only projects seeking to be studied in these zone will compete to be studied using the methodology described in Section 2.3.3. Open access principles require that Energy Only projects seeking to interconnect in any zone have the opportunity to do so. The Non-reimbursement option allows Energy Only projects to be studied without being subject to any scoring criteria and in any zone. However, such projects will not be eligible to be reimbursed of any funding provided by the

interconnection customer for required RNUs or interconnection facilities. The interconnection customer will be eligible to receive Merchant Transmission CRRs for any portion of RNUs it funds and are constructed for its project in accordance with ISO Tariff Section 36.11, similar to the Merchant option.

## **2.6. Study Process**

The ISO appreciates the thoughtful proposals from early working group meetings on improvements to the study process, as well as support for a single-phase study process. As noted, the ISO intends to comply with the FERC Order No. 2023 study process to the greatest extent possible. Order No. 2023 requires a study process consisting of:

- A “cluster study,” which identifies the interconnection facilities, reliability network upgrades, and delivery network upgrades that each interconnection request requires;
- A restudy evaluating the impact of withdrawals on the cluster study results; and
- An interconnection facilities study that provides more granular and accurate cost estimates for the upgrades and facilities identified in the cluster study report.

The ISO received a number of stakeholder questions and comments on the study process, which the ISO will defer until submittal of its Order No. 2023 compliance filing.

### **2.6.1. Off-Peak and Operational Deliverability Assessments [Updated]**

#### ***Background***

Order No. 2023 prescribes specific timelines for cluster studies: 150 days for the cluster study, 150 days for the cluster restudy, and 90-180 days for the interconnection facilities study.<sup>29</sup> The ISO believes that complying with these prescribed timelines requires the ISO to conform the scope of its interconnection studies to FERC’s *pro forma*. Doing so would require the ISO to remove the off-

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<sup>29</sup> Depending on the detail requested by the customer.

peak deliverability assessment (and therefore all associated statuses), and the operational deliverability assessment. In addition to enabling the ISO to meet FERC's prescribed timelines, the ISO does not believe the off-peak deliverability assessment has significant value because there is not difference between Off-Peak Deliverability Status and Off-Peak Energy Only in the ISO Market or in RA counting. Additionally, the operational deliverability assessment tends to only reconfirm the delivery network upgrades that each cluster of generators are waiting for to be completed, and this information is the same precursor network upgrade list that has already been identified.

### ***Stakeholder feedback and discussion***

The ISO did not receive any additional stakeholder feedback related to this element of the draft final proposal.

### ***Proposal***

The ISO proposes to remove both the off-peak and operational deliverability assessments from the cluster studies to enable it to meet a faster study schedule, and because of the limited value of those studies. The ISO intends to remove the assessments through IPE and its related filing under Section 205 of the Federal Power Act. However, the ISO also may have to remove these assessments through its Order No. 2023 compliance filing. Because removing the assessments may not be clear from the scope of Order No. 2023, the ISO has included them here for transparency and feedback on the assessments' values. The ISO intends to continue to include the off-peak deliverability analysis in the transmission planning process.

## **2.7. Modifications to Deliverability [Updated]**

### ***Background***

The ISO's discussion paper and straw proposal noted timing challenges for projects entering the queue. Projects aligned with the CPUC's 2022-2023 IRP and TPP portfolios will likely need to stay in the queue for a number of years, waiting for required upgrades to be completed. 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. The TPD allocation process gives highest priority to projects that have executed a PPA or are shortlisted. For projects with longer lead-time

network upgrades, the window of opportunity to seek an allocation can be several years before their network upgrades can be completed and possibly before LSEs are seeking to procure projects with later CODs.

Because most offtakers require a project to be eligible for RA, the TPD allocation process is very important to project developers. Thus, it is necessary to consider changes to the TPD allocation criteria within the framework of the proposed changes to the interconnection process within IPE and the changes required by FERC. In the draft final proposal, the ISO provided an initial proposal for modifying the TPD allocation process recognizing that the TPD allocation discussions may not advance to the final proposal stage in time for the May 2024 ISO Board of Governors meeting.

### ***Stakeholder feedback and discussion***

Stakeholders commenting on the proposal provided a number of questions and concerns on the proposal with most requesting that the issue continue to be discussed in an IPE 2023 Track 3 process that provides more time to work through the ISO proposal and suggested stakeholder modifications. The ISO had anticipated the potential need for continued discussion on the issue and proposed an IPE Track 3 focusing on the TPD allocation process that could continue separate from the Track 2 items going to the Board of Governors in May, with Track 3 targeted for the July 2024 Board meeting.

### ***Proposal***

The ISO will initiate Track 3 of the IPE initiative, focusing on the TPD allocation process, shortly after conclusion of the Track 2 process. The ISO will target the July 2024 Board meeting to resolve these issues. The ISO will develop a specific schedule for Track 3, and publish a proposal soon.

## **3. Contract and Queue Management**

### **3.1. Limited Operation Study Process Updates**

#### ***Background***

Under Section 14.2.4 of the GIDAP, projects are currently restricted to requesting a Limited Operation Study (LOS) five months before the project's synchronization date. Including the full timeline of developing, reviewing, and finalizing the LOS plan and then completing the study, interconnection customers may be left with



just a few months to make business and construction decisions based on the results. The reason for the five-month timeline is that the PTO must conduct the LOS using operations and not planning data. Longer lead times would substantially diminish the accuracy of the LOS results, potentially making them infeasible for the PTO and the customer. This is not a trivial issue. A limited operation study is premised on the interconnection customer lacking its identified reliability network upgrades. Inaccuracies in the study could result in reliability and safety issues.

Additionally, developers frequently submit modification requests simultaneous with their LOS request, which may impact the ability to start the study or publish results when it has been completed. The ISO seeks to clarify situations where modification requests are submitted that may impact the LOS process or study results.

### ***Stakeholder feedback and discussion***

The ISO did not receive additional comments on this element of the draft final proposal.

### ***Proposal***

The ISO maintains its proposal to increase time to submit an LOS request to 9 months before synchronization. This allows additional time for processing the request, drafting and issuing the study plan, and 45 days to complete the study with the intent of providing interconnection customers additional time to evaluate the results and make decisions accordingly. The reason for adjusting the policy is to assist projects in knowing to what extent a project may synchronize to the grid, or must await completion of its assigned reliability network upgrades. The ISO's proposed change does not reflect a greater ability to study system impacts further into the future; the 5-to-9 month extension is the limit to which the ISO can reasonably determine system reliability and provide customers with more time to evaluate and respond to the LOS results.

The ISO also proposes to clarify the interaction between the Material Modification Assessment (MMA) and LOS. The ISO will clarify in the Business Practice Manual for Generator Management that any modification request submitted concurrently with an LOS that may impact the LOS must be deemed complete and valid prior to the ISO starting the LOS. If an MMA is submitted after an LOS is completed and the MMA results may impact the LOS, the ISO may need to re-

evaluate the LOS results or potentially require the interconnection customer to submit a new LOS request to ensure the modification results do not impact the reliability of the ISO Grid. The customer also could withdraw the MMA to avoid disrupting the LOS.

### **3.2. Consistent Requirements for All Asynchronous Generating Facilities**

#### ***Background***

The ISO has seen increased deployment of asynchronous resources and has experienced operational issues with the varying size of resources. Currently, the requirements for large and small generating facilities differ in the operating, recording, and reporting requirements for inverters. The ISO seeks to bring consistency for all generating facilities.

#### ***Stakeholder feedback and discussion***

The ISO did not receive additional comments on this element of the draft final proposal.

#### ***Proposal***

For consistency across all asynchronous generating facilities, the ISO maintains its proposal to make Attachment 7 of the Small Generator Interconnection Agreement (SGIA) – Interconnection Requirements for Asynchronous Generating Facilities – consistent with Appendix H of the Large Generator Interconnection Agreement (LGIA).

### **3.3. Limitations to Transmission Plan Deliverability (TPD) Transferability**

#### ***Background***

The ISO is committed to providing projects flexibility to account for project development uncertainties and progress toward commercial operation. As such, the ISO recently granted projects the right to transfer deliverability from one project to another at the same point of interconnection. The ISO does not propose to eliminate such transfer rights, but rather proposes reasonable limitations to such transfer opportunities to prevent gaming. The ISO recognizes

that deliverability transfers generally enable the most viable projects to proceed.

After the ISO permitted the transferring of a project's TPD to another project at the same point of interconnection, several projects attempted to transfer TPD to those later queued to avoid the tariff requirements of the project that received the original TPD allocation (e.g. the TPD requirement to proceed without a PPA). Because these transfers would circumvent tariff rules, the ISO has rejected them.

The ISO also has observed that the assignor projects (i.e. the projects transferring their TPD) either become stagnant or withdraw from the queue as the developer tries to find an offtaker and re-seek deliverability. This is an undesirable result that causes queue backlogs. Projects that become Energy Only under these circumstances rarely, if ever, achieve commercial operation. The ISO believes developers should only proceed with TPD transfers when they recognize the project transferring its TPD is no longer viable.

### ***Stakeholder feedback and discussion***

CalWEA objected to requiring a project that transfers its deliverability to withdraw from the queue or downsize its generating capacity to its remaining deliverability, and that such projects should be allowed to develop as Energy Only because they are subject to the commercial viability criteria and time-in-queue requirements in Section 3.6. The ISO maintains its position that Energy Only projects historically have not proceeded to commercial operation. Withdrawing the Energy Only project or portion of the project will free-up space for projects that are proceeding to commercial operation.

LSA commented that the ISO could support these potentially still-viable Energy Only projects by allowing them one year to provide a PPA or require provision of the third posting and Notice to Proceed under the GIA as an interim viability demonstration. The ISO maintains its position that it is unlikely that an Energy Only project would be able to execute a PPA and proceed to commercial operation. Additionally, the third posting and Notice to Proceed are not considered a demonstration of commercial viability.

Both CalWEA and LSA proposed that the Energy Only project, or portion of the transferring project be able to seek a new allocation. As the Energy Only project or portion of the transferring project will be withdrawn or downsized upon completion of the transfer, seeking a new allocation for that Energy Only project or portion of the project would not be possible.

## ***Proposal***

The ISO maintains its earlier proposal that a project transferring its deliverability must withdraw from the queue or downsize its generating capacity to its remaining deliverability. If a project is in Partial Capacity Delivery Status (PCDS) and transferring all of its allocation, the project must withdraw entirely from the queue at the time of transfer. However, recognizing stakeholder comments that there may be some Energy Only procurement, the ISO will forego such withdrawal of the transferring project if the transferring project provides an Energy Only PPA at the time of its transfer request.

The ISO also will add clarifying language to the tariff that TPD transfers cannot be used to escape deliverability retention requirements. When the assignor received TPD from Group 3, for example, the assignee inherits all of those obligations and restrictions as if it had sought and received deliverability in that group. This is the rule today, but the tariff clarification will provide more transparency that TPD transfers cannot be used to circumvent tariff requirements.

### **3.4. Viability Criteria and Time in Queue [Updated]**

#### ***Background***

Although the ISO has tariff and BPM language to limit a project's time in queue, enforcing these provisions often requires a time-intensive, project-specific analysis and assumption to ensure the project is still in compliance. Additional straightforward milestones, clearly stated firm requirements, and universal time-in-queue limitations will help manage older projects, provide clear and transparent rules, and prevent projects from stagnating.

FERC Order No. 2023 includes specific timelines and guidance for projects to negotiate and execute GIAs as well as a limitation of three cumulative years to extend the commercial operation date. These policy changes will be effective when the ISO submits its compliance filing to FERC.

The straw proposal proposed an unavoidable time-in-queue for projects to execute the interconnection agreement and provide their third financial security posting and notice to proceed. This final proposal suggests strict commercial viability criteria and time-in-queue requirements for all projects in the queue. These requirements will supplement new FERC Order No. 2023 restrictions.

## ***Stakeholder feedback and discussion***

ACP-California, CPUC-Public Advocates Office, Engie NA, NextEra, PG&E, SCE, supported the CVC proposal.

ACP-California and Engie NA appreciated the adjustments to the PPA requirements when a PPA is terminated due to a PTO Delay as well as the clarification of the CVC requirements.

AES and SEIA said they understand the ISO's proposed commercial viability criteria (CVC) and time in queue requirements and seek clarification if these requirements would also apply to Energy Only projects. AES is also seeking clarification of what portion of the 3<sup>rd</sup> interconnection financial security would be at risk. Additionally, AES asked if the ISO could elaborate further on the permitting requirements for the CVC, such as, does a list of all permits suffice and, do the annual reports after the CVC requirement require a minimum threshold that permitting needs to meet CVC? The ISO clarified that CVC will apply to all projects in the queue, regardless of TPD status. The 3<sup>rd</sup> posting (under current tariff policy) and GIA deposit under FERC Order 2023 refund rules will remain in place. Additionally, it is expected that the project has commenced or will be commencing construction activities by the time CVC requirements must be met (or shortly thereafter). Therefore, the initial CVC permitting demonstration will need to note the permits the project has requested, the status of such request, and the expected acceptance date of such permits. The project must then annually demonstrate distinct and specific progress to commercial operation, meaning it would be reasonable that permits are approved or very close to approved by the first CVC annual demonstration.

CalCCA suggested the ISO adopt its proposal to require all projects in the queue to demonstrate commercial viability to remain in queue beyond seven years, regardless of deliverability status as well as each project to meet commercial viability criteria by an unavoidable time-in-queue requirement. The ISO proposal does that, and CVC is subject to all projects, whether FCDS, PCDS, or Energy Only.

CalWEA believes Energy Only projects should be able to acquire a PPA for RA capacity and at that point should request TPD capacity. Projects that elect to build as Energy Only, should commence construction activities immediately following the study results publication. This will ensure adequate time for the

project to achieve commercial operation. Energy Only status is not intended as a vehicle to linger in queue while a project seeks an RA contract.

Upstream suggested that the PPAs used to demonstrate CVC should not include a provision that allows the developer to terminate the PPA. Without this, certain LSEs will turn this into a profit center and offer contracts with a “termination for a fee” provision once the interconnection customer has demonstrated CVC. The ISO has placed no such requirement that PPA should not include a termination clause. The ISO has not and will not dictate PPA terms.

EDF-R, Clearway, Strata Clean Energy, and Upstream are concerned that more than 7 years is insufficient for some Cluster 14 projects to meet CVC given the long timelines and frequent delays for network upgrades to enable Energy-Only interconnection and to enable deliverability. EDF-R does not believe it is reasonable for the ISO to apply commercial viability tests to projects that are on track to meet their earliest-achievable CODs as identified in study reports or PTO delay requests. EDF-R provided an example in which a project’s longest lead network upgrade will take 9 years to construct after GIA execution and in this circumstance, EDF-R believes the project should not be required to provide an executed PPA to stay in queue until 6 years before COD.

Strata Clean Energy likewise believes that time in queue requirements need to have flexibility around long-lead transmission upgrades that are being utilized for awarding deliverability. Additionally, Upstream also noted that Cluster 14 triggered a number of long-lead time RNUs that are required and won’t be placed in-service until well after the ISO’s proposed Cluster 14 CVC date of April 30, 2028. In addition, the majority of approved 2022-2023 TPP Policy-Driven Upgrades that add additional deliverability will not be placed in-service until well after April 30, 2028. For these reasons, according to Strata, the ISO should consider moving the Cluster 14 CVC date to April 30, 2030.

In response to EDF-R and Strata, the ISO notes that a project generally will not commence construction activities until a PPA is executed. Therefore, it seems reasonable that a project would have an executed PPA prior to starting construction (9 years ahead of ISD) and should have no issue providing demonstration of the PPA by the timelines established in this proposal. Additionally, the ISO notes that for long-lead upgrade and project development, construction should commence earlier than the CVC dates identified. Therefore, all contracts, including purchase agreements, should be executed and construction should have commenced well ahead of the 2028 CVC due date for

Cluster 14 at a time that the project should be in a position to meet CVC by the timelines established. The ISO will not change the CVC due dates.

Vistra requested clarification of how CVC and TPD will correlate. Specifically, Vistra asked how the TPD allocation proposal would align with a project's need to meet CVC and provided three scenarios to confirm representation. The ISO notes that the TPD changes are still under review. The ISO expects to align the two processes, however, it will be firm on the CVC requirement dates, requiring the project to meet CVC regardless of the TPD allocation timeline and process.

Vistra also believes the CVC proposal appears to be inconsistent with FERC Order 2023 because Order 2023 requires the project to have 100% site control earlier in the interconnection timeline than the CVC proposal. The ISO is requiring the 100% site control in the policy to ensure projects in Cluster 14 and earlier comply with such requirement. If or once the Order 2023 site control requirement to demonstrate 100% site control earlier in the process is implemented, the earlier timeline would supersede the CVC policy for those projects under Order No. 2023 requirements.

### ***Proposal***

The ISO continues to propose requiring all projects in the queue to demonstrate commercial viability to remain in queue beyond seven years, regardless of deliverability status. The ISO also proposes requiring each project to meet the CVC by an unavoidable time-in-queue requirement. Projects must demonstrate annually that CVC remains valid. Failure to meet these requirements will result in withdrawal or default of the project.

The current CVC policy in Appendix DD will apply to all projects currently in the queue through Cluster 14. The CVC requirement for projects to retain TPD when requesting COD changes beyond 7 years-in-queue will remain effective until such CVC due date as identified in Table 5 : *CVC Demonstration Requirement* below for the project's respective cluster. Specifically, projects utilizing the one-year limited exception of the current CVC policy will not be provided PPA due dates beyond the CVC due dates identified in Table 5 below for the project's respective cluster. The current CVC requirements to retain TPD will not apply to Cluster 15 or later.

Once CVC has been met, the project is required to demonstrate specific and distinct progress to commercial operation on an annual basis and is prohibited

from extending milestones except when aligning the COD with that of an executed PPA.

As detailed in Tables 5 and 6 below, the ISO proposes that all projects will be required to meet the following CVC by no later than the date defined for all active projects currently in the ISO queue through Cluster 14. All projects in Cluster 15 and later will be required to meet CVC by 5 years from the publication of the interconnection facilities study, which is the last study in the Order No. 2023 study process. In contrast to current practice, projects will be required to meet these criteria when they are in queue for 5 years from the interconnection facilities study (or Cluster 15 equivalent):<sup>30</sup>

- Proof of one or more executed power purchase agreements (whether for RA requiring TPD or for Energy Only) by providing the ISO a copy of such executed agreement(s) and other supporting documentation as applicable.
  - Power purchase agreements must have and maintain the following criteria and remain consistent with the project's ISO queue project, Interconnection Request, and GIA:
    - A minimum 5-year term
    - TPD status/requirements that match the project's TPD status with the ISO. For example, if the project is Energy Only at the time of meeting CVC, the ISO will not accept a PPA that requires 'RA benefits' or TPD to be acquired. This is consistent with the ISO's proposal above to remove options to obtain deliverability late in the queue process.
    - Point of interconnection, capacity, fuel type, technology, site location and Interconnection Customer(s) legal entity (or affiliated holding company).
  - If the PPA is not consistent with such ISO or GIA criteria above, the Interconnection Request will be withdrawn or terminated. If such differences could be corrected with a material modification request,

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<sup>30</sup> If a PTO construction delay changes the COD or construction schedule beyond the limit, CVC does not apply. Consistent with today, PTO construction delays are caused unilaterally by the PTO, and do not result from any customer action or election.



to the extent permitted, the project will be required to immediately submit a modification request to align the interconnection request with the executed PPA.

- If a PTO extension causes the interconnection customer's PPA to be terminated, the interconnection customer will have 12 months from the date of the PTO extension report to demonstrate that the project is on a shortlist or is actively negotiating a PPA or provide an executed PPA. If the project demonstrates a shortlist or is negotiating a PPA, the project must provide the ISO with an executed PPA by no later than 24 months from the date of the PTO extension report. If a PPA is not provided by the due date, the ISO will place the project in breach of contract and move to terminate the GIA and withdraw the queue position.
- Provide the 3<sup>rd</sup> Interconnection Financial Security (following the current Appendix DD policy) or GIA deposit (or other related security) in accordance with FERC Order No. 2023.
- Demonstrate Site Control for 100% of the property necessary to construct the facility through the approved Commercial Operation Date.
- Be in good standing with the GIA such that neither the Participating TO nor the ISO have provided a Notice of Breach that has not been cured and the Interconnection Customer has not commenced sufficient curative actions.
- Provide a report that includes a detailed description and demonstrate status of the following:
  - 1) Progression of the project's established GIA milestones, including, at a minimum:
    - i. Notice to proceed has been provided to the PTO
    - ii. Third interconnection financial security has been posted in full or the project is up-to-date on the payment schedule defined in the GIA
  - 2) A list of all necessary permits, environmental assessments, or other authorizations required for constructing the Generating Facility and

the contact persons and contact information for each required authorization.

- 3) The status of the engineering and design of the generating facility, and network and interconnection upgrades.
- 4) The status of the procurement of major equipment necessary to construct the generating facility.
- 5) The status of the construction activities of the generating facility and interconnection facilities.

Then, annually, the project must continue to demonstrate that:

- The CVC criteria (A) through (E) above remains valid and accurate;
  - The project must continue to satisfy this CVC with the PPA it provided in its initial CVC demonstration. In the event a project's PPA is terminated, it must execute a replacement PPA before the next annual review period.
- Specific and distinct progress has been made for all of the following items:
  - 1) GIA Milestones.
  - 2) Submission of or approvals from the regulating authorities for all necessary permits, environmental assessments, or other authorizations required for constructing the Generating Facility.
  - 3) Status of engineering and design of the generating facility, and network and interconnection upgrades.
  - 4) Status of the procurement of equipment necessary to construct the generating facility. Status of the construction activities of the generating facility and interconnection facilities.

Projects that meet CVC for only a portion of the project (only provide a PPA for 50 MW of a 100 MW project for example) will be required to downsize to the capacity that meets CVC requirements.

After CVC is met, projects will be prohibited from changing POI or project site location, including requesting gen-tie sharing, and changing technology or fuel type, including the addition of or conversion to energy storage. Upon achieving

COD, the project may request to add energy storage via a Post-COD modification request.

Consistent with the CVC and suspension today, when a project submits a modification request to determine whether suspension will have a material impact on other projects, the ISO will assess whether the suspension will place the project beyond the tariff-prescribed terms. If so, the project must comply with the CVC at the time it enters suspension. This will continue to avoid projects' using suspension to linger in queue while avoiding CVC requirements.

Projects in queue beyond the tariff-prescribed timelines will not have an option to construct as a merchant plant or proceed without a PPA and proceed to construction without having met and continue to meet CVC requirements. This will prevent projects from creating pretexts to linger in queue while searching for an offtaker.

Failure to meet the GIA or CVC requirements will result in the ISO proceeding to withdraw the interconnection request. With this CVC policy, the ISO proposes to eliminate the monthly or quarterly status report submissions as established in the generator interconnection agreements and rely on the initial and annual demonstration of CVC for project status updates.

Tables 5 and 6 establish the proposed due dates for all projects in the queue through Cluster 14 to (1) execute an interconnection agreement, and (2) subsequently demonstrate the project's CVC.

**Table 5. GIA execution retirement**

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

**Table 6. CVC demonstration requirement**

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

**Examples:**

- A. A long lead-time project (such as offshore wind) with a COD of 2040 enters the queue in 2026 with a seven-year CVC requirement of April 2033. With a long-lead development and upgrades of 10 years, the project must start construction by 2031. Therefore, as long as the project executes a PPA by 2033 (meaning it had roughly four years to market and seek an offtaker following the study process), and demonstrate all other CVC, it can request a COD that aligns with that PPA.
- B. The project has a long-lead upgrade that results in the project COD extending beyond seven years-in-queue, the project can have any COD it needs, as long as it demonstrates all CVC by seven years-in-queue (or date established below), continues to demonstrate such CVC annually and makes continual progression to achieve its commercial operation. If a project executes a PPA, it can submit a modification request to align the project COD to the PPA.
- C. If the project has Energy Only Deliverability Status, an Energy Only PPA would permit the project to align its COD with that Energy Only PPA and the project would remain in good standing as long as it meets all CVC by seven years-in-queue (or date established below) and continues to meet

such CVC annually making continual progression to commercial operation.

- D. The Queue Management team will continue to work to maintain project's CODs as it does today, allowing modification requests for CODs and managing projects accordingly.

### **3.5. Project Modification Request Policy Updates**

#### ***Background***

The increase in the volume of modification requests has become challenging to manage and the ISO proposed several suggested approaches to reduce the number of modification requests to a workable level. Currently, projects submit multiple MMA requests for equipment, technology, and configuration changes prior to execution of the Generator Interconnection Agreement (GIA) and through their Commercial Operation Date (COD). In the initial discussion paper and through the IPE stakeholder working group meetings, the ISO and stakeholders sought ways to reduce the pace and volume of modification requests.

The ISO and stakeholders discussed options that included:

1. Define a list of modifications that would not require a request and that could be approved without a formal review.
2. A tiered approach to simple COD-only requests as compared to complex requests that include technology or interconnection changes. This tiered approach would also consider a different deposit or fee amount.
3. Requiring PTO validation timeline turns.
4. Limiting a project to a certain number of MMA requests or requiring that MMAs may only be either submitted at certain times during the year or based on contract milestones.
5. Implementing a financial penalty (\$X/day) for projects that do not submit an MMA as requested by the ISO or PTO.

Additionally, the ISO has recently seen an increase in the number of shortfalls due to the cost of processing modifications being greater than the current \$10,000 deposit.

## ***Stakeholder feedback and discussion***

The ISO did not receive additional comments on this proposal.

## ***Proposal***

The ISO maintains its proposal to update the following to the MMA and post-COD modification processes:

- Increase deposit to \$30,000;
- Increase time to complete engineering analysis from 45 days to 60 days;
- Increase time to complete the Facility Reassessment Report from 45 days to 60 days.

The ISO proposes process updates that the Queue Management team will work on to enhance the overall modification processes as follows:

1. Work to host modification calls between the ISO and PTO engineering teams and the interconnection customer following the second or third validation turn.
2. Coordinate with the PTOs to improve the initial and subsequent validation reviews for modification requests.
3. The ISO and PTOs will work to identify specific milestones such as executing the GIA or providing notice to proceed in the modification results.
4. The ISO proposes to update the BPM for Generator Management (Section 6.2.1.4) to specify that projects must have started construction and be within nine months of achieving their then-current synchronization or commercial operation date to submit a construction sequencing delay request. If updates to the COD are necessary beyond nine months, a modification request must be submitted.

### **3.6. Earlier Financial Security Postings for Projects with Shared Upgrades**

## ***Background***

Interconnection customers have raised concerns that the PTOs are not meeting the milestone dates, particularly with shared network upgrades. In some

instances, the PTOs are waiting until all or the majority of the interconnection customers responsible for the shared network upgrade have provided their Notice to Proceed (NTP). A consequence of this is that a project ready to go is delayed because the PTO is waiting for the NTP for all parties, or the majority of the parties. Appendix B of the LGIA and Attachment 4 of the SGIA establish milestones for the interconnection customer and PTO to meet the commercial operation date specified in the agreement.

In the draft final proposal, the ISO, in coordination with the PTO, agreed to notify all the other developers whose projects were allocated a pro-rata share of the same shared network upgrade that they will be required to make the 3<sup>rd</sup> Interconnection Financial Security (IFS) posting for their pro-rata portion of the shared network upgrade.<sup>31</sup> If the project is parked, it would need to execute an engineering and procurement (“E&P”) agreement for the shared network upgrades with the PTO within 90 calendar days of notification or be withdrawn.<sup>32</sup> If the GIA is not executed, the interconnection customer will have 90 days to execute the GIA or be withdrawn. The GIA could incorporate two NTPs’ and 3<sup>rd</sup> IFS postings, one for the shared network upgrade and one for the remainder of the project.<sup>33</sup> The IFS and first payment would be due at the time of execution of the GIA and payments would commence. Failure to post is grounds for termination of the engineering and procurement agreement or GIA.<sup>34</sup> If the GIA is already executed, the interconnection customer would have 60 days from the date of notification to post the IFS for the shared network upgrade and make payments to the PTO. The GIA could subsequently be amended to incorporate two NTPs and IFS postings, if desired. The shared network upgrade can be any network upgrade (PNU, CANU, ADNU, LDNU, RNU or DNU). If a project withdraws because it has to post earlier than anticipated in its schedule, then withdrawal funds will be treated consistent with Section 7.6 and 11.4 of the tariff. Also, as discussed in Section 3.10 below, once the PTO has received the NTP

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<sup>31</sup> For Cluster 15 and beyond, in accordance with Order No. 2023, the project will need to post their Commercial Readiness and GIA Deposits along with the discrete portion of the shared network upgrade at least thirty (30) days prior to the commencement of procurement, installation or construction of the shared network upgrade.

<sup>32</sup> This is applicable to Cluster 14 and previous clusters.

<sup>33</sup> For Cluster 15 and beyond, the posting for discrete upgrades resolves this issue.

<sup>34</sup> Section 8.4.8 of Appendix DD, LGIA Article 2.3 or SGIA Article 3.3, whichever is applicable

and 3<sup>rd</sup> IFS posting from all of the impacted interconnection customers, it will have 30 business days to commence working on the upgrades.

### ***Stakeholder feedback and discussion***

The following parties support this proposal: ACP-California, AES, Cal Advocates, CESA, Intersect, LRE, NextEra Resources, PG&E, REV, SCE, and Upstream. LSA does not object to the proposal. LSA still considers related proposals – separate posting/NTP/payment timing for other upgrades, and PTO obligation to begin the upgrade – as integral to its support for this proposal.

ACP-California would like to continue to explore options to reduce the significant delays to upgrades in other forums, including options for developers responsible for shared network upgrades to delay payment of the third financial security posting if a GIA is not executed by the PTO. The ISO does not have a dedicated policy initiative on this matter but notes that the Transmission Development Forum is an appropriate venue to track the progress of PTO upgrades. Additionally, the ISO is working with local, state, and federal authorities as well as stakeholders to explore broader solutions to the workforce, supply chain, and financial challenges that impact PTO construction timelines.

AES and SEIA are seeking clarity that the policy should apply to all shared network upgrades such as DNUs, RNUs and LNUUs. The ISO agrees.

EDF-R noted that the ISO's proposal requires parked projects to execute E&P Agreement but notes that the PTOs are not required to tender, negotiate or execute them. The ISO appreciates EDF-R's comment and the ISO had intended on specifically requiring this in the tariff language that will implement this initiative.

### ***Proposal***

The ISO, in coordination with the PTO, agreed to notify all the other developers whose projects were allocated a pro-rata share of the same shared network upgrade that they will be required to make the 3<sup>rd</sup> Interconnection Financial



Security (IFS) posting for their pro-rata portion of the shared network upgrade.<sup>35</sup> If the project is parked, it would need to execute an engineering and procurement (“E&P”) agreement for the shared network upgrades with the PTO within 90 calendar days of notification or be withdrawn.<sup>36</sup> If the GIA is not executed, the interconnection customer will have 90 days to execute the GIA or be withdrawn. The GIA could incorporate two NTPs’ and 3<sup>rd</sup> IFS postings, one for the shared network upgrade and one for the remainder of the project.<sup>37</sup> The IFS and first payment would be due at the time of execution of the GIA and payments would commence. Failure to post is grounds for termination of the engineering and procurement agreement or GIA.<sup>38</sup> If the GIA is already executed, the interconnection customer would have 60 days from the date of notification to post the IFS for the shared network upgrade and make payments to the PTO. The GIA could subsequently be amended to incorporate two NTPs and IFS postings, if desired. The shared network upgrade can be any network upgrade (PNU, CANU, ADNU, LDNU, RNU or DNU). If a project withdraws because it has to post earlier than anticipated in its schedule, then withdrawal funds will be treated consistent with Section 7.6 and 11.4 of the tariff. Also, as discussed in Section 3.10 below, once the PTO has received the NTP and 3<sup>rd</sup> IFS posting from all of the impacted interconnection customers, it will have 30 business days to commence working on the upgrades.

### **3.7. Revise Timing of GIA Amendments to Incorporate Modification Results**

#### ***Background***

In the draft final proposal, the ISO noted that with the continuous revisions to projects through the MMA process, the contract negotiators for the interconnection customer, PTO and ISO are required to continually amend the GIAs. The ISO proposed that the process of amending the GIA that will include all of the MMAs should start no later than nine months prior to synchronization of

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<sup>35</sup> For Cluster 15 and beyond, in accordance with Order No. 2023, the project will need to post their Commercial Readiness and GIA Deposits along with the discrete portion of the shared network upgrade at least thirty (30) days prior to the commencement of procurement, installation or construction of the shared network upgrade.

<sup>36</sup> This is applicable to Cluster 14 and previous clusters.

<sup>37</sup> For Cluster 15 and beyond, the posting for discrete upgrades resolves this issue.

<sup>38</sup> Section 8.4.8 of Appendix DD, LGIA Article 2.3 or SGIA Article 3.3, whichever is applicable

the first block or phase of the project to the grid. However, developers and PTOs may have a variety of reasons to amend GIAs to incorporate modifications sooner or later. The ISO will thus continue to provide flexibility for the parties to decide when they will amend GIAs, and will not propose tariff rules regarding when parties can amend GIAs to incorporate modifications. The ISO notes that either party also can submit unexecuted GIA amendments to FERC whenever the other party is reluctant to amend a GIA or there is an impasse in amendment negotiations.

The proposal will also revise the NRI process to align with this proposal. In addition, upon 120 days advance written notice, a GIA incorporating all MMAs to date could be tendered and executed by the parties if needed for financing purposes or if requested by the PTO or ISO. If any party to the GIA requests an amendment to the GIA, then all parties are required to negotiate in good faith and execute the amendment as soon as practical.

### ***Stakeholder feedback and discussion***

AES, Cal Advocates, CalWEA, Intersect, LRE, LSA, NextEra Resources, PG&E, REV, SCE, and Upstream supported the proposal of having the option to update the GIA nine months prior to synchronization and aligning the NRI process. The MMA results would include both the results, the financial milestone changes and payment schedules, if applicable. Cal Advocates noted that by addressing the timing of GIA amendments resources would be more efficiently utilized which in turn lowers costs to ratepayers.

AES is concerned that developers are not provided with the most up to date scope and cost when submitting a modification. If there is not a requirement to provide this scope and cost updates, the PTOs will miss additional information that is key to developers. In AES's experience, the amended scope has been missed by the PTOs or is not comprehensive in relation to the previously assigned scope, resulting in additional changes in a later process (*i.e.* execution) that shifts unknown financial risk to the developers. PTOs should be responsible for updating the scope that was originally identified in the studies through a modification. AES recommended that the PTO be responsible for providing a more comprehensive integration of the modification into the past reports. This would further support the ISO's goals of having developers submit project ready and viable projects and modifications in a timely fashion. The ISO noted that if AES desires an amended agreement after each MMA, then it has the ability to

request one and the parties agree that they will as soon as practical negotiate in good faith an amendment to the GIA.

EDF-R requested that the posting schedules also be included in the MMA results. The ISO agrees to add this component to the MMA report, but in some instances it will be easier to amend the GIA versus continuing to add more complexities to the MMA report.

GSW and SCE are concerned that there is not an obligation for the ISO and PTOs to process a GIA amendment upon request (e.g. financing purposes, change of the project, etc.). As stated in the previous section, it is the ISO intent to make the tendering and negotiating requirements explicit on all of the parties if any one party requests an amendment to the GIA.

MRP clarified that its concern was that the ISO and PTOs often do not keep to the timeline for processing MMAs. MRP understands the ISO's observation about the challenges of dealing with a large number of MMAs, but offered that the ISO simply slipping the deadline is not a solution that provides much comfort for the developer, as such a delay impacts the ability, and timing, to obtain financing. MRP would like to see the ISO and PTOs hire the staff they need to timely process these requests or amend the tariff to include achievable deadlines. The ISO has incorporated into this initiative Section 3.7, which captures a more achievable timeline, and Section 3.11 that requires deposits for the ISO's implementation of the projects so that staff is not trying to both manage projects and process MMAs. With these two tariff changes, the ISO believes it will have more staff to better meet the timelines.

SCE also remains concerned that including changes to scope, project payments, costs, financial security amounts (ITCC and IFS) and their due dates, and schedule in the MMA report will require negotiation with the interconnection customer before finalizing these terms and conditions in the report. This will certainly extend the overall timeline to complete the MMA/FRR beyond the 60 or 120 days as prescribed in Section 3.7. In which case, SCE proposes that ISO allow in its final proposal extension of these timelines as addressed in the ISO tariff. (See, for instance, Section 6.7.2.3 in the ISO Tariff addressing Modifications.) The ISO had not intended that each MMA Report be a negotiation among the parties, especially for complex modifications. SCE may request an extension of the MMA Report as already allowed under Section 6.7.2.3, or because SCE is likely to amend every GIA after the report is

published, the MMA report could include the high level changes and allow the negotiation details to be included in the amendment to the GIA.

### ***Proposal***

The ISO proposed that the process of amending the GIA that will include all of the MMAs should start no later than nine months prior to synchronization of the first block or phase of the project to the grid. However, developers and PTOs may have a variety of reasons to amend GIAs to incorporate modifications sooner or later. The ISO will thus continue to provide flexibility for the parties to decide when they will amend GIAs, and will not propose tariff rules regarding when parties can amend GIAs to incorporate modifications. The ISO notes that either party also can submit unexecuted GIA amendments to FERC whenever the other party is reluctant to amend a GIA or there is an impasse in amendment negotiations.

## **3.8. Commence Network Upgrades when the first Notice to Proceed is provided to the PTO**

### ***Background***

Interconnection customers are concerned that once a notice to proceed (NTP) is provided to the PTO, it may be months before the PTO actually starts engineering, design, or project management of the network upgrade. This can result in the network upgrade being delayed from the original online date in the GIA. This then could force the interconnection customer to be delayed in meeting the timeline in its PPA, which would likely result in financial penalties for the interconnection customer.

The ISO previously proposed that a specific date for the NTP be in the GIA. If an MMA modifies the NTP date, the new date will be included in the MMA report, which is then an amendment to the GIA. The ISO also agreed that the PTOs need to move forward once the NTP and third security posting is received and meet the initial synchronization date in the GIA to allow interconnection customers to satisfy their PPA requirements. This will allow milestones to be specifically tracked.

The ISO also proposed that a new milestone be added requiring the PTO to notify the interconnection customer and ISO when activity has begun on the network upgrade and interconnection facilities, which should be within 30

business days after receiving the NTP and 3rd IFS posting. This would provide transparency as to when the upgrades are started and open communication among the parties to ensure that transmission is being built within the terms and conditions of the GIA.

### ***Stakeholder feedback and discussion***

No comments were received on this initiative.

### ***Proposal***

The ISO proposes that a specific date for the NTP be in the GIA. If an MMA modifies the NTP date, the new date will be included in the MMA report, which is then an amendment to the GIA. The ISO also agreed that the PTOs need to move forward once the NTP and third security posting is received and meet the initial synchronization date in the GIA to allow interconnection customers to satisfy their PPA requirements. This will allow milestones to be specifically tracked. In addition, a new milestone will be added to the GIA requiring the PTO to notify the interconnection customer and ISO when activity has begun on the network upgrade and interconnection facilities, which should be within 30 business days after receiving the NTP and 3rd IFS posting. This would provide transparency as to when the upgrades are started and open communication among the parties to ensure that transmission is being built within the terms and conditions of the GIA.

## **3.9. Deposit for ISO Implementation of Interconnection Projects**

### ***Background***

The draft final proposal proposed that upon execution of the GIA, the interconnection customer will provide a \$100,000 deposit to the ISO to compensate the ISO for project management and new resource implementation processes for each project in the queue. There are roughly five teams and several people involved in project implementation following GIA execution. This includes:

- Queue Management – project management, facilitating issues, assisting projects to understand next steps
- Regulatory Contracts – implementing amendments to the GIA, developing

market agreements, establishing co-located and hybrid Accumulated Capacity Constraints

- New Resource Implementation – overseeing implementation of projects into the market systems
- Energy Data Acquisition – ensuring the metering and telemetry are accurate and meet market criteria
- Full Network Model – developing and testing the model of the generator in the market systems.

Assuming a \$190 average loaded cost per hour in 2023, the \$100,000 deposit provides the ISO 526 hours to be charged over approximately five years remaining after the study process. This deposit is in addition to those costs or processes that are not currently reimbursed, such as MMAs, LOS, and PTAs. In addition, WDAT projects will need to provide a \$10,000 deposit to go through the NRI process.

### ***Stakeholder feedback and discussion***

Recurrent requested that the ISO show some sort of backend calculation that went into determination of the \$100,000 deposit and how it will help fix this problem. As discussed in the Draft Final Proposal, the ISO identified the various business units involved in development of generator interconnection projects and the work each unit is responsible for along with the cost estimate. This assumes the project is in the queue for approximately five years after the study process and proceeds to achieve COD through the New Resource Implementation process. These additional fees will allow for a revenue stream based on cost causation to justify hiring additional staff to work on the generator interconnection processes versus relying on market revenue from the Grid Management Charge.

The ISO agrees with Recurrent that staffing levels are a valid concern for the generator interconnection process to meet the anticipated 7-8,000 MW increase per year over the next 20 years to achieve California's renewable portfolio standard. The ISO is monitoring this issue.

### ***Proposal***

The ISO does not propose to make any changes from the draft final proposal. Upon execution of the GIA, the interconnection customer will provide a \$100,000

deposit to the ISO to compensate the ISO for project management and new resource implementation processes for each project in the queue. In addition, WDAT projects will need to provide a \$10,000 deposit to go through the NRI process.

### **3.10. Update to the Phase Angle Measuring Units Data**

#### ***Background***

The GIA requires an asynchronous generating facility to provide all phase angle measuring unit (PAMU) data at a resolution of 30 samples per second and upon request from the ISO or Participating TOs. With the increase in asynchronous generating facilities on the grid, the ISO is finding that the resolution of 30 samples per second is not granular enough to be of use for any analysis when there are faults on the system and most sites are using their protective relays versus PAMUs to capture events. The ISO proposes to change this sample size to 16 samples per cycle, which is already consistent with present day relays. This change provides the ISO with 960 samples per second versus the current 30.

#### ***Stakeholder feedback and discussion***

The ISO confirmed on February 28<sup>th</sup> that the proposal in the draft final proposal and the draft final proposal presentation were correct, making the PAMU data change from 30 samples per second to 16 samples per cycle. LSA commented that it had insufficient time to vet the clarification with its members and suggested that this proposal be delayed until the July Board meeting. The ISO appreciates LSA's position but given the nature of this component of the initiative, the ISO wants to implement it as soon as possible and does not want to defer it.

Power Applications and Research Systems, Inc. noted that "PMU" stands for Phasor Measurement Unit and requested the ISO not use that acronym for phase angle measuring unit. The ISO agrees.

#### ***Proposal***

The ISO does not propose to make any changes from the draft final proposal. The ISO proposes that the phase angle measuring unit resolution should be revised in Appendix H of the GIA to 16 samples per cycle, not second.

## **4. WEIM 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 will be submitted for approval to the Board of Governors only and that the WEIM Governing Body will have no role in the decision.

The Board and the WEIM Governing Body have joint authority over any proposal to change or establish a tariff rule applicable to the WEIM/EDAM Entity balancing authority areas, WEIM/EDAM Entities, or other market participants within the WEIM/EDAM Entity balancing authority areas, in their capacity as participants in the WEIM/EDAM. The WEIM/EDAM Governing Body will also have joint authority with the Board of Governors to approve or reject a proposal to change or establish any tariff rule for the day-ahead or real-time markets that directly establishes or changes the formation of any locational marginal price(s) for a product that is common to the overall WEIM or EDAM markets. The scope of this joint authority excludes, without limitation, any other proposals to change or establish tariff rule(s) applicable only to the CAISO balancing authority area or to the CAISO-controlled grid. Note: For the avoidance of any doubt, that the joint authority definition is not intended to cover balancing authority-specific measures, such as any parameters or constraints, the CAISO may use to ensure reliable operation within its balancing authority area.

Charter for EIM Governance § 2.2.1. The tariff changes proposed here would not be “applicable to WEIM/EDAM Entity balancing authority areas, WEIM/EDAM Entities, or other market participants within WEIM/EDAM Entity balancing authority areas, in their capacity as participants in EIM.” Rather, they would not 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 WEIM 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 rules of the real-time or day-ahead market.

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.



## **5. 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. The ISO intends to present Track 2 enhancements to the Board of Governors in May 2024.

<b>Date</b>	<b>Milestone</b>
3/28/2024	Final proposal posting
4/4/2024	Stakeholder workshop on final proposal
Late April or early May 2024	FERC Order No. 2023 compliance filing
May 22-23, 2024	Board of Governors Meeting
Spring-Summer 2024	Track 3 discussions on deliverability

**Attachment D – Track 2 Final Addendum**

**Tariff Amendment – Track 2 of Interconnection Process Enhancements 2023 Initiative**

**California Independent System Operator Corporation**

**August 1, 2024**



California ISO

# 2023 Interconnection Process Enhancements

Final Addendum to Track 2 Final Proposal

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## **Introduction**

The ISO appreciates the robust stakeholder engagement throughout track 2 of the Interconnection Process Enhancements initiative, which seeks transformational reform of the interconnection request intake and queue management processes to enable increased and accelerated onboarding of new resources to meet reliability and policy needs.

This final addendum provides additional clarifications on the final proposal for stakeholders, based on comments on the final proposal and comments to the Board of Governors for the May 23, 2024 and June 12, 2024 meetings. The addendum focuses on the following issues:

- Clarification of the implementation of the zonal approach, and how available transmission capacity will be assessed for each cluster.
- A commitment to monitoring the results of various components of the interconnection request intake process and coordinating with the California Public Utilities Commission (CPUC), local regulatory authorities, and stakeholders to adjust any necessary components for Cluster 16 and future clusters, including:
  - Transparency of LSE allocation process
  - Trends in LSE allocations to LSE-sponsored projects
  - Opportunities to increase coordination with non-LSEs in the scoring process.
- A requirement that load-serving entities (LSEs) opt-in to the LSE allocation process and post selection criteria and contact information on a publicly-accessible website, in order to improve the transparency and rigor of the LSE allocation process while respecting oversight of LSE procurement activities.
- Clarifications to the scoring process, and recommendations to stakeholders on the LSE allocation process.
- Further clarification of the treatment of mixed-fuel resources such as hybrid and co-located solar and storage projects.
- Clarifications to the engineering design plan scoring criterion.
- Context and rationale for the final proposal's treatment of Energy Only resources.

## **Implementation of the zonal approach**

A central tenet of this initiative is the prioritization of projects in areas with available transmission capacity for progression into the study process. This proposal reflects the first principle established by the working group to “Prioritize interconnection in areas where transmission capacity exists or new transmission has been approved, while providing opportunities to identify and provide alternative points of interconnection or upgrades.” Projects or interconnection requests outside the zones will still have the option to self-fund network upgrades through a modified “Merchant Deliverability” process, as explained below. The ISO understands that access to information is critical for the zonal approach, and will provide stakeholders with information on the available transmission capacity within the transmission zones prior to the interconnection request window.

As indicated, the resources identified within the CPUC portfolios mapped to the substations within the transmission interconnection areas are assessed in the annual transmission planning process. This is done to determine the capability of the existing transmission system and identify transmission projects for approval to address the constraints identified to deliver the capacity and types of resources to load at the locations identified in the CPUC portfolios. The transmission constraints in the Transmission Capabilities Estimates are used by the CPUC in development of its portfolios. While the ISO is planning the transmission up to the resource identified in the CPUC portfolio in each of the interconnection areas, the specific constraints provide the capability of sub-zones within the interconnection area. A particular interconnection point may be identified behind more than one constraint, as some of the constraints are either nested within or overlap other constraints. The capability of a point of interconnection (POI) for resource interconnection needs to consider all of the constraints that it would be behind. The ISO will utilize the transmission constraint information along with the allocated Transmission Plan Deliverability (TPD) to determine available transmission capability for future clusters to be studied, as described below.

The identification of the amount of available transmission capacity, whether currently available or planned, needs to be based on the available capacity associated with the various known constraints within a given zone. This method will provide a transparent determination of available capacity within a zone and for determining which zones are TPD option zones and which are Merchant option zones. The CPUC resource portfolio and other LRA plans will continue to inform the transmission plan, which determines the amount of capacity on the system and in the zones.

To summarize:

- To determine available transmission capacity, the ISO will use zonal approach only to designate zones as TPD or Merchant zones.
- Within the TPD zone, the ISO will use a constraint-based approach based on the project's POI to determine if a project can move forward to the scoring phase.
- The ISO will then determine projects to advance to the study process using project scores, distribution factors, and 150% of available capacity for each known area constraint.

Stakeholder feedback indicated confusion around whether projects would be evaluated by zone or by POI. A zone is a study area that has minimal electrical interaction with adjacent zones. As described above, there can be nested and overlapping constraints within a zone that need to be considered on a POI level.

Additionally, stakeholders questioned why, if projects are evaluated at the constraint level, the zones are necessary at all. The ISO is committed to identifying zones in order to differentiate between TPD and Merchant zones. As previously stated, a zone is a study area that has minimal electrical interaction with adjacent zones. Therefore, studying Merchant projects in a Merchant Option zone will identify network upgrades that are only needed by those Merchant projects. Area constraints can be nested and overlapping and have considerable electrical interactions as described below.

Without the zones, the framework would have Merchant Option constraints and Deliverability Option constraints, and the need for the upgrades identified would be driven by both Merchant and Deliverability Option projects. Under that alternative framework, in order to study Merchant project delivery network upgrade needs, only a subset of the Deliverability Option project generation could be dispatched in the base case in order to avoid exceeding the transmission capability. Otherwise, Merchant Projects could be paying for upgrade costs that are not their responsibility. To avoid this outcome, two rounds of deliverability studies would be required. The first round deliverability study would model the Deliverability Option and Merchant generators in the zone, identify their LDNU requirements and establish the transmission or TPD limits. Then a second round deliverability study would need to be performed with the base case dispatched with Deliverability Option generators up to the transmission limit, and the Merchant generators added to determine the delivery network upgrade needs driven by only the Merchant generators. However, two rounds of studies cannot be completed in the time frame available in the 150 day Cluster Study, as required by FERC Order No. 2023. Only one round of study at the zonal level will be performed.

The process would inappropriately assign cost causation if it were done at the constraint level, and therefore studies need to be done on a zonal level.

Stakeholders also asked about circumstances where a project is within a TPD zone but behind a constraint.

If the constraint has available transmission capacity, then projects will move forward to the scoring process and then to the study process up to 150% of the available transmission capacity. If the constraint does not have any available transmission capability, the project would not move on to the study process because no available transmission capacity exists. The information the ISO is providing will allow interconnection customers to avoid the POI that have no available transmission capability.

The ISO intends to discuss this approach for assessing the availability of transmission capacity further at a stakeholder workshop on May 16, 2024.

### **Fulfillment of 150% of Available and Planned Transmission Capacity**

To fulfill each of the zones, the final proposal proposes to analyze individual transmission zones with sub-zonal constraints. In the interest of transparency, the ISO will use the same information provided to stakeholders prior to the interconnection process.

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

Any zone where each individual POI has available capacity of 50 MW or less will be designated a Merchant zone. The ISO also clarifies that the TPD zones are zones where one or more studied POI have at least 50 MW of available capacity or are not behind any known area constraint based on an assessment of the known constraints within the zone.



## **Monitoring of interconnection request intake process elements**

The ISO commits to monitoring the results of various components of the interconnection request intake process and coordinating with the California Public Utilities Commission (CPUC), local regulatory authorities, and stakeholders to adjust any necessary components prior to Cluster 16 and future clusters as necessary.

- The ISO commits to monitoring and ensuring transparency, rigor, and integrity of the LSE allocation process, ensuring that LSEs will make thoughtful and transparent decisions that best align with their individual procurement needs. As part of this monitoring effort, the ISO will review the results of the Cluster 15 scoring process and the LSE allocation process with the CPUC and local regulatory authorities to ensure continued coordination and oversight in Cluster 16 and future interconnection cycles.
- ISO commits to monitoring the results of the LSE allocation process and coordinating with the CPUC, local regulatory authorities, and stakeholders to ensure competition and open access for both Cluster 15 (which will not yield new utility-sponsored interconnection request applications because the ISO is not accepting new applications as part of the Cluster 15 modification window) and Cluster 16, when LSEs will be aware of the limitations on LSE-sponsored projects prior to the interconnection request window.
- The ISO commits to continued monitoring expressions of non-LSE interest in Cluster 15 and exploring opportunities for increased participation of non-LSEs in Cluster 16 and future interconnection cycles, including:
  - Ensuring continued alignment of non-LSE procurement needs and load growth with state and local resource planning.
  - Understanding the extent to which non-LSEs currently coordinate with LSEs (e.g. energy service providers) on procurement, and to what extent LSEs are able to allocate capacity to non-LSE projects as part of the proposed LSE allocation process.
  - Considering modifications to the one-project per non-LSE limit and the maximum point values for non-LSE projects.

- The ISO will continue to monitor trends in energy only interconnection requests for alignment with resource portfolios, and will address any necessary changes to the treatment of energy only projects in future initiatives if necessary.

The ISO intends to make severable a number of the elements of this final proposal to enable FERC to rule on the various elements of the filing without delaying other impactful reforms.

## **Scoring criteria**

The scoring process is key to ensuring that the most ready projects advance to the study process. The ISO received concerns and questions around the scoring process and criteria, which are addressed with clarifications below.

### **Process and timelines**

The ISO will require interconnection customers to submit documentation supporting their score, as well as a self-assessment score sheet with their interconnection request(s) to minimize time required for the ISO to score and validate a large batch of requests in a narrow window. As discussed in the final proposal, the ISO proposes to receive LSE point allocations directly from LSEs rather than interconnection customers during the interconnection request application window.

Because Cluster 15 is large, has been on hold, and will face these tariff provisions for the first time, the ISO will seek additional flexibility in the timeline for Cluster 15, which will enable additional time for the first LSE allocation process to occur in Cluster 15 to manage and adjust to the new process. For Cluster 15 only, the ISO will seek to allow LSEs 21 calendar days to submit their LSE allocations to the ISO.

### **Commercial interest**

As described in the final proposal, the ISO proposes to provide two opportunities to obtain points in the commercial interest scoring category: an LSE allocation process and an opportunity to earn points by demonstrating commercial interest from a non-LSE/commercial offtaker. The ISO received stakeholder comment noting that the LSE allocation process requires more structure and guidelines in order to ensure an open and fair process for awarding capacity, which will be translated into points, for each project.

## **LSE allocation process**

The ISO provides the following clarifications and expectations for how interconnection customers and LSEs should participate in this process.

The ISO does not intend to dictate procurement rules. To the extent LSEs consider the LSE allocation process as part of procurement, LSEs naturally will comply with their own procurement requirements. The ISO is not in a position to establish additional procurement requirements beyond those set forth by the California Public Utilities Commission or local regulatory authorities (LRAs). Just like the ISO tariff's many requirements for power purchase agreements today, the ISO's intent is to provide each LSE with flexibility to accommodate its own unique jurisdictional requirements and procurement needs. However, the ISO provides new requirements for LSEs to participate in this process.

In response to calls for improved transparency and rigor in the LSE allocation process and clarifications around oversight of LSE procurement activities, the ISO proposes to require LSEs to opt-in to the LSE allocation process.

As a condition of participation in the process, LSEs must commit to the following actions in order to receive capacity allocations, which will be used to express interest in specific projects:

1. Each participating LSE must provide written notice to the ISO that the LSE intends to participate in the ISO's interconnection LSE allocation process.
  - a. For future clusters, each LSE must provide this information at least two months prior to the opening of the interconnection request application window.
  - b. For Cluster 15, LSEs must provide this written notice within at least two months of the close of the interconnection application window, by October 1, 2024. The rationale for this Cluster 15 timeframe distinction is to enable IPE tariff changes to take effect for Cluster 15.
  - c. Notifications should be submitted to the ISO interconnection email address [IRinfo@caiso.com](mailto:IRinfo@caiso.com).
  - d. Each participating LSE must provide the ISO with the contact information for the department or individuals responsible for coordinating the LSE selection process.

2. Each participating LSE must post its selection criteria or considerations for the LSE allocation process, as well as contact information for the department or individuals responsible for coordinating the LSE selection process on a publicly accessible website. Note that access to such a public website may require registration.
  - a. For future clusters, each LSE must post this information at least two months prior to the opening of the interconnection window.
  - b. For Cluster 15, participating LSEs must post this information within two months of the close of the interconnection application window, by October 1, 2024.
3. The methodology for allocating capacity to each LSE will not change based on LSE participation. If an LSE does not opt in to the LSE allocation process, it will forego its capacity allocation. For example, the ISO will not reapportion forgone capacity in the LSE allocation process.
4. To ensure transparency, the ISO will post a complete and updated list of each participating LSE, contact information, and its respective capacity allocation within seven days of receiving opt-in notifications from LSEs on the Interconnection Portal.
  - a. For Cluster 15, the ISO will post this information on the Interconnection Portal by October 7, 2024.

In addition to this new requirement and conditions to participate in the LSE allocation process, the ISO provides the following expectations to participating LSEs and interconnection customers:

- As stated in the final proposal, prior to the interconnection request application window, the ISO encourages LSEs to conduct public Requests for Information (RFIs), Requests for Offers (RFOs), or some other functionally equivalent process to ensure fairness, transparency, and competition in the LSE allocation process.
- The ISO requires each participating LSE to describe and notice its review process at least two months prior to the close of the interconnection request application window for Cluster 15 and at least two months prior to the opening of the interconnection request window for future clusters.
- The ISO expects interested interconnection customers to participate in LSE RFIs, RFOs, and/or bilateral discussions with LSEs to market their projects prior to the

interconnection request application window to supplement information LSEs will be provided during the scoring process, increasing the projects' opportunity to obtain LSE-awarded points.

- Most LSEs already have requirements to run open, fair, and competitive procurement processes. LSEs may use the same or similar processes to allocate points as well.
- The ISO requires participating LSEs to communicate clear evaluation criteria for this process to prospective interconnection customers by posting this information on a publicly accessible website at the time the LSE opts-in to the LSE allocation process.
- The ISO suggests that LSEs conduct broad market outreach to potential interconnection customers regarding their process for LSE allocations.
- LSEs should seek projects that best align with procurement and resource needs, as indicated by integrated resource plans or other relevant planning documents. Most LSEs currently make these documents publicly available and should clearly reference them when they communicate plans for their individual LSE allocation process.
- Prospective interconnection customers should be prepared to share project information as needed with individual LSEs in order to inform each LSE's decision. The ISO expects any information shared would be considered confidential under the LSE's tariffs or applicable practices.
- LSEs and prospective interconnection customers should understand that at this point in the process, interconnection costs and timelines will be highly uncertain; such information will not become clear until after the interconnection study process. It would be premature to expect agreement between LSEs and interconnection customers on contract terms (e.g., contract price, term length, commercial operation date) at such an early stage of project development.
- This step in the process is intended to be indicative of commercial interest, and the LSE allocation process is not intended to result in the exchange of value or have terms. However, each LSE and interconnection customer may decide whether or how binding any point allocation would be for future contracts; this decision should be in the mutual interest of both parties.

- LSEs are not required to participate in this allocation process. However, as described above, participating LSEs must opt-in to the LSE allocation process by providing notice to the ISO by a specified date.
- Interconnection projects must be located at a POI with available capacity to be able to be studied. The capacity value allocated to a project at the POI will be used to determine the number of points the project receives. If the LSE awards a capacity amount to a project that equals the project's requested Interconnection Service Capacity,<sup>1</sup> the project will receive 100 points. If an interconnection customer seeks any deliverability in any amount, it will need to go through the TPD or merchant process rather than be treated as an Energy Only resource.
- The ISO will provide LSEs with a standard form to use in submitting their project capacity selections. Capacity awarded to projects by LSEs, resulting in points in the scoring process, will not be known or confirmed by the interconnection customer during the interconnection request application window, and therefore will not be included in the interconnection customer's self-assessment. However the ISO does not preclude communication between the LSEs and interconnection customers regarding the status of awards.
- The ISO is developing a list of LSEs for interconnection customers seeking information on individual LSE processes. The ISO must confirm that LSEs and their individual staff are willing to be contacted before posting the list. The ISO will provide this complete and updated list within seven calendar days of receiving LSE notifications that they intend to opt-in to the process.
- The ISO will provide interconnection customers with an identifying number for each interconnection request that can be shared with LSEs. The ISO will not provide LSEs with information the tariff deems to be confidential.

### **Limits on LSE-owned projects in the LSE allocation process**

The ISO reaffirms its commitment to reviewing data around utility self-build projects after the initial scoring process in Clusters 15 and 16 to determine if the LSE-owned project limitations should be reevaluated.

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<sup>1</sup> Appendix A definition of Interconnection Service Capacity: The approved maximum instantaneous Power output at the Point of Interconnection for the Interconnection Customer, as set forth in its Interconnection Studies.

As noted in the final proposal, the ISO's intent with the proposed limitation of three projects or 25% of an LSE's allocation per cluster was to ensure continued, healthy levels of competition and to maintain historical trends regarding LSE-owned projects in the queue. The ISO's intent is neither to create new incentives for LSE-ownership, nor disrupt utility ownership.

While the ISO understands stakeholder concerns around maintaining competition, the ISO notes the following considerations:

- PTOs already have internal firewalls in place to avoid undue influence of interconnection projects in the procurement process.
- Of the 70+ LSEs in the state, very few have demonstrated any historical interest in developing and owning resources, including in Cluster 15.
- The CPUC scrutinizes utility-owned projects for investor owned utilities. Other LSEs are also required to run open and transparent processes and are governed by their own Local Regulatory Authorities.
- While the LSE allocation process is influential, it is not a sole determinant of projects advancing to the study process. The final proposal states that in order to ensure that LSEs are selective in capacity allocation, 50% of the total available TPD capacity is provided to LSEs to allocate, leaving 50% of the available TPD capacity available to projects that do not receive points from the LSE selection process. Further, the ISO intends to study 150% of available transmission capacity, so non-LSE-scored projects could comprise even more than two thirds of the studied projects if not all LSEs participate in the LSE allocation process.

As stated above, and in addition to these limitations, the ISO recommends that LSEs clearly communicate their plans for the LSE allocation processes prior to the interconnection request application window.

### **Information on local Resource Adequacy**

Some stakeholders asked for confirmation that there is a requirement for sufficient capacity available in the LCRA to charge any proposed new energy storage facilities without needed additional transmission as outlined in the annual local capacity technical study.

The ISO confirms that this is an essential requirement because a battery that is not able to be counted as local capacity because of charging restrictions is of no more value

than a battery that is outside of the LCR Area. Therefore, such a battery should not be eligible for additional points in the scoring process, unless it is able to be charged. The ability for a battery to charge will be based on the charging analysis published in the annual local capacity technical study, after taking into account all existing, and in-development storage in the most recent CPUC portfolio provided for the ISO's transmission planning process.

### **Additional clarifications to the scoring criteria**

In addition to the guidance above on the LSE allocation process, the ISO offers the following additional minor clarifications to scoring criteria:

- The ISO proposes to require LSEs to provide the ISO with their elections no later than ten calendar days after the close of the interconnection request window. For Cluster 15, however, the ISO will extend this window to 21 calendar days.
- The ISO commits to posting the local areas/sub-areas that have a deficiency of generator capacity and the amount of additional capacity needed to eliminate the deficiency at least two months prior to the interconnection request application window, possibly much earlier.
- The ISO clarifies that the only requirement for engineering design plan completeness is a "signed affidavit accompanied by documentation of the project's engineering design plan level of completeness, certified with a professional engineer's stamp," as indicated below and in the scoring rubric in the final proposal.<sup>2</sup> The ISO does not intend to develop an additional set of pre-determined guidelines.
- The ISO clarifies that long lead-time projects in zones with existing transmission capacity will be eligible for points, in addition to long lead-time projects in zones with approved transmission.

Figure 1 displays additional minor clarifications to the ISO's current proposal. The total score is to demonstrate the concept, where in this example a project qualifies for each scoring criterion. The ISO proposes to use weighted scoring, multiplying the total points value by the weight to calculate the total score for each category.

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<sup>2</sup> 2023 Interconnection Process Enhancements Final Proposal. P. 64.



Figure 1. Proposed Scoring Criteria

Indicators of Readiness	Points	Weight (%)	Max Points	Validation
<b>Commercial Interest (Max points= 100)</b>				
<input type="checkbox"/> LSE allocations: Points based on the percentage of capacity allocated by LSEs to the project (e.g. a 500 MW project receiving 500 MW capacity allocation would earn 100 points for this category. A 500 MW project receiving 250 MW capacity allocation would earn 50 points for this category.)  <input type="checkbox"/> <b>Check for Full Allocation Election:</b> In instances where an LSE does not have enough points to award to an entire project, each LSE may award full capacity for one project per interconnection request application window.	100	30%	30	The ISO will provide LSEs with a form to fill out to assign points to desired interconnection requests, to return to the ISO 10 calendar days after the close of the interconnection request application window. The ISO will add the points to each project's score as part of the scoring process. The ISO will provide LSEs with 21 days for Cluster 15 allocations.
<input type="checkbox"/> Non-LSE Interest Points	25			The ISO will provide a form requiring a signed affidavit from a representative that is authorized to execute power purchase agreements, indicating and affirming commercial interest a. Attest non-LSE off-taker is supporting this project in support of corporate policy goals on sustainability. b. Attest that the size of application is aligned with the non-LSE off-taker needs c. Attest that non-LSE off-taker is not affiliated with the IC or its holding company d. Attest that the non-LSE off-taker has not supported more than one application.

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Project Viability (Max points=100) <sup>3</sup>				
Engineering Design Plan Completeness, with points commensurate with percent completion of engineering design plan up to a maximum of 50, to be validated based on a set of pre-determined guidelines (e.g. 15% complete=15 points)	50	35%	35	Signed affidavit accompanied by documentation of the project's engineering design plan level of completeness certified with a professional engineer's stamp.
Chose no more than one of the three expansion of a generation facility items				
<input type="checkbox"/> Expansion of a generation facility that is currently under construction	10			IC submits information indicating that new IR uses same or directly adjacent site as a facility under construction
<input type="checkbox"/> Expansion of an operating facility	20			IC submits information indicating that new IR uses same or directly adjacent site as an operating facility
<input type="checkbox"/> Expansion of a facility that is under construction or in operation, where the Gen-Tie already has sufficient surplus capability to accommodate the additional resource	50			IC submits information indicating that new IR uses same or directly adjacent site as an existing facility and documents the capacity of the gen-tie, the existing (under construction or in operation) facility and the new facility

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<sup>3</sup> Maximum points of 100 for Project Viability = Engineering Design Plan 50% complete (50 points) + Expansion of an existing facility where the existing Gen-Tie already has sufficient surplus capability to accommodate the additional resource (50 points)

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System Need (Check one. Max points=100) <sup>4</sup>				
<input type="checkbox"/> Ability to provide Local Resource Adequacy (RA) in an LCRA with an ISO demonstrated need for additional capacity in that local area	50	35%	35	The ISO will post information at least two months prior to the interconnection request window, describing the areas/sub-areas that have a deficiency of generator capacity and the amount of additional capacity needed to eliminate the deficiency and validate IRs against that information.
<u>Long Lead-time Resources</u> <input type="checkbox"/> Meets the requirements of the CPUC and other LRA resource portfolios where the TPP has approved transmission projects to provide the necessary transmission requirements, or where transmission capacity already exists. <sup>5</sup>	100			The ISO will work with the CPUC and LRAs to determine a list of eligibility requirements for this category of resources prior to the interconnection window opening.
<b>Total</b>		100%	<b>100</b>	
Distribution Factor	Value	Tie-Breaker		
<input type="checkbox"/> Value used as tie-breaker (lowest DFAX selected first)				Interconnection request

## Applicability of the scoring process to Cluster 15

The ISO has reviewed stakeholder comment suggesting that the ISO not apply the scoring criteria to Cluster 15 and instead either study all of the projects with available transmission capacity or proceed directly to an auction. This would be a significant departure from the final proposal. Moreover, it is critical that the ISO use the scoring criteria—including the results of the LSE allocation process—to identify the most ready projects in the queue, fulfilling the commitment in the Memorandum of Understanding to tighten the linkages between planning, procurement, and interconnection. The ISO intends to make severable a number of the elements of this final proposal to enable the FERC to rule on the various elements of the filing without delaying other impactful reforms.

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<sup>4</sup> The ISO assumes that these two categories are mutually exclusive and that projects would not be able to select both.

<sup>5</sup> Only long lead-time resources that are required to meet the CPUC and other LRA resource portfolio requirements are eligible, including resource types that are considered for central procurement under Assembly Bill 1373 (2023), or as specifically identified by the CPUC or LRAs in the portfolios provided to the ISO for use in the transmission planning process.

Finally, the ISO commits to monitoring the results of the reformed interconnection process, including the scoring process and the commercial interest outcomes, and will consider changes as necessary in future initiatives.

## **Treatment of Energy Only projects**

The final proposal requires Energy Only projects to meet the site control requirements and provide the same entry fees and study deposits required by FERC Order No. 2023.

The interconnection procedures for Energy Only projects will include two options. The first option is the Reimbursement option, which is for projects that seek to interconnect in zones where the CPUC IRP base case portfolio and LRA plans identify the need for Energy Only resources. Projects in this path will be eligible for reimbursement of the cost of reliability network upgrades (RNUs) funded by the interconnection customer.

The second option is the Non-reimbursement option, which is for all other Energy Only resources seeking to interconnect in zones where the CPUC's IRP base case portfolio and LRA plans have not identified the need for Energy Only resources. Projects in this path will not be eligible for reimbursement of the cost of reliability network upgrades (RNUs) funded by the interconnection customer. The Non-reimbursement option is also available for resources that seek to interconnect in zones where the CPUC has identified a need for Energy Only resources, but opt to be studied and without having to be scored and to interconnect without being eligible for reimbursement of the cost of RNUs funded by the interconnection customer.

Other than the use of the CPUC and LRA portfolios, the identification of zones where Energy Only resources are eligible for reimbursement is totally decoupled from the TPD zone/Merchant zone criteria.

## **Scoring Energy Only projects**

Energy Only projects seeking to interconnect under the Non-reimbursement option will not be required to submit scoring information because all such projects will be eligible to be studied. Projects seeking to be studied under the Reimbursement option will compete to be studied using the same scoring metrics used for FCDS projects. However, Reimbursement Energy Only projects will only be scored against the other such projects in their zone. These interconnection requests will be accepted up to a 150% study limit based on the amount of Energy Only capacity in the CPUC portfolio plus any non-CPUC jurisdictional LSE Energy Only capacity in their resource plans for each zone. Projects seeking to interconnect using the Non-reimbursement option can

be studied in zones that are eligible under the Reimbursement option. Such projects would not have to compete to be studied in the scoring process and would continue to be ineligible for reimbursement of RNUs.

The scoring of commercial interest within the Energy Only scoring process will use the same process for LSE capacity allocations as is used for allocating the available TPD capacity to the LSEs. The allocation of Energy Only capacity to LSEs will be based on the total amount of Energy Only capacity in the CPUC portfolio and non-CPUC jurisdictional LSE resource plans. Fifty percent of this total will be allocated to each LSE in proportion to its load share. To achieve 100 points towards the commercial interest portion of the Energy Only scoring process an LSE will need to allocate the same amount of capacity to the Energy Only project as the project's requested Interconnection Service Capacity. If an interconnection customer seeks any deliverability in any amount, it will need to go through the TPD option process rather than be treated as an Energy Only resource.

### **Applicability of the proposed treatment**

Stakeholders expressed concerns with this approach. The ISO notes that this proposal evolved at the request of stakeholders who expressed concern with the draft final proposal. The final proposal better aligns with the resource planning portfolios from the CPUC and LRAs while providing open access to the CAISO controlled grid.

The tables below show the locations of Energy Only capacity from the CPUC base portfolio for the 2024-2025 transmission planning process. This shows that all but one zone currently has a CPUC portfolio designated need for Energy Only capacity. The ISO will not be screening Energy Only projects by technology, so the technology designations in these tables will not be a limiting factor for Energy Only IRs. With the 150% cap for each reimbursable zone being based on the sum of the capacity of wind and solar designated for each zone, the 150% cap for Energy Only projects should not be a limiting factor for most zones for some time – particularly under the current capacity procurement requirements. Currently, only one zone would be a non-reimbursable zone for Energy Only projects. The ISO believes that for the limited number of non-reimbursable zones, following the CPUC's direction on the locations where there is no justifiable need for Energy Only projects, and providing disincentive for Energy Only projects in these areas is just and reasonable.

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2034 — Mapped Total Resources (In-Dev & Generic)											
CAISO Study Area	Geothermal	Biomass	Wind		Total (MW)	OOS Wind	Offshore Wind	Distributed Solar	Solar		
	FCDS (MW)	FCDS (MW)	FCDS (MW)	EODS (MW)		FCDS (MW)	FCDS (MW)	FCDS (MW)	FCDS (MW)	EODS (MW)	Total (MW)
PG&E North of Greater Bay Study Area	144.0	97.5	777.50	319.50	1,097	-	931	37	275	320	595
PG&E Greater Bay Study Area	-	24.6	688	90	778	-	-	40	-	100	100
PG&E Fresno Study Area	-	20.2	394	96	490	-	-	66	2,636	869	3,505
PG&E Kern Study Area	-	18.0	300	10	310	-	2,924	73	680	1,301	1,981
SCE Northern Area	-	1.0	564	16	580	-	-	5	1,633	1,653	3,286
SCE Metro Study Area	-	5.6	-	-	-	-	-	27	-	-	-
SCE North of Lugo Study Area	-	1.5	310	50	360	-	-	11	672	910	1,582
East of Pisgah Study Area	875.0	-	620	-	620	3,965	-	-	1,075	1,565	2,640
SCE Eastern Study Area	790.0	2.6	224	100	324	2,131	-	-	810	2,649	3,459
SDG&E Study Area	160.0	-	1,325	239	1,564	-	-	1	700	882	1,582
<b>Total 2034 Resources:</b>	<b>1,969.0</b>	<b>171.0</b>	<b>5,203</b>	<b>921</b>	<b>6,123</b>	<b>6,096</b>	<b>3,855</b>	<b>260</b>	<b>8,481</b>	<b>10,248</b>	<b>18,729</b>

2039 — Mapped Total Resources (In-Dev & Generic)											
CAISO Study Area	Geothermal	Biomass	Wind		Total (MW)	OOS Wind	Offshore Wind	Distributed Solar	Solar		
	FCDS (MW)	FCDS (MW)	FCDS (MW)	EODS (MW)		FCDS (MW)	FCDS (MW)	FCDS (MW)	FCDS (MW)	EODS (MW)	Total (MW)
PG&E North of Greater Bay Study Area	144.0	97.5	1,677.9	319.5	1,997	-	1,607	37	430	1,115	1,545
PG&E Greater Bay Study Area	-	24.6	688	90	778	1,500	-	40	470	215	685
PG&E Fresno Study Area	-	20.2	394	96	490	-	-	66	3,027	3,404	6,430
PG&E Kern Study Area	-	18.0	300	10	310	-	2,924	73	1,036	2,061	3,096
SCE Northern Area	-	1.0	564	16	580	-	-	5	1,634	3,017	4,651
SCE Metro Study Area	-	5.6	-	-	-	-	-	34	-	-	-
SCE North of Lugo Study Area	-	1.5	310	50	360	-	-	27	752	1,258	2,010
East of Pisgah Study Area	875.0	-	620	-	620	4,060	-	-	1,200	3,030	4,230
SCE Eastern Study Area	790.0	2.6	224	100	324	3,536	-	-	1,610	4,224	5,834
SDG&E Study Area	160.0	-	1,325	239	1,564	-	-	1	700	1,219	1,919
<b>Total 2039 Resources:</b>	<b>1,969.0</b>	<b>171.0</b>	<b>6,103</b>	<b>921</b>	<b>7,023</b>	<b>9,096</b>	<b>4,531</b>	<b>283</b>	<b>10,858</b>	<b>19,541</b>	<b>30,399</b>

Historically, there were zero Energy Only interconnection requests submitted in clusters 10 to 15 request windows. While two Energy Only interconnection requests are shown in the cluster 15 list that is posted, one was originally an independent study Energy Only project that failed the independence test and converted to cluster 15 and the other is a net-energy-metering project that is being included in cluster 15.

Based on the historical disinterest in Energy Only requests, the wide-ranging availability of zones calling for Energy Only capacity in the CPUC portfolio, and the current CPUC procurement orders requiring procurement of resource adequacy eligible resources, the ISO believes the proposal for Energy Only projects is just and reasonable and aligned with the foundational framework improvements being coordinated between the CPUC, CEC, and the ISO to help meet California's energy policy objectives in a timely and efficient manner set forth in the joint Memorandum of Understanding signed by the three parties in December 2022.

**Attachment E – Track 2 Board Memorandum**

**Tariff Amendment – Track 2 of Interconnection Process Enhancements 2023 Initiative**

**California Independent System Operator Corporation**

**August 1, 2024**



## Memorandum

**To:** ISO Board of Governors  
**From:** Neil Millar, Vice President of Infrastructure and Operations Planning  
**Date:** June 6, 2024  
**Re:** **Decision on Interconnection Process Enhancements 2023 - Track 2**

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**This memorandum requires ISO Board of Governors action.**

### EXECUTIVE SUMMARY

The recommended changes in the Interconnection Process Enhancements Track 2 final proposal described here seek to better enable rapid deployment of new generation for reliability, affordability, and decarbonization. Through a robust stakeholder process considering the urgent need to bring historic amounts of new capacity online as quickly and as efficiently as possible, the ISO proposes a package of transformational reforms, which are specifically tailored to the particular circumstances within California, that emphasize up-front project readiness and alignment with local and state resource and transmission planning efforts.

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



need a reformed process to advance the most viable projects toward interconnection and commercial operation, and to prevent stagnant projects from hindering the progress of viable projects in the queue. The ISO's intent is to apply these proposed reforms to Cluster 15 to prioritize consideration and study of the most viable interconnection projects that best align with system need, while maintaining open access to the transmission grid.

This policy initiative builds upon the new requirements established in Federal Energy Regulatory Commission ("FERC") Order No. 2023, issued in July of 2023, which sets new standards for interconnection processes around the country. The ISO submitted a compliance filing on May 16, 2024, and intends to layer additional reforms on the FERC requirements.

This final proposal reflects the strategic direction established by a December 2022 Memorandum of Understanding among the ISO, CPUC, and California Energy Commission (CEC) as part of a broader effort to tighten linkages among resource and transmission planning activities, interconnection processes, and resource procurement. Together, the reforms establish a new process for evaluating and advancing interconnection applications that best align with resource planning, transmission availability, and procurement interests of all off-takers. The ISO's goal is to accelerate progress toward execution of interconnection agreements and commercial operation for the most viable and competitive projects, in areas that align with local and state resource plans.

Under the reformed interconnection request intake process, the ISO commits to providing information that helps stakeholders, particularly interconnection customers, identify areas with available transmission capacity. Generation projects seeking to interconnect outside of the priority transmission plan deliverability (TPD) zones may proceed as merchant projects, and will self-fund their associated network upgrades.

With the introduction of new scoring criteria, the reformed process will emphasize project readiness and competition for projects to advance to the study stage. Project scores will be based on indicators related to commercial interest, project viability, and system need. Notably, in evaluating commercial interest, the ISO will incorporate preliminary feedback on specific projects from participating load-serving entities (LSEs). The ISO also provides an opportunity for non-LSE off-takers, such as commercial entities, to express an interest in specific projects, and will award points to projects that can demonstrate such interest from non-LSE off-takers.

Highest ranking projects will advance to the study phase in descending order of project scores until the available and planned transmission capacity for each constraint is filled to 150% of that capacity. Ties will be resolved by calculating and selecting the project with the lowest distribution factor behind the constraint, and if ties still exist, the ISO will conduct a market-clearing sealed-bid auction to advance to the study process. The study process will align with the process required under FERC Order No. 2023.

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

Since the informational briefing to the Board on May 23, 2024, the ISO has carefully reviewed each of the additional stakeholder comments submitted to the Board and issued a Final Addendum to the Final Proposal on June 5, noting the following modifications and clarifications:

- A new requirement that load-serving entities (LSEs) opt-in to the LSE allocation process and publicly notice selection criteria by a certain date, in order to ensure increased rigor, transparency, and integrity of the process.
- A commitment to monitoring the results of various components of the interconnection request intake process and coordinating with the California Public Utilities Commission (CPUC), local regulatory authorities, and stakeholders to adjust any necessary components for Cluster 16 and future clusters, including:
  - Transparency of LSE allocation process
  - Trends in LSE allocations to LSE-sponsored projects
  - Opportunities to increase coordination with non-LSEs in the scoring process
- Further clarification of the treatment of mixed-fuel resources depending on their deliverability status
- Clarifications to the engineering design plan scoring criterion

These recent developments reflect modifications to the final proposal but do not change the fundamental elements of the proposal. Both the final addendum and final proposal reflect significant ISO and stakeholder engagement, consideration, and problem-solving throughout this initiative.

Management recommends the following motion:

**Moved, that the ISO Board of Governors approves the proposed track 2 interconnection process enhancements, as described in the memorandum dated June 6, 2024; and**

**Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposal, including any filings that implement the overarching initiative policy but contain discrete revisions to incorporate Commission guidance in any initial ruling on the proposed tariff amendment.**

## **DISCUSSION AND ANALYSIS**

A central tenet of the ISO's interconnection reform effort is the prioritization of projects that can utilize available transmission capacity. This concept draws from the Memorandum of Understanding with the CPUC and CEC. Under the proposal, the ISO encourages and prioritizes projects that can utilize approved or available transmission capacity, which are located in TPD zones. These zones are the result of state and local regulatory authority resource plans, which then inform the ISO transmission planning process. Generation projects seeking to interconnect outside of the priority TPD zones may proceed as merchant projects, and will self-fund their associated network upgrades.

To effectuate the zonal approach, the ISO will provide information that helps stakeholders identify areas with available transmission capacity prior to each interconnection request application window. The ISO will provide existing information and compile additional information for stakeholders, such as updated queue reports, an interconnection heat map, interconnection area reports from each cluster study, and a review of non-CPUC jurisdictional LSE resource plans.

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

To emphasize project readiness and competition for projects to advance to the study stage, the ISO proposes introduction of scoring criteria. Project scores will be based on

indicators related to commercial interest (30%), project viability (35%), and system need (35%).

In evaluating commercial interest, the ISO will incorporate preliminary, non-binding feedback on specific projects from participating load-serving entities (LSEs).

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

In addition, the ISO provides an opportunity for non-LSE off-takers (e.g. commercial entities) to express an interest in specific projects for a total of 25 points, with only one opportunity to apply these points to a project per entity per cycle, regardless of project size. Non-LSE interest will improve the scores of certain projects, increasing the likelihood of those projects advancing to the study process and ultimately competing for transmission plan deliverability (TPD) and off-take agreements.

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

The merchant option ensures that projects seeking to interconnect in areas/zones with no available deliverability capacity have a path forward to become deliverable by providing the opportunity for such projects to build and fund any required Area Delivery Network Upgrades (ADNUs) as a merchant transmission project. The ISO will not accept merchant option interconnection requests within zones that have available or planned transmission capacity. However, any TPD zone where the available capacity is

less than 50 MW will be studied as a merchant option zone. To prevent gaming, projects will not be allowed to submit an interconnection request as a TPD option project and later switch to the merchant option if they are not selected to be studied through the scoring process. In addition, if a TPD option project is selected and studied, but unable to receive a TPD allocation, it will not be eligible to convert to the merchant option. The ISO proposes a number of changes to the merchant option from the current tariff, to establish a clear pathway for these projects. Merchant projects:

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

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

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

The final proposal also includes important reforms to manage the ISO's growing volume of active interconnection requests. In particular, viability criteria for projects in the queue will ensure continued progress toward commercial operation. If projects fail to demonstrate progress, time-in-queue requirements will enable the ISO to withdraw inactive projects. In addition, the ISO will require PTOs to commence network upgrades upon receipt of the first notice to proceed, preventing construction delays that occur today. The proposal also includes elements to streamline the modification process, implement a new interconnection deposit, and require earlier financial security postings for projects with shared network upgrades.

The ISO paused Cluster 15 projects in May of 2023, with the Board of Governor's approval, so that the ISO and stakeholders could establish a new process to manage this volume. Timely re-engagement with Cluster 15 in Q4 of 2024 is essential to maintain progress on interconnection and onboard the resources necessary to meet near-term reliability and longer-term policy needs.

The ISO will initiate track 3 of this initiative this summer, focusing on the TPD allocation process and considering intra-cluster prioritization for Cluster 14 and earlier. The TPD allocation process is important to project developers and is currently linked to procurement activities of the LSEs. It is necessary for the ISO to consider changes to the TPD allocation criteria within the framework of the proposed changes to the interconnection process from track 2 of IPE, as well as the changes required by FERC in Order No. 2023. The ISO intends to bring a track 3 proposal to the board in late 2024.

## **POSITIONS OF THE PARTIES**

The ISO conducted an intensive stakeholder process, beginning with working group discussions to establish principles and problem statements related to interconnection request intake and queue management. Participants proposed concepts and worked with the ISO to explore and refine them throughout the course of the initiative. Many of the concepts in the final proposal were initially developed by stakeholders, however ultimate positions on the final proposal vary.

The ISO understands the unprecedented impact of these reforms and views reduced queue volumes as a necessary outcome of the process. Importantly, the ISO believes that the final proposal will enable the most viable and needed projects to advance through the study process based on a series of meaningful steps and indicators to ensure sufficient resource

availability and diversity in the queue. The proposal reflects the principles developed by the working group participants at the beginning of this initiative.<sup>1</sup>

Below, the ISO summarizes and responds to public comments from the May 23, 2024 informational briefing on the IPE Track 2 final proposal, as well as letters to the ISO Board of Governors for the May 23, 2024 informational briefing and June 12, 2024 decision. The ISO notes that a stakeholder comment matrix is posted with materials for the May 23, 2024 Board of Governors meeting, summarizing stakeholder comments to the final proposal received during the stakeholder initiative.

### **Urgency of interconnection reform**

Several parties noted the importance of moving forward with the proposed interconnection reforms, including the California Public Utilities Commission (CPUC), Center for Energy Efficiency and Renewable Technologies (CEERT), California Community Choice Association (CalCCA), Northern California Power Agency (NCPA), Pacific Gas & Electric (PG&E), American Clean Power-California (ACP-California), Southern California Edison (SCE), the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (Six Cities), and 174 Power Global.

Other stakeholders, including the Aypa Power, California Wind Energy Association (CalWEA), Terra-Gen, Large-scale Solar Association (LSA), Engie, Intersect, California Energy Storage Alliance (CESA), Clean Energy Buyers Association (CEBA), Clearway, Independent Energy Producers Association (IEPA), Solar Energy Industries Association (SEIA), and QCells, urged either modifications or significant rollbacks to the final proposal before Board approval.

### **Zonal approach and data availability**

While several stakeholders, including the CPUC, supported the zonal approach as a means to implement the Memorandum of Understanding and incorporate resource and transmission planning inputs into the interconnection process, some stakeholders noted concerns around the impact of the zonal approach in reducing queue numbers. Specifically, LSA expressed concerns that in this next cycle, few if any zones will be designated as TPD zones due to the amount of deliverability that has been allocated to Cluster 14. The ISO understands that Cluster 14 TPD allocations are likely to reduce the number of Cluster 15 projects that will proceed under the TPD pathway. The proposal is designed to right-size the

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<sup>1</sup> [2023 Interconnection Process Enhancements Final Proposal](#). P. 13.

number of projects advancing to the study process with the amount of transmission capacity while ensuring sufficient projects in the queue.

LSA expressed concerns that projects in merchant zones will have to proceed under more onerous rules where interconnection customers will not be reimbursed for Area Delivery Network Upgrades. The ISO agrees that the merchant pathway is more expensive. This is a mechanism for prioritizing interconnections in areas with available transmission capacity. Importantly, however, as discussed above, the ISO made several changes to the merchant pathway to ensure that the pathway is still viable for projects that would like to interconnect outside of the priority zones.

Aypa Power suggested that the ISO remove the zonal, scoring, and auction elements from the current proposal and allow the Order No. 2023 reforms to take effect. The ISO does not see this as a feasible option. Order No. 2023 revisions alone are nowhere near sufficient to address the ISO's overheated interconnection queue. Order No. 2023 addresses national issues. The ISO's proposal addresses its own unique challenges.

Terra-Gen noted that projects in TPD zones but behind sub-zonal constraints with insufficient deliverability would not be accepted for study even if they score very high under the scoring rubric and the ADNUs needed to provide deliverability are relatively economic. Terra-Gen asserts that this treatment would be unfair for projects that chose an over-subscribed point of interconnection in TPD allocation zones. The ISO agrees that such projects would not be accepted for study; however, the ISO has been clear about this treatment and has committed to providing information to interconnection customers so they can avoid Points of Interconnection (POI) that have no available transmission capability prior to the Cluster 15 modification window. The ISO can reconsider such circumstances in the next resource planning and transmission planning process.

CalWEA suggested that TPD capacity data will be inaccurate at the time of study commitments. As described in the final proposal, the ISO is committed to providing up-to-date information on the availability of transmission prior to each interconnection window, and anticipates providing a TPD allocation report by mid-June to account for Cluster 14 TPD allocations. Complete, final information to inform Cluster 15 will be posted in August 2024, prior to the proposed Cluster 15 modification window, which opens on October 1, 2024. Projects also are able to withdraw their requests into early 2025 at no or minimal cost.

Aypa Power expressed concerns around the potential elimination of the use of the ISO interconnection queue to drive future resource portfolios from the CPUC. The CPUC participated in the entire IPE initiative and provided a presentation to stakeholders on July



11, 2023 responding to this concern.<sup>2</sup> The interconnection queue is not the only data source used to assess commercial development interest in the CPUC portfolio development process, and the ISO commits to working with the CPUC and local regulatory authorities to continue to tighten these linkages.

The ISO does not recommend any changes to the zonal approach or data availability, but remains committed to providing clear, transparent, and timely data to stakeholders, and monitoring the results of the constraint analysis.

## **Scoring criteria**

### *Load-serving entity allocation process*

Several resource developers and developer trade associations suggested that the scoring criteria—particularly the commercial interest category—is not ready for implementation or should not apply to Cluster 15, citing concerns around a lack of oversight and transparency and an outsized role of LSEs in determining the fate of interconnection projects. The ISO maintains, however, that this is a critical piece of the reformed process. Awarding points for commercial interest will enhance competition earlier in the interconnection process and provide arguably the most useful metric in determining whether a project is ready for study. Without sufficient differentiation of projects based on commercial interest, the ISO would rely on either locational or financial mechanisms to obtain more reasonable queue volumes.

Several LSEs provided support for the scoring criteria and have emphasized the importance of incorporating commercial viability screens early in the process. LSE representatives expressed a commitment to running an open and transparent process, with the oversight of their local regulatory authority, including NCPA, CalCCA, PG&E, SCE, and the Six Cities. CEERT and 174 Power Global both supported the LSE allocation process and expressed confidence in the ability of LSEs to run open and fair processes to select projects prior to the interconnection study process. The CPUC has engaged in and supported the initiative, offering support for the LSE allocation process and expressing a commitment to continued coordination and oversight going forward.

A number of resource developers and trade associations called for increased transparency in the LSE scoring process. The ISO considered stakeholder feedback on this matter and posted a final addendum to the final proposal on June 5, 2024, which proposes that an LSE interested in participating in the LSE allocation process must opt-in to the process by providing notice to the ISO of their intent to participate and contact information for the LSE

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<sup>2</sup> [Presentation – Interconnection Process Enhancements 2023 – Track 2 Working Group – Jul 11, 2023](#)

staff coordinating the LSE allocation process. In addition, the ISO will now require participating LSEs to post selection criteria on a publicly accessible website by a certain date. LSEs that do not opt-in to the allocation process would forego their capacity allocation, which would result in fewer interconnection projects receiving points. The methodology for allocating capacity to each LSE will not change based on LSE participation. The new opt-in requirement and the requirement to post selection criteria will ensure increased transparency and rigor for the LSE allocation process while still respecting jurisdictional authority of the CPUC and local regulatory authorities over procurement.

Some stakeholders suggest that the ISO remove scoring criteria and rely on the zonal constraint analysis and the zonal auctions to study 150% of available transmission capacity. As CalCCA notes, however, by removing the LSE interest scoring criterion, the ISO would sacrifice alignment with resource and transmission planning processes, and “[g]iven that reliability depends critically on having the right mix of resources on the grid, this alignment with planning is important to CAISO’s operations.”<sup>3</sup>

Several resource developers noted concerns that LSEs would be making decisions on projects with minimal data on interconnection costs and timelines. NCPA and other LSEs noted several other factors LSEs can use to assess how a projects will fit with and complement existing portfolios at the time of the interconnection request. The ISO also has addressed this concern directly in the final addendum to the final proposal, noting that LSEs should seek projects that best align with procurement and resource needs, as indicated by integrated resource plans or other relevant planning documents, and emphasizing that it would be premature to expect agreement between LSEs and interconnection customers on contract terms (e.g., contract price, term length, commercial operation date) in the early stages of project development.

The ISO recommends the opt-in requirement for LSE participation in the LSE allocation process, along with a requirement that each participating LSE provide contact information for the person or department coordinating the LSE allocation process and post selection criteria on a publicly accessible website. This approach respects jurisdictional boundaries and bolsters the integrity of the LSE allocation process, which the ISO expects will lead LSEs to make thoughtful and transparent decisions that best align with their individual procurement needs.

### *LSE-sponsored projects*

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<sup>3</sup> California Community Choice Association May 22, 2024 Letter to the Board of Governors Re: Interconnection Process Enhancements. [calcca-public-comment-letter-interconnection-process-enhancements-track-2-proposal-may-22-2024.pdf](https://calcca-public-comment-letter-interconnection-process-enhancements-track-2-proposal-may-22-2024.pdf) (caiso.com)

Developer trade associations and developers expressed concerns that—despite the limitations on LSE-sponsored projects—the scoring criteria would discriminate against independent power producers and potentially favor LSE-sponsored projects. The CPUC noted support for the proposed treatment of LSE-owned resources, noting that all Investor Owned Utilities (IOU) projects will undergo CPUC review and approval, providing an additional layer of oversight to justify and ensure utility-owned resources are only permitted as needed. The ISO carefully designed limits on LSE-sponsored projects to maintain healthy levels of competition, consistent with the amount of LSE-owned project interconnection requests in the interconnection queue over the past six clusters. The ISO’s intent is neither to create new incentives for LSE-ownership, nor to disrupt utility ownership.

The ISO does not recommend changes to this proposal. However, as recommended by ACP-California, IEPA, and others, the ISO commits to monitoring and adapting to the results of the LSE allocation process and coordinating with the CPUC, local regulatory authorities, and stakeholders to ensure competition and open access for both Cluster 15 (which will not yield new utility-sponsored interconnection request applications because the ISO is not accepting new applications as part of the Cluster 15 modification window) and Cluster 16, when LSEs will be aware of this new limitation prior to the interconnection request application window.

#### *Non-LSE commercial interest*

The ISO has communicated with non-LSEs, specifically CEBA and Amazon, on the commercial interest criteria. Some stakeholders are concerned about the reduced point value for projects with interest from non-LSE off-takers, compared to the maximum points that can be awarded to projects with LSE support. CEBA expressed concern with the differentiation of points between LSE off-takers and non-LSE off-takers, asking the ISO to change the final proposal to ensure that projects with power purchase agreements (PPAs) with non-LSEs are treated equally to those with expressions of LSE interest. ACP-California asked the ISO to monitor the one-project per cycle limit for non-LSE interest.

The ISO notes that the differentiation in process and point eligibility between LSEs and non-LSEs is intentional; LSEs carry an obligation to provide resource adequacy and therefore the ISO must be sure to study sufficient deliverability in the study process. Non-LSEs are not required to provide resource adequacy, however they are actively procuring resources that seek to utilize the available TPD needed for resource adequacy. In response to CEBA’s specific recommendation to award higher points to projects demonstrating PPAs with non-LSEs, the ISO notes that throughout the initiative, the majority of stakeholders strongly opposed the use of PPAs as a means for

projects to acquire points and advance to the study process. Stakeholders expressed concerns that incentives for PPAs early in the interconnection process would be premature without specific data on project price and commercial online dates, which could undermine procurement processes. Therefore, the ISO does not intend to award points on the basis of a PPA with an LSE or a non-LSE. Certainly, however, having a signed PPA with an interconnection customer would influence an off-taker's willingness to express interest in a project through either commercial interest mechanism.

The ISO commits to continued monitoring of the issue in Cluster 15 and exploring opportunities for increased participation of non-LSEs in Cluster 16 and future interconnection cycles, including:

- Ensuring continued alignment of non-LSE procurement needs and load growth with state and local resource planning.
- Understanding the extent to which non-LSEs currently coordinate with LSEs (e.g. energy service providers) on procurement, and to what extent LSEs are able to allocate capacity to projects that with non-LSE interest as part of the proposed LSE allocation process.
- Considering modifications to the one-project per non-LSE limit and the maximum point values for non-LSE projects.

#### *Additional scoring criteria*

Intersect Power suggested that the ISO reinstate the criteria for major purchases of long lead-time equipment, specifically for projects that prioritize equipment that is manufactured domestically. The ISO considered awarding points for large equipment purchases earlier in the stakeholder initiative and ultimately dropped the proposal from consideration based on significant stakeholder opposition. Stakeholders argued that specific equipment purchases would be premature prior to interconnection request applications, and the ISO did not find any means to easily validate that such purchases would be dedicated to specific interconnection projects.

Similarly, Intersect suggested that the ISO include permitting indicators as part of the scoring process, which the ISO considered in earlier proposals and also withdrew in the revised straw proposal. Many stakeholders opposed the use of permitting milestones as indicators because there is no consistent permitting pathway or set of permitting requirements for all projects, and such milestones are currently more appropriately evaluated later in the project development and interconnection process.

CalWEA expressed concerns around the lack of a definition of "long lead-time resources" and unresolved questions that will be explored in track 3. The ISO has committed to working

with the CPUC and local regulatory authorities to determine eligibility for these resources, and has committed to providing details on eligibility for points in this category prior to the opening of the interconnection application window. Regarding track 3 and the question of whether to reserve capacity for specific resources, the ISO encourages stakeholder comment on that issue as a track 3 matter, however the issue is outside of the scope of the track 2 final proposal.

The ISO does not propose any changes to scoring criteria.

### **150% limitation**

Some developers expressed fundamental disagreement with the concept of the 150% cap based on available transmission capacity, arguing that it undermines open access requirements.

A percentage-based cap is necessary to ensure more reasonable study volumes, which will result in more meaningful and accurate study results. The ISO designed the 150% limitation because use of a percentage ensures scalability with resource portfolios from the CPUC and local regulatory authorities, and can therefore align with system need and procurement in a given cluster, even if the need fluctuates from year to year. In addition, the 150% value ensures sufficient supply of interconnection projects advancing through the study process to be competitively procured. Furthermore, the ISO has developed the merchant option, which will not be subject to the 150% limitation and will enable continued open access to the transmission system.

The ISO does not propose any changes to the 150% limitation.

### **Auction**

Aypa Power notes that the auction process will increase interconnection costs while other stakeholders suggest removing the scoring process and proceeding with the auction. The ISO believes that each element of the proposed interconnection request intake process is critical to ensuring resource diversity, reliability, competition, and meaningful study results. Specifically, the ISO developed the proposed intake process in a manner that would first emphasize alignment with resource and transmission plans and project readiness, only relying on the auction to break ties. This is consistent with stakeholder feedback we heard from the majority of stakeholders throughout the process.

The ISO does not propose any changes to the auction.

### **Treatment of Energy Only resources**

Stakeholders also noted concerns with the Energy Only proposal described above. LSA and Terra-Gen argued that the proposed treatment of Energy Only projects was new in the final proposal and suggest that the proposal will lead to inequities between Energy Only projects depending on the location of the projects.

LSA and Terra-Gen also highlighted a lack of clarity in how of mixed-fuel resources (e.g. hybrid and co-located solar and storage) are scored whether they are Energy Only or seeking deliverability. In response to clear and consistent stakeholder feedback during the May 16<sup>th</sup> stakeholder workshop, the ISO revised the first addendum to clarify that projects will be scored based on their interconnection service capacity. If an interconnection customer seeks any deliverability in any amount, it will need to go through the TPD or merchant option process rather than be treated as an Energy Only resource. This will ensure Energy Only capacity is genuine and not meant to circumvent the screens for deliverable projects. The ISO has included this clarification in the final addendum.

The ISO developed the Energy Only proposal based on stakeholder feedback throughout the initiative and finds it to be an essential component of interconnection reform and an important means to enable continued flexibility for project developers. The CPUC noted that the proposal aligns with the MOU by incentivizing Energy Only resources in areas where the CPUC or local regulatory authorities have indicated a need for such resources.

The PTOs suggested that the ISO should cap the study of non-reimbursable Energy Only projects to ensure more reasonable numbers of projects to study. The ISO notes that it has witnessed zero interest in Energy Only projects in the last five cycles, however future CPUC portfolios do show some Energy Only resources. As such, the ISO believes the risk of too many Energy Only projects is *de minimis*.

The ISO will continue to monitor trends in Energy Only interconnection requests for alignment with resource portfolios, and will address any necessary changes to the treatment of Energy Only projects in future initiatives if necessary.

### **Consideration of additional streamlining proposals**

CalWEA suggests that the ISO revisit proposals from earlier in the initiative that would study a “reasonable fraction” of interconnection capacity in each study zone based on applications to achieve reasonably accurate interconnection cost and timeline estimate. The ISO has been clear throughout the process that this pathway would not address the established principles of the Interconnection Process Enhancements initiative, nor is it consistent with FERC Order No. 2023, which sets clear timelines and requirements for the study process. Implementation of Order No. 2023 is a critical first step toward interconnection reform, but it

will not sufficiently address the ISO's need to reduce study volumes. Further, Order No. 2023 requirements provide no assurance of alignment with state and local resource or transmission plans, a central underpinning of the IPE reform effort.

Aypa Power claims that the ISO dismissed early developer proposals to restructure, streamline, and automate the interconnection study business practices. The ISO is considering tools and processes internally to assist with the interconnection management process; however, this is an internal discussion intended to complement and enable broader reforms. Further, FERC Order No. 2023 established new, prescriptive requirements to streamline the interconnection study process, which rendered some of the initial stakeholder proposals inconsistent with new baseline requirements. When Order No. 2023 was issued, the ISO prioritized compliance with the Order to enable additional transformational reforms to proceed on top of the new foundation laid by FERC.

The ISO has submitted its compliance filing for FERC Order No. 2023 and does not propose to withdraw the IPE reforms described in this memo, as transformational change is critical now.

### **Severability of the interconnection request intake elements**

Several parties suggested that the ISO's eventual tariff filing propose severable treatment for various elements of the interconnection request intake process, specifically the scoring process. The ISO intends to make severable a number of the elements of this final proposal to enable FERC to rule on the various elements of the filing without delaying other impactful reforms.

### **Contract and queue management**

Developers, LSEs, and PTOs were all largely supportive of the proposed contract and queue management provisions; however one stakeholder raised concerns around the proposed interconnection deposit and the commercial viability criteria. Clearway suggested that the new interconnection deposit should not apply to projects with signed Generator Interconnection Agreements (GIAs). The ISO's intent is to collect a deposit from all projects that have not signed a GIA 90 days after the FERC Order implementing the requirement. This will preserve current rights while shifting project-specific costs to the projects and away from the grid management charge assessed to all ISO market participants.

Clearway also noted support for the commercial viability criteria requirements in concept but noted that in instances where a project's commercial online date (COD) is delayed due to the PTO, commercial viability criteria should not apply. The ISO generally agrees that

projects should not be impacted by unilateral delays caused by the PTO, but should instead be allowed a day-for-day delay in any requirements. The final proposal includes a footnote that addresses this concern, noting “If a PTO construction delay changes the COD or construction schedule beyond the limit, commercial viability criteria does not apply. Consistent with today, PTO construction delays are caused unilaterally by the PTO, and do not result from any customer action or election.”<sup>4</sup>

The ISO does not propose changes to these contract and queue provisions but clarifies that the interconnection deposit would not apply to projects that have already signed GIAs and that projects with known, verifiable PTO delays would not be automatically withdrawn from the queue.

### **Stakeholder process**

The ISO greatly appreciates stakeholder engagement and perspectives and understands the magnitude of these changes on clean energy development in California and the west. Notably, most stakeholders expressed appreciation for the ISO’s process, regardless of their position on the final proposal. A few stakeholders noted that the ISO rushed the proposal or issued revised documents in a manner that suggested that the details were incomplete or not fully considered. The ISO team worked very hard to provide clarity to stakeholders in response to concerns, particularly before moving the final proposal to the Board of Governors. The addendum and subsequent revisions to the addendum provide important clarifications for stakeholders as they develop final positions on the proposal and potentially prepare for a new interconnection process. The ISO is grateful that stakeholders have asked detailed questions that led to the clarifications included in the addenda, and views the revised addenda as an opportunity for stakeholders to receive clear responses to questions and concerns.

While positions on the final proposal cover a broad spectrum, the ISO believes it has developed a process that will provide greater transparency, certainty, and competition early in the interconnection request process while aligning with state reliability and policy needs. The ISO commits to continued stakeholder communication and monitoring of Clusters 15 and 16 should the need for additional reform arise.

### **CONCLUSION**

The ISO recommends Board of Governors approval of the Interconnection Process Enhancements Track 2 Final Proposal, with the clarifications provided in the Final

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<sup>4</sup> 2023 Interconnection Process Enhancements Track 2 Final Proposal. P. 89



Addendum to the Final Proposal. If approved by the ISO Board of Governors, the ISO intends to file changes with FERC this summer to facilitate re-engagement with Cluster 15 by October 2024.

This package of reforms is essential for the ISO to adapt to the increased levels of need and competition for new interconnections to the ISO grid, and to ensure the ISO's continued demonstrated ability to interconnect large quantities of new generation to the grid to meet near-term reliability needs and longer-term policy requirements.

**Attachment F – Table Listing Components of Scoring System**

**Tariff Amendment – Track 2 of Interconnection Process Enhancements 2023 Initiative**

**California Independent System Operator Corporation**

**August 1, 2024**

Readiness Indicators	Sub-Points	Weight (%)	Max Points
<b>Commercial Interest (Max sub-points= 100)</b>			
<input type="checkbox"/> LSE allocations: Points based on the percentage of capacity allocated by LSEs to the project (e.g., a 500 MW project receiving 500 MW capacity allocation would earn 100 points for this category. A 500 MW project receiving 250 MW capacity allocation would earn 50 points for this category.)  <input type="checkbox"/> <b>Full Allocation Election:</b> In lieu of awarding points, each LSE may award full capacity to one project per interconnection request application window.	100	30%	30
<input type="checkbox"/> Non-LSE Interest: Points	25		
<b>Project Viability (Max sub-points=100)</b>			
Engineering Design Plan Completeness, with points commensurate with percent completion of engineering design plan up to a maximum of 50, to be validated based on a set of pre-determined guidelines (e.g., 15% complete=15 points)	50		
Chose no more than one of the three expansion of a generation facility items			
<input type="checkbox"/> Expansion of a generation facility that is currently under construction	10	35%	35
<input type="checkbox"/> Expansion of an operating facility	20		
<input type="checkbox"/> Expansion of a facility that is under construction or in operation, where the Gen-Tie already has sufficient surplus capability to accommodate the additional resource	50		
<b>System Need (Max sub-points=100)</b>			
<input type="checkbox"/> Ability to provide Local Resource Adequacy (LCRA) in an LCRA with an ISO demonstrated need for additional capacity in that local area	50		
<u>Long Lead-time Resources</u> <input type="checkbox"/> Meets the requirements of the CPUC or other LRA resource portfolios where the TPP has approved transmission projects to provide the necessary transmission requirements.	100	35%	35
<b>Total</b>		100%	100