

June 2, 2023

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER23-____-000**

**Tariff Amendment to Establish Interconnection Procedures for
Cluster 15**

Dear Secretary Bose:

The California Independent System Operator Corporation (“CAISO”) submits this tariff amendment to pause the interconnection study process for cluster 15, which commenced in April with a record 541 interconnection requests.¹ Pausing cluster 15 will 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 cluster 15. Rather than rely on the CAISO’s tariff authority to extend interconnection study deadlines on an *ad-hoc* basis, the CAISO conducted an expedited stakeholder initiative to amend its tariff in this filing and address the most pressing study timelines for clusters 14 and 15. The CAISO respectfully requests that the Commission approve these revisions as just and reasonable, effective August 2, 2023, 61 days from this filing.

¹ The CAISO submits this filing pursuant to section 205 of the Federal Power Act, 16 U.S.C. § 824d. Capitalized terms not otherwise defined herein have the meanings set forth in the CAISO tariff, and references to specific sections, articles, and appendices are references to sections, articles, and appendices in the current CAISO tariff and revised or proposed in this filing, unless otherwise indicated.

To the extent the CAISO’s proposed revisions diverge from the generator interconnection procedures in Order Nos. 2003 and 845, the CAISO believes that they represent needed improvements to existing provisions of the CAISO’s current tariff and should be approved as just and reasonable independent entity variations.

I. Background

A. CAISO Interconnection Studies

The CAISO begins a new interconnection cluster study each April.² The purpose of cluster studies is to identify the interconnection facilities and network upgrades necessary to integrate the new resource seeking interconnection to the transmission system, to estimate the costs of those upgrades and allocate those costs among interconnection customers sharing upgrades. The cluster study approach has proved an effective way to manage a large number of simultaneous interconnection requests. The CAISO also allows independent study interconnection requests provided the proposed resource can be studied alone, using current cluster study base cases, and the cluster study process cannot meet the resource's proposed commercial operation date.³ The cluster study methodology layers the new cluster of generation upon all existing generation and previous interconnection requests and network upgrades approved through the CAISO's transmission planning process.

The CAISO's interconnection study process is unique among ISO/RTOs in (1) identifying all contingent facilities that could affect an interconnection customer's costs or timing, (2) providing cost estimates for these facilities, and, most critically, (3) creating binding cost caps based on those estimates.⁴ Today, the interconnection customer's maximum cost responsibility is the lower sum of the interconnection customer's (1) full cost of assigned interconnection reliability network upgrades and (2) allocated costs for all other assigned network upgrades, from its Phase I or Phase II interconnection studies.⁵ Moreover, under the CAISO tariff, interconnection customers only *finance* network upgrades; they do not pay for them.⁶ Upon commercial operation, the transmission owner reimburses the interconnection customer for all network

² Section 3.3.1 of Appendix DD to the CAISO tariff. Section 25 of the CAISO tariff establishes who must submit interconnection requests. Appendix DD to the CAISO tariff contains the CAISO's interconnection procedures, and Appendix EE to the CAISO tariff is the CAISO's *pro forma* large generator interconnection agreement.

³ The CAISO is not proposing any changes to the independent study process or the fast track process. The CAISO will continue to process both during supercluster studies. See Sections 4 and 5 of Appendix DD to the CAISO tariff.

⁴ See Sections 6.3 and 14.2.2 of Appendix DD to the CAISO tariff.

⁵ "Maximum Cost Responsibility," Appendix A to the CAISO tariff.

⁶ See Section 14.3.2 of Appendix DD to the CAISO tariff. Transmission owners also pay interest to the interconnection customer for its financing costs.

upgrade financing costs, and then includes those costs in its transmission revenue requirements.⁷

If upgrade assignments or cost allocations change after the interconnection customer has been studied, the interconnection customer cannot inherit any new costs exceeding the cost caps provided in its interconnection studies. Such exceedance would be covered by the interconnecting transmission owner and any non-refundable portion of interconnection financial security of withdrawn interconnection customers allocated to the relevant upgrade.⁸ Although to date transmission owners rarely must cover such costs, interconnection customers' binding cost caps provide crucial transparency to interconnection customers as they develop, market, and finance their projects. This transparency provides crucial risk management to developers. The cost caps also obviate any need to conduct serial restudies based on changes in upgrade cost responsibility. Interconnection customers can rely on their interconnection studies without fear of changes late in their projects' development. In the Commission's Order No. 845 proceeding, the American Wind Energy Association, NextEra, and several developers identified the CAISO processes as best practices.⁹ NextEra, for example, advocated that the Commission adopt the CAISO's processes nationally "to break endless start and stop restudy cycles" elsewhere.¹⁰

The CAISO's cluster interconnection study consists of a Phase I interconnection study and a Phase II interconnection study, with annual reassessments that account for changes in the interconnection queue.¹¹ Following the publication of the Phase I and Phase II study, CAISO staff and transmission owner staff meet with the interconnection customer and its consultants to go over the study results.¹² Under the CAISO tariff, these results meetings must occur within 30 days of study publication, a deadline barely achievable with approximately 100 interconnection customers, and impossible with 373 or 541 requests. To provide meaningful information for each request, results meetings require significant preparation and follow-up, and the CAISO tariff requires a detailed exchange of meeting minutes after the meeting.¹³

⁷ To prevent unwarranted expenditure, there are some limitations for reliability network upgrades based on the capacity of the proposed generating facility. See Section 14.3.2.1 of Appendix DD to the CAISO tariff.

⁸ Section 14.2.2 of Appendix DD to the CAISO tariff.

⁹ See, e.g., AWEA Petition, p. 24, Docket No. RM15-21-000 (June 19, 2015).

¹⁰ NextEra Comments, p. 9, Docket No. RM15-21-000 (Sep. 8, 2015).

¹¹ See Section 2.4.3 of Appendix DD to the CAISO tariff, "Interconnection Study," Appendix A to the CAISO tariff.

¹² Sections 6.7 and 8.7 of Appendix DD to the CAISO tariff.

¹³ *Id.*

Unlike in other ISO/RTOs, the CAISO's Phase I and Phase II interconnection studies are similar in determining the interconnection facilities, reliability network upgrades, and delivery network upgrades each interconnection customer needs.¹⁴ This allows both the Phase I and Phase II interconnection studies to provide similar results. The Phase II interconnection study refines the cost estimates provided in Phase I based upon changes in queue and deliverability allocation results. Because the most common change in queue is an interconnection customer's withdrawal, both the Phase II interconnection study and the annual reassessment typically remove no-longer needed upgrades from interconnection customers' studies and cost responsibilities, reducing costs.¹⁵ In very rare cases, however, an interconnection customer's cost responsibility can rise while in queue where the costs are still under the interconnection customer's cost caps.¹⁶ The CAISO's current cluster study process is designed to take approximately two years. After the interconnection customer receives its Phase II interconnection study, it negotiates and executes a generator interconnection agreement ("GIA") with the CAISO and the interconnecting transmission owner.¹⁷

Interconnection study results also provide a cost responsibility estimate used to establish the initial interconnection financial security ("IFS") posting requirements. The IFS postings are critical to the CAISO because they help ensure that only financially viable projects continue in queue. Today, interconnection customers post IFS at three queue milestones: 15 percent of their allocated costs after Phase I study results, 30 percent after their Phase II study results, and 100 percent upon the commencement of construction activities.¹⁸ Equally important in the IFS calculus is the percentage of posted IFS eligible to be refunded to the interconnection customer if it withdraws from queue. Generally, the interconnection customer is eligible to receive a 50 percent refund of its posted IFS until the final IFS posting, at which time 100 percent of the IFS is non-refundable.¹⁹ The non-refundable portion of IFS postings offset any costs that fall to the participating transmission owners that inherit financing costs when interconnection customers withdraw, their shared network upgrades are still needed for other customers, and those customers cannot receive additional cost allocations

¹⁴ See Section 2.4.3 *et seq.*

¹⁵ See Section 7.4.3 of Appendix DD to the CAISO tariff.

¹⁶ For example, if four interconnection customers share a network upgrade and one withdraws, and the upgrade is still required, the remaining three interconnection customers will see an increase in allocated costs because they are sharing the costs among three interconnection customers instead of four. See also Section 6.8.1 of Appendix DD to the CAISO tariff.

¹⁷ Section 13 of Appendix DD to the CAISO tariff.

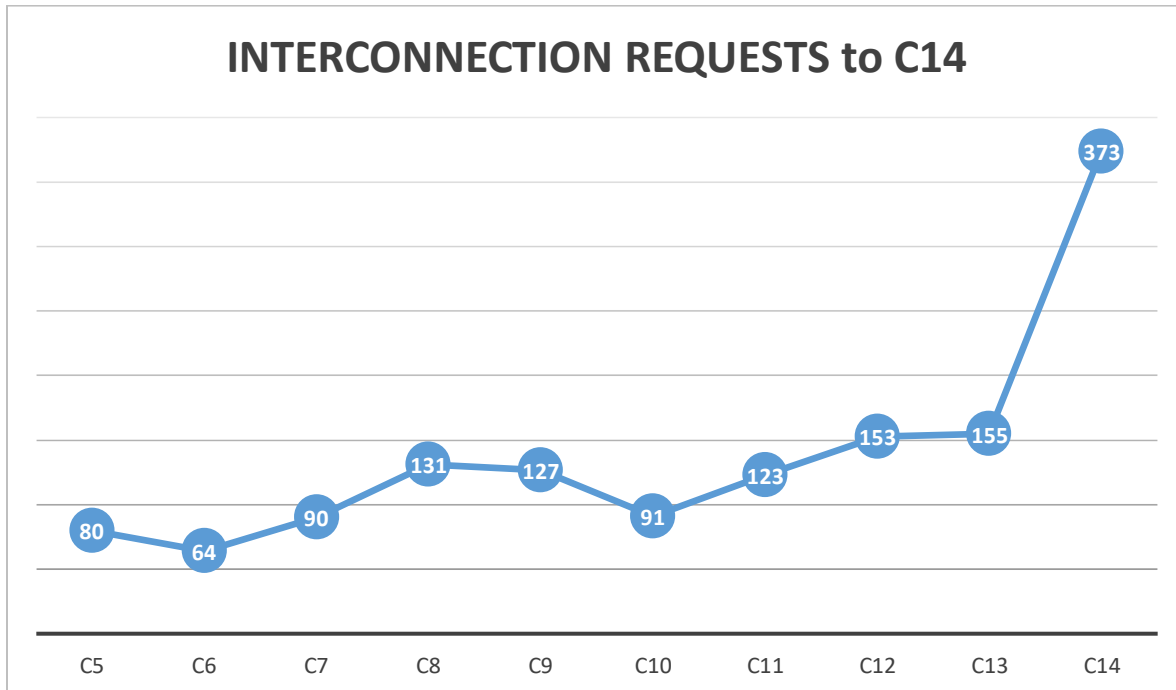
¹⁸ Section 11 of Appendix DD to the CAISO tariff.

¹⁹ Section 11.4.2 of Appendix DD to the CAISO tariff.

because of their cost caps.²⁰ If no shared network upgrade costs remain, the non-refundable portion offsets transmission revenue requirements.²¹

B. Cluster 14

Cluster 14 saw unprecedented volume, representing a 241 percent increase above the previous, formerly record-high cluster:

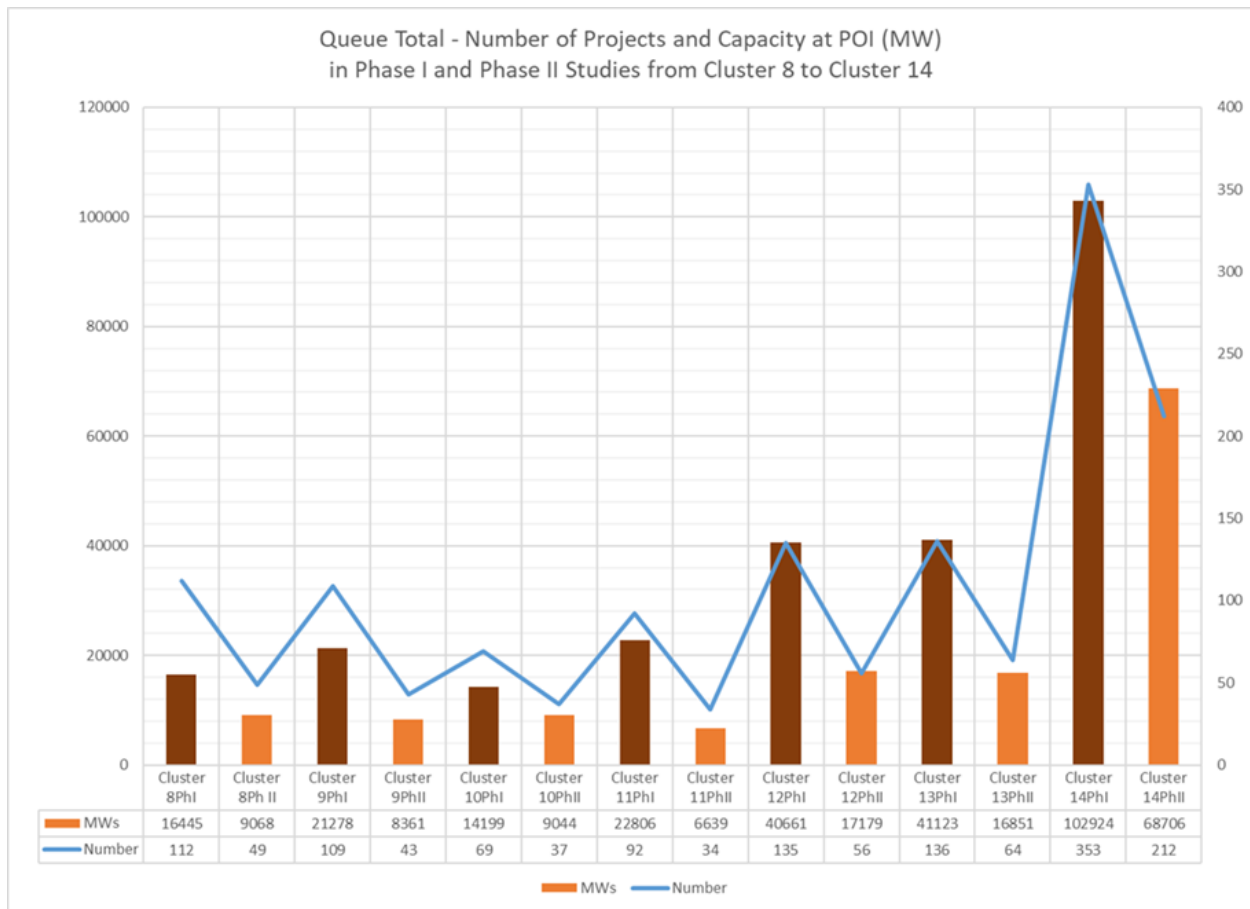


The increase required the CAISO to revise its interconnection study deadlines for the cluster 14 “supercluster,” which the Commission approved shortly after cluster 14 began.²² The CAISO and its transmission owners completed cluster 14 Phase I studies on schedule in Fall 2022, but a new challenge emerged: a much lower percentage of cluster 14 interconnection customers withdrew after Phase I.

²⁰ Section 7.6 of Appendix DD to the CAISO tariff.

²¹ *Id.*

²² *California Independent System Operator Corp.*, 176 FERC ¶ 61,207 (2021).



As shown in the data above, typically about 60 percent of interconnection customers withdraw after receiving their Phase I study results and before they must submit their first interconnection financial security posting.²³ Due to the high levels of procurement in California and financial strength in the industry,²⁴ less than 40 percent of cluster 14 interconnection customers withdrew from queue after Phase I. Compounding the problem, a majority of interconnection customers remaining in queue are in a single transmission owner territory: Pacific Gas & Electric.

This is a problem not just for cluster 15, but for cluster 14 itself. The CAISO’s current remaining cluster 14 deadlines were premised on a typical withdrawal rate, which did not occur. The CAISO tariff requires the CAISO and each transmission owner

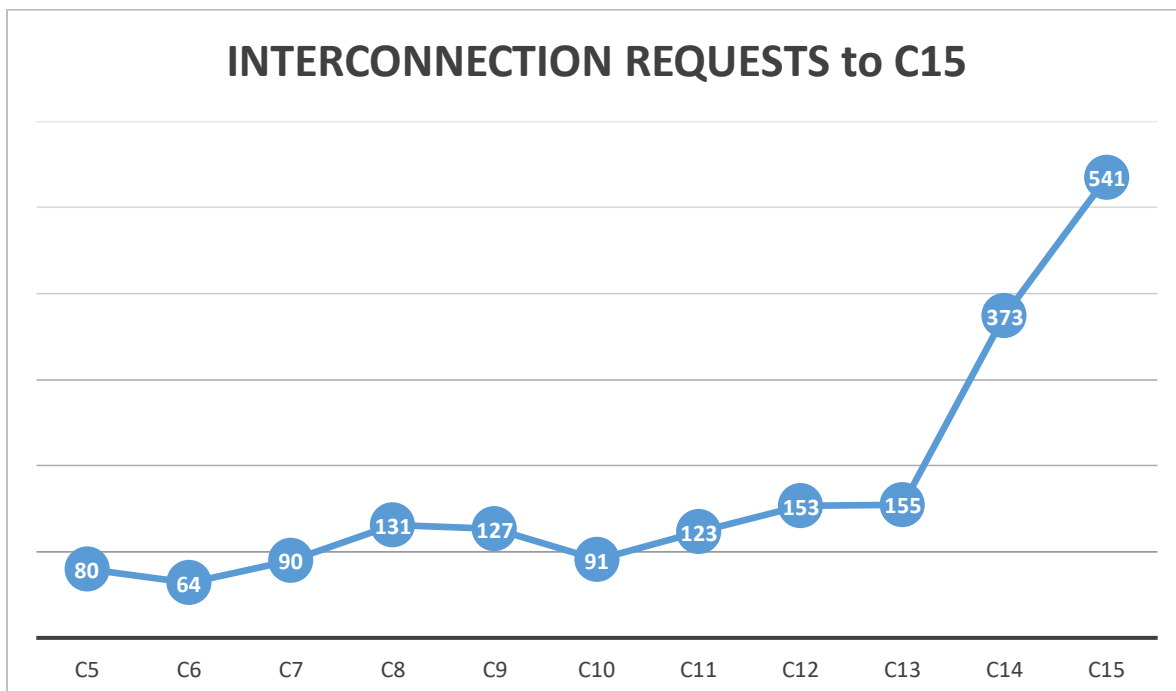
²³ Developers generally withdraw when they believe their Phase I interconnection study results identified network upgrades, interconnection facilities, and construction timelines that would make them uncompetitive for a power purchase agreement. As intended, they withdraw rather than putting more losses at risk.

²⁴ For example, in 2022 the S&P 500 Energy Index provided a 61.3% return, the highest among the 11 S&P sectors. The utilities sector was second with 3.1%, and all other sectors were negative.

to publish cluster 14 Phase II studies by November 24, 2023, with deliverability results and second financial security postings shortly thereafter.²⁵ CAISO transmission owners have already indicated they cannot meet these deadlines based on the large number of interconnection requests remaining in queue.

C. Cluster 15

The CAISO implemented enhancements to reduce queue volumes before cluster 15. These included increased site exclusivity and third-party interconnection facility requirements.²⁶ Nevertheless, cluster 15 set a new record, 541 interconnection requests, a 45 percent increase from the cluster 14 supercluster.²⁷



Even accounting for the year without a cluster application window, cluster 15's extreme volume represents the low bar to submit an interconnection request and the high level of financial opportunity in generation development. Developers submitted these interconnection requests understanding they would face an extended study process and longer construction timelines.

²⁵ Section 16.1 of Appendix DD to the CAISO tariff.

²⁶ *California Independent System Operator Corp.*, 180 FERC ¶ 61,143 (2022).

²⁷ CAISO management prohibits the undersigned from referring to cluster 15 as "the superdupercluster."

In any case, it is not possible to study cluster 15 based on the CAISO's effective study timelines.²⁸ Conducting Phase II studies for the previous cluster and Phase I studies for the new cluster is premised on a manageable number of requests going into phase II, which did not occur for cluster 14. Cluster 15 is simply too large on its own. Even conducting meaningful scoping meetings for 541 interconnection requests could take several months before cluster 15 studies even commence, diverting valuable resources from cluster 14 study work. Everything that was bad for cluster 14 is worse for cluster 15.

II. Proposed Tariff Revisions

A. Extending Cluster 14

The CAISO first proposes to extend the remaining cluster 14 deadlines by two months:²⁹

	Current Deadline	Proposed Deadline
Phase II study results	November 24, 2023	January 31, 2024
Transmission Plan Deliverability results	March 23, 2024	May 31, 2024
Second Financial Security posting	May 4, 2024	July 1, 2024

These relatively short extensions are based on the CAISO's conversations with the transmission owners. The CAISO and the transmission owners believe they can meet them without requiring further extensions. Completing the cluster 14 interconnection studies is a priority to ensure sufficient resources in both the near- and long-term future. The Commission should approve these extensions as just and reasonable. Unlike other transmission providers that use the reasonable efforts standard to extend their deadlines without transparency or Commission review, the CAISO works with its stakeholders to develop meaningful tariff deadlines and complete studies as soon as possible. The CAISO and its transmission owners have made every effort, hired the few remaining consultants available, and worked extremely rapidly to complete the cluster 14 interconnection studies.

B. Pausing Cluster 15

Cluster 15 represents unprecedented volume in the interconnection queue. Cluster 15 consists of 541 interconnection requests totaling 354 GW, seven times more

²⁸ Cluster 14 study timelines applied to that cluster alone. The CAISO had proposed creating timelines that would automatically go into place for large clusters, but stakeholders opposed the proposal.

²⁹ Proposed Section 16.1 of Appendix DD to the CAISO tariff.

capacity than the CAISO's peak demand. The CAISO cannot begin to study cluster 15 while completing the cluster 14 Phase II studies. Even without cluster 14, the CAISO and its transmission owners could not comply with the interconnection study deadlines currently effective. The CAISO thus proposes to revise its tariff to pause cluster 15 while the CAISO finishes the cluster 14 interconnection studies.³⁰ Similar to the cluster 14 tariff provision approved by the Commission, the CAISO proposes to revise the cluster 15 schedule with express exceptions to the current interconnection procedures. The CAISO proposes to include five exceptions.

First, the CAISO proposes to validate cluster 15 interconnection requests by September 26, 2024.³¹ The CAISO already completed the completeness review for cluster 15.³² "Validation" is the process in which the CAISO and transmission owners review each interconnection request for technical deficiencies. Before cluster 14 the CAISO completed validation process by June 30, about 60 days after the completeness review. For cluster 14, the CAISO needed until September 26.³³ The CAISO proposes to use the same date for cluster 15.

Second, the CAISO proposes to create a new provision that will allow cluster 15 interconnection customers to refresh their requests by making any necessary modifications.³⁴ The CAISO believes this is a prudent measure after the requests will have sat dormant for a year. The CAISO proposes to allow interconnection customers to make any modification between May 1, 2024 and September 26, 2024. Prohibiting modifications before May 1 will ensure the CAISO and transmission owner engineers can focus on completing cluster 14 studies and holding meaningful results meetings. Interconnection customers may not increase their interconnection service capacity,³⁵ but may increase generating capacity, change or modify fuel or technologies, or make other modifications permissible today. The CAISO will assess any costs for processing the modification to the interconnection customer's interconnection study deposit.³⁶ Making these refresh modifications will not affect interconnection customers' rights to modify their interconnection requests later in the study process.³⁷

³⁰ Proposed Section 17 of Appendix DD to the CAISO tariff.

³¹ Proposed Section 17.1(a) of Appendix DD to the CAISO tariff.

³² Section 3.5.1 of Appendix DD to the CAISO tariff.

³³ Section 16.1(a) of Appendix DD to the CAISO tariff.

³⁴ Proposed Section 17.1(b) of Appendix DD to the CAISO tariff.

³⁵ Increasing interconnection service capacity requires a new interconnection request. See Section 25.1 of the CAISO tariff.

³⁶ Proposed Section 17.1(b) of Appendix DD to the CAISO tariff.

³⁷ *Id.*

Third, the CAISO proposes to create a new provision that will enable easy withdrawals from cluster 15. Cluster 15 interconnection customers that withdraw their interconnection requests before April 1, 2024 will receive a refund of their study deposits and any site exclusivity deposits.³⁸ This provision does not otherwise change an interconnection customer's rights to withdraw and receive applicable refunds once cluster 15 restarts.³⁹

Fourth, the CAISO proposes to clarify that interconnection requests in cluster 15 will not progress or be subject to typical study requirements until the CAISO validates them.⁴⁰ GIDAP provisions stating when the CAISO and transmission owners must initiate and publish interconnection studies will not apply, nor the deadlines, rights, and responsibilities under the GIDAP contingent on the publication of interconnection studies. This provision effectively puts cluster 15 on hold until September 26, 2024. Meanwhile the CAISO will work with stakeholders in the CAISO's interconnection process enhancements initiative to develop the remaining study deadlines and procedures for cluster 15. The CAISO believes this approach will be more effective for cluster 15 than for cluster 14, where the CAISO and stakeholders quickly developed timelines for cluster 14 immediately after the application window. By pausing now and submitting the timelines in a subsequent filing, the CAISO and stakeholders have more time to develop modifications to the GIDAP for prioritizing interconnection requests for study, consider workable timelines, and identify any other needed enhancements.

Fifth, the CAISO proposes to include a tariff provision that it will not accept independent study process interconnection requests until cluster 15 has received its Phase I interconnection study results. The CAISO now has many active interconnection requests in every study area. To prevent queue jumping and diverting planners away from the cluster studies, the CAISO tariff already puts independent study requests on hold while cluster studies are in progress;⁴¹ however, the CAISO still *accepts* independent study requests during the cluster studies. The CAISO just holds them and then conducts the independent studies once the cluster has its results. Because so

³⁸ Proposed Section 17.1(c) of Appendix DD to the CAISO tariff. Normally site exclusivity deposits are 50 percent refundable. See Section 3.5.1.4 of Appendix DD to the CAISO tariff. Refunds will include interest earned, minus any costs incurred. Costs incurred should be very low, only consisting of the work done in the completeness review.

³⁹ *Id.*

⁴⁰ Proposed Section 17.1(d) of Appendix DD to the CAISO tariff.

⁴¹ See Section 4.1.5 of Appendix DD to the CAISO tariff ("For a proposed Generating Facility in a study area with active Interconnection Requests in the current Queue Cluster or the Independent Study Process, such 30-calendar day period will commence when the Phase I Interconnection Study results are available for the current Queue Cluster and all system impact studies (or combined system impact and facilities studies) have been completed for all earlier-queued Independent Study Process Interconnection Requests in the same study area"). Because there are many active interconnection requests in every study area, this provision puts independent study requests on hold.

much time will pass to complete the cluster 14 Phase II studies and the cluster 15 Phase I studies,⁴² the CAISO is concerned that a large backlog of independent study requests will build up. Even though developers know the CAISO will not study the independent study requests, they may have the incentive to submit them to be first in a long line. The CAISO would have to hold the independent study requests and all deposits in the interim, and then lose significant time between cluster studies as it conducts each independent study serially. To avoid this unnecessary challenge, the CAISO proposes simply not to even accept independent study requests until it would actually conduct the studies.

The CAISO also proposes to include a tariff provision clarifying that it will publicize the queue data for cluster 15, as applicable.⁴³ The CAISO and stakeholders believe it is prudent to publicize the data even though cluster 15 interconnection studies will not commence for some time. This will allow developers and load-serving entities to understand the level of interest at different points of interconnection and among different generating technologies.

The Commission should find the CAISO's proposed tariff revisions as just and reasonable. These revisions will set transparent and fair procedures for cluster 15 while the CAISO addresses interconnection procedures for future clusters through a thorough stakeholder initiative. Stakeholders unanimously supported prioritizing the completion of cluster 14 before diverting resources to study cluster 15. The CAISO's tariff revisions avoid compliance issues, the need for waiver,⁴⁴ or opaque and *ad hoc* use of the reasonable efforts standard. The tariff provisions also will enable the CAISO to work with stakeholders to develop meaningful reforms that will avoid these filings.

III. Effective Date

The CAISO requests an effective date of August 2, 61 days from this filing.

⁴² All of which would have been received before any valid independent study request.

⁴³ Proposed Section 17.1(f) of Appendix DD to the CAISO tariff; see also section 3.6 of Appendix DD to the CAISO tariff.

⁴⁴ Consistent with the Commission's order on cluster 14, the CAISO has not requested waiver of existing tariff provisions. See *California Independent System Operator Corp.*, 176 FERC ¶ 61,207 at P 23 (2021) (finding waiver for cluster 14 was unnecessary and dismissing the request).

IV. Communications

Under Rule 203(b)(3) in the Commission's Rules of Practice and Procedure,⁴⁵ the CAISO respectfully requests that correspondence and other communications regarding this filing be directed to:

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General Counsel
William H. Weaver
Assistant General Counsel
Sarah E. Kozal
Counsel
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V. Service

The CAISO has served copies of this filing on the California Public Utilities Commission, the California Energy Commission, and all parties with scheduling coordinator agreements under the CAISO tariff. In addition, the CAISO has posted a copy of this filing on the CAISO website.

VI. Contents of Filing

Besides this transmittal letter, this filing includes these attachments:

- | | |
|--------------|--|
| Attachment A | Clean CAISO tariff sheets incorporating this tariff amendment; |
| Attachment B | Red-lined document showing the revisions in this tariff amendment; |
| Attachment C | Draft final proposal on the cost allocation terms; and |
| Attachment D | Board memoranda. |

⁴⁵ 18 C.F.R. § 385.203(b)(3).

Honorable Kimberly D. Bose

June 2, 2023

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VII. Conclusion

For the reasons in this filing, the CAISO respectfully requests that the Commission accept the tariff revisions proposed in the filing effective August 2, 2023.

Respectfully submitted,

/s/ William H. Weaver

Roger E. Collanton

General Counsel

William H. Weaver

Assistant General Counsel

Sarah E. Kozal

Counsel

*Counsel for the California Independent System
Operator Corporation*

Attachment A – Clean Tariff

Tariff Amendment – Interconnection Process Enhancements 2023 Track 1

California Independent System Operator Corporation

June 2, 2023

Appendix DD

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Section 16. Cluster 14 Unique Procedures

The CAISO tariff and the GIDAP will apply to Queue Cluster 14 with the following exceptions:

16.1 Study Procedures and Timelines

- a) The CAISO will validate Cluster 14 Interconnection Requests by September 26, 2021. Interconnection Requests with deficiencies after that date will be deemed invalid and will not be included in Cluster 14.
- b) GIDAP provisions stating when the CAISO and Participating TOs must initiate Interconnection Studies will not apply.
- c) The CAISO will publish Phase I Interconnection Studies no later than September 15, 2022. The Phase I Interconnection Study will not include system-level stability analyses.
- d) Interconnection Customers may submit, in writing, additional comments on the final Phase I Interconnection Study report up to (5) Business Days following the Results Meeting. Based on any discussion at the Results Meeting and any comments received, the CAISO (in consultation with the applicable Participating TO(s)) will determine, in accordance with Section 6.8, whether it is necessary to follow the final Phase I Interconnection Study report with a revised study report or an addendum. The CAISO will issue any such revised report or addendum to the Interconnection Customer no later than thirty (30) calendar days following the Results Meeting.
- e) No later than January 13, 2023, Interconnection Customers must (1) submit an updated, valid dynamic model to the CAISO, (2) post their initial Interconnection Financial Security, and (3) have submitted an Appendix B that is deemed valid.
- f) The CAISO will publish Phase II Interconnection Studies no later than January 31, 2024.
- g) Phase I and Phase II Interconnection Study Results meetings will occur with ninety (90) days of publication.
- h) The CAISO will publish the results of the TP Deliverability allocation process no later than May 31, 2024.
- i) Interconnection Customers must post their second Interconnection Financial Security no later than July 1, 2024.
- j) Unless the CAISO issues a Market Notice stating otherwise, the CAISO will not open the Queue Cluster 15 Cluster Application Window in 2022. The CAISO will open the Queue Cluster 15 Cluster Application Window in 2023 pursuant to Section 3.3.
- k) Deadlines related to Interconnection Customers that elect to park their Interconnection Requests will be extended consistent with this Section, including for Interconnection Financial Security postings.
- l) If an Interconnection Customer withdraws after posting its initial Interconnection Financial Security but before demonstrating Site Exclusivity, its Site Exclusivity Deposit will not be refunded, and will be processed with non-refundable funds described in Section 7.6.

- (m) On or before their initial Interconnection Financial Security posting, Interconnection Customers proposing to use third-party Interconnection Facilities must provide documentation to the CAISO demonstrating they are negotiating or have secured rights on those Interconnection Facilities. On or before their second Interconnection Financial Security posting, such Interconnection Customers must provide documentation to the CAISO demonstrating they have secured rights on those Interconnection Facilities through their Commercial Operation Date.

The CAISO and Participating TOs will use Reasonable Efforts to meet all deadlines in the GIDAP and this Section 16, and may publish study results early or otherwise accelerate the interconnection process where possible. The CAISO will publish Interconnection Studies simultaneously for all the Participating TOs.

16.2 Cost Responsibility and Interconnection Financial Security

- a) Maximum Cost Responsibility and Maximum Cost Exposure in the Phase I Interconnection Study will be advisory only. Only the Phase II Interconnection Study will set Interconnection Customers' binding Maximum Cost Responsibility and Maximum Cost Exposure.
- b) Interconnection Customers will receive a complete refund of their initial Interconnection Financial Security posting if they withdraw before their second Interconnection Financial Security posting is due where: (1) their Maximum Cost Responsibility increases by twenty-five (25) percent or more between Phase I and Phase II; or (2) the anticipated completion of their longest lead-time Reliability Network Upgrade extends by one year or more between Phase I and Phase II.

Section 17. Cluster 15 Unique Procedures

The CAISO Tariff and the GIDAP will apply to Queue Cluster 15 with the following exceptions:

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 by September 26, 2024. Interconnection Requests with deficiencies after that date will be deemed invalid and will not be included in Cluster 15.
- b) Between May 1, 2024 and September 26, 2024, Interconnection Customers may modify their Interconnection Requests (a) as permissible under Section 6.7.2.2(a) – (h); (b) to change generating technology or fuel; and (c) to add or increase energy storage capacity. The CAISO will not accept any modification under this Section 17.1(b) that would result in increasing the Interconnection Service Capacity requested. Interconnection Customers modifying their Interconnection Requests must submit updated information required under Section 3.5 to reflect the modification. The CAISO will assess any costs for processing the modification to the Interconnection Customer's Interconnection Study Deposit. Modifications effected pursuant to this provision will not affect Interconnection Customers' rights to modify their Interconnection Requests after September 26, 2024 under the GIDAP.
- c) An Interconnection Customers 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.

- d) Except as provided herein, all Interconnection Requests in Cluster 15 will not progress or be subject to post-validation requirements until they are validated. GIDAP provisions stating when the CAISO and Participating TOs must initiate and publish Interconnection Studies will not apply. All deadlines, rights, and responsibilities under the GIDAP contingent on the publication of Interconnection Studies will not apply.
- e) The CAISO will not accept Independent Study Process Interconnection Requests pursuant to Section 4 until Cluster 15 has received its Phase I Interconnection Study results.
- f) The CAISO will include Cluster 15 Interconnection Requests in its reporting data under Section 3.6.

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Attachment B – Marked Tariff

Tariff Amendment – Interconnection Process Enhancements 2023 Track 1

California Independent System Operator Corporation

June 2, 2023

Appendix DD

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Section 16. Cluster 14 Unique Procedures

The CAISO tariff and the GIDAP will apply to Queue Cluster 14 with the following exceptions:

16.1 Study Procedures and Timelines

- a) The CAISO will validate Cluster 14 Interconnection Requests by September 26, 2021. Interconnection Requests with deficiencies after that date will be deemed invalid and will not be included in Cluster 14.
- b) GIDAP provisions stating when the CAISO and Participating TOs must initiate Interconnection Studies will not apply.
- c) The CAISO will publish Phase I Interconnection Studies no later than September 15, 2022. The Phase I Interconnection Study will not include system-level stability analyses.
- d) Interconnection Customers may submit, in writing, additional comments on the final Phase I Interconnection Study report up to (5) Business Days following the Results Meeting. Based on any discussion at the Results Meeting and any comments received, the CAISO (in consultation with the applicable Participating TO(s)) will determine, in accordance with Section 6.8, whether it is necessary to follow the final Phase I Interconnection Study report with a revised study report or an addendum. The CAISO will issue any such revised report or addendum to the Interconnection Customer no later than thirty (30) calendar days following the Results Meeting.
- e) No later than January 13, 2023, Interconnection Customers must (1) submit an updated, valid dynamic model to the CAISO, (2) post their initial Interconnection Financial Security, and (3) have submitted an Appendix B that is deemed valid.
- f) The CAISO will publish Phase II Interconnection Studies no later than ~~November 24, 2023~~January 31, 2024.
- g) Phase I and Phase II Interconnection Study Results meetings will occur with ninety (90) days of publication.
- h) The CAISO will publish the results of the TP Deliverability allocation process no later than ~~March 23~~May 31, 2024.
- i) Interconnection Customers must post their second Interconnection Financial Security no later than ~~May 4, 2024~~July 1, 2024.
- j) Unless the CAISO issues a Market Notice stating otherwise, the CAISO will not open the Queue Cluster 15 Cluster Application Window in 2022. The CAISO will open the Queue Cluster 15 Cluster Application Window in 2023 pursuant to Section 3.3.
- k) Deadlines related to Interconnection Customers that elect to park their Interconnection Requests will be extended consistent with this Section, including for Interconnection Financial Security postings.
- l) If an Interconnection Customer withdraws after posting its initial Interconnection Financial Security but before demonstrating Site Exclusivity, its Site Exclusivity Deposit will not be refunded, and will be processed with non-refundable funds described in Section 7.6.

- (m) On or before their initial Interconnection Financial Security posting, Interconnection Customers proposing to use third-party Interconnection Facilities must provide documentation to the CAISO demonstrating they are negotiating or have secured rights on those Interconnection Facilities. On or before their second Interconnection Financial Security posting, such Interconnection Customers must provide documentation to the CAISO demonstrating they have secured rights on those Interconnection Facilities through their Commercial Operation Date.

The CAISO and Participating TOs will use Reasonable Efforts to meet all deadlines in the GIDAP and this Section 16, and may publish study results early or otherwise accelerate the interconnection process where possible. The CAISO will publish Interconnection Studies simultaneously for all the Participating TOs.

16.2 Cost Responsibility and Interconnection Financial Security

- a) Maximum Cost Responsibility and Maximum Cost Exposure in the Phase I Interconnection Study will be advisory only. Only the Phase II Interconnection Study will set Interconnection Customers' binding Maximum Cost Responsibility and Maximum Cost Exposure.
- b) Interconnection Customers will receive a complete refund of their initial Interconnection Financial Security posting if they withdraw before their second Interconnection Financial Security posting is due where: (1) their Maximum Cost Responsibility increases by twenty-five (25) percent or more between Phase I and Phase II; or (2) the anticipated completion of their longest lead-time Reliability Network Upgrade extends by one year or more between Phase I and Phase II.

Section 17. Cluster 15 Unique Procedures

The CAISO Tariff and the GIDAP will apply to Queue Cluster 15 with the following exceptions:

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 by September 26, 2024. Interconnection Requests with deficiencies after that date will be deemed invalid and will not be included in Cluster 15.
- b) Between May 1, 2024 and September 26, 2024, Interconnection Customers may modify their Interconnection Requests (a) as permissible under Section 6.7.2.2(a) – (h); (b) to change generating technology or fuel; and (c) to add or increase energy storage capacity. The CAISO will not accept any modification under this Section 17.1(b) that would result in increasing the Interconnection Service Capacity requested. Interconnection Customers modifying their Interconnection Requests must submit updated information required under Section 3.5 to reflect the modification. The CAISO will assess any costs for processing the modification to the Interconnection Customer's Interconnection Study Deposit. Modifications effected pursuant to this provision will not affect Interconnection Customers' rights to modify their Interconnection Requests after September 26, 2024 under the GIDAP.
- c) An Interconnection Customers 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.

- d) Except as provided herein, all Interconnection Requests in Cluster 15 will not progress or be subject to post-validation requirements until they are validated. GIDAP provisions stating when the CAISO and Participating TOs must initiate and publish Interconnection Studies will not apply. All deadlines, rights, and responsibilities under the GIDAP contingent on the publication of Interconnection Studies will not apply.
- e) The CAISO will not accept Independent Study Process Interconnection Requests pursuant to Section 4 until Cluster 15 has received its Phase I Interconnection Study results.
- f) The CAISO will include Cluster 15 Interconnection Requests in its reporting data under Section 3.6.

* * * * *

Attachment C – Final Proposal

Tariff Amendment – Interconnection Process Enhancements 2023 Track 1

California Independent System Operator Corporation

June 2, 2023



2023 Interconnection Process Enhancements Track 1 Final Proposal

April 13, 2023

Prepared by:
Robert Emmert
Jeff Billinton

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1. Introduction

With this paper, the California Independent System Operator (ISO) is providing its Track 1 final proposal for the 2023 Interconnection Process Enhancements (IPE) initiative. The 2023 IPE is focusing on making significant and transformative improvements regarding coordination of resource and transmission planning, interconnection queuing and power procurement to achieve state reliability and policy needs.

In recent years, given California's ambitious decarbonization goals and the large quantities of new clean resources it will take to meet them, the ISO has been receiving hundreds of interconnection requests a year from potential resource developers. Many of these requests are located in areas that are not a priority in the state's resource planning. With the ISO's interconnection application queue inundated with applications, current processes need to be re-imagined to ensure resource procurement and queuing are effectively shaped and informed to take advantage of transmission and interconnection capacity that exists or is already planned and under development, and to align with the transmission upgrades necessary for longer-term resource development.

The 2023 IPE initiative is part of a larger set of foundational framework improvements being coordinated between the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and the ISO. The overall strategic direction is set forth in a joint Memorandum of Understanding¹ (MOU) signed by the three parties in December 2022 to tighten linkages between power and transmission planning, interconnection queuing and resource procurement so California is better equipped to meet its reliability needs and clean-energy policy objectives required by Senate Bill 100. 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.

As set out in the MOU, the CPUC will continue to provide resource planning information to the ISO. Using this information, the ISO develops a transmission plan, initiates the transmission projects and communicates to the electricity industry specific geographic zones that are being targeted for transmission projects along with the capacity being made available in each of those zones. The ISO, as it has stated in recent months, is adopting this much more *proactive* approach to transmission planning as evidenced by the April 3 release of a draft of its 2022-2023 Transmission Plan. This more proactive approach is grounded in the policy and reliability needs of the state and will shape and inform queuing and procurement. Our strategic intent is for the revised interconnection

¹ The MOU (<http://www.aiso.com/Documents/ISO-CEC-and-CPUC-Memorandum-of-Understanding-Dec-2022.pdf>) is an updated version of a 2010 MOU between the parties.

procedures to prioritize interconnection requests that are aligned with priority zones where transmission capacity exists or is being planned. This will in turn help shape the interconnection queue as the resource development community responds with proposed projects in those areas being enabled by transmission development. This will drive resource development with the operational characteristics and geographic locations consistent with resource planning conducted by the CEC and CPUC and the ISO's transmission planning. To achieve these goals, this initiative focuses on the specific changes necessary to the ISO's cluster study process, which can no longer effectively support the accelerated pace of resource development and project development interest without significant reform. As a result, it has become critical to refine the number and location of interconnection requests studied by the ISO and to shape and guide interconnection request interest.

The 2023 IPE initiative is utilizing two tracks:

- Track 1 focuses on immediate adjustments to the Cluster 15 study schedule with the final proposal for Track 1 discussed in detail in Sections 2 and 3 of this paper.
- Track 2 will focus on targeted modifications to the interconnection process. As set out in this Track 1 final proposal, the ISO expects the Track 2 modifications will be in place when the Cluster 15 studies resume, so that they can be applied to those studies.

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 go to the Board of Governors only and that the WEIM will have no role in the decision.

2. Track 1: Final proposal for immediate adjustments to the schedule for processing Cluster 15 interconnection requests

- Background

The primary focus of Track 1 is on the immediate adjustments needed to the schedule for processing and studying Cluster 15 interconnection requests. The Cluster 15 schedule adjustments are needed to allow time for completing the Cluster 14 Phase II studies before beginning the heavy workload of the Cluster 15 interconnection request validation, scoping meeting and study processes. This will also provide time for the Track 2 portion of this stakeholder initiative to develop and put in place the longer-term solutions that will be applied to Cluster 15. The ISO considers completing the Cluster 14 phase II studies a high priority because it will provide load-serving entities with a large pool of projects for procurement. The

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modified cluster study process developed in Track 2 will need to be approved by the ISO Board and the Federal Energy Regulatory Commission (FERC), and any pre-study implementation procedures in place prior to studying Cluster 15 projects.

- Stakeholder Feedback

A total of 41 stakeholders provided comments on the IPE 2023 Issue Paper and Straw Proposal. The table below shows the general nature of the comments on the Track 1 straw proposal portion of the paper.

Oppose	Support	Support with Modification	No Comment / No Position
10	20	4	7

A majority of stakeholders, while stating that any delay in Cluster 15 is unfortunate, agree that a pause to allow for completion of the Cluster 14 study process is warranted. Nearly all stakeholders agree that if Cluster 15 is delayed, interconnection customers should be allowed to update their interconnection requests when the processing of Cluster 15 interconnection requests resumes in 2024.

A number of stakeholders requested that the Cluster 15 open window for submitting interconnection requests should be delayed beyond the scheduled April 2023 window. During the stakeholder call on March 13, 2023, the ISO discussed with stakeholders the potential for delaying the Cluster 15 open window beyond the scheduled April 2023 opening by some number of months. However, upon further consideration of the uncertainty for interconnection customers that would be created by pursuing this course of action, the ISO does not consider this to be a viable option. Accordingly, the ISO moved forward with accepting Cluster 15 interconnection requests during the normal April 3 through April 17 open window as originally scheduled.

A number of stakeholders who opposed or supported with modification requested some level of relief from ISO holding site exclusivity and study deposits until April 2024 without performing substantial work on the interconnection requests. Relief in the form of partial to full refund of either site exclusivity deposits or study deposits was suggested. The ISO holds these deposits in an interest-bearing account and believes that any refunding of study deposits would diminish the demonstration of commitment of projects to move forward. Any refunding of the site exclusivity deposits would give relief to those that provided site exclusivity deposits in-lieu of demonstrating site exclusivity, but such relief would not be available to those who committed funds to obtain site exclusivity. For these reasons the ISO is not

proposing any temporary refunding of study or site exclusivity deposits of projects that remain active in the interconnection queue. Alternatively, the proposal will allow for interconnection requests to be withdrawn from the queue and receive refunds of all deposits; however, the ISO does not propose to alter existing deposit refund provisions. Appendix DD already allows any project able to demonstrate that it has met site exclusivity requirements to be eligible for return of its in-lieu of site control deposits. Appendix DD also allows for withdrawal of an interconnection request on or before 30 calendar days following the scoping meeting, and to receive a refund of any portion of the interconnection customer's study deposit, including interest earned, that exceed costs that the ISO, Participating TOs, and third parties have incurred on the interconnection customer's behalf, and a full refund of any site exclusivity deposit, including interest earned.

- Proposal

The ISO proposes the following modifications to the standard interconnection request processing and for starting the study process for Cluster 15:

1. Accept Cluster 15 interconnection requests during the normal April 3 – April 17 open window. The Cluster 15 window is now open and will close in accordance with the standard cluster window schedule.
2. Perform the interconnection request completeness review of interconnection requests received during the open window. The ISO intends to conduct the completeness review as the tariff contemplates.
 - a. Consistent with Appendix DD Section 3.5.3, the ISO will review each modified interconnection request and notify the interconnection customer whether it is complete or contains omissions within five business days of submission.
 - b. Pursuant to Appendix DD Section 3.5.1, interconnection customers that submit their Interconnection Requests more than five business days before April 17 will receive a notification from the ISO regarding their interconnection request's completion, and will have an opportunity to provide any missing information by April 17. To the extent the ISO cannot meet the five business day response time for interconnection requests submitted or corrected more than five business days before April 17, the Interconnection Customer will receive a day-for-day extension on the April 17 completion deadline.
3. Postpone until April 1, 2024 commencement of the validation of Cluster 15 interconnection requests, the project scoping meetings and the cluster study processes.

This effectively means the ISO will postpone commencement of the Cluster 15 interconnection request validation and scoping meetings until the Cluster 14 phase II studies and results meetings have been completed. Both the validation and the scoping meeting processes take significant time and resources of the ISO and Participating Transmission Owners (PTOs), even for a typical sized cluster. Once the Cluster 14 phase II studies and results meetings are complete, the Cluster 15 interconnection request validation and scoping meeting processes can begin.

4. Target January 31, 2024 for publishing the Cluster 14 phase II interconnection study reports.

The current Cluster 14 Supercluster schedule for publishing the phase II interconnection studies is by November 24, 2023. There are 205 projects to be studied in the Cluster 14 phase II study process, 105 of which are seeking interconnection in PG&E's territory². In discussions with PG&E the ISO determined that additional time is needed for PG&E to complete its phase II studies and for the ISO to publish the study reports. The proposed revised due date for publishing the phase II interconnection studies is therefore January 31, 2024 for all PTOs. The phase II study results meetings will be conducted in February and March 2024. Based on past experience with the Cluster 14 phase I study results meeting, the ISO is confident that the results meetings can be completed within this adjusted timeframe.

One-time opportunities for Cluster 15 interconnection customers whose interconnection requests were determined to be complete during the current ongoing interconnection request window for Cluster 15.

The ISO also proposes that Cluster 15 interconnection customers that withdraw prior to April 1, 2024 will receive a refund of any portion of the interconnection customer's study deposit, including interest earned, that exceed costs that the ISO, Participating TOs, and third parties have incurred on the interconnection customer's behalf (which the ISO assumes would be minimal), and a full refund of any site exclusivity deposit, including interest earned.³

Additionally, the ISO proposes that when the ISO resumes processing Cluster 15 interconnection requests, interconnection customers that submitted complete requests will have an opportunity to revise their interconnection request by making modifications without submitting material modification assessment

² The 105 projects in the phase II studies for the PG&E system is more than three times greater than PG&E's previous largest phase II study amount.

³ Refer to Appendix DD, Sections 3.5.1.1 and 3.5.1.3.

requests. Any modifications made to an interconnection request must be received between May 1, 2024 and September 26, 2024⁴ and must be determined to be complete based on all required information being supplied specific to the interconnection request prior to any validation work or scoping meeting for the project.

Modifications allowed will be limited to:

1. Changing the technology of any generator technology listed in the original interconnection request. No increase in the MW capacity requested at the point of interconnection (*i.e.*, the Interconnection Service Capacity) will be allowed.
2. Changing the MW capacity amounts of the various generator technologies of the original interconnection request. Any individual generator technologies capacity may be increased or decreased so long as the original Interconnection Service Capacity does not increase.
3. Adding or increasing storage components to the original interconnection request, even if no storage was included in the original interconnection request. Again, the Interconnection Service Capacity of the aggregate generating facility may not increase.
4. Changing the point of interconnection and project site, within the limitations provided in the tariff, namely, within the same study area.
5. A change to any characteristic of an interconnection customer's request also must be accompanied by an updated interconnection request package to accurately represent the resource's changed characteristics.

Because these changes generally are already possible before phase I studies commence, there is no immediate need to specify a policy for changes and revise the tariff. As such, stakeholders may comment on this issue in the Track 2 stakeholder discussions as well.

3. Track 1: Final proposal for special consideration for out-of-state wind resources

- Background

State policies and CPUC planning activities have identified the requirement for significant amounts of offshore and out-of-state wind resources and transmission

⁴ The proposed date for requiring all Cluster 15 interconnection request deficiencies cured and the interconnection request fully valid.

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planning needs to address this issue. Both types of resources have long lead times and large scale that create challenges in obtaining timely power purchase agreements with resource procurement responsibilities spread over 40 load-serving entities in the ISO footprint. While the ISO is supporting the various state agency efforts to address these issues, these timeline challenges are unique in relation to the more quickly sited and constructed solar and storage projects that make up the bulk of interconnection requests.

Due to these challenges, the ISO was initially concerned that the delayed Cluster 15 schedule could impair the development of these unique resources and delay California's policy objectives for supply diversity and reliability from these types of wind projects. The ISO wants to ensure it does not negatively affect federal and state processes for specific resource development and explored if additional consideration should be given to these projects.

Offshore wind in northern California will likely not be impacted by the Cluster 15 schedule delay because it needs policy-driven transmission projects approved through the ISO's Transmission Planning Process (TPP) before GIDAP studies can produce meaningful results. The policy-driven transmission projects designed to support the northern offshore wind projects will not be completed in the TPP and approved by the ISO Board until March 2024 at the earliest. Central coast offshore wind projects in Clusters 13 and 14 combine for over 4,000 MW that will not be impacted by the delayed Cluster 15 schedule. For these reasons, the ISO is not proposing to include offshore wind projects in any special consideration for studying outside of the modified Cluster 15 study schedule.

Regarding out-of-state wind, the in-state network transmission for out-of-state imports is being developed as state policy-driven projects in the transmission planning process through CPUC resource plans transmitted to the ISO. An additional point of emphasis calls for the intra-state transmission capacity to be above and beyond unused existing and planned capacity that has already been allocated to other projects earlier in the queue that would rely on the same transmission paths.⁵ Further, the ISO has been working to develop a "subscriber participating transmission owner" model to connect significant amounts of out-of-state wind to the ISO. This model will provide important operational benefits to streamline development without driving up transmission revenue requirements inside the ISO footprint.

⁵ Letter to Elliot Mainzer ISO President and Chief Executive Officer from CPUC President Reynolds, CPUC Commissioner Rechtschaffen, and CEC Vice Chair Gunda, July 1, 2022 "Transmittal Letter to ISO for 2022-23 TPP High Electrification Portfolio" <http://www.aiso.com/InitiativeDocuments/2022-2023TransmissionPlanningProcess-PortfolioTransmittalLetter.pdf>

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The ISO began the Subscriber Participating TO Model stakeholder initiative on August 8, 2022 to develop a model that will facilitate delivery of needed resources to the ISO by accommodating FERC's subscriber-funded transmission approach. Using the Subscriber Participating TO model, transmission projects can deliver renewable generation from out-of-state resource developers to California subject to getting commercial interest in the resources and without increasing the transmission revenue requirement of the Transmission Access Charge ("TAC").⁶ Developers of such projects would place their facilities under ISO operational control through a decision pathway other than the TPP process.

The TransWest Express LLC ("TransWest") Project is the first project that the ISO anticipates using the Subscriber Participating TO Model, originating in Wyoming and interconnecting to the ISO. TransWest filed a Participating TO application in accordance with Section 4.3.1.1 of the ISO tariff and Section 2.2.1 of the Transmission Control Agreement ("TCA").

The ISO received Board approval in December 2022 to allow TransWest to become a Participating TO in the ISO BAA contingent upon obtaining subscribers for the transmission line and FERC approval of a TO tariff. On March 15, 2023 FERC accepted an Applicant Participating Transmission Owner Agreement ("APTOA") between the ISO and TransWest. The timing of Board approval of TransWest as a new Participating TO was to allow the ISO to include the Project in the transmission planning process and enable the wind generation to be studied in cluster 15 so TransWest's subscribers will know the full costs of its Project in a timely manner, thereby facilitating California policy objectives for procuring out-of-state wind.⁷

After not being chosen in the TPP process for a number of years because the CPUC portfolios at the time did not support out-of-state resources, TransWest began working with the ISO in January 2022 to determine a path forward for a transmission line in the ISO BAA that would be paid for by subscribers. The TransWest Project is currently engaged in transmission interconnection studies with SCE, LS Power, NVE, PAC and LADWP. The current status of those studies is:

⁶ The only potential for a Subscriber Participating TO to have a transmission revenue requirement in the TAC would be 1) for subsequent generator interconnections beyond the original project, the Subscriber Participating TO will be allowed to recover those incremental costs due to the subsequent generator interconnection by creating a transmission revenue requirement consistent with the ISO tariff; or 2) if the Subscriber Participating TO's project became eligible for competitive solicitation, the Subscriber Participating TO bid in the solicitation and if they win the competitive solicitation. In both instances, consistent with the tariff, the Subscriber Participating TO would be considered a Participating TO and allowed only cost of service rate recovery for the transmission facilities.

⁷ At the time of the Board approval of TransWest as a new Participating TO, it was anticipated that the line would be included in the TPP and that Cluster 15 Phase I results would be available January 2024, with Phase II results in December 2024.

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- WECC Path Rating for north to south is completed;
 - System Impact Studies have been completed by SCE, LS Power, NV Energy, Intermountain Power Agency/LADWP;
 - System Impact Studies is underway with PacifiCorp;
 - WECC Path Rating and EMT/SSI Special Studies are underway; and
 - Facilities Studies are underway with LS Power and NV Energy. PacifiCorp has determined that a Facilities Study is not required.
- Stakeholder Feedback

This issue did not receive stakeholder support for any unique consideration for off shore or out-of-state resources, but a number of opposing commenters requested more information to make an informed decision. The table below shows the general nature of the comments on this Track 1 portion of the paper.

Oppose	Support	Support with Modification	No Comment / No Position
19	3	6	13

The IPE 2023 Issue Paper and Straw Proposal released on May 6, 2023 requested stakeholder input on several types of resources facing unique challenges that may warrant additional consideration, such as offshore and out-of-state wind. A significant number of commenters suggest the proposal is discriminatory and unduly preferential and that it would set a precedent for establishing separate study for future innovative generation types.

Some commenters were concerned that this process would potentially cause further study delays for in-state projects and would contribute to the network upgrades needed for the delayed projects in Cluster 15, or that the process could potentially slow down the Cluster 14 phase II schedule. Between the studies performed in the TPP and those performed by the utilities in the transmission interconnections studies, TransWest has or is in the process of being studied for deliverability, reliability and interconnection facilities therefore the ISO has determined that additional study process for out-of-state wind are not needed at this time.

Some stakeholders asked for clarification of the proposal, especially with regard to how intra-state and offshore wind transmission capacity will impact existing capacity allocations. The CPUC portfolios inform the amount and general location for policy-driven deliverability network upgrades for out-of-state wind. While TransWest will not have exclusive rights to this added deliverability capacity, the transmission capacity

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needed to make TransWest deliverable, up to the level of the portfolio for Wyoming wind, is already being planned in the TPP.

One stakeholder was concerned that this process might incentivize load-serving entities to procure solely from offshore and out-of-state wind, rather than solar or energy storage, based on the earlier study timeline. There is currently an abundance of all types of resource technologies in the queue that are well ahead of the wind projects associated with TransWest to provide load-serving entities with an abundance of choices in their procurement processes.

A number of supporting comments requested that the technologies included in any special consideration be expanded to include pumped storage hydro, geothermal and green hydrogen resources. The ISO does not believe other technologies warrant special consideration at this time, but the ISO may revisit this issue based on future public policy and procurement.

A number of stakeholders made suggestions related to the TPP and the deliverability methodology. These comments will be forwarded to that TPP deliverability initiative.

CPUC staff support advancing Cluster 15 interconnection requests for specific long lead-time resources on a separate expedited timeline. This would help to support transmission planning for these resources due to the complex timeline challenges that are unique to these resources compared to the majority of interconnection requests. CPUC staff support a separate expedited timeline for long lead-time resource types to ensure development of these resources are in sync with transmission planning and development.

- **Proposal**

The ISO appreciates the concerns expressed by stakeholders regarding separate and unique study processes, and is not proposing a separate study process at this time.

The ISO recognizes that particular resources may have benefited from the Cluster 15 study process on a conventional timeline. Principally, TransWest Express, to transition from the transmission interconnection process, is in unique circumstances where the reliability, delivery network upgrades, and interconnection facilities are being studied through transmission processes. Due to the specific consideration of the out-of-state resources requested by the CPUC in providing input into the ISO's transmission planning process, these requirements would not negatively impact resources applying for interconnection in Cluster 15. Accordingly, the ISO will

explore addressing TransWest Express's transition from a transmission planning process project as needed, but without a separate GIDAP process at this time.

4. EIM 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 go to the Board of Governors only and that the WEIM will have no role in the decision.

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

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

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

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

5. Stakeholder engagement

The schedule for stakeholder engagement is provided below. The ISO will present its proposal for Track 1 to the Board of Governors in May 2023.

2023 Interconnection Process Enhancements
Issue Paper and Straw Proposal

Date	Event
Track 1	
3/6/2023	Issue paper and straw proposal published
3/13/2023	Stakeholder conference call on issue paper and straw proposal
3/27/2023	Stakeholder comments due
4/13/2023	Publish draft final proposal
4/24/2023	Stakeholder comments due on final proposal
5/1/2023	Stakeholder conference call on final proposal
5/17/2023	Board of Governors meeting

The schedule for Track 2 will be developed following the publication of this paper. It is anticipated that to meet the proposed schedule for implementing process changes ahead of commencing Cluster 15 phase I studies, Track 2 would need to be presented to the Board of Governors in December 2023.

Attachment D – Board Memoranda

Tariff Amendment – Interconnection Process Enhancements 2023 Track 1

California Independent System Operator Corporation

June 2, 2023



Memorandum

To: ISO Board of Governors

From: Neil Millar, Vice President of Infrastructure and Operations Planning

Date: May 10, 2023

Re: **Decision on interconnection process enhancements 2023 – track 1**

This memorandum requires ISO Board of Governors action.

EXECUTIVE SUMMARY

The interconnection process enhancement 2023 (IPE) is the California Independent System Operator Corporation's current stakeholder initiative in its ongoing commitment to improve its Generator Interconnection and Deliverability Allocation Procedures (GIDAP) and make process enhancements as resource interconnection needs evolve.

In recent years, given California's ambitious decarbonization goals and the large quantities of new clean resources it will take to meet them, the ISO has been receiving hundreds of interconnection requests a year from potential resource developers, including 541 in the recent Cluster 15 window alone. Many of these requests are located in areas that are not a priority in the state's resource planning. With the ISO's interconnection application queue inundated with requests, current processes need to be re-imagined to ensure resource procurement and queuing are effectively shaped and informed to take advantage of transmission and interconnection capacity that exists or is already planned and under development. Finally, the interconnection and ultimately procurement processes need to align with the transmission plan that identifies upgrades necessary for longer-term resource development.

The 2023 IPE initiative is part of a larger set of foundational framework improvements being coordinated between the California Public Utilities Commission, the California Energy Commission, and the ISO. The overall strategic direction is set forth in a joint Memorandum of Understanding (MOU) signed by the three parties in December 2022 to tighten linkages between power and transmission planning, interconnection queuing and resource procurement so that California is better equipped to meet its reliability needs and clean-energy policy objectives required by Senate Bill 100. 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 2023 IPE initiative is utilizing two tracks:

- Track 1 focuses on immediate adjustments to the Cluster 15 study schedule to allow for the completion of the previous Cluster 14 phase II studies and the completion of the Track 2 portion of the IPE.
- Track 2 will focus on targeted modifications to the interconnection process. The ISO expects the Track 2 modifications will be in place when the Cluster 15 studies resume, so that they can be applied to those studies.

Given the volume of Cluster 15 and the historically low withdrawal rate from Cluster 14, Management proposes to effectively pause existing Cluster 15 study processes and deadlines to allow for IPE Track 2 to consider replacement deadlines, and to finish Cluster 14 Phase II interconnection studies. Management also proposes minor extensions to the current Cluster 14 study deadlines to provide the CAISO's Participating Transmission Owners sufficient time to complete the Phase II studies.

Management recommends the following motion:

Moved, that the ISO Board of Governors approves the proposed track 1 interconnection process enhancements, as described in the memorandum dated May 10, 2023; 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

The IPE track 1 enhancements are designed to put the GIDAP tariff changes in place to allow for the delay of Cluster 15, freeing up resources to complete studies of the large number of Cluster 14 projects now in the phase II study process, and to complete the GIDAP reforms being developed through the IPE track 2 process. Management seeks ISO Board of Governors approval of the following process schedule adjustments:

Track 1: Adjustments to the processing of Cluster 15 interconnection requests and Cluster 14 study timeline revisions

The primary focus of track 1 is on the immediate adjustments needed to the schedule for processing and studying Cluster 15 interconnection requests. The Cluster 15 schedule adjustments are needed to allow time for completing the Cluster 14 phase II studies before beginning the heavy workload of the Cluster 15 interconnection request validation, scoping meeting and study processes. This will also provide time for the

track 2 portion of this stakeholder initiative to develop and put in place the longer-term solutions that will be applied to Cluster 15. The ISO considers completing the Cluster 14 phase II studies a high priority because it will provide load-serving entities with a large pool of projects for procurement. The modified cluster study process developed in track 2 will need to be approved by the ISO Board of Governors and the Federal Energy Regulatory Commission, and the implementation procedures in place prior to studying Cluster 15 projects.

Summary of track 1 adjustments to the processing of Cluster 15 interconnection requests

1. Accept Cluster 15 interconnection requests during the normal April 3 – April 17 open window and perform the request completeness review to determine the requests that are accepted. The Cluster 15 window is now closed in accordance with the standard cluster window schedule. A total of 546 interconnection requests were received.
2. Postpone until May 1, 2024, commencement of the validation of Cluster 15 interconnection requests, the project scoping meetings and the cluster study processes.

This effectively means the ISO will postpone commencement of the Cluster 15 interconnection request validation and scoping meetings until the Cluster 14 phase II studies and results meetings have been completed. Both the validation and the scoping meeting processes take significant time and resources of the ISO and Participating Transmission Owners, even for a typical-sized cluster. Once the Cluster 14 phase II studies and results meetings are complete, the Cluster 15 interconnection request validation and scoping meeting processes can begin.

3. Cluster 15 interconnection customers may withdraw interconnection requests any time prior to April 1, 2024, and receive a refund of their study or site exclusivity deposits, including interest earned, minus any costs expended.
4. Interconnection customers may modify their interconnection requests between May 1, 2024, and the September 26, 2024, validation due date. Interconnection customers may not increase the amount of interconnection service capacity they requested.

Summary of track 1 revisions to the Cluster 14 study timeline and Independent Study Process

1. Target January 31, 2024, for publishing the Cluster 14 phase II interconnection study reports.

The current Cluster 14 supercluster scheduled date for publishing the phase II

interconnection studies is November 24, 2023. Out of the initial 373 interconnection request applications initially received in Cluster 14, which due to its size drove the need to conduct phase I interconnection studies over a two-year period, there are 205 projects being studied in the Cluster 14 phase II study process. In discussions with Participating Transmission Owners, the ISO determined that additional time is needed to complete the phase II studies and for the ISO to publish the study reports. The proposed revised due date for publishing the phase II interconnection studies is therefore January 31, 2024, for all Participating Transmission Owners.

2. The due date for interconnection customers to post their required second interconnection financial security has been postponed an equal number of days as that of the study report delay.

This allows interconnection customers the same length of time as the current tariff allows to make their financial postings.

3. The next transmission plan deliverability allocation cycle has been postponed to allow Cluster 14 to participate.

This allows Cluster 14 projects to participate in the upcoming transmission plan deliverability allocation process, which can advance their ability to compete for a power purchase agreement.

4. The ISO will not accept Independent Study Process (ISP) interconnection requests until Cluster 15 has received its phase I study results.

Because the ISO tariff and GIDAP Business Practice Manual requires any new ISP projects to wait for the Cluster 15 study results to perform the electrical independence tests, this is a minor clarification. However, reaffirming that the ISO will not accept new independent study requests prevents a separate independent study “queue” from forming while the ISO studies Cluster 15, and prevents the ISO from holding unused study deposits for excessive periods.

POSITIONS OF THE PARTIES

The ISO initiated the IPE 2023 initiative with an issue paper and straw proposal on March 6, 2023. Through stakeholder input the topics addressed in track 1 were reduced to those discussed above. The track 1 final proposal was published on April 13, 2023, with stakeholder comments due April 24, 2023, followed by a stakeholder meeting on May 1, 2023.

The vast majority of stakeholders support this proposal. Most stated that while the delay to Cluster 15 is not ideal, adjusting the schedule to Cluster 15 in order to prioritize Cluster 14 Phase II studies is appropriate given the record number of requests moving

from phase I to phase II studies.

Some commenters were concerned with the ISO not accepting new independent study requests until after the Cluster 15 interconnection customers receive their phase I study results. However, the tariff already requires that those requests would have to wait until the completion of the Cluster 15 phase 1 studies to proceed. Furthermore, it is possible that the independent study process could be significantly changed in the track 2 discussions.

CONCLUSION

Management recommends that the ISO Board of Governors approve the modifications proposed in this memorandum. Overall, the modifications have received broad support, and Management believes the modifications are appropriate for addressing the issues presented in this memorandum. The proposed modifications ensure that the track 2 stakeholder process can proceed in developing the changes needed to the processing and study of interconnection requests and allow for the timely completion of the Cluster 14 phase II studies. Giving priority to Cluster 14 will advance 205 projects towards meeting the large amount of new generation mandated to meet clean energy goals and ensure the future reliability of the system. Finally, the proposed modifications will facilitate the ISO's initiative to improve the generator interconnection procedures' ability to manage large numbers of projects coming into the queue and help California and the West obtain the robust capacity levels needed to meet their public policy goals.