Supercluster Interconnection Procedures

Final Proposal

Redline

June 14, 2021

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Supercluster Interconnection Procedures

1 Introduction

Ensuring the safe and reliable interconnection of new resources is an integral part of the CAISO. In the last decade the CAISO has received an average annual number of queue cluster interconnection requests of 113. This year the CAISO received 373. To accommodate this queue "supercluster" and ensure meaningful study results, the CAISO, as well as the PTOs, must expand its study timelines and alter its study processes.

The CAISO held a stakeholder call on May 21, 2021 to discuss the CAISO's supercluster issue paper and draft final proposal, and received written comments from twenty stakeholders on May 28, 2021. After reviewing and considering stakeholder comments, the CAISO is not proposing any substantial changes to the three proposed principal revisions to its queue cluster interconnection process for cluster 14, but has made several clarifications and addressed collateral concerns. In particular, the CAISO acknowledges the concerns of stakeholders regarding the proposal to enshrine these principles for application for future similarly-sized queue clusters, and is no longer proposing to pursue that approach. The proposals herein will apply to cluster 14 only.

A number of stakeholders also proposed changes that would be more demanding upon the interconnection customers to remain in the study process, such as imposing a site-exclusivity requirement that could not be met by a security deposit, requiring PPA status, or advancing only select resource types. The CAISO plans to initiate a more extensive interconnection process enhancement (IPE) initiative later this year to consider these and other application and study process modifications that could result in additional changes to cluster 14 as well as future clusters.

So for Cluster 14 only, the three principal revisions, with minor clarifications, are:

~~The CAISO proposes three principal revisions to its queue cluster interconnection process for Cluster 14 and future queue clusters with 150 interconnection requests or more:~~

1. Completing both the Phase I and Phase II interconnection studies will take approximately one year longer than typical. This means the next queue cluster window will open in April 2023.
2. Estimated costs and cost allocations in the Phase I interconnection study will be advisory. Only the Phase II interconnection study will set cost caps.
3. Interconnection customers will be eligible for a 100 percent refund of their first interconnection financial security posting for network upgrades if their Phase II interconnection study increases their maximum cost responsibility by 25 percent or more, or extends the longest-duration reliability network upgrade by one year or more. A clarification to this revision is the interconnection customer must withdraw

the interconnection request prior to the second interconnection financial security posting date to be eligible for the 100 percent refund.

While not a modification to the CAISO's proposal, the CAISO understands the majority of stakeholders' requesting more information about the revised study process, which the CAISO provides below. All other interconnection study procedures would remain in effect for the supercluster.

In consultation with the participating transmission owners, the CAISO considered preserving all current interconnection rules and procedures; however, doing so would have required more than 30 months to complete interconnection studies, thereby delaying the next opportunity for a queue cluster window indefinitely. The CAISO did not believe such a delay was tenable. The CAISO believes its proposal allows interconnection customers to receive their study results as soon as possible while preserving the intent of the interconnection rules the CAISO has worked hard with stakeholders to develop.

Although proposal 1, above, allows for an additional year to complete the Phase I and Phase II studies, the CAISO re-emphasizes the timelines proposed are the outer boundaries, and if significant attrition occurs during the study process, the schedules may be compressed to more modest timelines.

To provide stakeholders certainty and transparency, the CAISO plans to take its final proposal to the Board of Governors no later than July, then submit the tariff revisions to the Federal Energy Regulatory Commission immediately thereafter.

2 Stakeholder process

Timely resolution of this stakeholder process is critical to provide interconnection customers, transmission owners, and load-serving entities with transparency and clarity on studying the supercluster. Therefore, the CAISO has set out the following accelerated stakeholder process schedule and appreciates stakeholder understanding and participation in this effort.

Stakeholder process schedule		
Step	**Date**	**Activity**
Issue Paper/Draft Final Proposal	May 15, 2021	Post Issue Paper/Straw Proposal
	May 21, 2021	Stakeholder web conference
	May 28, 2021	Stakeholder comments due
Final Proposal and Draft Tariff	June 1~~1~~4, 2021	Post Final Proposal and Draft Tariff
	~~TBD~~June 21, 2021	Stakeholder web conference
	~~TBD~~June 28, 2021	Stakeholder comments due

Board approval	July 14-15, 2021	CAISO Board of Governors meeting

3 Background

The CAISO currently begins a new interconnection cluster study each April. 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 at any time provided that the proposed resource is capable of being studied alone and the cluster study process is insufficient to meet the resource's proposed commercial operation date.

The cluster study methodology used to assess network upgrades necessary to support each cluster of generation layers the new cluster of generation upon all existing generation and all previous interconnection requests that remain active, as well as the network upgrades associated with the active previous interconnection requests or 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. 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. Although to date transmission owners rarely have to cover such costs, interconnection customers' binding cost caps provide crucial transparency to interconnection customers as they develop, market, and finance their projects. 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. NextEra, for example, advocated that the Commission adopt the CAISO's processes nationally "to break endless start and stop restudy cycles" elsewhere.

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 only those projects that are financially viable continue in

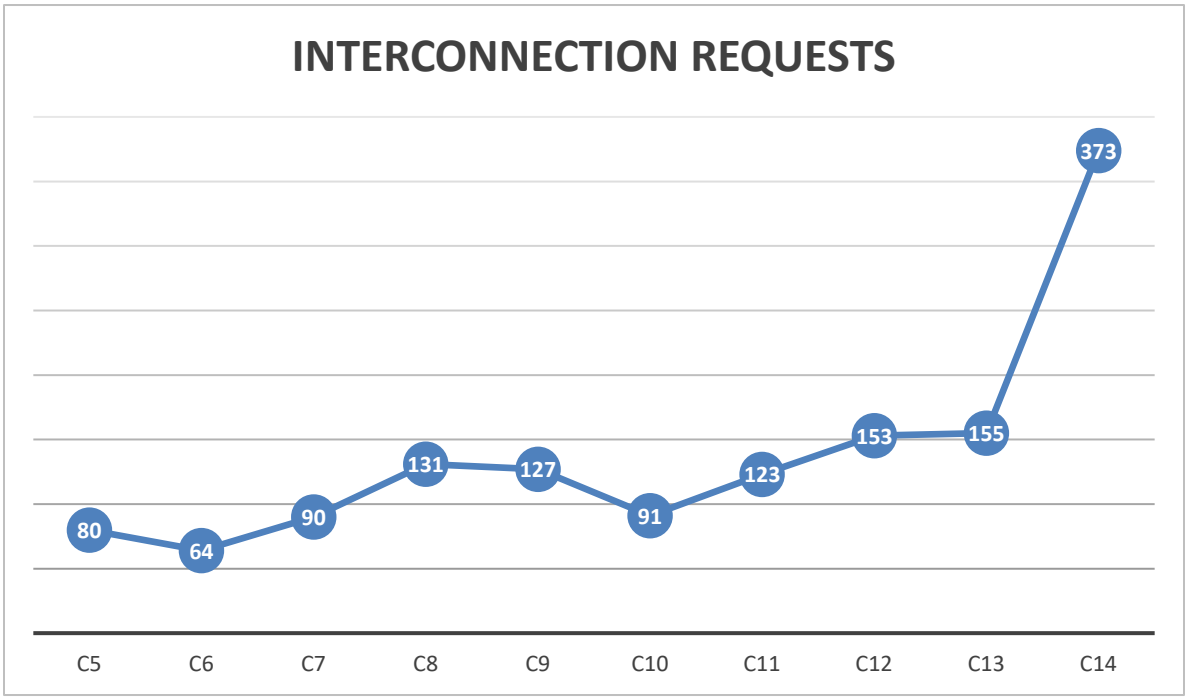
queue. Additionally, the non-refundable portion of IFS postings (generally 50 percent depending on when the customer withdraws) are used to offset any costs that fall to the participating transmission owners ("PTOs") that inherit financing costs when interconnection customers withdraw, their shared network upgrades are still needed for other customers, and those customers cannot receive additional cost allocations because of their cost caps.

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. Equally important in the IFS calculus is the percentage of posted IFS eligible to be refunded to the interconnection customer in the event 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. Non-refundable IFS funds offset the costs of still-needed network upgrades or, if none, the PTO's transmission revenue requirement.

4 Issues and Draft Final Proposal

Study Timeline

The number of interconnection requests in cluster 14 speaks for itself:



Even with the 155 interconnection requests the CAISO received in cluster 13, the CAISO had to issue a market notice to delay the publication of Phase I interconnection study results by one month, and will likely have to do so again for Phase II study results. Cluster 14 is *241 percent* larger than cluster 13. Although the CAISO could rely on its tariff

authority to issue market notices to extend study deadlines, doing so would result in an *ad-hoc* process lacking transparency and consistency. Moreover, the CAISO's transmission planning process, the PTOs' wholesale distribution access tariff ("WDAT") interconnection processes, and many load-serving entity ("LSE") procurement processes depend in part on the consistency—or at least the predictability—of the CAISO's study timelines.

Exacerbating the issue, neither the CAISO nor the transmission owners are able to increase staffing levels to mitigate the supercluster impact. After clusters 12 and 13, the PTOs *already* hired additional staff and consultants for cluster 14 in the expectation that cluster 14 would be somewhat consistent with previous large clusters. Additionally, developers themselves retained remaining available consultants to prepare this many interconnection requests for cluster 14, leaving few if any available at this time. In any case, the very nature of the cluster study process requires the cluster to be studied together *en masse*. It is not possible to split up the interconnection requests and outsource their studies such that the CAISO could maintain current interconnection study timelines.

The CAISO also is concerned with the risk of delaying the announcement that it must postpone the cluster 15 interconnection request window. Developers may incur costs to prepare future interconnection requests with the expectation that the CAISO would be able to accommodate cluster 15 interconnection requests next April. But neither the CAISO nor the PTOs are able to accommodate an interconnection request window in 2022. It would not be possible to begin studying such a cluster while studying the interconnection requests currently in queue. The CAISO must weigh its obligation to provide open access to the transmission grid with its obligation to provide meaningful and timely study results for the safe and reliable interconnection of new resources.

The CAISO propose~~s~~d to extend current interconnection study deadlines in order to accommodate the supercluster. The CAISO notes that these are firm deadlines, and the CAISO will not have flexibility to publish study results beyond these deadlines; however, the CAISO may publish study results earlier if available.

The CAISO proposesd the following deadlines. The second column shows the proposed supercluster deadlines. For comparison, the third column shows what would be the deadlines if the CAISO did not exercise its existing tariff authority to expand study deadlines it cannot accommodate:

Deadline	Supercluster Proposal	Typical Cluster
Phase I Study Results Published	September 15, 2022	January 11, 2022
Initial IFS Due	January 13, 2023	April 25, 2022
Cluster 15 Request Window	April 15, 2023	April 15, 2022
Phase II Study Results Published	November 24, 2023	November 20, 2022
TPD Affidavits Due	~~November 13~~December 8, 2023	December 1, 2022
TPD Results Published	March 23, 2024	March 14, 2023
Second IFS Due	May 4, 2024	May 19, 2023
Reassessment	August 20, 2024	August 1, 2023

The CAISO is still evaluating all interrelated interconnection procedure timelines such as scoping meetings, results meetings, and customer responses. The CAISO believes it is prudent to extend these deadlines as well to ensure all parties have sufficient time to process study results, make financial commitments, and progress in queue. For example, the CAISO proposes to extend results meeting deadlines from one month from the publication of study results to three months following study results.

In the Issue Paper, ~~T~~the CAISO ~~also~~ proposesd to extend the time required to tender and negotiate generator interconnection agreements by an additional 30 days. Upon further consideration, and closer examination of the existing tariff language, Section 13.1.1 of Appendix DD provides:

> The applicable Participating TO will tender a draft GIA, together with draft appendices, to the CAISO and the Interconnection Customer ***no later*** than the sum of (i) one hundred eighty (180) calendar days and (ii) the estimated time to construct the Interconnection Facilities and Network Upgrades indicated in the applicable study report needed by this or any other dependent project, prior to the In-Service Date. The applicable ***Participating TO may tender the draft GIA any time after the Phase II Study report is issued*** and before the determined tender date on its own accord or at the request of either the CAISO or the Interconnection Customer.

Therefore if a Participating TO wants to tender the agreement sooner, the tariff already provides for that ability.

These revised deadlines would allow the CAISO to study the supercluster to provide meaningful results to interconnection customers and their potential off-takers, while ensuring the safety and reliability of the CAISO controlled grid. The CAISO notes that these deadlines are not conservative estimates. Given the number of interconnection

requests in cluster 14, it will take a concerted effort to meet these revised deadlines. Additionally, the CAISO believes that these deadlines are achievable only provided the other proposed revisions described below. The CAISO and PTOs evaluated their ability to maintain all other study procedures, but doing so would have required more than two years to complete cluster 14 interconnection studies, putting the cluster 15 interconnection request window off indefinitely. The CAISO does not believe it is tenable to postpone study results beyond what the CAISO has proposed here, nor delay cluster 15 beyond 2023.

Stakeholder comments on revised timeline

Stakeholders generally agree that the current timelines are not sufficient, and additional time is needed to complete the Phase I and II studies and interrelated activities. Multiple stakeholders commented that the timelines should not be locked in, but allow for acceleration if circumstances change. Other stakeholders suggest that the extended timelines only apply to the cluster 14 Phase I study process, and suggest the upcoming IPE to determine what happens beyond the Phase I study process. One stakeholder requested that additional time be allowed for tendering draft LGIAs.

CAISO response and revised proposal

The CAISO agrees with stakeholders that the extended timelines should not be locked in and should allow for acceleration if circumstances change. The original proposal stated that *"The CAISO notes that these are firm deadlines, and the CAISO will not have flexibility to publish study results beyond these deadlines; however, the CAISO may publish study results earlier if available."* The CAISO clarifies that any aspect of the overall study process may be accelerated if conditions allow, not just the publication of study results.

In response to the suggestion that this proposal only address cluster 14 Phase I studies and allow the upcoming IPE to address what happens beyond the Phase I studies, the CAISO notes that the upcoming IPE can address modifications to this current proposal if warranted.

In response to the stakeholder suggestion that more time be allowed to issue LGIAs, the CAISO has spoken to the stakeholder and they are comfortable that the existing language in the tariff gives them the flexibility to tender the agreement based on workload requirements and no further changes are need to the tariff for the cluster 14 projects.

PTO by PTO Basis for Study Results

The CAISO generally issues interconnection study results simultaneously to the whole cluster. This promotes uniform treatment and allows potential off-takers to review study results at the same time, thereby preventing some interconnection customers from getting an earlier start than others.

To ensure a level playing field, the CAISO propose~~s~~d to do the same for the supercluster; but, the CAISO ~~welcomes~~ solicited specific stakeholder feedback on this issue. Because the majority of interconnection requests in cluster 14 went to PG&E, it is likely that the CAISO could publish interconnection study results much sooner—even up to several months sooner—in the other PTO service territories. The CAISO is concerned, however, that such a significant jump start on interconnection study results may be an unfair advantage in the RFO process for power purchase agreements.

Stakeholder comments on PTO by PTO basis for release of study results

Stakeholders were divided on whether to issue all study results simultaneously or releasing study results as they become available. Some stakeholders commented that releasing the reports as they become available creates an uneven playing field in an RFO process for power purchase agreements, and others stated they did not believe it would result in an unfair advantage. One stakeholder commented that the CAISO proposal may put some cluster 14 projects at a disadvantage to cluster 14 WDATs if the PTOs are able to issue WDAT reports earlier than the CAISO reports. Another stakeholder requested that the CAISO consider releasing results early for projects that have a PPA, letter of intent, or other documentation.

CAISO response and revised proposal

Due to the fact that there is no consensus one way or the other, the CAISO will not make any changes to its current practice and will continue issue interconnection study results simultaneously for the whole cluster.

To respond to the comment about the CAISO cluster 14 projects being at a disadvantage to the PTO's WDAT projects, the CAISO notes that any WDAT project requesting deliverability will receive their study results at the same time as the rest of the CAISO cluster 14 and will not be at an advantage.

Phase I study

The historical peak demand in the CAISO reached 50,116 MW on September 1, 2017. Peak demand in 2020 was 47,121 MW on August 18. Cluster 14 consists of approximately 150,000 MW in combined proposed generating capacity, bringing the CAISO generator interconnection queue to 246,000 MW. Even with robust procurement in the future, the potential generation available to off-takers exceeds demand by a significant margin.

The unprecedented volume of generation in Cluster 14 has raised particular concerns that the CAISO's existing study approach will not produce realistic and meaningful results in Phase I interconnection studies, and that there be little, if any, corresponding relationship between the methods of service set forth in the Phase I study results and those in the Phase II study results.

The CAISO proposed to modify how the CAISO and PTOs conduct the Phase I interconnection studies. The CAISO, in coordination with the PTOs, will establish reasonable study scenarios and dispatch assumptions for the steady state (thermal and voltage) analysis. Total generation inside the study area will be limited to produce meaningful study results. The system conditions and generation dispatch are not expected to produce any system-level stability issues and drive reliability network upgrades. Therefore, the stability assessment is not performed in the Phase I interconnection studies. The CAISO and PTOs will also modify the short circuit duty study methodology. The total online capacity in the evaluation will be limited to produce meaningful study results.

Regardless of these changes to methodology, the Phase I interconnection studies will still include short circuit/fault duty, and steady state (thermal and voltage) analyses. The Phase I studies will identify direct interconnection facilities and required reliability network upgrades necessary to interconnect the generating facility, mitigate thermal overloads and voltage violations, and address short circuit, and reliability issues associated with the requested interconnection service. The Phase I studies also will identify the costs and cost allocations for all required reliability network upgrades ("RNUs") and—for customers requesting deliverability—delivery network upgrades ("DNUs").

Stakeholder comments on study process

Stakeholders generally agreed that this cluster 14 supercluster requires modification to the study process to provide realistic and meaningful results. There were no specific objections to the CAISO's eliminating the stability studies from the Phase I studies, or establishing reasonable study scenarios and dispatch assumptions for the steady state (thermal and voltage) analysis.

A general theme requested by a majority of stakeholders is the need for the CAISO and PTOs to be transparent and provide specific study assumptions and allow for stakeholder comment, preferably before this proposal goes to the CAISO Board for approval. A stakeholder also requested that the CAISO openly share modeling assumptions and guidelines so that both Load-Serving Entities ("LSE") and the project developer community have an equal understanding of the risks of curtailment and clearly convey any differences between the interconnection customer requested Commercial Operation Date ("COD") and the earliest achievable COD based on the upgrades identified.

A number of stakeholders requested that additional information about the availability of deliverability be provided at the scoping meetings.

One stakeholder suggested conducting deliverability assessment for WDAT and independent study process resources using QC13 information, while another suggested providing a path that will keep pre-cluster 14 projects proceeding through the independent study process on their original timeline.

One stakeholder requested that the scope of the Phase 1 study be further reduced to minimize delays, while another suggested elimination of the short-circuit study since they believe the results will not be realistic.

CAISO response and revised proposal

The study plan containing the detailed scenarios and dispatch approach in the reliability assessment will be posted on the Market Participant Portal. The general principles of the study approach are:

1. The study is organized by the pre-defined study areas as defined in previous cluster studies. The reliability assessment is performed for each study area separately. Generation outside the study area may be off-line.
2. Path flow assumptions impacting the study area are established from the hourly production cost simulation performed in the Transmission Planning Process.
3. Pre-QC14 generation is dispatched to the level that does not cause any overloads without the addition of QC14 generation.
4. QC14 generation, in addition to pre-QC14 dispatch, is dispatched to the level that does not cause normal overloads that can be managed through congestion management, as well as contingency overloads that were previously identified as an area delivery constraint.
5. If it is not feasible to maintain the path flow assumptions after step 4, the study area can be split into smaller study areas.

The details of the short circuit study approach are still under discussion. Short circuit duty mitigation has significant impacts on the achievable COD. Such information cannot be skipped in the Phase I study for the interconnection customers to make an informed decision moving into the Phase II study. Studying short circuit duty is required under FERC Order No. 2003 as well.

The deliverability assessment methodology inherently deals with over-supply of generation by identifying incremental area delivery upgrades beyond the transmission plan deliverability instead of upgrades to provide deliverability for all interconnection requests in the queue. The deliverability assessment would largely remain the same except that it will take more iterations to complete the assessment. All transmission limitations, including availability of deliverability, will be discussed at the scoping meetings.

Consistent with the CAISO's summer 2021 enhancements, recently approved by FERC, Independent Study projects seeking deliverability and waiting for Phase I, Phase II, and TPD allocation results could be awarded available interim deliverability on a temporary basis if COD is achieved before the study is completed.

Cost Caps and Initial Interconnection Financial Security

Due to the large amount of interconnection request withdrawals typical between Phase I and Phase II, interconnection customers' projected cost estimates generally go down in Phase II. However, because the CAISO and PTOs will use a revised methodology in Phase I interconnection studies, the CAISO and PTOs are concerned that Phase I results could produce anomalous results that lead to a higher rate (though still rare) of cost increases in Phase II. Additionally, it is reasonable to expect a higher degree of churn within the queue, leading to other cost shifts between Phase I and Phase II.

Currently, the CAISO tariff provides that the *lower* of Phase I and Phase II allocated costs sets the interconnection customer's maximum cost responsibility. As such, if an interconnection customer's costs go up in Phase II, the interconnection customer can only assume cost responsibility up to the Phase I study results, leaving the interconnecting PTO with any actual costs above the maximum cost responsibility.

Because a supercluster's Phase I interconnection study results rely on a different study process than in a typical year, the CAISO proposesd that those results do not impact the ultimate maximum cost responsibility. Instead, only the Phase II study will set the maximum cost responsibility above which the PTO would bear any costs for financing network upgrades ~~or interconnection facilities~~.

Phase I study results still will provide a current cost responsibility used to establish the initial IFS posting requirement. The initial IFS posting is a critical milestone in the CAISO queue that ensures only those projects that are financially viable continue in queue. Additionally, the non-refundable portion of IFS postings (generally 50 percent depending on when the customer withdraws) offsets the PTOs 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 because of their cost caps. Nevertheless, the CAISO recognizes that facing higher costs in Phase II can be just as disruptive to interconnection customers, especially if the Phase II study alone sets the cost cap.

The CAISO proposesd that interconnection customers whose maximum cost responsibility goes up by 25 percent or more between Phase I and Phase II would be eligible for a 100 percent refund of their initial IFS posting if they withdraw before their second IFS posting is due. These costs would not include costs imposed by affected systems, which the CAISO does not consider. Additionally, the interconnection customer would be eligible for the same refund if the Phase II study extends the longest-duration RNU by one year or more. Other ISO/RTOs use these rules today, and the CAISO believes they are sensible in the supercluster context given the other changes the CAISO has proposed.

Under the CAISO's proposal, interconnection study deposits would still be refunded based on current procedures, which would refund any deposit funds remaining.

The CAISO believes these changes reflect the risk cluster 14 faces between Phase I and Phase II, and carefully balance the need for customers, PTOs, and LSEs to have meaningful results with the need for their financial protection from unexpected cost increases.

Stakeholder comments on cost caps and initial interconnection financial security

Stakeholders were generally mixed on the above proposal

One stakeholder stated that they appreciate the CAISO proposing a solution that seeks to provide interconnection customer certainty with a proposal that establishes a trigger for withdrawal without forfeiture of financial security

Another stakeholder appreciates CAISO's proposal to establish cost caps in Phase II studies as the results will cover the total scope of the system impact study and provide a more accurate estimate of the total interconnection costs,

Some stakeholders believe the refundability provision weakens incentives for speculative projects to drop out prior to Phase II, encouraging projects to stay in the queue that should otherwise withdraw.

One stakeholder stated concern that Phase I study results will not provide a reasonable cost cap to customers that—consistent with the status-quo—would otherwise facilitate commercial negotiations.

One stakeholder suggested that the Phase I cost caps should not be eliminated because the earliest firm cost information would not become available until November 2023, which will delay decision-making for these projects. This stakeholder also stated that if the CAISO cannot identify a way to implement these, it should consider offering cost caps within a range, such as +/- 20 percent.

Two stakeholders, while not providing specific comments on whether they support or oppose the CAISO's proposal, suggest that the cost cap issue should be considered in the upcoming IPE initiative.

Two stakeholders suggest that for determining refundability if certain interconnection costs increase by 25 percent or more that the cost measure should also include conditionally assigned network upgrades (CANU) and PTO interconnection facilities, as well as interconnection reliability network upgrades (IRNUs) and assigned network upgrades (ANUs),

CAISO response and revised proposal

The CAISO appreciates and considered the above stakeholder comments. Regarding the calculation of the 25 percent cost increase calculation, the CAISO continues to propose the increase of the maximum cost responsibility by 25 percent between Phase I and Phase II without including PTO interconnection facilities in the calculation. Typically, a change in costs for network upgrades between Phase I and Phase II is a much greater likelihood than

a change in costs for PTO interconnection facilities, which typically do not change unless the interconnection customer changes the interconnection plan dramatically. Including the PTO interconnection facility cost would increase the required increase in network upgrades to reach the 25 percent threshold if the PTO interconnection facilities cost does not change. To clarify the treatment of CANUs in this process, if a Phase I identified CANU is converted to an ANU in Phase II, then the cost of the Phase I MCR is increased by the amount of the CANU converted to an ANU.[1] This type of increase is not protected in the 25 percent MCR increase calculation. Overall, considering the mixed responses from stakeholders, the CAISO still believes its proposal provides the best path forward that balances the risks faced by the PTOs and the interconnection customers. Therefore the CAISO is not making any changes to this aspect of the proposal.

Superclusters in the Future

The CAISO proposesd to use these procedures in the future when the CAISO receives 150 or more interconnection requests. This proposed figure is based on the CAISO's experience with cluster 13, which had 155 requests and required the CAISO to extend interconnection study results. The CAISO does not expect each instance to require the maximum time allotted to a supercluster. The CAISO only seeks the flexibility to use supercluster procedures to alter timelines to some degree and use the other proposals described above in the event of another supercluster, and without re-seeking regulatory approval.

The CAISO understands that some stakeholders have sought full IFS refunds for cost or timing increases (including to DNUs) in the normal cluster study process. The CAISO is not prepared to offer such at this time, but will examine the issue in the next iteration of its Interconnection Process Enhancements stakeholder initiative.

Stakeholder comments on superclusters in the future

The majority of stakeholders opposed applying the principles proposed in the draft final proposal to future queue clusters and suggest any interconnection application and study process changes beyond cluster 14 be addressed in a more comprehensive stakeholder process.

CAISO response and revised proposal

The CAISO agrees with stakeholders and no longer proposes in this initiative to apply the principles to future clusters. The CAISO plans to initiate a more extensive IPE initiative later this year to consider application and study process modifications that would apply to future clusters. The CAISO also may consider additional modifications to cluster 14 in the IPE initiative.

[1] http://www.caiso.com/Documents/Upgrade-Cost-Responsibility-Implementation.pdf

Additional Stakeholder Comments and Suggestions

Stakeholder comments on applying additional criteria to limit the number of cluster 14 projects

A number of stakeholders proposed that the CAISO apply additional criteria to limit the number of cluster 14 projects entering the Phase I studies or moving from the Phase I studies to the Phase II studies. Suggestions include requiring site control, power purchase agreements, or other indicators of high readiness levels. One stakeholder suggested the CAISO split the cluster 14 into two separate sub-clusters, a first ready cluster and a common cluster.

There were also stakeholders that opposed applying additional criteria to limit the number of cluster 14 projects.

CAISO response

The CAISO appreciates all of the suggestions for limiting the number of cluster 14 projects; however, at this time the CAISO is not inclined to propose additional requirements on cluster 14 to participate in the interconnection study process. Rather than imposing additional criteria in this current initiative, the CAISO believes this topic should be vetted in the upcoming IPE initiative.

Stakeholder comments on increasing PTO/CAISO staffing

A few stakeholders suggested the PTO and CAISO increase staffing or consultants to support with the timely processing of the queue and to be ready for the Phase II studies.

CAISO response

As covered in the draft final proposal and in the stakeholder call, adding resources beyond increases already made have not been found to be plausible due to the specific skill sets and experience required, and skilled staff is largely under contract with other parties and pose conflicts of interest. The very nature of the cluster study process requires the cluster to be studied together *en masse*. It is not possible to split up the interconnection requests and outsource their studies such that the CAISO could maintain current interconnection study timelines.

Stakeholder comment on proposal impacts on prior cluster parking

One stakeholder requested that the CAISO clarify how this initiative proposal would impact parking for Clusters 12 and 13 projects.

CAISO response

The CAISO proposal will not impact the 2022 transmission plan deliverability (TPD) allocation cycle following the completion of the cluster 13 Phase II studies. However, the next TPD allocation cycle will be delayed by one year to occur following the completion of the cluster 14 Phase II studies. This will impact those projects that park or are allowed to

continue to park after in the 2022 TPD allocation cycle following the completion of the cluster 13 Phase II studies. This will result in those projects that park or remained parked following the 2022 allocation cycle being parked for two years until the 2024 allocation cycle following cluster 14 Phase II studies. Projects can come out of parking early if they convert to energy only and make their second IFS posting. Also, additional concerns about projects impacted by cluster 14 delays, such as allowing additional time to stay in the queue, can be revisited in the upcoming interconnection process enhancement initiative.

5 Next steps

As a next step, the CAISO will conduct a conference call to discuss this ~~issue paper and draft~~ final proposal on ~~May~~ June 21, 2021. The CAISO then invites stakeholders to submit comments by ~~May~~ June 28, 2021. Comments should be submitted to InitiativeComments@caiso.com.

Following review and evaluation of the comments received, the CAISO will consider potential revisions to its ~~proposal and issue a~~ Final Proposal ~~in June~~, which it will take to the Board of Governors no later than the July meeting.