UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Improvements to Generator Interconnection Procedures and Agreements	**)** **)** **)**	**Docket No. RM22-14-000**

COMMENTS OF

THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

ON THE NOTICE OF PROPOSED RULEMAKING

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The California Independent System Operator Corporation ("CAISO") submits these comments in response to the Federal Energy Regulatory Commission's ("Commission") Notice of Proposed Rulemaking ("NOPR") issued on June 16, 2022 in the captioned docket.[1]

I. EXECUTIVE SUMMARY

The CAISO supports the Commission's stated goals to address interconnection queue backlogs, improve certainty, and prevent undue discrimination for new technologies. Unfortunately, although many of the individual proposals in the NOPR are ripe for implementation, the sum of the NOPR would not achieve the Commission's goals, and would instead slow study processes and increase backlogs. The CAISO strongly urges the Commission to iterate with stakeholders further before issuing a final rule. At the very least the Commission should issue a revised NOPR based on comments and should consider technical conferences on ISO/RTO-specific reforms, commercial readiness criteria, and realistic study timelines.

As the CAISO describes below, shortening notification and study timelines does not always result in faster studies or less time in queue. In many cases the NOPR would deprive transmission providers of the time required to make any process meaningful to interconnection customers or affected systems. Transmission providers burdened with so many studies with rapid timelines would have no choice but to perform

[1] Capitalized terms not otherwise defined herein have the meaning 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 unless otherwise indicated.

rushed, unreliable studies, which would ultimately require more iteration and longer time in queue for interconnection customers to get realistic cost and schedule information.

The CAISO also believes many of the NOPR's proposed reforms are based solely on the tariffs of single utilities operating in a single state. Such utilities enjoy unique advantages because they can be both the generation off-taker and the transmission provider conducting the interconnection studies, and they have a single local regulatory authority over procurement. Although some NOPR reforms may work for similarly situated transmission providers, the vast majority of Commission-jurisdictional interconnections occur in ISOs/RTOs where the off-taker and transmission provider are not only different, but may not even be in the same state. Many of the Commission's proposed reforms fail to recognize that the ISO/RTO may be the "transmission provider," but it depends on the actual transmission owners to perform study work. Despite the prevalence of ISOs/RTOs and the interconnection challenges they face, the Commission does not appear to account for ISO/RTO circumstances in many of the NOPR's discussions. But because ISOs/RTOs will nonetheless have to comply with the Commission's reforms, the NOPR presents a number of infeasible single-utility pegs for ISO/RTO-sized holes.

The CAISO urges the Commission to narrow its focus on those reforms that will reduce incoming queue volumes and incentivize poorly developed projects to withdraw from queue as soon as possible. They are the most critical reforms, and without them interconnection queues will not improve.

II. COMMENTS

A. Reforms to Implement a First-Ready, First-Served Cluster Study Process

1. Interconnection Information Access

i. Informational Interconnection Study

The Commission proposes to require transmission providers to offer an optional informational interconnection study to serve for prospective customers deciding whether to submit an interconnection request.[2] The CAISO opposes optional informational interconnection studies because they are incapable of providing reliable cost data to interconnection customers. This is especially true in recent years due to the high level of interest in resource development in the same or overlapping areas. Instead of reducing queue sizes, the optional informational interconnection studies will only burden transmission providers, slowing queues even further. Interconnection studies cannot identify necessary network upgrades without knowing how many interconnection customers will interconnect nearby. Even if a developer has identified a potential cost-effective point of interconnection by examining base cases and available data, it does not know how many *other* developers will try to use that same point of interconnection, potentially increasing costs or construction timelines for everyone. Likewise, an interconnection customer may face higher than expected costs because it is the *only* interconnection customer at a point of interconnection, making it unable to spread the costs of an upgrade among several developers.[3] In any case, it is impossible to provide

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[2] NOPR at P 42.

[3] For example, new substations or substation upgrades like new bays can be so expensive that they require multiple interconnection customers to share the costs to maintain financial viability. Even with the CAISO's financing/refund rules, a large upgrade's initial financing costs may pose too much risk

meaningful cost data to interconnection customers for their project until the transmission provider knows precisely the entire make-up of the study cluster for that project.

Nowhere in the NOPR does the Commission describe how transmission providers are supposed to accommodate these new optional studies when they already cannot keep up with the huge volumes they have faced in the past few years. Performing an optional informational interconnection study in 45 days and with a $10,000 study deposit is simply impossible. The Commission has no basis or evidentiary record to support this timeline or deposit, and no transmission provider could provide any meaningful results in that structure. Numerous comments on the ANOPR stressed that increased funds and study deposits can do nothing to solve this issue because there are no more available power system engineers to perform additional studies. Transmission providers compete with developers themselves for the same consultants. Because the Commission's proposal will only burden transmission providers without doing anything to reduce queue sizes or real study work, the Commission must recognize its proposed optional informational interconnection studies will only slow queues further.

The CAISO also requests that the Commission clarify how it would define "prospective interconnection customer" when it proposes to limit "prospective interconnection customers to no more than five separate informational interconnection study requests pending at a time to ensure that transmission providers are not overburdened with these studies and that one prospective interconnection customer

for a single developer. In any case, an interconnection customer will not know its cost allocation until studied within its cluster.

cannot prevent others from taking advantage of this information-gathering process."[4] As written, this limitation would be ineffective. Every interconnection request constitutes a unique interconnection customer, and holding companies generally form new limited liability companies—new "interconnection customers" for every interconnection project.[5] For the Commission's limit to have any meaningful effect, the limit must apply to developers and holding companies. Only by preventing affiliated entities from creating as many "interconnection customers" as possible could the limit be reasoned decisionmaking.

ii. Public Interconnection Information

The Commission proposes to set minimum requirements for transmission providers to publicly post information pertaining to generator interconnection, including interactive visual representations of interconnection capacity.[6] The CAISO supports the Commission's proposed requirements to post information pertaining to generator interconnection. The CAISO began its own stakeholder initiative on this subject in 2021, and it has commenced developing the new data packages developers requested.[7] Ultimately, however, the CAISO does not believe additional data will reduce the high volume of interconnection requests. Although better data will enable better interconnection requests, it will not make fewer. Developers (and the load-serving entities that procure them) may select sites for several reasons, including their

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4 NOPR at P 43.

5 Instead of the CAISO's 373 interconnection requests in 2021, it could have had 1,865 informational interconnection studies before the interconnection request window even began.

6 NOPR at P 49.

7 http://www.caiso.com/InitiativeDocuments/ISOResponse-DataTransparencyMatrix-InterconnectionProcessEnhancements2021.pdf.

ability to secure a site or the site's renewable generation potential. Understanding the *current* available interconnection capacity does not ensure the interconnection customer will face the same availability in its *future* cluster. As described in Section II.A.1.i, several developers can submit interconnection requests to the same substation that looked cost-efficient, compounding their interconnection requirements to necessitate very expensive upgrades.

2. Cluster Study

The Commission proposes to prohibit serial studies and institute cluster studies.[8] Having had a cluster study for over a decade, the CAISO supports the Commission's proposal. The NOPR accurately describes the myriad benefits that cluster studies provide. However, based on its considerable experience over the years and the success of its own recent reforms, the CAISO opposes several aspects of the Commission's proposed timelines for interconnection request windows. The Commission proposes that transmission providers hold a 45-day window during which customers can submit interconnection requests[9] and hold scoping meetings within a 30-day "customer engagement window."[10] The CAISO opposes both of these timelines. They are unnecessary and without foundation—most ISO/RTOs have already developed sensible timelines. More problematically, the request window is unrealistically long, and the engagement window is unrealistically short. As the CAISO explained in detail in its 2019 reforms on submitting and process interconnection

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8 NOPR at P 56.

9 NOPR at P 67.

10 *Id*.

requests,[11] most developers will submit interconnection requests on the *last* day of a window, no matter how long or short. More problematically, longer request windows result in low quality requests because developers have more time within the window to fix poor requests. The result is that transmission provider staff are preoccupied notifying interconnection customers of missing information from the interconnection requests, then reviewing the updated submissions, and actually have less time to identify data and modeling errors. This is especially problematic as the complexity of interconnection requests grows each year. The CAISO's experience processing interconnection requests in a shorter 15-day completeness window followed by a longer validation and scoping meeting window has been remarkable: interconnection request quality improved significantly, and the CAISO has processed interconnection requests faster than ever. The shorter window properly incentivizes developers to prepare their interconnection requests in the preceding 11 months of the year, rather than burdening transmission provider staff with something thrown together and fixed repeatedly during the long window.

During the CAISO's request window, it reviews each request for "completeness," namely, whether each interconnection has submitted the materials specified in the tariff.[12] The CAISO notifies each interconnection customer whether its request is complete or contains omissions within five business days. Any interconnection customer that has not submitted a complete interconnection request by the end of the window will be deemed incomplete with no opportunity to cure or otherwise be included

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[11] *See California Independent System Operator Corp*., Tariff Amendment to Specify Minimum Requirements for Interconnection Requests, Docket No. ER19-1013 (Feb. 7, 2019).

[12] Section 3.5.1 of Appendix DD to the CAISO tariff.

in that year's cluster study. This regime has been extremely successful in raising the quality of interconnection requests and saving everyone involved from excessive iteration of poorly prepared request packages. Within ten business days of the close of the request window, the CAISO notifies each interconnection customer whether its submitted information is "valid," namely, whether it contains errors or deficiencies.[13] Each interconnection customer can take as long as it wants to respond to the CAISO, but all interconnection requests must be deemed valid within 45 days of the close of the request window, or they will not be included in the cluster study. Whenever an interconnection customer provides corrected information, the CAISO responds within five business days whether the request is now valid or still contains errors. To date, all interconnection customers have been able to correct their errors in time.

During this 45-day window the CAISO holds all scoping meetings, further enabling interconnection customers to iterate with CAISO and transmission owner engineers to refine the interconnection request.[14] However, given the high volume the CAISO faced in 2021, the CAISO was forced to hold scoping meetings over 90 days to ensure staff had time to prepare useful information in scoping meetings. A short timeline for scoping meetings, as proposed in the NOPR, will only result in unhelpful, meaningless scoping meetings. In 2021, for example, the CAISO received 373 interconnection requests. Under the Commission's proposed 30-day window, CAISO staff and transmission owner staff would have to hold between 12 and 13 scoping meetings *every day*, including weekends. Not only would this be impossible to even

[13] Section 3.5.2.2 of Appendix DD to the CAISO tariff.

[14] Section 6.1.2 of Appendix DD to the CAISO tariff.

arrange—especially immediately after the request window—but it would deprive transmission provider and transmission owner staff of *any* time to actually prepare for these scoping meetings. With sufficient time to prepare and give meaningful information, scoping meetings are essential because they identify potential configuration problems at the earliest possible opportunity, enabling developers to modify their projects before studies commence. Without meaningful scoping meetings, many interconnection customers will simply be doomed to discover their projects will be prohibitively expensive after initial studies come out (and for avoidable reasons).

This is not to say that the Commission should simply propose a shorter request window or a longer scoping meeting window (with time between to prepare), or even that the Commission should adopt the CAISO's well-functioning structure. Rather, the Commission should avoid specifying window, review, and processing timelines altogether. The Commission should defer to the transmission providers with actual experience processing interconnection requests, and let them propose timelines they believe will be feasible. The Commission would then review each transmission provider's proposal under the just and reasonable standard.

The CAISO also requests clarification on queue positions and modifications. The Commission proposes to require that interconnection customers proposing a material modification must withdraw the modification or result in "a loss of queue position."[15] It is unclear what losing a queue position means in a cluster-based study, for example, being withdrawn from queue or moving to a later queue position. However, the CAISO believes no specification or reform is necessary because interconnection customers will

[15] NOPR at P 71.

simply withdraw the modification every time. The Commission should either remove the "option" to lose a queue position or clarify what replaces the queue position when lost.

3. Allocation of Cluster Study Costs

The Commission proposes to require transmission providers to allocate 90% of the applicable study costs to interconnection customers on a *pro rata* basis based on requested MWs in the applicable cluster, and 10% of the applicable study costs to interconnection customers on a *per capita* basis based on the number of interconnection requests in the applicable cluster.[16] The CAISO does not oppose this system, but worries it appears arbitrary and capricious because the Commission does not adequately explain the basis for these ratios.[17] The 10% allocation is so small as to be *de minimis*, but it still increases the administrative burden to allocate the cluster cost allocation. Transmission providers must determine the cluster costs and each customer's share under the 90/10 system and then assess costs based on that system. It would be much simpler and easier if transmission providers simply allocated all cluster study costs based on the MW capacity alone. This would be much easier to calculate and collect, with only a slight difference on the customers.

4. Allocation of Cluster Network Upgrade Costs

The Commission proposes to allocate network upgrade costs to interconnection customers within a cluster using a proportional impact method, noting the CAISO and

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[16] NOPR at P 82.

[17] The NOPR simply states two utilities use these rations, but also notes many other utilities use many other cost allocation methods.

other ISO/RTOs already do so through distribution factor analyses.[18] The CAISO supports the Commission's proposal. This has been an area devoid of controversy for the CAISO since it has employed the distribution factor analysis. The Commission would be remiss to disrupt this well-functioning process, and is right to establish it as the *de facto* just and reasonable system to allocate network upgrade costs.

5. Shared Network Upgrades

The Commission proposes to require transmission providers to allocate network upgrade costs between interconnection customers in an earlier cluster study and interconnection customers in a subsequent cluster study that benefit from the same network upgrade in a manner roughly commensurate with the benefits received.[19] The CAISO supports this proposal for transmission providers where interconnection customers fund network upgrades, but opposes this proposal in regions like the CAISO where interconnection customers provide the initial financing for network upgrades and transmission owners and their ratepayers ultimately fund network upgrades. Although allocating network upgrade costs across clusters seems fair through the lens of cost allocation, it would contribute to a more significant issue plaguing interconnection queues: cascading costs and restudies. The CAISO is one of the only transmission providers that does not have the cascading restudy problem that slows other queues. Cascading costs and restudies cause further late withdrawals and perpetuate a vicious cycle that repeats all the way until some lucky customers reach commercial operation. In the Order No. 845 proceeding, numerous national developers advocated that the

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[18] NOPR at PP 87-88.

[19] NOPR at P 98.

Commission impose the CAISO's use of firm cost caps on other transmission providers "to break endless start and stop restudy cycles" elsewhere.[20] But the CAISO's well-functioning system is predicated on keeping network upgrade costs within a cluster once an interconnection customer assigned that network upgrade within the cluster executes a GIA.[21] Later-queued customers sharing the upgrade are protected from restudies and falling costs if the interconnection customer withdraws because the transmission owner would step into the place of the withdrawing, earlier-queued customer.[22] Put another way, the Commission should afford transmission providers—especially those with well-functioning systems—with sufficient regional flexibility to address how sharing costs across clusters is a direct cause of late restudies, which are one of the most significant challenges nationally in the interconnection process.

The CAISO's current system is consistent with Commission precedent because it recognizes that transmission ratepayers—not interconnection customers—are the ultimate beneficiaries from transmission network upgrades. The Commission itself has found that "network upgrades represent improvements to the integrated transmission system and that these benefits to the transmission system are considered independent from any benefits customers may receive as a result of generation that interconnects to the system."[23] The CAISO's tariff provisions allocate *financing* responsibility to the

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

[21] Section 14.2.2 of Appendix DD to the CAISO tariff. Later-queued customers are conditionally assigned the costs of an earlier-triggered upgrade. If the earlier interconnection customers withdraw, those costs fall to them, but if the earlier customers execute a GIA, the costs are removed from the later-queued customers' cost responsibilities.

[22] The transmission owner is protected financially by the withdrawing customer's interconnection financial security for the upgrades.

[23] *California Independent System Operator Corp*, 160 FERC ¶ 61,047 at P 34 (2017).

interconnection customers that trigger certain upgrades, but properly allocates actual costs to the transmission owners that will own the network upgrades the interconnection customers triggered. By having the transmission owner assume cost responsibility, sharing network upgrade costs across clusters is an unnecessary administrative burden that requires restudies and new cost allocations whenever earlier-queued projects withdraw. Imposing anything akin to the Commission's NOPR proposal on a system like the CAISO's would be a significant step back, largely defeating the benefits of an annual cluster study.

6. Increased Financial Commitments and Readiness Requirements

i. Increased Study Deposits and LGIA Deposit

The Commission proposes to raise interconnection study deposits, finding "that increasing the total study deposit amounts submitted in the interconnection study process would better approximate the cost of the interconnection study process and disincentivize interconnection customers from submitting interconnection requests for speculative, non-commercially viable generating facilities."[24] The CAISO supports these reforms. The Commission must raise the bar to deter uncompetitive interconnection requests and reduce queue volumes. It is illusory to argue that developers without significant capital can progress to commercial operation in today's hyper-competitive climate.

For example, in 2021—the CAISO's most recent cluster study application window—three developers submitted over 20 interconnection requests each, with one

[24] NOPR at P 109.

developer submitting 35 interconnection requests, nearly ten percent of the entire cluster study. Study deposits alone cost these developers an average of $4,050,000. Of the 81 interconnection requests they submitted, only one developer demonstrated site control and that was only for *one single* project. This means that, on average, each developer submitted an additional $6,750,000 in site exclusivity deposits. The foremost developer submitted $14 million in deposits before studies even began. The ability to finance interconnection requests is common in today's market. The three developers mentioned here are not even among the Fortune 500 developers that also submit numerous interconnection requests. The CAISO strongly supports the Commission's goal to "adopt more stringent financial commitments and readiness requirements for interconnection customers to remain in the interconnection queue to discourage speculative interconnection requests and allow transmission providers to focus on processing viable interconnection requests."[25] But to achieve this goal, the Commission must raise study deposits significantly.

ii. Demonstration of Site Control

The Commission proposes that interconnection customers must demonstrate 100% site control for their proposed generating facilities when they submit their interconnection request.[26] Only when "regulatory limitations prohibit the interconnection customer from obtaining site control," would the customer submit a deposit *in lieu* of site control of $10,000 per MW, subject to a floor of $500,000 and a ceiling of $2,000,000.[27]

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25 NOPR at P 103.

26 NOPR at P 116.

27 NOPR at P 118.

The CAISO strongly supports these proposals. As discussed in the preceding section, the CAISO's most recent cluster study was inundated by projects without site control, and developers experienced no challenge in posting numerous $250,000 site exclusivity deposits. The CAISO already reformed its site control requirements in response to that cluster study,[28] but supports the additional reforms proposed in the NOPR. The Commission must raise the bar to deter uncompetitive interconnection requests and reduce queue volumes. Without reducing queue volumes, nothing in this proceeding will improve interconnection processes.

The CAISO requests that the Commission clarify what it means that "regulatory limitations prohibit the interconnection customers from obtaining site control." The CAISO is concerned that provision will leave transmission provider staff as adjudicators of whether obtaining site control is possible for each project, and interconnection staff are not experts on real property law or public permitting requirements.[29] Without further clarification developers will argue site control was impossible where it was simply impractical or expensive for the developer. The CAISO urges the Commission to define situations where "regulatory limitations prohibit the interconnection customers from obtaining site control" as clearly and narrowly as possible. For example, the Commission could limit such cases only to offshore areas, public lands, and tribal lands.

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

[29] The examples noted in footnote 195 of the NOPR are not helpful because they speak to facility classifications; not the actual circumstances where generation site control is unobtainable.

iii. Commercial Readiness

The Commission proposes to require interconnection customers to demonstrate "commercial readiness" to enter and progress in queue.[30] Customers that cannot demonstrate commercial readiness must submit deposits based on where they are in the study process.[31] To demonstrate commercial readiness upon submitting an interconnection request, customers must demonstrate they have an executed "term sheet" for the facility's capacity or power, or have otherwise been selected through a resource solicitation process, with a sales term no shorter than five years. Alternatively, the customer can file a provisional GIA with the Commission.[32]

The CAISO generally supports the commercial readiness proposal. However, the CAISO notes that in California it would be impossible for developers to meet the commercial readiness criteria to submit an interconnection request. Because load serving entities must evaluate the total costs of new capacity, California load-serving entities require at least a Phase I interconnection study—if not a Phase II study—to enter a request for offer process. Thus, most projects cannot secure a power purchase agreement until the study process is over. The Commission's proposed requirements would impose the commercial readiness study deposits on every customer. The CAISO does not oppose this result, but questions whether it is reasoned decisionmaking to impose what will be illusory requirements in ISO/RTOs. The CAISO believes a better structure would be to require all interconnection customers in ISO/RTOs to submit commercial readiness deposits until they can meet the facilities study commercial

30 NOPR at PP 129-30.

31 *Id.* at P 133.

32 *Id*. at P 129-30.

readiness requirements. This structure would eliminate the illusion that developers have power purchase agreements in hand even before they know their interconnection costs.

The CAISO recognizes that some of the causes for these challenges may reside outside of the Commission's jurisdiction with local and state authorities. The CAISO plans to work with the California Public Utilities Commission ("CPUC") and its other local regulatory authorities to address California's ambitious procurement goals and their impact on the CAISO's interconnection queues. The CAISO believes that enhancing procurement practices will lead to better interconnection practices, which will ultimately benefit procurement. The CAISO intends to encourage the CPUC to soften its requirements for interconnection studies before procurement. If California load-serving entities could procure based on simpler interconnection cost estimates, it could enable an iterative interconnection study approach that refines interconnection studies once projects are likely to be built. Likewise, the CAISO intends to work with the CPUC to prioritize the procurement, planning, and interconnection in high priority development areas designated by the state. These two procurement enhancements could result in the "first-ready, first-served" interconnection study approach all parties want.

The CAISO also notes that the Commission's proposed deposit requirements are low, such that the CAISO expects any modern developer could meet them. The CAISO thus questions whether the deposit requirements (or any deposit requirements) would deter any uncompetitive project or reduce queue sizes. The CAISO urges the Commission to gather more data or hold technical conferences to develop meaningful deposit amounts. Transmission providers and ISOs/RTOs have ample data from recent

interconnection request windows and in-queue financial requirements the Commission can draw from. Using arbitrary figures to set deposit requirements is unlikely to yield any meaningful result on modern queues.

Additionally, the CAISO requests that the Commission describe in detail what would constitute a term sheet. In the CAISO's experience with similar tariff provisions, developers frequently try to submit questionable or even misleading documentation to meet the tariff requirements. Without a clear, narrow description, developers could submit illegitimate documents, leaving transmission provider staff to adjudicate whether the proffered documents meet the Commission's requirements.

Likewise, the NOPR fails to describe "provisional GIAs" adequately. Without further detail, the CAISO is concerned the provisional GIA option may defeat the purpose of the commercial readiness requirements. It is unclear how interconnection customers that have yet to be studied could submit provisional GIAs because GIAs describe the network upgrades and facilities from interconnection studies. In any case, without significant financial penalties for terminating a GIA, developers could submit provisional GIAs to bypass commercial readiness requirements and then terminate the GIAs if they need to withdraw their interconnection request. Developers are likely to request provisional GIAs because demonstrating commercial readiness in ISO/RTOs is generally impossible until after studies are complete. Developers could escape financial consequences and bypass the NOPR's requirements through the provisional GIA. At a minimum, the Commission should *allow* transmission providers to provide the provisional GIA option where they believe it will work, but not *require* all transmission

providers to enable developers to bypass commercial readiness through provisional GIAs.

iv. Withdrawal Penalties

The Commission proposes to require transmission providers to assess "withdrawal penalties" unless an interconnection customer withdraws under certain circumstances.[33] The CAISO supports this proposal, but requests that the Commission clarify several details. First, the exception criteria, as written in the NOPR, are not workable. Under the Commission's proposal, interconnection customers would not face withdrawal penalties where (1) the withdrawal does not delay the timing of other proposed generating facilities in the same cluster; (2) the withdrawal does not increase the cost of network upgrades for other proposed generating facilities in the same cluster; (3) the interconnection customer withdraws after receiving the most recent cluster study report and the costs assigned to the interconnection customer have increased 25% compared to the previous cluster study report; *or* (4) the interconnection customer withdraws after receiving the individual facilities study report and the costs assigned to the interconnection customer have increased by over 100% compared to costs identified in the cluster study report. The Commission's description of these exceptions is problematic due to the use of "or," which suggests meeting *any* criterion would relieve the customer of withdrawal penalties. For example, a withdrawal could not affect the timing of other projects but still increase their costs; however, the customer would meet the first exception and not be subject to withdrawal penalties.

[33] NOPR at P 140.

This is problematic because withdrawals would never delay the timing of generating facilities in the same cluster. A cluster's upgrades are a package, and the construction schedule would not change simply because one customer sharing upgrades withdraws. The Commission should clarify that each interconnection customer must meet (a) both criteria one *and* two, and (b) criteria three *or* four.

Second, the Commission proposes that the withdrawal penalty revenues be used to fund studies conducted under the cluster study process.[34] The CAISO does not support this aspect of the proposal because it is unnecessary. Transmission providers already have provisions specifying where non-refundable funds go, and using them for interconnection studies would require careful accounting without relieving study burdens. The CAISO would support a flexible approach allowing the transmission provider to propose a just and reasonable use of the withdrawal penalties. For example, the CAISO applies non-refundable funds toward still-needed network upgrade costs and offsetting transmission revenue requirements.

Third, the CAISO seeks clarification that the NOPR's proposed withdrawal penalties would not displace transmission providers' other existing procedures and penalties that incentivize customers to withdraw earlier rather than later. The CAISO, for example, requires interconnection customers to post financial security based on their allocated network upgrade costs.[35] The financial security requirements increase as the

[34] NOPR at P 143.

[35] *See* Section 11 of Appendix DD to the CAISO tariff. The refundable portion of the financial security also decreases as the customer progresses through queue.

customer progresses in queue. MISO,[36] SPP,[37] PSCo,[38] and other transmission providers have similar requirements. Because of these requirements, the majority of interconnection customers withdraw immediately before their first interconnection financial security posting deadline, and the next largest groups withdraw immediately before their second, higher interconnection financial security posting deadline.

Network-upgrade-based financial requirements are far more effective than the withdrawal penalties proposed in the NOPR because network-upgrade-based requirements are tied to the project's actual interconnection costs, which correlate with its competitiveness to obtain a power purchase agreement and therefore its likelihood to remain in queue. For example, consider two 10 MW interconnection projects, Project A and Project B. Project A has carefully selected its point of interconnection and will only trigger $100,000 in network upgrades. Project B proposes to interconnect to a subscribed substation, and will require $10 million in network upgrades. Load serving entities are far more likely to procure Project A than Project B, which means Project B is far more likely to withdraw, and should do so sooner. Under the Commission's withdrawal penalties, these projects face the exact same financial incentives to withdraw, which is inefficient. Under network-upgrade-based financial requirements, Project B faces greater incentives to withdraw early. As such, the CAISO supports the Commission's withdrawal penalties, but *only if* they do not displace the far more effective network-upgrade-based penalties transmission providers already employ to great effect.

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36 *Midcontinent Independent System Operator Inc.*, 158 FERC ¶ 61,003 (2017).

37 *Southwest Power Pool Inc.*, 167 FERC ¶ 61,275 (2019).

38 *Public Service Company of Colorado*, 169 FERC ¶ 61,182 (2019).

Fourth, the Commission proposes to base the withdrawal penalties on the interconnection customer's size and whether it has demonstrated commercial readiness, but disconcertingly proposes to cap withdrawal penalties where the customer is large and has not demonstrated commercial readiness. The CAISO opposes these caps. As the NOPR recognizes, larger projects create the most churn in queue, and projects that cannot demonstrate commercial readiness should be the most likely to withdraw. The result of the caps is that the withdrawal penalties disproportionately affect smaller and more competitive projects more than larger and less competitive projects. This is a backwards result, and the Commission does not explain the caps. The Commission should remove the caps so the withdrawal penalties affect interconnection customers equally.

7. Transition Process

The Commission proposes to require transmission providers to establish a transition process from serial to cluster studies.[39] Because the CAISO already has a cluster study process, no transition would be necessary. Regarding the remaining reforms proposed in the NOPR, the CAISO asks the Commission to provide transmission providers flexibility in implementing them. The CAISO anticipates that most reforms should be effective with the beginning of the next cluster study after the Commission approves the compliance filing; however, many reforms could be implemented for existing projects in queue, especially on those customers that may not have executed GIAs. Rather than specify one effective date to rule them all, the

[39] NOPR at P 156.

Commission should allow transmission providers to propose just and reasonable effective dates for each respective reform.

B. Reforms to Increase the Speed of Interconnection Queue Processing

1. Elimination of the Reasonable Efforts Standard

The Commission proposes to eliminate the reasonable efforts standard for transmission providers completing interconnection studies, and instead imposes firm study deadlines and establishes penalties that would apply when transmission providers fail to meet these deadlines.[40] The Commission proposes that ISOs/RTOs would submit filings to the Commission to assess the penalties to the responsible transmission owner. Recognizing the complexity of these proposals, the Commission seeks comment on whether there are more appropriate penalties for ISO/RTOs.

The CAISO supports eliminating the reasonable efforts standard, which the CAISO does not use. The reasonable efforts standard has only served as the exception that swallows the rule of study deadlines. The Commission should hold each transmission provider to the study deadlines it establishes in its tariff. Firm study deadlines signal to transmission owners they must actually conduct studies on time. They also provide interconnection customers and load-serving entities with a reliable, consistent schedule for procurement and construction planning.

Although the CAISO supports eliminating the reasonable efforts standard, the CAISO opposes the Commission's proposal to assess penalties for late studies because the penalties will only further enable transmission providers to miss study

[40] NOPR at P 168.

deadlines. This proved to be the case for the increased reporting requirements of Order No. 845, which only enabled transmission providers to complete studies late, and it will be the case for the NOPR's proposed financial penalties. If the Commission seeks to prohibit late studies, it should simply prohibit them. Rather than incentivize transmission providers to conduct studies on time, reporting requirements and penalties enable transmission providers to get away with late studies so long as they pay the price.

The Commission's NOPR accurately notes that the financial penalties will have perverse effects on ISO/RTOs, which depend on transmission owners for study work, but which cannot assume financial penalties themselves (being customer dependent). Instead of a complex, ineffective financial penalty system that will burden the Commission and ISOs/RTOs with constant litigation, the Commission should simply mandate firm study deadlines. Where transmission providers currently use the reasonable efforts standard to escape the unrealistic, arbitrary *pro forma* study deadlines, they can establish study timelines they can actually meet in their tariffs. If transmission providers cannot meet their established study timelines, they will be forced to amend those timelines at the Commission before failing to meet study deadlines. This higher burden will signal to transmission providers they must meet their study deadlines going forward, and will avoid burdening the Commission and stakeholders with myriad filings passing the buck of financial penalties for consistently late studies. The CAISO's proposal is achievable because it essentially reflects the system the CAISO and its transmission owners have operated under for over a decade. The CAISO has deadlines in its tariff establishing when it must start and finish each interconnection study and the annual reassessment every year. Since establishing firm

deadlines, the CAISO has only had to amend its study deadlines once due to a 241 percent increase in interconnection requests from the prior year.

The Commission also seeks comments on whether a penalty based on the number of affected customers would be more appropriate.[41] The CAISO believes such a penalty would contravene a cluster approach. By their nature, cluster studies always will affect a large percentage—even all—of the customers in the study. A customer-based penalty would be arbitrarily based on the size of the queue rather than the lethargy of the study.

2. Affected Systems

The Commission proposes to require transmission providers notify the affected system operator of a potential affected system impact caused by the interconnection request within 10 business days after the close of the first event giving rise to the identification of an affected system impact.[42] Affected systems would then have 15 days to exercise their right to conduct an affected system study. The CAISO opposes these deadlines. The Commission should not succumb to the fallacy that faster deadlines always lead to faster queues. There must be sufficient time for analysis, or the real analysis will just be pushed to a later study.

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[41] NOPR at P 173.

[42] For transmission providers utilizing a cluster study process, this event could be (1) the cluster request window, (2) the customer engagement window, (3) the cluster study, or (4) the cluster re-study as part of the first-ready, first-served cluster study process.

At the same time that the transmission provider notifies the affected system, the Commission proposes to require the transmission provider to provide the interconnection customer with a list of potential affected systems, along with relevant contact information. The transmission provider would be required to provide the affected system operator data monthly, or more frequently as needed, about its transmission system and generation in its interconnection queue for the duration of the affected system study process.

The Commission's proposed timelines to notify potentially affected systems in 10 days and affected systems to decide whether to conduct studies in 15 days are unrealistic and would have disastrous effects. The Commission must recognize the size of modern interconnection queues make such quick deadlines impossible. The results of the Commission's proposal would be that transmission providers blitz every potentially affected system with every interconnection request (no time for real analysis being possible), and the affected systems all exercise their rights to study every customer because they, likewise, have no time to determine whether studies are *not* necessary. The Commission's timelines effectively eliminate any customer's ability to *avoid* affected system studies. This result would be highly problematic because generally affected system studies can be avoided, saving the transmission provider, the affected system, and the interconnection customer time and money. Without sufficient time to determine there is *no* impact on an affected system, everyone must proceed assuming there is an impact to hedge the risk.

The Commission's proposals that affected systems schedule scoping meetings within seven days and then hold the meetings within seven days are likewise impossible. Affected systems would simply hold meaningless scoping meetings to comply, having had no time to prepare anything meaningful for the meeting. Again, the short timeline would not make the study process faster, but less effective and slower.

Additionally, the Commission's proposal to begin the affected system process as soon as potential impacts are identified will actually *slow* affected system studies. Affected systems will be hit with transmission providers' entire queues even though most interconnection customers will withdraw early in the interconnection process (and

for reasons independent of the affected system process). Rather than try to begin the affected system process as soon as possible, the Commission should require transmission providers to begin the notification process shortly after interconnection customers receive their initial study results and face higher financial requirements to proceed in queue. This is where the majority of interconnection customers will withdraw because their studies indicate high costs and they do not wish to put more money at risk. Using this smaller pool of customers will enable much faster affected system studies because of the decreased volume and more realistic study assumptions.

3. Optional Resource Solicitation Study

The Commission notes that some transmission providers operate in states that take a "portfolio approach" to resource planning, in which resource planning entities procure an entire portfolio of diverse resources that all need to interconnect to the transmission system on approximately the same timetable. Entities with these resource planning responsibilities may conduct resource solicitations that involve an assessment of need for additional resources and, if necessary, competitive acquisition processes to procure new resources.[43] The Commission proposes to require transmission providers to allow a resource planning entity[44] to initiate an optional resource solicitation study.[45] These qualifying solicitations may include all-source procurements, or procurements focused on particular geographic areas, such as offshore wind lease areas or other

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[43] NOPR at P 216.

[44] Defined as "Any entity required to develop a Resource Plan or conduct a Resource Solicitation Process, including a relevant state entity or load serving entity)."

[45] NOPR at P 223.

location-constrained resource procurements.[46] Nevertheless, the Commission clarifies that interconnection customers will maintain their queue position obtained through the cluster request window and proceed through the regular interconnection queue alongside all other customers. The resource planning entity will not obtain queue positions. The Commission states that to allow the resource planning entity sufficient time to select interconnection customers in the solicitation, it proposes a 135-day time limit on the optional resource solicitation study (compared to 150-days of the cluster study) to avoid over-burdening the transmission provider. The Commission also states it recognizes that transmission providers operating across multiple states may need flexibility in implementing this optional resource solicitation study proposal, and seeks comment on what challenges multistate transmission providers—those RTOs/ISOs that serve large, multi-state areas—may face regarding study timing, multiple concurrent studies, or other issues in offering an optional resource solicitation study option, and any proposals to mitigate such challenges.

The CAISO understands the merits of these solicitation studies; however, if the Commission's goal is to address "queue backlogs and uncertainty regarding the cost and timing of interconnecting to the transmission system," its proposed optional resource solicitation study will endanger that goal. The Commission must recognize that transmission providers are already performing as many interconnection studies as

[46] Under this proposal, a qualifying resource planning entity (including a state agency or LSE implementing state mandates) would play a facilitation role in helping group together and organize interconnection requests associated with the resource planning entity's qualifying resource solicitation process or qualifying resource plan. The resource planning entity would identify the valid interconnection requests associated with its qualifying resource solicitation process or qualifying resource plan and request that the transmission provider study several combinations of those interconnection requests in a resource solicitation study.

quickly as possible. Imposing *more* studies with arbitrary timelines will only slow interconnection studies further. Optional resource solicitation studies are a poor fit for multi-load-serving-entity and multi-procurement-authority transmission providers such as ISOs/RTOs. The examples cited in the NOPR are outside of ISOs/RTOs.[47] The Commission should not only provide regional flexibility, but recognize where these studies provide less value but the same study burdens. As the CAISO explained in Section II.A.1.i, it is impossible to provide meaningful cost data to interconnection customers for their project until the transmission provider knows precisely the entire make-up of the study cluster for that project. The burden these optional studies impose on multi-state transmission providers significantly dwarfs the benefits of these studies, which will do little to reduce queue sizes or increase queue speeds.

The CAISO also notes that if there is sufficient public information, nothing prevents load serving entities from conducting their own optional resource solicitation studies. The CAISO, for example, allows public entities that sign a non-disclosure agreement to access the CAISO's base case for interconnection studies.[48] This allows developers and potential offtakers to assess points of interconnection ahead of formal queue studies. Instead of imposing optional studies on transmission providers, the Commission should simply require transmission providers to keep their interconnection and transmission base cases available so load serving entities can conduct their own resource solicitation studies or hire consultants to do so.

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47 NOPR at P 217.

48 Section 2.3 of Appendix DD to the CAISO tariff.

C. Reforms to Incorporate Technological Advancements into the Interconnection Process

1. Increasing Flexibility in the Generator Interconnection Process

a. Co-located Resources

The Commission proposes to require transmission providers to allow more than one resource to co-locate on a shared site behind a single point of interconnection and share a single interconnection request.[49] The CAISO already allows this and supports it.

b. Modifications to Add Generating Facilities

Based on filings and testimony from the CAISO, the Commission proposes to require transmission providers to evaluate the proposed addition of a generating facility to an interconnection request if the interconnection customer does not request a change to the originally requested interconnection service level.[50] The CAISO already allows this and supports it.

c. Availability of Surplus Interconnection Service

The Commission proposes to require transmission providers to allow interconnection customers to access the surplus interconnection service process once the original interconnection customer has an executed LGIA.[51] According to the NOPR, allowing an interconnection customer to request surplus interconnection service after the original interconnection customer executes an LGIA would enable interconnection

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49 NOPR at P 242.

50 NOPR at P 255.

51 NOPR at P 264.

customers with unused interconnection capacity to let other generating facilities use that capacity earlier than is allowed. The CAISO disagrees with this view. Interconnection customers do not request to use surplus interconnection service, so further reform is unlikely to have much effect. Surplus interconnection service is unavailable no matter how the Commission defines it. Interconnection customers build their projects to accommodate their generating units. They do not oversize their interconnection capacity except for their own development purposes, meaning other interconnection customers cannot avail themselves of any "surplus" because it is already subscribed.

d. Operating Assumptions

The Commission proposes to require transmission providers to use operating assumptions for interconnection studies that reflect the proposed operation of an electric storage resource or co-located resource containing an electric storage resource (including hybrid resources), *i.e.*, whether the interconnecting resource will charge during peak load conditions, unless good utility practice, including applicable reliability standards, otherwise require the use of different operating assumptions.[52] The Commission proposes that interconnection requests specify how storage resources will operate so the transmission provider can study them.[53] Interconnection customers also must specify, as part of the initial interconnection request, the ancillary services they

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[52] NOPR at P 280.

[53] To help facilitate alignment between as-studied and real-world conditions, the Commission proposes to allow transmission providers to hold interconnection customers to the intended operation of their electric storage resource or co-located resource containing an electric storage resource (including hybrid resources) by: (1) memorializing these operating restrictions in the interconnection customer's LGIA; (2) requiring control technologies (software and/or hardware) in cases where appropriate, such as for electric storage that wishes to limit its operations, with such protection devices included in the LGIA.

would provide so the proper operating assumptions may be made in interconnection studies.

The Commission also seeks comment on whether it should (1) define firm charging service as interconnection service that allows the interconnection customer to be eligible to receive electric energy in a manner comparable to a transmission provider's load, and (2) define non-firm charging service as interconnection service that allows the interconnection customer to be eligible to receive electric energy using the existing firm or non-firm capacity of the transmission system on an "as available" basis, noting that in an RTO/ISO with market-based congestion management, a generating facility with non-firm charging service must respond to the RTO's/ISO's dispatch instructions, including curtailment to manage congestion.

If implemented as is, the NOPR would do far more than address operating assumptions; it would require transmission providers to provide firm charging options where many do not. The CAISO, for example, does not provide firm charging service. Despite numerous stakeholder initiatives on energy storage and interconnection enhancements, no developer or trade group has ever submitted comments requesting that the CAISO develop a firm charging service. This lack of interest makes sense because charging in organized electricity markets like ISOs/RTOs is not merely a question of having sufficient transmission capacity. Energy storage resources are still subject to economic dispatch. Moreover, it is unclear why developers would want to bear the costs of such upgrades. Nearly all transmission-connected storage resources have resource adequacy obligations that require them to discharge during peak

conditions. Charging during peak conditions would be even more inconsistent with these obligations than remaining idle.

If the Commission proposes to allow energy storage resources to bypass economic dispatch and charge whenever they desire—even during stressed peak conditions—it should do so expressly. The CAISO also questions whether an interconnection NOPR is the proper forum to effect such a significant change to organized markets. This proposal would have implications beyond merely interconnection and cost allocation. In Order No. 841, for example, the Commission stated that storage resources should not be assessed a transmission charge "when they are dispatched to provide a service," as doing so "would create a disincentive for them to provide the service."[54] The Commission reasoned that storage resources' "physical impacts on the bulk power system are comparable to traditional generators providing the same service."[55] Firm charging conflicts with this reasoning. When storage resources charge during stressed conditions, they neither provide a service nor behave comparably to generation. The Commission cannot exempt storage resources from the transmission charges load incurs while allowing them to receive the same level of service. A simple clarification the Commission should consider is to avoid imposing firm charging on transmission providers that do not offer it, but require transmission providers that offer firm charging to allow interconnection customers to request it at the outset of their request. Otherwise reasoned decisionmaking and the Commission's own precedent require far more details than specified in the NOPR.

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[54] *Electric Storage Participation in Markets Operated by Regional Transmission Operators and Independent System Operators*, 162 FERC ¶ 61,127 at P 298 (2018) ("Order No. 841").

[55] *Id*.

The CAISO also notes it has never observed a situation where a customer's election to provide ancillary services would affect its interconnection studies. As such, the CAISO believes it is unnecessary for interconnection customers to specify whether they will provide ancillary services in their interconnection requests. Likewise, the CAISO does not require co-located resources to specify whether they will operate as separate resources or hybrid resources operating under a single resource ID.[56] The distinction does not impact interconnection study results, so the CAISO only asks interconnection customers to specify how they will operate when they approach their commercial operation dates. The CAISO believes this approach is more sensible because power purchase agreements are the most significant factor in determining whether an interconnection project will operate as one, two, or several resources. The CAISO has many co-located resources operating as several distinct units behind a single point of interconnection because several different load-serving entities procured its capacity, and each power purchase agreement requires its own metering, settlement, and scheduling coordinator. When they submit their initial requests, an interconnection customer with a 200 MW project will not know whether it will have one offtaker for a single 200 MW resource or 10 offtakers for 20 MW resources. Requiring interconnection customers to specify their operating assumptions down to whether they will operate as co-located resources or hybrid resources is impractical and unnecessary. Imposing such a requirement would not help developers; it would constrain them.

[56] *See California Independent System Operator Corp*., 173 FERC ¶ 61,146 (2020); *California Independent System Operator Corp*., 177 FERC ¶ 61,153 (2021).

The Commission also proposes to require that any transmission provider that requires electric storage resources or co-located resources containing an electric storage resource (including hybrid resources) to install control technologies to post publicly a list of acceptable control technologies.[57] The CAISO opposes this requirement because transmission providers, especially ISO/RTOs, are not generation construction experts, and they do not know what control technologies are available. The CAISO has had similar rules to the Commission's proposal for years, and interconnection customers have never struggled to identify necessary control technologies. Specifying control technologies will only burden transmission providers and constrain interconnection customers where neither is warranted.

2. Incorporating Alternative Transmission Technologies into the Generator Interconnection Process

The Commission states that transmission providers often do not consider newer technologies—such as dynamic line ratings or advanced power flow control devices—as they identify network upgrades, and instead tend toward solutions they have more experience with, such as reconductoring a line or upgrading a transformer at a transmission substation.[58] The Commission proposes to require transmission providers, upon request of the interconnection customer, to evaluate the requested alternative transmission solution(s) during the cluster study. The Commission also proposes to require transmission providers to submit an annual informational report to the

[57] NOPR at P 280.

[58] NOPR at P 297. Specifically, providers must consider advanced power flow control, transmission switching, dynamic line ratings, static synchronous compensators, and static VAR compensators.

Commission that details whether, and if so how, they were considered in interconnection requests over the last year.

The CAISO supports the Commission's proposal to incorporate alternative transmission technologies into the generator interconnection process; however, the CAISO opposes the proposal it must be at the request of the interconnection customer. Transmission planners are already empowered to identify and employ new technologies. They do not need interconnection customers to request certain upgrades to consider them. The Commission's proposal would effectively require transmission planners and interconnection customers to negotiate each set of network upgrades, adding bureaucracy and slowing study processes. The Commission should simply require transmission providers to include tariff provisions stating they will consider certain alternative transmission technologies for every interconnection and incorporate them where they are the cost-effective solution. This would create the compliance obligation for transmission providers. If an interconnection customer believed it should have an alternative technology where the transmission provider refused, it could request an unexecuted GIA and raise the issue with the Commission.

Likewise, the CAISO opposes the Commission's annual informational report. The Commission cannot declare it will address queue backlogs and then pile more studies and reporting requirements onto the transmission provider staff that addresses queue backlogs. If these technologies are so nascent that the Commission needs to create pilot programs to collect data for them, then incorporating them now and at a national level is inappropriate. In its discussion on late studies in this NOPR, the Commission recognizes that imposing reporting requirements in Order No. 845 failed to

incentivize transmission providers to meet their study obligations.[59] The Commission should not repeat that mistake here by burdening transmission provider staff with yet another reporting requirement.

3. Modeling and Performance Requirements for Non-Synchronous Generating Facilities

Based on the CAISO's filings to revise ride-through and momentary cessation issues,[60] the Commission first proposes to require interconnection customers to submit information sufficient to model accurately the behavior of their proposed generating facilities.[61] Second, the Commission proposes to require newly interconnecting non-synchronous generating facilities to continue current injection inside the "no trip zone" of the frequency and voltage ride-through curves of Reliability Standard PRC-024-3 or its successor standards, under NERC's recommendation in the NERC IBR Guideline.[62] Specifically, the Commission proposes to revise the LGIA to require all newly interconnecting large generating facilities to ride through abnormal frequency and voltage conditions.[63] The CAISO supports these reforms, which are essential for

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59 NOPR at PP 163 *et seq*.

60 *California Independent System Operator Corp.,* 168 FERC ¶ 61,003 (2019).

61 Specifically each interconnection customer requesting to interconnect a non-synchronous generating facility to submit to the transmission provider: (1) a validated user-defined root mean square (RMS) positive sequence dynamics model; (2) an appropriately parameterized, generic library RMS positive sequence dynamics model, including a model block diagram of the inverter control system and plant control system, that corresponds to a model listed in a new table of acceptable models or a model otherwise approved by WECC; and (3) a validated EMT model, if the transmission provider performs an EMT study as part of the interconnection study process.

62 NERC IBR Interconnection Requirements Guideline at 9.

63 Any newly interconnecting non-synchronous generating facility must have the ability, during abnormal frequency conditions and voltage conditions within the "no trip zone" defined by Reliability Standard PRC-024-3 or its successor standards, to maintain power production at pre-disturbance levels unless providing primary frequency response or fast frequency response, and must have the ability to provide dynamic reactive power to maintain system voltage in accordance with the generating facility's voltage schedule.

transmission providers to maintain reliability as non-synchronous generation proliferates. The CAISO urges the Commission to impose this requirement on all interconnection customers that have not executed GIAs when the tariff requirement goes into effect. Interconnection customers arguing they have already procured certain inverters that cannot meet the requirements can request non-conforming or unexecuted GIAs. The Commission cannot afford to wait until reliability issues compound to act. These requirements are already three years old in the CAISO, and developers have been able to procure the inverters and technology required to meet them. The Commission should disregard any claims that procurement and construction requires a long transition period for customers already in queue.

The CAISO also requests that the Commission clarify its proposal to require that inverters be able to provide real power during a transitory disturbance at the same level as that just before the disturbance.[64] The CAISO does not believe this detail is necessary or prudent. Unlike synchronous generators, inverter-based generators are current limited, and generally operate at their maximum output. Maintaining real power output at pre-disturbance levels likely would inhibit their ability to provide reactive power during a disturbance, which is far more critical. Based on the CAISO's extensive experience with this issue, the CAISO recommends the Commission remove the real power requirements and require non-synchronous generators to provide *reactive power* at pre-disturbance levels. This clarification will help ensure reliability.

[64] Proposed Article 9.7.3 of *pro forma* LGIA.

III. CONCLUSION

The Commission should act on the NOPR in a manner consistent with the CAISO's comments.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 13th day of October, 2022.

/s/ Anna Pascuzzo

Anna Pascuzzo
An employee of the California ISO