UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation	**)** **)**	**Docket No. ER18-1169-___**

REQUEST FOR REHEARING OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

The California Independent System Operator Corporation (CAISO) respectfully submits this request for rehearing of the Commission's June 21, 2018 order in this proceeding.[1]

In the June 21 Order, the Commission rejected certain proposed tariff revisions in the CAISO's March 23, 2018 tariff amendment to give scheduling coordinators the flexibility to register alternative "market values" for certain resource characteristics in the CAISO's Master File, in addition to physical design capability values. The Commission rejected this aspect of the filing solely on the grounds that allowing market values different from physical values could allow market participants to exercise market power through physical withholding. The Commission also rejected other tariff revisions on the grounds that they were not severable from the market value tariff revisions. No party to this proceeding raised this issue and no party argued that the CAISO's existing market rules do not address this issue in light of the CAISO's proposed changes to the resource characteristics requirements.

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[1] *Cal. Indep. Sys. Operator Corp.*, 163 FERC 61,211 (2018) (June 21 Order). The CAISO submits this request pursuant to Section 313(a) of the Federal Power Act, 16 U.S.C. § 824*l*(a), and Rule 713 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.713.

The Commission should grant rehearing. The Commission erred in not recognizing that CAISO market rules include a robust resource adequacy program and CAISO backstop authority to procure additional resources that impose a must-offer obligation on resources procured under these programs that protects against physical withholding. The Commission did not explain how in light of these rules, the market value tariff revisions could result in the exercise of market power in the CAISO market. These programs ensure that sufficient resources with the necessary characteristics will be offered and available in the market. The CAISO also has tariff authority to issue exceptional dispatch instructions both to needed resource adequacy resources and to non-resource adequacy resources based on their physical design capabilities.

The Commission has previously recognized that existing statutory, regulatory, and CAISO tariff requirements effectively obligate entities participating in the CAISO markets to refrain from exercising market power through physical withholding, and impose penalties for engaging in such behavior, such that additional protections are not required. The June 21 Order did not acknowledge any of these existing measures that protect against physical withholding or the relevant precedent regarding their efficacy in protecting against physical withholding in the CAISO markets. Consistent with the Commission's prior findings, these existing measures are sufficient to protect against physical withholding, and no further protections are necessary regarding the utilization of alternative values.

Allowing scheduling coordinators to utilize alternative market values will not increase the risk of resource adequacy or non-resource adequacy resources attempting to exercise market power. The CAISO's proposal will improve the efficiency of the CAISO's markets and better encourage resource participation. Under the current market structure, resources that may not want to participate to the full extent of their operating capacity in the market for capacity that is not under must-offer obligation, could either refrain from bidding entirely or self-schedule. Both of these options reduce system flexibility and economic bidding behavior and therefore constrain the CAISO's ability to clear the market economically. Allowing the use of alternative market values would incentivize resources to participate economically in the CAISO markets with capacity in excess of the must-offer obligations. This would reduce the need for exceptional dispatch of such units when the system needs additional capacity. Given the multiple existing mechanisms the Commission has found already effectively protect against the exercise of market power through physical withholding in the CAISO markets, these benefits clearly outweigh the downsides envisioned in the June 21 Order.

Therefore, on rehearing the Commission should find that the market value tariff revisions are just and reasonable for the reasons explained in the March 23 Tariff Amendment, the CAISO's answer to comments, and this request for rehearing. The Commission should also find on rehearing that the June 21 Order erred in rejecting the other tariff revisions on the grounds that they were not severable from the market value tariff revisions. The Commission's June 21

Order was erroneous because it rejected the CAISO's resource characteristics rule changes solely on the basis that the CAISO had not adequately addressed physical withholding and ignored existing rules that address physical withholding, which the CAISO did not seek to alter in this proceeding.

I. Background

A. The March 23 Tariff Amendment

On March 23, 2018, the CAISO filed proposed revisions to its tariff to implement its commitment cost enhancements phase 3 (CCE3) initiative. Among other changes,[2] the March 23 Tariff Amendment included the resource characteristics-related tariff revisions to allow for additional flexibility regarding certain characteristics of all resources (*i.e.*, resource adequacy resources and non-resource adequacy resources) participating in the CAISO markets. The current tariff requires that all information provided to the CAISO regarding the operational and technical constraints of resources registered in the CAISO database of resource information, known as the Master File, be accurate and actually based on the physical characteristics of the resources.[3] The CAISO

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[2] Those other changes, which are not addressed in this request for rehearing, included: (1) implementing a methodology to allow eligible resources to include opportunity cost adders to their commitment costs and energy bid costs; (2) limiting the registered cost methodology to resources with fewer than 12 months of locational market pricing data that seek opportunity cost adders; (3) permitting eligible resources to renegotiate outdated or erroneous negotiated values used for commit cost and generated energy bids; (4) clarifying the definition of use-limited resources; and (5) making certain tariff clarifications unrelated to this request for rehearing. Transmittal letter for March 23 Tariff Amendment at 13-29, 34-35. The Commission accepted the listed changes in the June 21 Order, effective November 1, 2018 as requested by the CAISO, subject to the submittal of certain further tariff revisions in a compliance filing. June 21 Order at PP 32-35, 53, and Appendix.

[3] Existing tariff section 4.6.4. For the sake of clarity, this request for rehearing distinguishes between existing tariff provisions (*i.e.*, provisions in the current CAISO tariff), proposed tariff provisions (*i.e.*, provisions that the CAISO proposed to add to the tariff in the

proposed to clarify the informational requirements applicable to those physical characteristics and to rename them as "design capability values." The CAISO also proposed to give scheduling coordinators the new flexibility to register alternative "market values" for default use in the CAISO's markets for several operating characteristics in the Master File – namely, maximum daily start-ups, maximum daily number of multi-stage generating resource (MSG) transitions, and ramp rate values – in addition to the resource's design capability values.[4]

Those latter tariff revisions are referred to in this request for rehearing as the "market value tariff revisions" or the "market value proposal."[5] Specifically, the CAISO proposed to allow a scheduling coordinator to register the following market values for a participating generator:

- Maximum daily start-ups, which must consist of at least two start-ups per day unless either the design capability of the resource is one start-up per day or the resource is nearing the end of, or operating beyond, its useful operating life and is no longer capable of more than one start per day.
- Maximum daily number of MSG transitions, which must consist of at least two transitions for every transition of the MSG resource

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March 23 Tariff Amendment), and revised tariff provisions (*i.e.*, tariff provisions that the CAISO proposed to revise in the March 23 Tariff Amendment).

4 Transmittal letter for March 23 Tariff Amendment at 29-33.

5 The market value tariff revisions were included in proposed tariff section 4.6.4.2. Under the rubric of tariff revisions on resource characteristics registered in the Master File, the CAISO included two sets of revisions: (1) the market value tariff revisions; and (2) the design capability value tariff revisions described above, which were included as revisions to existing tariff section 4.6.4 and designated under proposed tariff section 4.6.4.1.

registered in the CAISO's transition matrix contained in the Master File unless either the design capability is one MSG transition per day or the resource is nearing the end of, or operating beyond, its useful operating life and is no longer capable of more than one transition per day.[6]

- Operational ramp rate values that must be sufficient to permit the resource to provide its flexible resource adequacy capacity obligation.[7]

These market value tariff revisions would give scheduling coordinators flexibility to register their preferred Master File values for use during market operations, subject to the restrictions described above.[8] This flexibility would allow scheduling coordinators for all resources to participate in the market and reflect their resources' characteristics (including contractual limitations) as they choose, while the CAISO would continue to be authorized to issue exceptional dispatch instructions as needed based on their design capabilities.[9]

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[6] With regard to the maximum daily start-ups and maximum daily number of MSG transitions, the March 23 Tariff Amendment explained that the CAISO system faces a twice-daily peak, once in the morning and again in the afternoon. Requiring at least two start-ups or MSG transitions per day under the market values would mitigate the concern that a resource could exploit this aspect of CAISO load patterns by only starting or transitioning once per day and essentially forcing the CAISO to keep the resource on all day even if it is not needed during the middle of the day. Transmittal letter for March 23 Tariff Amendment at 31.

[7] The CAISO provides further discussion regarding resource adequacy below in section I.C of this request for rehearing.

[8] For example, if a resource is physically capable of starting five times per day, the scheduling coordinator must register five start-ups per day in the Master File to comply with the existing tariff. Pursuant to the market value tariff revisions, however, the scheduling coordinator could also choose to register a market value of two, three, or four start-ups per day, instead of just being obligated by the tariff to register five start-ups per day for the resource.

[9] Transmittal letter for March 23 Tariff Amendment at 30.

The resource characteristics revisions would also give the CAISO the authority to reject a market value either proposed for registration in the Master File or already registered in the Master File if that value is infeasible given the design capabilities of the resource or inconsistent with a resource's commitment to provide resource adequacy capacity. If the CAISO rejected a market value, the CAISO would use the design capability value in the CAISO market.

In the March 23 Tariff Amendment, the CAISO also proposed that market participants have flexibility to register market value ramp rates (operational, operating reserve, and regulation ramp rates) in addition to design capability ramp rates. The CAISO proposed to eliminate the option under the existing tariff for daily bidding of ramp rates, which, though available, has not been utilized by market participants.[10] In addition, the CAISO proposed to make certain ministerial tariff clarifications to implement the Master File and ramp rate proposals described above.[11]

A number of parties filed comments and protests that focused primarily on the proposed tariff provisions related to the opportunity costs in the March 23 Tariff Amendment.[12] The Commission accepted the tariff revisions related to opportunity costs, subject to a compliance filing. No party argued that the Commission should reject the proposed tariff revisions related to the resource characteristics, market value ramp rates, or ministerial clarifications. Moreover,

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[10] *Id.* at 33-34 (listing tariff provisions affected by these changes).

[11] *Id.* at 34-35 (listing tariff provisions affected by these changes).

[12] As explained in footnote 2 above, the Commission accepted the tariff revisions related to opportunity costs, subject to a compliance filing.

no party argued that the proposed changes increased the likelihood of physical withholding, or that the existing rules do not adequately protect against physical withholding in light of the CAISO's proposed changes.

B. The June 21 Order

In the June 21 Order, the Commission found that the "CAISO has not sufficiently shown that the proposal to allow scheduling coordinators to register market values in the Master File for certain resource characteristics is just and reasonable."[13] The Commission's finding was based solely on its statement that the CAISO had failed to demonstrate that the market value proposal was just and reasonable was because it was "concerned that, outside of exceptional dispatch, CAISO's proposal does not include a mechanism to ensure that market values cannot be used to undermine the market's economic resource dispatch when transmission constraints or other supply limitations create opportunities for the exercise of market power."[14]

The Commission went on to explain why it believed there was a risk that resources could use market values to exercise such market power:

> Under CAISO's proposal, the use of market value parameters that do not reflect the full design capability of resources may have the effect of reducing the amount of capacity available to the market. Permitting market participants to make less capacity available to the market raises the potential for physical withholding, which can affect dispatch and increase energy and ancillary service prices that may benefit the market participants' affiliated resources. At times of tight supply conditions, it is more likely that withholding capacity could be a profitable action. CAISO does not propose

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[13] June 21 Order at P 44.

[14] *Id.*

market power mitigation provisions to address this concern.[15]

The Commission stated that its concern regarding the ability of resources to withhold capacity is not addressed by the CAISO's existing market power mitigation provisions, because the CAISO "lacks the ability to adjust market value parameters should a resource withhold capacity."[16] The Commission found that "the introduction of market values creates a need for CAISO to assess whether a market participant is using a resource's market value to engage in physical withholding, and if so, to mitigate that parameter to the design capability."[17] Although the Commission "recognize[d] that CAISO has proposed certain limitations to the market values to mitigate the concern that a unit could exploit the CAISO system's typical twice-daily peak load pattern," the Commission found that "CAISO has not demonstrated that the limitations will be sufficient in all circumstances, e.g., in a scenario where a resource lowers its ramp rate or maximum daily startup market values allowing it to engage in physical withholding."[18]

The Commission also "reject[ed] CAISO's proposal to replace physical characteristics with design capability values because it is not severable from the

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15 *Id.* at P 45 (citations omitted). Although the June 21 Order did not define physical withholding, the Commission has explained elsewhere that "the term 'physical withholding' means not offering available supply in order to raise the market clearing price." *Investigation of Terms and Conditions of Public Utility Market-Based Rate Authorizations*, 105 FERC ¶ 61,218, at P 102 n.56 (2003). In contrast, "the term 'economic withholding' means bidding available supply at a sufficiently high price in excess of the supplier's marginal costs and opportunity costs so that it is not called on to run and where, as a result, the market clearing price is raised." *Id.* at P 102 n.57.

16 *Id.* at P 46.

17 *Id.*

18 *Id.*

market values proposal."[19] The Commission found that they are not severable because "[t]he design capability proposal is in the same tariff record as the market values proposal, and thus, since we are rejecting the market values proposal, we must also reject the design capability values proposal."[20]

Further, the Commission "reject[ed] CAISO's proposal to revise the tariff to remove all ramp rates as components of daily bids because it is not severable from the Master File proposal," which included the rejected proposal to implement the resource characteristic tariff revisions.[21] The sole reason the Commission gave for its rejection was that "[i]f we were to accept the ramp rate proposal and reject the Master File proposal, scheduling coordinators would lose the flexibility currently afforded to them by the existing daily bid-in ramp rate functionality."[22] Lastly, the Commission rejected the CAISO's proposed clarifications to certain tariff sections "because those sections contain edits to implement the Master File and ramp rate proposals."[23]

None of the directives in the June 21 Order addressed resource adequacy requirements. The June 21 Order only included references to resource adequacy requirements in its descriptions of the CAISO's proposals, the comments and protests regarding those proposals, and the CAISO's answer to

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19 *Id.* at P 47.

20 *Id.*

21 *Id.* at P 53.

22 *Id.*

23 *Id.*

the comments and protests.[24]

C. Resource Adequacy Requirements

1. The Resource Adequacy Program and the CAISO Tariff

The resource adequacy program was established by California law. Pursuant to the program, the CAISO works collaboratively with the California Public Utilities Commission (CPUC) and other local regulatory authorities to develop procurement requirements to ensure that the capacity procured by the load-serving entities (LSEs) under their respective jurisdictions is adequate to meet the CAISO's operational needs and maintain grid reliability.[25] The resource adequacy program requires that LSEs procure resource capacity to meet their forecasted load, plus a reserve margin, local area capacity needs, and their share of flexible resource adequacy requirements.[26]

Under the CAISO tariff, resources designated to meet local and system (*i.e.*, non-flexible) resource adequacy requirements have must-offer obligations to make their resource adequacy capacity available to the CAISO markets through economic bids or self-schedules.[27] Each local and system resource adequacy

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[24] *See id.* at PP 14, 19 & n.34, 21, 24 & n.42, 28, 37 n.67, 38, 42, 52. The Commission accepted the CAISO's answer, which was filed on April 26, 2018, because it provided information that assisted in the Commission's decision-making process. *Id.* at P 10.

[25] Information regarding the resource adequacy program is available on the CPUC website at http://www.cpuc.ca.gov/RA/.

[26] The CPUC has recently instituted a proceeding to examine, among other things, whether to change the basic structure of the resource adequacy program. *Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Local and Flexible Procurement Obligations for the 2019 and 2020 Compliance Years*, CPUC Docket No. R-17-09-020 (Sept. 28, 2017). That CPUC proceeding is ongoing.

[27] Existing tariff sections 40.5, 40.6. The resource adequacy program specifies capacity attributes the resource is required to provide but not necessarily require the resource to provide its full capability.

resource is required to provide capacity consistent with its must-offer obligation. The tariff also includes a flexible capacity resource adequacy requirement to ensure the resource adequacy fleet has adequate flexibility (*i.e.*, sufficient numbers of available starts and sufficient ramping capability) and a must-offer obligation to meet the forecasted operational needs of the CAISO balancing authority area, including increased ramping and other flexibility needs.[28]

The CAISO added flexible resource adequacy requirements for LSEs to ensure that the resource adequacy fleet has sufficient capabilities and must-offer obligations to meet the increasing ramping and other flexibility needs of the CAISO balancing authority area. These resource adequacy flexible capacity requirements specifically include minimum amounts of capacity in categories defined by minimum numbers of available starts per day to ensure that the CAISO market has a sufficient number of resources that it can start-up and shutdown to meet system needs. The must-offer obligation requires a scheduling coordinator for a resource supplying flexible resource adequacy capacity to submit economic bids for energy for the full amount of the resource's flexible resource adequacy capacity.[29]

The CAISO tariff also contains crucial backstop measures to address issues of resource insufficiency. If a resource is not subject to a must-offer

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[28] Existing tariff section 40.10. The tariff defines flexible capacity as the capacity of a resource that is operationally able to respond to dispatch instructions to manage variations in load and variable energy resource output. Tariff appendix A, existing definition of "Flexible Capacity". The tariff defines flexible resource adequacy capacity as the flexible capacity of a resource listed on an LSE flexible resource adequacy capacity plan and a resource flexible resource adequacy capacity plan. Tariff appendix A, existing definition of "Flexible RA Capacity".

[29] Existing tariff section 40.10.6.1(a). Existing tariff sections 40.10.6.1(e)-(h) set forth limited exceptions to the general must-offer obligation for flexible resource adequacy capacity.

obligation under the CAISO resource adequacy program and the CAISO that resource to address reliability concerns as specified in the tariff, the CAISO can procure the resource's capacity through the capacity procurement mechanism (CPM). A resource procured through the CPM has a must-offer obligation for the duration of the procurement.[30] The CAISO may also issue an exceptional dispatch instruction to a resource and thereby trigger a CPM procurement of that resource.[31] In addition, the CAISO's day-ahead market includes a residual unit commitment (RUC) process that allows the CAISO to procure capacity above resource adequacy capacity and triggers a must-offer obligation in the real-time market for resources committed through the RUC.[32]

The CAISO tariff includes a bid-based resource adequacy availability incentive mechanism (RAAIM) that creates incentives for resource adequacy resources and resources subject to the CPM to participate in the CAISO market consistent with the type of resource adequacy capacity they are providing.[33] The RAAIM assesses whether scheduling coordinators are offering local, system, and flexible resource adequacy resources into the CAISO market consistent with their must-offer obligations. The RAAIM then compares how each resource adequacy resource was required to bid into the energy market under its resource adequacy

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30 Existing tariff section 43A, *et seq.*

31 Existing tariff section 43A.2.5.

32 Existing tariff section 31.5, *et seq.* Participation in the RUC is voluntary for non-resource adequacy resources. Resources procured through the RUC in the day-ahead market have a must-offer requirement in the real-time market to ensure the CAISO can economically dispatch the capacity scheduled in the day-ahead, and the CAISO allows participants to buy back energy if it is economic to do so.

33 Existing tariff section 40.9, *et seq.*

obligation with how the resource actually bid into the energy market, and assesses a non-availability charge or makes an availability incentive payment to the resource adequacy resource based on that comparison.

In sum, these resource adequacy rules mitigate physical withholding and ensure the needed capacity and physical attributes are offered into, and utilized by, the market.

2. Non-Resource Adequacy Resources

In contrast with resource adequacy resources, non-resource adequacy resources are not subject to a must-offer obligation. As the Commission has recognized, "a non-resource adequacy resource does not have the same obligation to bid into the CAISO's markets that a resource adequacy resource has; only if a non-resource adequacy resource chooses to participate in the CAISO's markets must it follow the general bidding requirements set forth in the tariff."[34] Those general bidding requirements allow a non-resource adequacy resource to choose whether to submit an economic bid, submit a self-schedule, or decline to submit an economic bid or self-schedule into the CAISO market.[35]

The absence of a must-offer obligation for non-resource adequacy resources does not give such resources the ability to exercise market power through physically withholding of their capacity. The CAISO relies primarily on procured resource adequacy capacity so there is sufficient capacity offered to its market to avoid the adverse consequences of physical withholding in its markets.

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34 *Cal. Indep. Sys. Operator Corp.*, 131 FERC ¶ 61,149, at P 12 (2010).

35 Existing tariff section 30, *et seq.*

Also, the CAISO may issue a CPM exceptional dispatch instruction if it needs the capacity of a resource (including a non-resource adequacy resource), which will make the resource subject to a must-offer obligation for the duration of the procurement.

Existing CAISO tariff provisions that the CAISO unsuccessfully proposed to revise in the March 23 Tariff Amendment create some ambiguity on the offer rules for non-resource adequacy resources, which are not subject to a must-offer obligation, and for resource adequacy contractual limitations. Today, the tariff specifies that a resource must register its "physical" characteristics in the Master File and provides no detail as to what the CAISO considers those physical characteristics to be.[36] Over the years this has created concerns for both the CAISO and market participants that when a non-resource adequacy resource decides to bid into the market it must bid it all of its capability, regardless of economic or physical limitations that may arise out of contractual arrangements the resource owner has made or operating the unit in a manner that would undermine the reliable operation of the resource. For example, the increased variability of the CAISO's net load has resulted in many conventional generating units incurring significantly more ramping and start ups and shut downs than what would have been expected when the resources where placed in service. Continually operating certain units at or near their maximum capability can lead to dramatically increased operating and maintenance costs and potentially lead to catastrophic failure of these resources. To address this, many resources have

[36] Existing tariff section 4.6.4.

entered into contractual arrangements that limit the use of the unit to control for such adverse outcomes.

In the March 23 Tariff Amendment, the CAISO sought to address these concerns by providing a more precise meaning to what is expected of such resources in the tariff revisions regarding physical capability values while at the same time allowing resources to elect alternative market values.[37] This approach has the benefit of not only providing market participants more certainty as to the physical value registration requirements, but also ensuring that the CAISO market makes economic use of all available capacity based on rational economic behavior. Today, a non-resource adequacy resource may refrain from bidding into the market because it may not wish to run to its full capacity as designed but may fear risking a referral to the Commission if it does not register its resource's characteristics to be the full design capability of the resource. Alternatively, rather than managing the way the market uses its resource's through operational characteristics in the Master File, the market participant's only alternative is to not submit bids to the market for certain hours. This may lead to a shortage of economic bids in the market at times when the CAISO needs resources the most. The current CAISO tariff rules require market participants to submit values to the Master File based on "physical" resource characteristics, without additional guidance on what is "physical." Market participants have argued that a value less than the maximum design capability

[37] As explained above, the June 21 Order rejected the tariff revisions providing greater clarity as to the physical values that must be registered in the Master File on the grounds that they were in the same tariff record as, and not severable from, the market value tariff revisions. June 21 Order at P 47.

nevertheless reflects a resource's physical characteristics because the market participant has made an economic tradeoff in the capabilities submitted to the Master File based on the physical characteristics of the plant (*e.g.*, the number of starts between maintenance cycles or the wear and tear at various ramping rates). The CAISO's proposal to modify these terms to specify the "design capabilities" of the resource is more objective because it refers to a resource's maximum capability as designed.

II. Statement of Issues and Specifications of Error

The CAISO specifies the following issues and errors in accordance with Commission Rule 713(c)(2):

1. Whether the June 21 Order erred in rejecting the market value tariff revisions on the grounds that implementing them would create a risk that resources would exercise market power through physical withholding.[38] The Commission should find on rehearing that the June 21 Order erred because its sole reason for rejecting the market value tariff revisions was unfounded. The CAISO tariff and other aspects of the resource adequacy program administered by local regulatory authorities ensures that sufficient resources with the necessary characteristics must be offered and available through the CAISO's resource adequacy program and other backstop measures, and the CAISO will continue to have the authority to issue exceptional dispatch instructions based on the physical design capability of the resources if those resources are needed. Moreover, all entities participating in the CAISO markets are obligated by statute,

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[38] *Id.* at PP 44-46.

regulation, and the CAISO tariff not to exercise market power through physical withholding. Sections 222 and 316A of the Federal Power Act (FPA), 16 U.S.C. §§ 824v, 825o-1; 18 C.F.R. § 1c.2(a); *West-Wide Must-Offer Requirements*, 157 FERC ¶ 61,051 (2016); *Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,076 (2007). As such, the introduction of market values would not increase the risk that resources would exercise market power through physical withholding. On the other hand, the CAISO's proposal will provides tangible benefits in improving market efficiency by encouraging resources without a must-offer obligation that otherwise may decline to bid economically any of their capacity to offer at least some portion of that capacity. Therefore, the Commission should find that the market value tariff revisions are just and reasonable for the reasons explained in the March 23 Tariff Amendment and the CAISO's answer in this proceeding. *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,132 (2011).

2. Whether the June 21 Order erred in rejecting the proposed tariff revisions that the June 21 Order rejected on the grounds that they are not severable from the market value tariff revisions.[39] The Commission should find on rehearing that the June 21 Order erred because its rejection of the market value tariff revisions was in error for the reasons explained in (1) above and, therefore, its related rejection of the other proposed tariff revisions due to their purported non-severability was also in error.

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[39] *Id.* at PP 47, 53.

III. Request for Rehearing

The sole reason the June 21 Order found the resource characteristics tariff revisions not to be just and reasonable was due to the Commission's concerns that implementing them would create a risk that resources would exploit their ability to register market values in the Master File to exercise market power through physical withholding.[40] The Commission also rejected the CAISO's proposals regarding design capability values, ramp rates, and tariff clarifications to implement the Master File and ramp rate proposals solely on the grounds that they are not severable from the market value proposal.[41]

The CAISO explains below that the Commission's concerns that the market value tariff revisions create a risk of market power through physical withholding are unfounded. A number of existing statutory, regulatory, and CAISO tariff requirements already obligate entities participating in the CAISO markets to refrain from such behavior and penalize them for doing so. Further, the introduction of market values would not increase the risk that either resource adequacy resources or non-resource adequacy resources would exercise market power through physical withholding.

Because the sole basis for the Commission's rejection of the market value tariff revisions is without foundation, the Commission should find on rehearing that those tariff revisions are just and reasonable for the reasons explained in the

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[40] *Id.* at PP 44-46.

[41] *Id.* at PP 47, 53.

March 23 Tariff Amendment and the answer the CAISO filed in this proceeding.[42] The Commission should likewise find on rehearing that the tariff revisions regarding design capability values and ramp rates, and the tariff clarifications to implement the Master File and ramp rate proposals, which the June 21 Order rejected solely due to its rejection of the market value proposal, are just and reasonable for the reasons explained in the March 23 Tariff Amendment, the CAISO's answer, and this request for rehearing. Also, with regard to the tariff revisions regarding design capability values, the Commission has left ambiguity in the CAISO tariff that can result in reduced economic participation by non-resource adequacy resources in the CAISO markets.

A. The June 21 Order Failed to Recognize the Numerous and Sufficient Protections Already Contained in the CAISO Tariff and Other Sources that Prevent the Exercise of Market Power Through Physical Withholding

In the June 21 Order, the Commission found that the tariff revisions on resource characteristics registered in the Master File do not include a mechanism to ensure that resources cannot use market values to exercise market power through physical withholding.[43] However, the June 21 Order ignores existing mechanisms and requirements the Commission has previously acknowledged that preclude participants in the CAISO markets from engaging in such behavior.

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[42] *See, e.g.*, *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,132, at P 16 (2011) (finding that "the Commission was obligated to accept a section 205 filing that was shown to be just and reasonable.").

[43] June 21 Order at PP 44-46.

In 2016, the Commission issued an order terminating the West-wide must-offer requirement imposed on public and non-public utility sellers in the Western Electricity Coordinating Council (WECC) during the California energy crisis of 2000-01, as well as the attendant requirement that all sellers in the WECC must post the amount of capacity they have for sale each day.[44] The Commission found that those requirements were no longer necessary due to infrastructure and market design improvements that have been made since the energy crisis, including "a resource adequacy program . . . [that has] contributed to a well-functioning CAISO market."[45] The Commission specifically rejected the argument that terminating the requirements could allow resources in the WECC to exercise market power through physical withholding:

> With regard to PG&E's concern that generators in the WECC should not be able to physically withhold capacity to raise prices artificially, we note that resources in the WECC that have a resource adequacy obligation to CAISO load-serving entities continue to have a must-offer requirement under CAISO's tariff. Furthermore, these and other resources that do not have a resource adequacy contract with CAISO's load-serving entities (indeed, under FPA section 222, any entity), are prohibited under the statute and the Commission's regulations from engaging in electric energy market manipulation.[46]

The June 21 Order does not mention either the resource adequacy requirement or any of the existing market manipulation rules, which prevent both resource adequacy resources and non-resource adequacy resources from using market values to exercise market power through physical withholding.

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[44] *West-Wide Must-Offer Requirements*, 157 FERC ¶ 61,051 (2016) (West-Wide Order).

[45] *Id.* at PP 14-15.

[46] *Id.* at P 17 (citation omitted).

Resource adequacy resources are subject to must-offer requirements under the CAISO tariff. If a resource providing resource adequacy capacity fails to satisfy its must-offer requirement, it will be subject to non-availability charges under the RAAIM. The June 21 Order, however, did not address the CAISO's resource adequacy requirements at all and instead faulted the March 23 Tariff Amendment for not including any market power mitigation provisions.[47] In the orders accepting the CAISO's current market design,[48] the Commission explained that the resource adequacy program is itself an essential component of market power mitigation:

> The nexus between resource adequacy and the reliability and market functions of the CAISO could not be clearer or more significant. As the Commission stated in [its] September 2006 Order, "one party's resource adequacy decisions can cause adverse reliability and costs impacts on other participants in a regionally operated system." *Further, resource adequacy is necessary to ensure that energy market bid caps effectively restrict the ability of sellers to exercise market power but do not result in insufficient generating capacity being added to meet the longer term capacity needs of customers*.[49]

Due to the inherent role of the resource adequacy program in market power mitigation, there was no need for the CAISO to propose new market power mitigation provisions in the March 23 Tariff Amendment. Under the CAISO's proposal, resource adequacy resources would continue to be obligated to satisfy

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[47] June 21 Order at PP 44-46.

[48] The CAISO's current market design was called the Market Resign and Technology Upgrade (MRTU) in the filings and orders that established it.

[49] *Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,076, at P 552 (2007) (emphasis added) (quoting *Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,274, at P 1113 (2006)). *See also Cal. Indep. Sys. Operator Corp.*, 112 FERC ¶ 61,310, at P 39 (2005) ("We believe that the mitigation package approved in principle for the MRTU, in combination with the strong market behavior rules and the must-offer obligation for resource adequacy resources, is sufficient to prevent the exercise of market power.").

their must-offer obligations, and to not exercise market power, even after the market value tariff revisions went into effect. Indeed, those tariff revisions were written to explicitly reinforce the existing must-offer obligations under the resource adequacy program. The market value tariff revisions specify that "Operational Ramp Rate values must be sufficient to permit a resource to provide its Flexible RA Capacity obligation" and that "[t]he CAISO has the authority to reject a market value . . . if that value is infeasible given the design capabilities of the resource or is inconsistent with a Participating Generator's commitment to provide Resource Adequacy Capacity."[50] The June 21 Order did not even address the CAISO's resource adequacy requirements, much less explain why they would be any less sufficient at preventing the exercise of market power under the CAISO's market value proposal. This deficiency is particularly acute given the explicit protections built into the CAISO's proposal to ensure that it would not impact or undermine existing resource adequacy obligations.

Further, all resources, whether or not they provide resource adequacy capacity, are prohibited by FPA Section 222 from using "any manipulative or deceptive device or contrivance . . . in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of electric ratepayers."[51] The regulations the Commission has established to prohibit such electric energy market manipulation state:

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[50] Proposed tariff sections 4.6.4.2 and 4.6.4.2(3).

[51] FPA Section 222, 16 U.S.C. § 824v.

> It is unlawful for any entity, directly or indirectly, in connection with the purchase or sale of electric energy or the purchase or sale of transmission services subject to the jurisdiction of the Commission,
>
> (1) To use or employ any device, scheme, or artifice to defraud,
>
> (2) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or
>
> (3) To engage in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity.[52]

The CAISO and its Department of Market Monitoring (DMM) are vigilant in assessing the conduct of CAISO market participants to ensure that physical withholding does not occur and if it does, to refer such behavior promptly to the Commission. The CAISO tariff specifies physical withholding of an electric facility as one of the "categories of conduct . . . [that] may cause a material effect on prices or generally the outcome of the CAISO Markets if exercised from a position of market power."[53] The tariff states that "the CAISO shall monitor the CAISO Markets for [the] categories of conduct, and shall impose appropriate Mitigation Measures if such conduct is detected."[54] The specified sanction is that "[t]he CAISO may report a Market Participant the CAISO determines to have engaged in physical withholding" to the Commission.[55]

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52 18 C.F.R. § 1c.2(a).

53 Existing tariff section 39.3.1. The tariff states that "[p]hysical withholding of an Electric Facility, in whole or in part, [means] not offering to sell or schedule the output of or services provided by an Electric Facility capable of serving the CAISO Market." Existing tariff section 39.3.1(1). The section goes on to provide a non-exclusive list of what may constitute physical withholding.

54 Existing tariff section 39.3.1.

55 Existing tariff section 39.4.

The Commission explains on its website that "[c]onduct involving fraud and market manipulation poses a significant threat to the markets overseen by the Commission, and is an enforcement priority. Such misconduct undermines the Commission's goal of providing efficient energy services at a reasonable cost, because the financial harm imposed by such actions ultimately is borne by consumers."[56] The Commission is empowered to assess significant penalties for violations of FPA Section 222 and the associated regulations prohibiting electric energy market manipulation. FPA Section 316A authorizes the Commission to assess a civil penalty to any person who violates any provision of Part II of the FPA – including FPA Section 222 – or any provision of a rule or order thereunder, in an amount of up to $1 million per day for each day the violation continues.[57]

The Commission has exercised this authority in a number of proceedings.[58] For example, in 2016, the Commission assessed a penalty of $26 million to Coaltrain Energy, L.P. (jointly and severally with specified individuals) and also assessed penalties to individuals in amounts ranging from $500,000 to $5 million, for taking part in a scheme to engage in fraudulent transactions in the PJM Interconnection, L.L.C. energy markets to garner excessive amounts of certain credit payments to transmission customers.[59] The

[56] https://www.ferc.gov/enforcement/market-manipulation.asp.

[57] FPA Section 316A(b), 16 U.S.C. § 825o-1(b).

[58] See https://www.ferc.gov/enforcement/civil-penalties.asp, at link entitled "All Civil Penalty Actions."

[59] *Coaltrain Energy, L.P., et al.*, 155 FERC ¶ 61,204, at P 1 (2016). The penalty was also assessed to Coaltrain Energy, L.P. for violating Commission regulations that prohibit a seller from

Commission also required disgorgement of unjust profits with interest.[60]

In sum, the statutory, regulatory, and CAISO tariff requirements described above prohibit any resource adequacy resource or non-resource adequacy resource from exercising market power through physical withholding and impose penalties for engaging in such behavior. Moreover, those prohibitions are actively enforced both by the CAISO and the Commission.

Nowhere did the June 21 Order explain how or why such existing mechanisms would be insufficient. Therefore, the June 21 Order erred in rejecting the tariff revisions on resource characteristics registered in the Master File on the grounds that they do not include a mechanism to prevent resources from using market values to engage in market power through physical withholding.

B. The Market Value Tariff Revisions Do Not Increase the Risk that Resources Could Exercise Market Power Through Physical Withholding

The CAISO recognizes that there is always some risk that a resource participating in the CAISO markets may seek to exercise market power through physical withholding, despite the existing statutory, regulatory, and CAISO tariff provisions that prohibit and penalize such behavior. Nevertheless, neither DMM nor any other party raised concerns that the market value tariff revisions would increase the ability of a resource to exercise market power through physical

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submitting false or misleading information to, or omitting material information from, Commission staff. *Id.*

[60] *Id.*

withholding. The June 21 Order was incorrect in asserting that the market value tariff revisions increase that risk.[61] For both resource adequacy resources and non-resource adequacy resources, the risk would be no greater after the market value tariff revisions went into effect.

Resource adequacy resources that meet their must-offer obligations are not exercising market power through physical withholding.[62] A resource adequacy resource would be required to meet its must-offer obligation no matter whether the CAISO was utilizing the resource's design capability values or market values. Therefore, implementing the market value tariff revisions would not create any incentive for a resource adequacy resource to violate its must-offer obligation and thereby increase the risk that it would exercise market power through physical withholding.

Nor would implementing the market value tariff revisions increase the risk that non-resource adequacy resources would exercise market power through physical withholding. Non-resource adequacy resources are under no must-offer obligation and thus are able to refrain from economic bidding if they choose. That would not change if the market value tariff revisions were in effect. The CAISO would continue to rely primarily on procured resource adequacy capacity to avoid adverse consequences of physical withholding in its markets. The CAISO would also continue to have the authority to issue a CPM exceptional dispatch instruction if it needed the capacity of a resource (including a non-

61 *See* June 21 Order at PP 44-46.

62 *See* West-Wide Order, 157 FERC ¶ 61,051, at P 17.

resource adequacy resource), which would make the resource subject to a must-offer obligation for the duration of the procurement. Thus, implementing the market value tariff revisions would not increase the ability of non-resource adequacy resources to exercise market power through physical withholding.

In the June 21 Order, the Commission expressed concern that "the use of market value parameters that do not reflect the full design capability of resources may have the effect of reducing the amount of capacity available in the market" and that "[p]ermitting market participants to make less capacity available to the market raises the potential for physical withholding."[63] If the Commission is suggesting that non-resource adequacy resources are required to bid to their full design capability that is incorrect and may be harmful to the markets. Although non-resource adequacy resources are prohibited from exercising market power through physical withholding, they are also not subject to a must-offer obligation. Requiring non-resource adequacy resources to bid to their full design capability would essentially impose a must-offer obligation on them, even though they do not provide resource adequacy capacity. Some non-resource adequacy resources may have an incentive to bid all of their capacity for fear of being referred to the Commission for physical withholding. Other non-resource adequacy resources may deem the safest course to be to not bid into the markets at all. Either course of action would be contrary to the CAISO's market design and the terms on which non-resource adequacy resources agreed to participate in the markets.

[63] June 21 Order at P 45.

C. The CAISO's Proposal Will Improve the Efficiency of its Markets

Under the CAISO's current tariff, non-resource adequacy resources that wish to avoid an undesirable dispatch have only two options – not bidding or submitting self-schedules. This is undesirable from a market efficiency standpoint because it forces such resource owners to choose between two non-optimal outcomes. They either can offer no capacity into the CAISO markets or offer capacity under a construct (self-scheduling) that does not permit that capacity to be dispatched economically. By allowing resources to designate market values and thereby bid in some, but not all, of their capacity, the CAISO's proposal will provide a greater incentive for non-resource adequacy resources to offer at least some portion of their capacity economically. Therefore, contrary to the June 21 Order, the CAISO's proposal is likely to result in non-resource adequacy resources offering *more* capacity into the CAISO markets rather than withholding it (perhaps due to concerns that a failure to offer less than their full physical capacity would constitute a tariff violation).

Moreover, as explained in the March 23 Tariff Amendment, the CAISO's proposal will help avoid excessive wear and tear on resources as well as creating greater flexibility for resource owners to manage contractual limitations which, after a three-year cutoff period, will no longer be eligible for opportunity cost adders.[64] These myriad benefits manifestly outweigh the remote risk of additional market abuses, which as explained above, are already sufficiently

[64] Transmittal letter for March 23 Tariff Amendment at 30-31.

deterred and mitigated by existing tariff mechanisms, statutes, and regulations. Therefore, the Commission should grant rehearing and permit the CAISO to implement the market value tariff revisions contained in the March 23 Tariff Amendment.

D. The Commission Should Accept the Tariff Revisions that the June 21 Order Rejected Solely As a Consequence of Rejecting the Market Value Tariff Revisions

The June 21 Order did not make any finding that the tariff revisions regarding design capability values and ramp rates, and the tariff clarifications to implement the Master File and ramp rate proposals, are unjust and unreasonable. Instead, the June 21 Order rejected those tariff revisions solely on the grounds that they are not severable from the market value proposal.[65]

As explained above, the June 21 Order erred in rejecting the market value proposal. Therefore, the Commission should find on rehearing that the June 21 Order also erred in rejecting the tariff revisions regarding design capability values and ramp rates, and the tariff clarifications to implement the Master File and ramp rate proposals, and should find that those tariff revisions are just and reasonable for the reasons explained in the March 23 Tariff Amendment, the CAISO's answer, and this request for rehearing.

[65] June 21 Order at PP 47, 53.

IV. Conclusion

For the foregoing reasons, the CAISO respectfully requests that the Commission grant rehearing of the June 21 Order and accept the tariff revisions contained in the March 23 Tariff Amendment as discussed above.

Respectfully submitted,

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Dated: July 23, 2018

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon all of the parties listed on the official service list for the above-referenced proceeding, pursuant to 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 23rd day of July, 2018.

/s/ Grace Clark
Grace Clark