

168 FERC ¶ 61,199
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;
Richard Glick and Bernard L. McNamee.

California Independent System Operator Corporation Docket No. ER19-1641-001

ORDER ACCEPTING TARIFF REVISIONS

(Issued September 27, 2019)

1. On April 23, 2019, pursuant to section 205 of the Federal Power Act (FPA),¹ the California Independent System Operator Corporation (CAISO) filed tariff revisions to enhance its Reliability Must Run (RMR) framework and further differentiate its RMR program from its backstop procurement authority under the Capacity Procurement Mechanism (CPM) provisions of its tariff.² In this order, the Commission accepts CAISO's proposed tariff revisions, subject to condition, as discussed below, effective September 28, 2019, as requested.

I. Background

2. Since 2006, CAISO and the local regulatory authorities within its balancing authority area, chiefly the California Public Utilities Commission (CPUC), have jointly administered the resource adequacy program. The resource adequacy program requires that load serving entities procure capacity to meet their forecasted peak load plus a reserve margin, as established by their local regulatory authority, as well as local and flexible capacity, as determined by CAISO.

3. To remedy unresolved resource adequacy deficiencies, CAISO relies on backstop capacity procurement authority under the CPM provisions of its tariff.³ In 2011, the Commission accepted a new category of CPM procurement, "risk of retirement CPM," which would permit CAISO to procure capacity from a non-resource adequacy resource

¹ 16 U.S.C. § 824e (2018).

² On May 3, 2019, CAISO made a supplemental filing to submit portions of Attachments A-1 and B-1 that were inadvertently omitted from its April 23, 2019 submittal.

³ CAISO Tariff, § 43A.

that would otherwise retire because it did not have a capacity contract for the current or upcoming year, but was determined by CAISO to be needed for reliability reasons for the following year.⁴ In addition, CAISO's tariff authorizes it to designate a generating unit that does not have a resource adequacy contract as an RMR unit to meet reliability needs.⁵ CAISO's *pro forma* RMR Contract, which is included as Attachment G to the CAISO tariff, was developed as part of a settlement.⁶

4. Although CAISO can use both the risk of retirement CPM designation and RMR designation authority to address the potential retirement of resources that are needed for reliability, the two mechanisms differ in several respects. In determining whether to issue an RMR designation, CAISO assesses the reliability need for the resource in the current and upcoming year, whereas risk of retirement CPM designations may be offered based on a reliability need in the year following the upcoming resource adequacy year. Also notably, risk of retirement CPM resources are subject to the must offer obligation, which does not apply to RMR resources. In addition, whereas RMR designations can be requested and evaluated by CAISO at any point during the year, the risk of retirement CPM process must be undertaken during a specific time period. Finally, a resource's acceptance of risk of retirement CPM designations is voluntary but acceptance of RMR designations is mandatory.

5. CAISO states that the potential retirement of resources needed for reliability is a concern as renewable portfolio standards increase, energy market prices decrease, and market revenues to cover the fixed costs of existing, traditional generation resources decline. CAISO states that it is thus essential to have an effective retirement-related backstop procurement mechanism in place. However, CAISO recognizes resource owners' concerns that the existing risk of retirement CPM framework does not allow enough time for them to address decisions that must be made when considering the retirement of a generating unit. In addition, CAISO acknowledges the need to modernize the existing RMR construct and *pro forma* RMR contract to align with current operating conditions and needs.⁷

⁴ *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,211 (2011) (2011 CPM Order).

⁵ CAISO Tariff, § 40.

⁶ See Stipulation and Agreements filed on April 2, 1999 and August 14, 2000 in Docket Nos. ER98-441-000 et al. *Cal. Indep. Sys. Operator Corp.*, 87 FERC ¶ 61,250 (1999) and *Cal. Indep. Sys. Operator Corp.*, 93 FERC ¶ 61,089 (2000).

⁷ CAISO Transmittal at 17-21, 28-29.

6. In 2018, the Commission rejected a proposal by CAISO to revise its risk of retirement CPM tariff provisions.⁸ The Commission found that CAISO's proposal to evaluate requests for risk of retirement CPM designations earlier in the year had the potential to distort resource adequacy prices or otherwise interfere with the resource adequacy process. The Commission stated that, without more comprehensive reforms, any incremental benefits resulting from CAISO's proposal were outweighed by the deleterious effects on the competitiveness of procurement under the resource adequacy program.⁹ Thus, the Commission emphasized the need for a holistic examination of issues concerning both the RMR and risk of retirement CPM programs.¹⁰

II. CAISO Proposal

7. CAISO proposes to revise its current CPM and RMR construct in a variety of ways. First, CAISO proposes to revise tariff Section 43A to eliminate the existing risk of retirement CPM tariff provisions and to incorporate certain aspects of its risk of retirement CPM procurement authority into the RMR construct such that all backstop procurement of resources at risk of retirement or mothball status would be addressed through the RMR provisions.¹¹ Further, CAISO proposes tariff revisions to: (1) enable CAISO to designate and dispatch RMR resources to address any reliability need, as determined by CAISO, rather than just local reliability needs; (2) create a second path for processing RMR designations that formalizes a longer "runway" for resource planning; (3) subject RMR resources to a must offer obligation and the Resource Adequacy Availability Incentive Mechanism (RAAIM) provisions of CAISO's tariff; (4) remove the "hardwired" 12.25 percent rate of return from the RMR cost-based compensation formula; and (5) allocate RMR costs to load serving entities instead of transmission customers and establish a method for allocating resource adequacy credits for the RMR capacity. CAISO states that the instant proposal will better align the existing RMR construct and *pro forma* RMR contract with current and expected operational needs,

⁸ *Cal. Indep. Sys. Operator Corp.*, 163 FERC ¶ 61,023 (2018) (ROR CPM Order).

⁹ *Id.* P 44.

¹⁰ *Id.* PP 46-48.

¹¹ CAISO proposes to retain its existing CPM authority to cure deficiencies in annual or monthly resource adequacy showings, for significant events, and for exceptional dispatch. CAISO Transmittal at 37.

create clear distinctions regarding when CAISO will use RMR and when it will use CPM, and establish a more effective and orderly approach to address resource retirements.¹²

8. CAISO requests an effective date of September 28, 2019.¹³

III. Notice and Responsive Pleadings

9. Notice of CAISO's filing was published in the *Federal Register*, 84 Fed. Reg. 18,017 (2019) with interventions and protests due on or before May 14, 2019.

10. On May 8, 2019, CPUC filed a notice of intervention and motion requesting an extension of time to respond to CAISO's proposal. Pacific Gas and Electric Company (PG&E) filed an answer in support of CPUC's request. On May 14, 2019, the Commission issued a notice granting an extension of time until May 21, 2019 to file intervention or protests in this proceeding.

11. California Department of Water Resources State Water Project; Alliance for Retail Energy Markets; the City of Santa Clara, California; Modesto Irrigation District; Golden State Water Company; Northern California Power Agency; and Powerex Corp filed timely motions to intervene.

12. Calpine Corporation (Calpine); the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (Six Cities); PG&E; Southern California Edison Company (SoCal Edison); the CAISO Department of Market Monitoring (DMM); and NRG Power Marketing LLC (NRG) filed timely motions to intervene and comments or protests. CPUC filed a protest and complaint. CAISO, Calpine, and PG&E filed answers.

13. On July 19, 2019, Commission staff issued a deficiency letter seeking additional information related to CAISO's proposed revisions to enable CAISO to designate and dispatch RMR resources to address any reliability need, as determined by CAISO, rather than just local reliability needs (Deficiency Letter).

14. CAISO filed the Deficiency Response on July 26, 2019. Notice of CAISO's response was published in the *Federal Register*, 84 Fed. Reg. 37,856 (2019) with comments due on or before August 19, 2019. Calpine and PG&E filed comments and CAISO filed an answer.

¹² *Id.* at 2-7.

¹³ CAISO Response to Deficiency Letter at 5 (Deficiency Response).

IV. Discussion

A. Procedural Matters

15. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2019), the notice of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

16. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2019), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We accept the answers filed by CAISO, Calpine, and PG&E because they have provided information that assisted us in our decision-making process.

B. CAISO Proposal

17. We find, for the reasons discussed below, that CAISO's proposed improvement upon the existing RMR framework is just and reasonable. For those revisions not expressly discussed herein, we find that those revisions are just and reasonable and are hereby accepted for filing. We also accept CAISO's commitment in its Answer to make certain clarifying edits pertaining to the date for negotiating RMR contracts and the process for allocating resource adequacy credits associated with RMR capacity. Therefore, we accept CAISO's proposal, subject to condition, effective September 28, 2019, and direct CAISO to submit a compliance filing, due within 30 days from the date of this order.

1. Scope of RMR Authority

18. CAISO proposes to revise Section 41.1 of the CAISO tariff and Section 4.1 of the *pro forma* RMR contract in Appendix G to the CAISO tariff, to replace language that limits dispatch of RMR resources to meeting local reliability needs or managing congestion on non-competitive paths with language giving CAISO "the right to issue any dispatch notice for any product and service." CAISO also proposes to add language to tariff Section 41.2 stating that "CAISO will also have the right at any time based upon CAISO Controlled Grid technical analyses and studies to designate a resource for Reliability Must-Run service that is needed to provide Ancillary Services or other reliability services." CAISO argues that the current RMR tariff provisions, specifically tariff Sections 41.2 and 41.3, allow it to issue RMR designations to meet any North American Electric Reliability Corporation (NERC), Western Electricity Coordinating Council (WECC), or CAISO-established reliability requirement, not just local reliability needs. CAISO states that Section 41.2 of its tariff authorizes it to designate a generating unit as RMR at any time based upon CAISO Controlled Grid technical analyses and studies. CAISO states that Section 41.3 provides that, in addition to the Local Capacity Technical Study under Section 40.3.1, CAISO may perform additional technical studies to ensure compliance with Reliability Criteria. Since Appendix A of the CAISO tariff

defines Reliability Criteria as “pre-established criteria that are to be followed to maintain desired performance of the CAISO Controlled Grid under Contingency or steady state conditions,” CAISO argues that its RMR authority extends beyond local reliability needs to any potential reliability requirement.¹⁴

19. CAISO represents that, while it expects future RMR designations to be primarily for local capacity needs, the transition to a more variable, energy-limited resource fleet creates distinct planning and operational challenges. CAISO contends that maintaining reliability on a rapidly transforming system might involve meeting flexible and system capacity needs, such as insufficient system operating reserves to meet established reliability criteria, insufficient system ramping capability to meet operational criteria, and insufficient system inertia to meet planning and/or operational criteria.¹⁵

a. Comments and Protests

20. PG&E protests CAISO’s proposed change to tariff Section 41.1, arguing that CAISO is using the proposed revision as a means to expand its authority to use RMR beyond local reliability needs. PG&E argues that, given the current surplus system capacity, the need to use RMR to procure system or flexible capacity is hypothetical and CAISO should not be granted the discretion to engage in backstop procurement for speculative scenarios. PG&E states that, because the reliability requirements for system and flexible capacity are fundamentally different from those associated with local capacity, it is unclear whether any particular system or flexible resource provides services that otherwise cannot be met without that resource. PG&E contends that, should the need for system or flexible capacity arise, CAISO can use its existing CPM authority to ensure reliability. In addition, PG&E argues that CAISO should not be granted the authority to procure RMR resources for reliability needs without pre-defined criteria for determining the need for a specific resource.¹⁶

21. Six Cities support CAISO’s proposal, but argue that CAISO should delineate criteria, with respect to RMR designations for addressing system or flexible capacity needs, for determining whether the procurement of a specific resource is necessary or appropriate for the identified need. Six Cities request that the Commission direct CAISO

¹⁴ *Id.* at 97-100.

¹⁵ *Id.*

¹⁶ PG&E Protest at 19-24.

to evaluate whether additional details regarding the applicable criteria and studies should be included in the business practice manuals to ensure transparency.¹⁷

b. Answers

22. In response to PG&E, CAISO contends that it is changing its dispatch authority under the *pro forma* RMR contract, not expanding its RMR tariff authority. CAISO asserts that PG&E's argument that system resources are interchangeable conflates resource adequacy requirements with Reliability Criteria compliance and reliability needs. CAISO states that a specific resource adequacy requirement may or may not correspond to a specific Reliability Criterion. CAISO argues that while it may be able to meet a reliability need through CPM, if the needed resource declines a CPM designation and seeks to retire, CAISO must be able to rely on its mandatory RMR procurement authority to require the unit to remain in service to meet the reliability need. Finally, in response to Six Cities, CAISO states that it will explore these matters with stakeholders in the business practice manual process following Commission approval of the instant proposal.¹⁸

c. Deficiency Letter Response and Comments

23. In the Deficiency Letter, Commission staff asked for information regarding the types of criteria CAISO plans to use to determine whether a specific resource should be retained under an RMR contract to meet system or flexible reliability needs. In its Deficiency Response, CAISO asserts that it will only use RMR contracts to procure resources to meet NERC, WECC, and CAISO-established reliability standards, and not to backstop system and flexible resource adequacy capacity deficiencies. CAISO provides examples of Reliability Criteria that could necessitate RMR designations for reliability needs occurring outside of Local Capacity Areas.¹⁹ CAISO states that local reliability needs may also be identified in areas that have not already been designated as Local Capacity Areas, and that these remain valid uses of RMR designations. CAISO also states that the CAISO Planning Standards are an example of CAISO-established reliability standards that exceed the otherwise applicable NERC or WECC reliability standards. CAISO explains that, for example, the CAISO Planning Standards have an extreme event reliability standard for the San Francisco Peninsula, given the area's

¹⁷ Six Cities Comments at 6-7.

¹⁸ CAISO Answer at 98-101.

¹⁹ For example, CAISO cites NERC standards related to contingency reserves, frequency response, and thermal overloads and voltage issues. Deficiency Response at 3-4.

unique conditions, to mitigate the risk of extreme events. CAISO notes that, in comparison, the applicable NERC Reliability Standard does not require mitigation plans to be developed for extreme events.²⁰

24. The Deficiency Letter also requested information on how CAISO will evaluate longer term solutions to reduce the need to use its RMR authority to address system or flexible reliability needs. In the Deficiency Response, CAISO describes the following three avenues it can use to evaluate longer-term solutions to the use of RMR contracts to mitigate non-local reliability needs: (1) coordination with CPUC through CPUC's integrated resource plan process; (2) consideration of transmission and non-transmission solutions in CAISO's transmission planning process; and (3) for deficiencies outside of a Local Capacity Area identified under NERC Standard TPL-001-4, longer-term solutions may include new transmission lines, transmission upgrades or other transmission facilities, storage, new generation, demand response, or other non-transmission solutions.²¹

25. In its comments on the Deficiency Response, PG&E argues that CAISO has previously complied with system-level NERC obligations through means other than RMR agreements and has not explained how such alternatives will be considered in the RMR designation process.²² PG&E states that, while there could be a scenario where a single resource is needed for local reliability outside of a Local Capacity Area, this does not mean that the resource should automatically be considered a system RMR resource. PG&E also disagrees that CAISO can consider transmission solutions as alternatives to RMR contracts for system or flexible needs. PG&E contends that transmission alternatives do not reduce the system requirement within a balancing area so it is unclear how CAISO will compare solutions in this situation.²³

26. Calpine states that, given the breadth and diversity of reliability needs that may be met by future RMR designations, RMR cost allocation should be carefully assessed on a case by case basis. Calpine suggests that it is possible CAISO will rely on its RMR mechanism in a manner that benefits specific participating transmission owners and

²⁰ *Id.* at 2-4.

²¹ *Id.* at 5.

²² PG&E Response Comments at 3-4 (citing *Cal. Indep. Sys. Operator Corp.*, 156 FERC ¶ 61,182 (2016) (authorizing CAISO to procure transferred frequency response from other balancing authorities as a means to comply with NERC Reliability Standard BAL-003-1.1)).

²³ *Id.* at 4-6.

creates disincentives for bilateral procurement. Calpine requests that the Commission therefore direct CAISO to publish an informational report after each RMR designation assessing the cause of the designation and the load serving entities that directly benefit from the designation. Calpine also asks the Commission to consider requiring CAISO to allocate the costs of RMR contracts to the specific load serving entity that benefits from the RMR designation, as a subset of load within the affected transmission access charge (TAC) area, when such a causal relationship is identified. Calpine states that this would incentivize load serving entities to procure the right resources bilaterally or to invest in solutions to the reliability needs requiring the use of RMR.²⁴

27. In its answer, CAISO contends that PG&E ignores that the RMR mechanism already requires CAISO to examine alternatives to RMR contracts and pursue the most cost effective option. CAISO disagrees with PG&E's assertion that CAISO still has not provided sufficient detail regarding the types of studies it will undertake to assess the need for RMR designations. CAISO points out that NERC standards specify the reliability criteria with which CAISO must comply and, therefore, the associated studies will relate to specific criteria being assessed. Further, CAISO also asserts that its ability to procure transferred frequency response from other balancing authorities does not necessarily obviate the need for resources within the CAISO balancing authority area to provide primary frequency response. CAISO disputes PG&E's claim that resources outside of a defined local capacity requirement area should automatically be considered system RMR-eligible resources. CAISO explains that it was clarifying that reliability needs may arise in distinct portions of the system outside Local Capacity Areas, not suggesting that it can procure any resource within its system to meet a distinct need. CAISO asserts that PG&E ignores that transmission solutions can connect to generation and that CAISO can utilize these solutions to ensure compliance with reliability criteria, just as it does to meet public policy and economic needs.²⁵

28. CAISO disputes Calpine's suggestion that CAISO's RMR authority is overly broad and unfettered. CAISO maintains that the tariff only authorizes CAISO to enter into RMR contracts to meet NERC, WECC, or stricter, pre-established CAISO reliability standards, such as CAISO Planning Standards, that cannot be met without designating RMR resources. CAISO notes that the reliability study reports required by Section 41.3 of the CAISO tariff will explain the need for the RMR designation and identify the TAC areas in which the reliability need arises. CAISO contends that, therefore, load serving entities in the relevant TAC areas will know up front that they bear the costs of any RMR designation. CAISO also emphasizes that its tariff prohibits it from using its RMR authority to backstop resource adequacy deficiencies and that Calpine's insinuation that

²⁴ Calpine Response Comments at 3-4.

²⁵ CAISO Deficiency Answer at 9-12.

CAISO may use its RMR authority to benefit specific participating transmission owners is speculative. CAISO states that it is agreeable to filing an informational report providing this information to the Commission for each new RMR designation. CAISO explains that the informational filings will provide additional transparency and allow the Commission and stakeholders to understand the reasons for the RMR designation, know which load serving entities will be responsible for RMR costs, and monitor CAISO's compliance with its tariff requirements and ensure that RMR designations are justified. Finally, CAISO argues that a more granular allocation of RMR costs is unnecessary to incentivize load serving entities to procure needed resources because, under the proposal, load serving entities will be responsible for the costs of the RMR contracts that result from their failure to procure the needed resources identified by CAISO.²⁶

d. Commission Determination

29. We find that CAISO has justified its proposal to modify Section 41.1 of the CAISO tariff and Section 4.1 of Appendix G (*pro forma* RMR contract), to allow it to dispatch RMR resources for reasons beyond meeting local reliability needs or managing congestion on non-competitive paths. Given the evolving fleet of resources on the CAISO system, the retirement of gas-fired resources, and the increasing variability and unpredictability on the system due to the increasing integration of renewable resources, we find that it is just and reasonable for CAISO to utilize RMR resources to address its unique operational needs that have evolved since the Commission originally accepted CAISO's *pro forma* RMR contract. We also acknowledge CAISO's commitment that it intends for its RMR mechanism to remain "a measure of last resort."²⁷

30. We find that PG&E's concerns regarding the need for CAISO to establish pre-defined criteria for issuing RMR designations to meet system or flexible capacity needs do not provide a reasonable basis for rejecting CAISO's proposal in this proceeding. The Commission previously found it unnecessary to include the precise details of the CPM risk of retirement technical studies in the tariff and PG&E has not persuaded us to take a different approach here.²⁸ Also, as explained by CAISO, the specific studies to be performed will be dependent on distinct and pre-defined reliability criteria. We find that

²⁶ CAISO Deficiency Answer at 13-19.

²⁷ CAISO Transmittal at 68.

²⁸ 2011 CPM Order, 134 FERC ¶ 61,211 at P 134. Specifically, the Commission found that the precise details of CAISO's technical assessment of risk of retirement designation requests do not constitute a practice significantly affecting rates and service. The Commission also noted that it had not required details of other types of technical studies performed by CAISO, such as RMR studies, to be in its tariff.

this is a reasonable method for identifying reliability needs that justify an RMR designation. Moreover, CAISO's study results for RMR designation will be published, with opportunity for stakeholders to comment,²⁹ and will also be described in reports submitted to the Commission, as discussed below. Thus, the process will be transparent and subject to stakeholder scrutiny. We also expect CAISO to uphold its commitment, in response to Six Cities' suggestion that CAISO should evaluate whether additional details in the relevant business practice manual is warranted, to explore these matters with stakeholders in the business practice manual process.

31. We find that PG&E's argument that CAISO has previously complied with system-level NERC obligations through means other than RMR agreements is not a reasonable basis for rejecting CAISO's proposed revisions. We find that it is reasonable for CAISO to have additional tools at its disposal to temporarily address evolving operational needs, should its studies conclude that an RMR contract will be the only option to address the identified reliability needs in the short term. We understand that the requirement for CAISO to evaluate whether there are any other options available to avoid the need for an RMR contract will cover all potential alternatives, and we do not require the precise details of this evaluation to be in the tariff. As the Commission has previously stated, we do not find that the precise details of CAISO's technical assessments constitute a practice that will significantly affect rates and service.³⁰ Moreover, as explained by CAISO in its Deficiency Answer, the specific studies that CAISO will need to perform, as well as the inputs and assumptions associated with those studies, will be driven by the reliability criteria being assessed.³¹ Thus, we find that it is appropriate to allow CAISO the flexibility to tailor its studies on a case-by-case basis. We also disagree with PG&E's argument that it is infeasible for CAISO to consider transmission solutions in lieu of RMR contracts as part of its transmission planning process. CAISO has explained that transmission solutions such as transmission upgrades to connect to remote resources and to alleviate internal constraints that limit access to generation in generation pockets would be considered in CAISO's transmission planning process as alternatives to an RMR contract. Moreover, PG&E's objections are, in essence, a variation on its request for greater detail in the tariff regarding the studies CAISO will use to determine the need for an RMR designation. As noted above, the Commission is not requiring the precise details of these studies to be in the tariff.

32. We are similarly unpersuaded by PG&E's and Calpine's claims that CAISO can use its existing CPM authority to address system and flexible reliability capacity needs.

²⁹ See CAISO Transmittal at 46; CAISO Tariff, Proposed § 41.2.2(b).

³⁰ 2011 CPM Order, 134 FERC ¶ 61,211 at P 134.

³¹ CAISO Deficiency Answer at 5-8.

We agree with CAISO that, because CPM designations are voluntary, CAISO's proposed mandatory RMR procurement authority is not redundant to its CPM authority. We also note that, pursuant to its tariff, CAISO cannot use RMR procurements to backstop resource adequacy capacity deficiencies. In response to Calpine's arguments, for the reasons discussed below, we find that CAISO's proposal appropriately allocates RMR costs to load serving entities that benefit most from the backstop procurement.

33. We accept CAISO's offer to file an informational report with the Commission for each proposed new RMR designation.³² As described by CAISO, these reports will explain the need for the RMR designation and identify the TAC area(s) in which the reliability need arises. We find that these reports will provide increased transparency and permit the Commission to monitor compliance with CAISO's tariff requirements and ensure that RMR designations are justified. We direct CAISO to begin filing these reports for any new potential RMR designations that arise as of the date of issuance of this order.

2. RMR Designation Process

34. CAISO proposes to delete the provisions in Section 43A of its tariff that pertain to risk of retirement CPM designations in order to make RMR the sole mechanism for addressing potential resource retirements and mothballs. CAISO states that it is retaining the remainder of its CPM provisions, but clarifies that it will only use RMR to procure resources that would otherwise retire or mothball but are needed for reliability, not to backstop resource adequacy procurement deficiencies. CAISO will continue to use CPM for resource adequacy backstop procurement, as well as for Significant Events³³ and exceptional dispatches. CAISO asserts that its proposed revisions clarify the circumstances under which it will use either RMR or CPM, and also eliminate the opportunity for resource owners to choose between RMR and risk of retirement CPM.³⁴ CAISO also notes that it is retaining the existing anti-toggling measures in the *pro forma*

³² This report should be filed in the instant docket and will not be noticed for comment or require Commission action.

³³ A CPM Significant Event is a "substantial event, or combination of events, that is determined by the CAISO to either result in a material difference from what was assumed in the resource adequacy program for purposes of determining the Resource Adequacy Capacity requirements, or produce a material change in system conditions or CAISO Controlled Grid operations, that causes, or threatens to cause, a failure to meet Reliability Criteria absent the recurring use of a non-Resource Adequacy Resource(s) on a prospective basis." CAISO Tariff, Appendix A.

³⁴ CAISO Transmittal at 36-41.

RMR contract and those provisions are designed to prevent RMR resources from toggling between RMR, CPM, and market participation.³⁵

35. CAISO proposes revisions to tariff Section 41.2.2 to allow resources considering retirement or mothball status a longer “runway” for making decisions by offering a second path for assessing the notices in addition to an existing pathway (which it calls “Path 1”).³⁶ Under the proposed second path (“Path 2”), resources without a resource adequacy contract in the upcoming year (the next calendar year) can submit a notice of retirement/mothball status by February 1. Under Path 2, CAISO will study the reliability need for the resource and inform stakeholders of the results by May 15 (with opportunity to comment). A Path 2 designation is conditioned on the resource not obtaining a resource adequacy contract by the deadline for resource adequacy showings in late October. CAISO asserts that Path 2 will provide additional time for resource owners to plan for retirement or mothballing in an orderly fashion, and will prevent unnecessary over-procurement by providing load serving entities an opportunity to procure the resource prior to finalization of an RMR contract.³⁷

36. To help eliminate the opportunity for resources to use RMR requests as a price discovery tool or otherwise interfere with the resource adequacy procurement process, CAISO proposes to include a requirement in tariff Section 41.2.1 that the submission of a notice indicating retirement/mothball must be accompanied by a notarized attestation stating the reason for the retirement/mothball, including whether it is uneconomic for the resource to continue operating, and attesting that the decision to retire or mothball the resource is definite unless: (1) CAISO procures the resource; (2) the resource is sold to a non-affiliated entity; or (3) the resource enters into a resource adequacy or some other contract.³⁸

³⁵ CAISO Transmittal at 112-116. CAISO states that its approach of compensating the RMR owner for only a one-year portion of capital addition costs (based on the depreciation schedule approved by the Commission) and clawing back all net market revenues above the RMR contract rate, combined with CAISO’s unilateral option to extend an RMR contract for another year, provide adequate anti-toggling protections.

³⁶ Under Path 1, a resource without a resource adequacy contract for all or part of the current year can submit a notice of retirement/mothball status at any time, but at least 90 days in advance of retirement, and CAISO will promptly evaluate the request. *Id.* at 44-45.

³⁷ *Id.* at 44-50.

³⁸ *Id.* at 42-44. This proposed requirement is similar to the attestation that must accompany requests for risk of retirement CPM designations under the existing tariff.

37. CAISO also proposes to eliminate a type of RMR designation. CAISO currently offers two types of RMR designations, “Condition 1” and “Condition 2.” Condition 1 resources receive partial cost of service compensation, can participate in the market, and retain all market revenues. Condition 2 resources receive full cost of service compensation with market revenues netted from monthly cost of service payments. CAISO proposes to eliminate Condition 1, asserting that it is not likely practical to expect resources that have become uneconomic to rely on market revenues, and therefore argues that Condition 2 better aligns with the purpose of providing a cost-of-service payment under RMR.³⁹

a. Comments and Protests

38. Protestors raise concerns with regard to the proposed RMR process. CPUC, SDG&E, and NRG assert that CAISO has not sufficiently addressed the potential impact of its backstop procurement on the bilateral resource adequacy market.⁴⁰ CPUC also argues that CAISO has not sufficiently addressed concerns about RMR resources’ ability to toggle between RMR and market revenues. CPUC observes that this possibility exists because, once CAISO issues a conditional RMR designation, the resource still returns to the bilateral resource adequacy market and is not required to accept the RMR designation if it obtains a resource adequacy contract. CPUC also argues that, due to the full cost-of-service compensation under an RMR designation, resources may have an incentive to retire earlier than they would have in order to receive higher revenues under an RMR contract.⁴¹

39. NRG argues generally that CAISO’s proposed revisions fail to account for how the new process may impact the bilateral capacity market.⁴² DMM requests that CAISO provide clarification that resources requesting an RMR designation are expected to have made a diligent effort to obtain a resource adequacy contract in the bilateral market and

The CAISO tariff currently requires a resource owner requesting a risk of retirement CPM designation to submit, at least 180 days prior to retirement, among other things, an affidavit that attests “it will be uneconomic for the resource to remain in service in the current RA Compliance year and that the decision to retire is definite unless CPM procurement occurs” CAISO Tariff, § 43A.2.6 (5).

³⁹ *Id.* at 74-75.

⁴⁰ CPUC Protest at 13-30; SDG&E Protest at 3; NRG Protest at 6.

⁴¹ CPUC Protest at 32-37.

⁴² NRG Protest at 6.

have considered those potential revenues before requesting the designation. DMM also contends that it would be beneficial for CAISO to clarify whether its RMR authority includes the right to renew an RMR contract when a resource continues to be needed for reliability, but the resource is willing and able to contract in the bilateral market.⁴³

40. CPUC also expresses concern that the revised attestation requirements are less robust than the existing risk of retirement CPM attestation requirements. CPUC argues that the proposed attestation requirements allow otherwise economic resources to obtain a full cost recovery RMR contract and then decide to not retire or mothball if the resource is not needed for reliability. CPUC requests that, as an alternative, CAISO include in the RMR requirements the existing risk of retirement CPM requirement that the unit owner provide financial information and attest that it will be uneconomic for the unit to remain in service. CPUC also asserts that permitting a resource to participate in the market after receiving a conditional RMR designation creates an opportunity for the resource to front run the bilateral resource adequacy process. Thus, CPUC requests that the Commission require CAISO to make RMR designations mandatory and irreversible and not just until the resource owner obtains a contract.⁴⁴ Six Cities assert that the proposed attestation requirements are appropriate but request that the Commission direct CAISO to actively monitor retirement and mothball requests.⁴⁵

41. PG&E, SDG&E, and CPUC argue that, although CAISO is proposing to eliminate the risk of retirement CPM and use RMR as the sole mechanism to address retirements and mothballing, a resource with market power may still have the ability and incentive to self-select between RMR and a CPM annual designation based on its preferred compensation. PG&E claims that, through public information compiled via the CAISO transmission planning process, the local capacity requirement study, the CPM process, net qualifying capacity studies, etc., resource owners are likely able to deduce whether their retirement will result in a local capacity deficiency or other reliability need. Thus, PG&E asserts that CAISO must design its retirement and backstop procurement procedures under the assumption that resources already have knowledge of their reliability need and potential market power. As a solution, PG&E asks the Commission to require CAISO to adopt a pivotal supplier test and revisit the compensation methodology for annual CPM designations, and to direct CAISO to engage in a holistic reevaluation of RMR and the CPM annual process.⁴⁶ Further, PG&E posits that the

⁴³ DMM Comments at 9-13.

⁴⁴ CPUC Protest at 25-30.

⁴⁵ Six Cities Comments at 7-8.

⁴⁶ PG&E Protest at 13-17.

proposed elimination of risk of retirement CPM, combined with California's clean energy goals, will result in an increase in the number of resources under RMR contracts between now and 2045. In addition, according to PG&E, having fewer thermal resources operating could create market power for resources seeking RMR contracts. Thus, PG&E argues that CAISO should use third-party review of the prudence of resource costs and claims that a resource is uneconomic.⁴⁷

42. DMM argues that continuing to offer two backstop procurement mechanisms with different compensation schemes creates opportunities for pivotal suppliers to self-select designations based on their preferred compensation.⁴⁸ DMM posits that newer pivotal resources with undepreciated capital costs may have an incentive and ability to self-select RMR compensation, while older pivotal resources would likely prefer CPM compensation at or near the soft offer cap of \$76/kW-year. DMM contends that the potential for self-selection is a concern because the CPM does not yield competitive outcomes and the CPM soft offer cap is too high. DMM observes that opportunities for self-selection appear to be greater in CAISO than in other regional transmission organizations (RTOs) due to the absence of a structured capacity market that tests for market power and addresses physical withholding. Thus, DMM argues that the proposed revisions do not obviate the need to reevaluate the broader CPM-RMR framework, including CPM pricing and competitiveness.⁴⁹

43. SDG&E contends that the proposed timeline makes it possible for a resource requesting mothballing to price discover and set the price floor at the backstop capacity price in its bilateral resource adequacy contract negotiations. SDG&E argues that this process can front run the end of year CPM procurement. SDG&E requests that the Commission require CAISO to include additional safeguards in the mothballing process: (1) a four-month minimum period for mothballing; (2) a finding that a new reliability

⁴⁷ *Id.* at 17-18.

⁴⁸ DMM asserts that the recent RMR designation of the Calpine Metcalf unit and the annual CPM designation of the Encina plant illustrate this potential. Consistent with its explanation of the self-selection potential, DMM notes that the newer Metcalf unit indicated that the CPM option would not be workable due to uncertainty that CPM compensation would provide for recovery of additional capital expenditures and instead sought an RMR designation. In contrast, according to DMM, the Encina generating units, which are over 60 years old and presumably had very limited undepreciated capital, accepted a CPM designation with compensation at the soft offer cap. DMM Comments at 15-17.

⁴⁹ *Id.* at 13-22.

need has arisen as a condition for a resource to exit mothballing early; and (3) limiting the timeframe for mothballing requests in such a way that it will not impact the bilateral resource adequacy market.⁵⁰ PG&E objects to using the same process for both retirements and mothballing. PG&E contends that resources seeking to mothball should not be eligible for RMR designations due to the flexibility for mothballed resources to return to service. PG&E asserts that allowing full fixed cost recovery for mothballed resources sends incorrect long-term investment signals and may discourage local investments that increase reliability.⁵¹

44. PG&E and CPUC argue that the retirement process needs to begin earlier than the 90-day notification requirement in order to provide sufficient time to include thorough consideration of potentially less costly solutions, such as transmission upgrades, and to allow meaningful stakeholder input in the process.⁵² CPUC points out that, in comparison, the current risk of retirement CPM process has a 180-day notification requirement.⁵³

45. Calpine supports CASIO's proposed RMR designation process, but argues that the September 1 date for starting negotiation of the RMR contract is too late. Calpine requests that, instead of setting a fixed date for contract negotiations, CAISO begin reviewing the resource's financial information upon receipt of documentation from the resource owner. Calpine also seeks clarification that a non-RMR designated resource that retires may use the notice and attestation to terminate its retirement status, similar to how a mothballed resource may use it to return to service.⁵⁴

b. Answers

46. CAISO disputes CPUC's claim that the existing attestation requirements are more robust than that proposed here. CAISO points out that the existing RMR process does not require the resource owner to make any type of attestation. Thus, CAISO asserts that the proposed RMR process, which includes an attestation requirement, is significantly more robust than the existing RMR process requirements. CAISO contends that the scenarios described by CPUC, where an otherwise economic resource could fail to obtain

⁵⁰ SDG&E Protest at 2-3.

⁵¹ PG&E Protest at 7-10.

⁵² *Id.* at 8; CPUC Protest at 29-31.

⁵³ CPUC Protest at 39.

⁵⁴ Calpine Protest at 12.

a resource adequacy contract by offering an unusually high price or holding out for a five-year contract in order to qualify for RMR consideration, do not reflect rational resource owner behavior and would not be remedied by a more stringent attestation requirement. Further, CAISO explains that RMR contracts are subject to annual reevaluation and CAISO will assess alternatives so it can terminate the RMR contract at the earliest possible date. Thus, CAISO argues that the behavior hypothesized by CPUC is unlikely. Finally, CAISO contends that the examples of recent RMR designations cited by CPUC to support its argument for a more stringent attestation requirement are inapposite because those designations occurred under the existing RMR framework that includes no attestation requirement and/or could not occur because RMR cannot be used to cure resource adequacy deficiencies.⁵⁵

47. CAISO notes that it is not proposing to change the existing 90-day notification requirement in the existing *pro forma* participating generator agreement and argues that any changes to the requirement would be disruptive and unnecessary. CAISO states that CPUC ignores that the 90-day requirement currently coexists with the 180-day requirement for risk of retirement CPM. CAISO explains that all resources, even those seeking a risk of retirement CPM designation, must formally provide at least 90 days' notice to CAISO to retire. CAISO adds that under the proposed Path 2 process, a retiring or mothballing resource must provide notice by February 1 (e.g., 11 months in advance of the resource's resource adequacy contract expiration).⁵⁶

48. CAISO argues that the Commission should reject PG&E's request for separate processes for retirements and mothballs. CAISO notes that the Commission has found comparable RTO/ISO processes that consider both retirements and mothballs and provide the same compensation for each to be just and reasonable.⁵⁷ CAISO contends that there is no basis to require it to establish separate mechanisms because it performs the same type of reliability studies for each and evaluates similar types of alternatives to RMR designations. CAISO asserts that establishing separate processes could disrupt its established planning process, schedule, and resource allocation. Further, CAISO denies that there is any basis for compensating mothballing resources differently from retiring

⁵⁵ CAISO Answer at 37-48.

⁵⁶ *Id.* at 12-14, 48.

⁵⁷ *Id.* at 28 (citing *N.Y. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,116 at P 17, *order on compliance and reh'g*, *N.Y. Indep. Sys. Operator Corp.*, 155 FERC ¶ 61,076, at P 84 (2016); *Midcontinent Indep. Sys. Operator, Inc.*, 148 FERC ¶ 61,057, at P 84 (2014)).

resources because the RMR designation for both situations is mandatory and, therefore, compensation must be based on a resource's full cost of service.⁵⁸

49. CAISO contends that SDG&E's proposed additional safeguards go beyond the minor modifications the Commission can require under FPA section 205. CAISO argues that requiring a minimum term is unnecessary because a resource must receive approval from CAISO before it can return to service, and could also be problematic if CAISO or a load serving entity seeks to procure the resource before the end of a minimum mothball period. CAISO also contends that requiring a finding of a new reliability need to arise before a mothballed unit can return to service is unduly punitive and contrary to Commission precedent. CAISO dismisses the suggestion that a resource will "game" the process and return from mothballing merely by selling one MW of capacity as illogical and unrealistic because a resource that is mothballing because it is uneconomic is highly unlikely to return to service under conditions where it remains uneconomic. Further, precluding a mothballed unit from returning to service if a load serving entity desires to procure it is unreasonable. CAISO also argues that limiting mothballing requests to after the resource adequacy showing deadline is highly problematic because it would defeat one of the key purposes of the proposed tariff revisions, which is to provide a longer planning horizon for resources considering retirement or mothballing and could force uneconomic resources to operate for a longer period of time than necessary. CAISO also disputes that the mothballing process creates opportunities for resources to engage in price discovery and front run the bilateral market. CAISO emphasizes that a resource that submits a mothball notice will receive no price discovery if CAISO determines that the resource is not needed for reliability but instead will be required to mothball, consistent with its attestation. CAISO also notes that evaluating mothball requests only after resource adequacy showings have been made could result in over procurement because the RMR procurement would be in addition to the resource adequacy procurement that has already occurred.⁵⁹

50. CAISO argues that protests pertaining to the CPM process or compensation are beyond the scope of this proceeding and do not provide a basis for rejecting CAISO's proposal. CAISO notes that it is not proposing changes to CPM pricing in this proceeding and that it has initiated a separate stakeholder process that will examine pricing for 12-month CPM designations. CAISO states that there has been a difference in pricing between RMR and CPM (and CPM predecessors) for almost 15 years and, therefore, parties' arguments on this issue constitute a collateral attack on prior Commission orders approving CPM pricing. Also, CAISO contends that any ability of resources to select between RMR and a 12-month CPM designation based on a price

⁵⁸ *Id.* at 26-28.

⁵⁹ *Id.* at 29-35.

preference is no different than the situation that exists in other RTOs or independent system operators (ISOs) today. CAISO asserts that the differences between CPM and the market frameworks of other RTOs/ISOs, such as the existence of a centralized capacity market with market power mitigation, are irrelevant because these other RTOs/ISOs still permit resources found to be needed for reliability to voluntarily choose between two different pricing options. CAISO argues that its process is even more restrictive because resources can only receive CPM compensation through the CPM process and can only receive RMR pricing by submitting a mothball/retirement notice and obtaining a study from the CAISO that determines the resource is needed for reliability. Further, CAISO asserts that its proposal includes several checks that will improve the interrelationship between RMR and the remaining categories of CPM.⁶⁰

51. In response to Calpine's request, CAISO states that it agrees with Calpine that early review of documentation can facilitate timely RMR contract filings and agrees to eliminate on compliance the sentence referencing the September 1 negotiation date from proposed tariff Section 41.2 (b), if the Commission finds it appropriate. CAISO states that this change would provide some flexibility in the timing of RMR contract negotiations without unduly binding CAISO or the unit owner.⁶¹ CAISO also clarifies that submitting a notice to return to service by a unit that has permanently retired is improper, inconsistent with CAISO's current practice, and does not align with CAISO's obligation to effectuate a permanent retirement.⁶²

52. In its answer, Calpine likewise argues that assertions that RMR and CPM compensation should be based on going-forward costs, and arguments regarding self-selection and anti-toggling concerns are beyond the scope of this proceeding and should be rejected.⁶³

c. Commission Determination

53. We find CAISO's proposed revisions to the RMR process to be just and reasonable measures that will offer a longer timeline for resources that are considering retirement or mothballing and should protect against harmful impacts on the bilateral resource adequacy market or the opportunity for resources to toggle between RMR and market participation. Regarding any potential interaction between CAISO's RMR process and the bilateral resource adequacy procurement process, we find that CAISO

⁶⁰ *Id.* at 51-59, 108-110.

⁶¹ *Id.* at 36-37.

⁶² *Id.* at 50-51.

⁶³ Calpine Answer at 5-9, 10-14.

has included safeguards in its proposed RMR designation process that should help to reduce the potential for the RMR program to interfere with bilateral resource adequacy contracting. In particular, we find that the attestation proposal, in conjunction with the mandatory nature of RMR designations, should help to deter resources from using retirement or mothball notices to engage in price discovery or “fishing” for an RMR contract.

54. We are not persuaded by CPUC’s concern that the proposed attestation requirement is insufficient to deter toggling between RMR and market participation. The Commission has stated that rules governing RMR status should be designed to “eliminate, or at least minimize, incentives for a generator needed for reliability to toggle” between RMR and market status.⁶⁴ On the other hand, the Commission has also stated that terms for re-entering the market when RMR status ends should not be so unattractive that they will “discourage an otherwise efficient generator from continuing to operate to the detriment of customers.”⁶⁵ We find that the existing anti-toggling measures contained in CAISO’s RMR procedures, which CAISO is retaining, along with the revisions proposed here, are sufficient to address concerns regarding toggling between RMR status and participation in the market.

55. Moreover, to the extent the opportunity for toggling between the existing risk of retirement CPM framework and market participation is already possible, albeit unlikely, we find that the proposed changes do not increase any incentive to do so. In particular, while RMR designations are conditioned upon the resource not otherwise obtaining a resource adequacy contract, we find that this condition is necessary to ensure that RMR is only used as a last resort solution. In addition, CAISO has included an attestation requirement for retirement or mothball notices in its proposal, which helps to ensure that, once a resource submits a retirement or mothball notice, it must retire or mothball if it does not obtain an RMR designation or meet one of the other criteria specified in the tariff. This is more robust than the existing RMR requirements and is bolstered by the Commission’s existing rules prohibiting the submission of false or misleading information.⁶⁶ Thus, resources are less likely to attempt to use the RMR process as a means of price exploration to gain an advantage in the bilateral resource adequacy market. We therefore deny CPUC’s request to require CAISO to adopt the existing risk of retirement CPM attestation provisions in the RMR program. We also disagree with CPUC’s argument that RMR designations are not, in fact, mandatory due to the requirement that resources receiving a conditional RMR designation participate in the

⁶⁴ *N.Y. Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,116 at P 21.

⁶⁵ *N.Y. Indep. Sys. Operator, Inc.*, 155 FERC ¶ 61,076, at PP 127-28.

⁶⁶ 18 C.F.R. § 35.41(b) (2019).

bilateral resource adequacy market. If the resource does not obtain a resource adequacy contract, the RMR designation remains mandatory. CPUC offers no evidence to the contrary.

56. We find no merit in arguments about the potential for resources to self-select between RMR and CPM. CPM will no longer be used to address retirements and mothballs. A resource considering retirement or mothball status would thus run a significant risk by attempting to rely on the CPM process, instead of submitting a retirement or mothball notice, and hoping that CAISO finds a need for one of the remaining permissible uses of an annual CPM designation. DMM and CPUC point to the example of the Encina plant that submitted a retirement notice, but ended up with a CPM designation, as support for their position. However, this argument ignores that CPM will now be used only to address resource adequacy deficiencies, and not to retain resources that would otherwise retire or mothball. This line of argument also ignores that the potential for resources to self-select between RMR and CPM exists under the current tariff and is not created by the revisions proposed here. Indeed, CAISO's proposed revisions may decrease the opportunity and/or the incentive to self-select because: (1) CAISO is clearly delineating the purposes for which RMR and CPM can be used; and (2) the revisions eliminate risk of retirement CPM, under which resources would have earned full cost recovery and retained market revenues. Noting the above, we recognize that, under the proposed tariff revisions, there remains a risk of resources toggling between cost-of-service rates under the RMR program and the market-based rates under the CPM program. However, we do not expect this to be a common occurrence for the reasons already stated. The remainder of the protests on this issue assert that further modifications are necessary to the CPM (which CAISO has not proposed) and therefore are beyond the scope of this proceeding.

57. We disagree with PG&E's suggestion that CAISO should use third-party review of the prudence of resource costs and claims that a resource is uneconomic. Similarly, we are not persuaded by DMM's request for CAISO to clarify that resources seeking an RMR designation must have considered potential revenues from a bilateral resource adequacy contract in their decision to retire or mothball. In the 2011 CPM Order, the Commission found it unnecessary for CAISO to assess a resource's financial condition as part of the risk of retirement CPM process.⁶⁷ No party here has presented sufficient rationale to change that finding and begin requiring review of a resource's financial condition. With regard to DMM's request for clarification about the scenario where a resource under an RMR contract is still needed for reliability, but is willing and able to obtain a resource adequacy contract, we note that if a resource obtains a resource

⁶⁷ 2011 CPM Order, 134 FERC ¶ 61,211 at P 132.

adequacy contract it will no longer be eligible for an RMR designation. Thus, we find that no additional clarification is necessary on this point.

58. We disagree with arguments that additional safeguards are necessary because the proposed mothballing process provides an avenue for price discovery. The conditions under which a resource can rescind its notice of mothball status are limited,⁶⁸ and these limitations should deter requests for the sole purpose of price discovery. We also find that the specified limitations appropriately permit resources to return from mothball status to pursue legitimate business opportunities, and that there is no reason for CAISO to use a different process and compensation methodology for mothballing than for retirement. In both cases, CAISO will study the reliability need for the resource, including alternatives to procuring that resource, and will issue the RMR designation only if that resource is essential to meeting the identified need. As such, we are not persuaded by PG&E's claim that allowing full fixed cost recovery for mothballed resources sends incorrect price and investment signals. Six Cities request that the Commission direct CAISO to engage in active monitoring of retirement and mothball requests, but we find no need for a formal directive. CAISO and DMM already review these requests and we expect that, if DMM has reason to suspect that a resource has submitted false, inaccurate, or otherwise misleading information in its affidavit, it should refer such suspected violations to the Commission.

59. Regarding the timing of the RMR process, PG&E and CPUC argue that 90 days is not sufficient notice, but do not acknowledge that CAISO is proposing to formalize a process with a longer lead time. PG&E and CPUC fail to explain why CAISO's proposed Path 2 process will provide inadequate time. CPUC notes that the current risk of retirement CPM process has a 180-day notification requirement, in comparison to the 90-day notification for the Path 1 RMR, but this line of argument ignores that the proposed Path 2 option affords an even longer runway than the CPM process.

60. Given CAISO's acknowledgment that early review of documentation can facilitate timely RMR contract filings, we direct CAISO to submit a compliance filing due within 30 days from the date of this order, eliminating the sentence referencing the September 1 negotiation date from proposed tariff Section 41.2 (b), as CAISO agreed to in its Answer.

61. With regard to Calpine's request for clarification regarding a notice to return to service from retirement, we agree with CAISO that permitting a resource that has

⁶⁸ Under CAISO's proposal, in order to rescind a prior mothball notice, an RMR resource owner must attest that: (1) the generating unit has been procured by CAISO; (2) the generating unit was sold to an unaffiliated third-party; (3) the generating unit obtained a resource adequacy contract, or some other contract, with a third-party; or (4) it is economic for the unit to return to service. CAISO Transmittal at 44.

permanently retired to submit a notice to return to service is improper, inconsistent with CAISO's current practice, and does not align with CAISO's obligation to effectuate a permanent retirement.

3. Must Offer Obligation and RAAIM

62. CAISO proposes to subject RMR resources to a 24/7 must offer obligation, thereby requiring them to submit market bids at specified, marginal cost-based prices. CAISO asserts that establishing a must offer obligation for RMR resources is necessary because, given today's rapidly changing operating conditions, it cannot predict with certainty the specific hours every day when a resource will be needed. CAISO states that an RMR resource's marginal cost bids will reflect the resource's full marginal costs, including start-up costs, minimum load costs and energy costs, along with the ability to include opportunity costs, if appropriate. CAISO asserts that these requirements will help ensure that ratepayers get the full benefit of paying the full cost of service of an RMR resource, while guarding against depressing market prices. If an RMR resource does not submit a bid, and is otherwise not exempt from bid insertion rules, CAISO will insert generated cost-based bids as it does for resource adequacy resources.⁶⁹

63. CAISO also proposes to apply RAAIM⁷⁰ to RMR resources, as it does for resource adequacy and CPM resources, to incent compliance with the must offer obligation. CAISO represents that the existing availability and performance mechanisms in the *pro forma* RMR contract do not incent compliance with the must offer obligation and require a separate availability tracking system. CAISO states that applying RAAIM to RMR resources will allow CAISO to streamline the RMR settlement process by using one system to track resource adequacy, CPM, and RMR resource availability and better incent resources to comply with their must offer requirement. CAISO states that while it expects the application of RAAIM to be adequate for RMR resources, it has reserved the right in the *pro forma* RMR contract to offer a different availability metric if CAISO finds RAAIM to be inadequate for a specific RMR resource and reliability need. CAISO states that RMR resources on outage will be able to provide substitute capacity based on the same rules applicable to resource adequacy resources.⁷¹

⁶⁹ CAISO Transmittal at 75-83.

⁷⁰ RAAIM establishes availability assessment hours for system, local, and flexible resource adequacy capacity and provides for incentive payments to those resources who exceed the specified availability goals, while also assessing charges against those resources whose availability falls short of the targets. CAISO Tariff; § 40.9.

⁷¹ CAISO Transmittal at 84-87.

a. **Comments and Protests**

64. NRG and Calpine object to CAISO's proposal to impose a must offer obligation on, and apply RAAIM to, RMR resources. NRG argues that RAAIM's fleet-wide target of 94.5 percent availability and the 24/7 must offer obligation could require RMR resources to operate beyond their technical capabilities, and beyond units' historical operational availability. It also argues that these high availability requirements go beyond the system's need for local reliability during peak conditions and pose financial risks to generators in the form of penalties for non-availability. NRG contends that the cost-based bids proposed by CAISO do not account for volatility in gas supply and therefore RMR resource owners could be forced to make additional cost recovery filings to recover gas costs.⁷² Calpine argues that allowing an RMR resource to bid into the market with a cost-based offer that is below the marginal price will suppress the market clearing price. Calpine asserts that an RMR resource is presumptively uneconomic, and thus its cost-based bid should not be included in determining a competitive market price. In addition, Calpine contends that the existing non-performance penalties in the *pro forma* RMR contract take into account a unit's specific historical performance and, therefore, should be retained instead of subjecting RMR resources to RAAIM. Calpine requests that, if the Commission does not reject the proposal, CAISO modify its filing to provide for automatic bid insertion for any RMR resource subject to a must offer obligation. Calpine explains that sparing the resource of the administrative burden of submitting its own marginal cost-based offers will avoid disputes that might arise due to human error in the offer submittal process.⁷³

65. SDG&E, Six Cities, and PG&E object to the proposal's use of RAAIM to incent compliance with the must offer obligation. SDG&E contends that because RMR resources are paid their full cost of service, they should supply the full available value of the resource, including services beyond capacity (e.g., voltage support, ancillary services, black start), which may be needed continuously, in contrast to the limited availability assessment hours under RAAIM. SDG&E argues that an appropriate availability penalty for RMR resources must force performance over all hours, as in the existing *pro forma* RMR contract.⁷⁴ Six Cities contend that it is unclear how CAISO will determine if an alternative to RAAIM is appropriate or what the alternative should be. Six Cities request that, if the Commission accepts CAISO's proposal, it direct CAISO to track and evaluate application of RAAIM to RMR resources and to file periodic reports with the

⁷² NRG Protest at 6-8.

⁷³ Calpine Protest at 13-16.

⁷⁴ SDG&E Protest at 3-4.

Commission regarding RMR resource performance.⁷⁵ PG&E states that an incentive mechanism designed for the resource adequacy program may not be sufficiently flexible to adapt to the many different types of future RMR resources.⁷⁶

66. CPUC states that, while it conditionally supports this aspect of the proposal, it thinks RAIM may be insufficient to incent bids in non-assessment hours because RMR resources do not retain market revenues. CPUC acknowledges that automatic bid insertion may address this issue, but seeks confirmation that bid insertion is applicable for all hours of the day and reflects only actual costs. In addition, CPUC seeks confirmation both that no adders will be included in bids that could unnecessarily restrict operation of the resource, and that CAISO will review all RMR bids to ensure compliance with the applicable rules.⁷⁷

67. Finally, SDG&E, Six Cities, PG&E, and CPUC assert that it is not just and reasonable to apply the current RAIM capacity substitution rules to RMR resources. They argue that, because the substitute resource would keep its energy market revenues, permitting substitute capacity is inconsistent with RMR compensation that credits market revenues against the RMR resource's fixed cost payment.⁷⁸ Six Cities also contend that it seems unlikely that substitute capacity would be available for an RMR resource designated to provide any type of needed capacity, but particularly those procured for local needs.

b. Answers

68. CAISO maintains that subjecting RMR resources to the must offer obligation is just and reasonable. CAISO argues that NRG ignores that multiple factors, including RMR resources' high marginal costs and CAISO's outage process, should serve to limit any risks of RMR resources being dispatched in a manner inconsistent with their operational limits. In response to Calpine's concern about price suppression, CAISO states that requiring RMR resources to submit bids at full marginal costs will result in efficient pricing and dispatch. CAISO also disagrees with Calpine's requested modification and argues that each RMR resource has an obligation and an incentive to ensure that it submits accurate bids on its own behalf. CAISO asserts that less than full

⁷⁵ Six Cities Comments at 5-6.

⁷⁶ PG&E Protest at 11-12.

⁷⁷ CPUC Protest at 11-12.

⁷⁸ SDG&E Protest at 4; Six Cities Comments at 3-6; CPUC Protest at 49-52; PG&E Protest at 12.

participation of RMR resources in the markets could lead to unnecessary over-procurement and deprive ratepayers of receiving the full value of the RMR resources for which they are paying.⁷⁹

69. CAISO also argues that availability measures stricter than the current RAAIM provisions are unnecessary as CAISO's proposal and the existing market structure provide sufficient incentives and safeguards to ensure that RMR resources comply with their must offer obligation. For example, CAISO notes that, under its proposal, RMR resources will be subject to the 24/7 must offer obligation and that, if a resource has flexible capacity, it will be assessed over a 17-hour period, seven days per week. In addition, CAISO explains that it will have the authority to insert bids for RMR resources that do not submit a bid, and also to issue exceptional dispatch instructions to RMR resources. In response to NRG's and Calpine's concerns about how RAAIM will impact older units, CAISO reiterates its prior explanation that resources' ability to reflect higher costs in their bids, in combination with CAISO's outage processes, should mitigate any limitations on RMR resources' ability to participate in the markets.⁸⁰

70. CAISO defends its proposal to permit RMR resources to provide substitute capacity pursuant to the existing tariff provisions that apply to other resource adequacy and CPM resources. CAISO states that allowing RMR resources on outage to provide substitute capacity will give them a means to avoid RAAIM non-availability charges and will benefit load serving entities by reducing the likelihood that CAISO will need to issue an exceptional dispatch or CPM designation. CAISO asserts that CPUC's claim that allowing RMR resources to provide substitute capacity will result in higher costs is speculative. Further, CAISO contends that CPUC's argument ignores that whether the RMR resource provides substitute capacity or CAISO issues a CPM designation, the RMR resource in either scenario will not be earning market revenues to offset against its monthly fixed cost payment. Thus, according to CAISO, ratepayers lose the market revenues offset regardless of whether the RMR unit substitutes or not, and would be paying the costs of a CPM designation on top of the RMR costs.⁸¹

71. CAISO asserts that Six Cities' argument that substitute capacity may not realistically be available does not constitute a reason to prohibit RMR units from providing substitute capacity. CAISO points out that resource adequacy and CPM resources can also be procured to meet specific local or flexible capacity needs, but these resources are permitted to provide substitute capacity. CAISO argues that there is no

⁷⁹ CAISO Answer at 59-63.

⁸⁰ *Id.* at 64-66.

⁸¹ *Id.* at 66-69.

reason to treat RMR resources differently. CAISO contends that it should not be necessary to require CAISO to file periodic reports with the Commission regarding the costs and effectiveness of any substituted resources because the concerns raised by Six Cities are hypothetical and because of CAISO's successful experience in allowing resource adequacy and CPM resources to provide substitute capacity.⁸²

c. Commission Determination

72. We find that CAISO's proposal to establish a must offer obligation for RMR resources and incent compliance by making those resources eligible for RAAIM is just and reasonable because it will align RMR obligations with those of resource adequacy resources and CPM resources to help support grid reliability and resilience. As explained by CAISO, unlike grid conditions that existed when it first developed its RMR program, CAISO is now less able to predict with certainty the specific times when an RMR resource will be needed. As we discuss above, the resource fleet has been evolving at a rapid pace and there is increasing unpredictability and volatility on the CAISO-operated grid due to the increased penetration of variable energy resources. To address these changes, CAISO must ensure that RMR resources will be available to meet reliability needs whenever they arise through the market optimization. We conclude that the proposed revisions will enable CAISO to achieve that objective. Further, as noted by CAISO,⁸³ aligning the bidding obligation and availability incentives for RMR resources with the existing provisions for resource adequacy and CPM resources will enable CAISO to streamline its RMR settlement process.

73. Regarding Calpine's argument that a must offer obligation for RMR resources will suppress energy market prices, we acknowledge that, to the extent that an RMR unit is infra-marginal, it can lower prices, but find that the benefits of the must offer obligation discussed above outweigh the potential price impacts. Similarly, we find that, under CAISO's proposed cost-based bid rules, RMR resources must include start-up and minimum load costs, along with any applicable adders and opportunity costs, which should result in higher cost-based bids than other resources. Consequently, the applicable bidding rules will likely mean that RMR resources are higher-cost units that run less frequently, which should mitigate concerns about not accounting for the resource's specific historical performance. Also, RMR resources will have the opportunity to manage use limitations through CAISO's outage process. Thus, we believe that CAISO's proposal adequately accounts for the fact that RMR resources may be older, or otherwise limited, resources and does not introduce undue operational or financial risk. We reject Calpine's proposal to require CAISO, and not the RMR resource, to submit bids. CAISO

⁸² *Id.* at 70-72.

⁸³ CAISO Transmittal at 86-87.

does not submit bids for other use-limited resources and we find that Calpine has not provided arguments that persuade us that requiring RMR resources to submit their own bids will impose an undue administrative burden on those resources.

74. We disagree with CPUC that additional clarification is needed regarding the bid adders applicable to RMR resources. CAISO has explained in detail the costs that will be included in RMR resources' start-up costs, minimum load costs, and energy bids, and has appropriately revised its tariff and the *pro forma* RMR contract to reflect these requirements.⁸⁴

75. We find no merit in protestors' claims that RAAIM is not stringent enough for RMR resources because it only applies during the specified availability assessment hours. First, all RMR resources will be subject to the 24/7 must offer obligation, and CAISO will insert bids for non-use-limited resources if they do not bid. Second, RMR resources, like resource adequacy resources and CPM resources, must comply with energy market obligations set forth in CAISO's tariff, such as the must offer obligation, or potentially face penalties for violating the tariff. Protestors offer no valid justification for assessing an RMR resource's performance differently from how the performance of a resource adequacy resource or CPM resource is assessed. Finally, the proposal allows CAISO to apply a different non-performance mechanism in cases where RAAIM will be inadequate. Thus, we believe that using RAAIM as an availability incentive for RMR resources will both provide sufficient bidding incentives and be appropriate for all types of resources that could receive RMR designations. We likewise disagree with claims that applying RAAIM to RMR resources is too stringent for the same reasons we find that the must offer obligation for RMR resources is just and reasonable, as discussed above.

76. We find that arguments against permitting RMR resources to use substitute capacity pursuant to the existing RAAIM are speculative. We conclude that concerns about RMR resources relying on substitute capacity to avoid the must offer obligation are unwarranted because in order to use substitute capacity, a resource must be on an approved outage. Thus, CAISO will be able to monitor any such requests and determine whether an RMR resource is attempting to use outages for an illegitimate purpose, and can refer any such inappropriate market behavior to the Commission. CPUC provides no support for its claim that using CPM to address reliability needs, rather than allowing an RMR resource to supply substitute capacity, would be a less expensive solution. Thus, we find that permitting substitutions will not have deleterious market impacts. Moreover, whether an RMR resource uses substitute capacity or CAISO issues a CPM designation, the RMR will not earn market revenues to credit against its fixed cost payment during the duration of the outage and protestors have not demonstrated why permitting a CPM

⁸⁴ *Id.* at 77-79.

resource to retain market revenues would be just and reasonable but permitting the substitute resource to retain those revenues is not.

4. RMR Compensation and Settlement

77. CAISO proposes to retain its existing fixed cost compensation methodology for RMR resources. Specifically, RMR resources will continue to be compensated based on their full annual cost of service as calculated under Schedule F of the *pro forma* RMR contract. CAISO asserts that full cost of service pricing is appropriate because Commission precedent is clear that where an RTO/ISO makes accepting a reliability backstop designation mandatory, full fixed cost of service pricing is appropriate, not going forward cost pricing.⁸⁵ CAISO proposes one change to the existing compensation framework, which is to eliminate the “hardwired” 12.25 percent return on investment provisions of the *pro forma* RMR contract and instead require the RMR resource owner to propose and justify a resource-specific rate of return as part of its RMR rate schedule filing with the Commission following the RMR designation. CAISO asserts that this revision is appropriate because the allowed rate of return under the existing RMR contract does not reflect current economic and business conditions. CAISO states that this aspect of its filing is severable from the balance of the proposal.⁸⁶

78. CAISO proposes to transition from a manual RMR settlement process to a more automated method by utilizing capabilities now available through the CAISO markets and systems that were not available at the inception of RMR. These include an automated settlement system, bid cost recovery mechanism, and automated bids. To facilitate this transition, CAISO proposes to align RMR implementation to the extent possible with the resource adequacy/CPM paradigm for bidding, dispatch, penalties, incentives settlements, and payment, as discussed elsewhere in this order, to streamline RMR functionality and promote more efficient market and reliability systems operation and maintenance.⁸⁷ Finally, in order to lower banking costs associated with RMR, CAISO proposes to eliminate the existing requirement to open new, segregated

⁸⁵ CAISO Transmittal at 111 (citing *N.Y. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,116 at P 17, *order on compliance and reh’g*, *N.Y. Indep. Sys. Operator Corp.*, 155 FERC ¶ 61,076 at P 84; *Midcontinent Indep. Sys. Operator, Inc.*, 148 FERC ¶ 61,057 at P 84).

⁸⁶ *Id.* at 95-97.

⁸⁷ *Id.* at 103-109.

commercial bank accounts for each RMR contract. In its place, CAISO will use its established market clearing account to administer RMR-related transactions.⁸⁸

a. Comments and Protests

79. CPUC and DMM do not support the concept of providing full cost of service compensation for RMR resources. Instead, they suggest that compensation based on going forward costs may be appropriate. CPUC argues that full sunk cost recovery is not warranted where resources can earn above-cost revenues in the market before and after providing RMR services, and may provide an opportunity for RMR resources to earn amounts in excess of cost recovery and a reasonable return on investment. CPUC notes that the Commission has approved RMR compensation based on going forward fixed costs in other jurisdictions where RMR is voluntary. CPUC alleges that CAISO has not demonstrated that its RMR designations are mandatory and therefore argues that compensation based on going forward cost would be appropriate.⁸⁹ DMM argues that current RMR compensation may distort bilateral capacity markets and provide inefficient signals for investment in new generation and transmission. DMM posits that there is a wide spectrum of compensation methodologies that would provide RMR resources with compensation greater than going forward costs, but less than full cost of service. DMM requests Commission guidance on whether and to what degree CAISO can adopt other approaches to RMR compensation in the future, given that CAISO RMR designations are mandatory.⁹⁰ SDG&E asserts that annual CPM designations should be compensated in the same manner as RMR, i.e., a fixed cost-of-service payment less market revenues.⁹¹

80. Calpine favors a benchmark rate of return specified in the *pro forma*, rather than requiring the resource owner to propose and justify a rate of return as part of its RMR rate schedule filing with the Commission, in order to avoid potentially expensive and contentious litigation. Calpine also notes that CAISO has not included language in the *pro forma* RMR contract that specifies the new procedure for determining the rate of return.⁹²

⁸⁸ *Id.* at 109-110.

⁸⁹ CPUC Protest at 41-42.

⁹⁰ DMM Comments at 23-28.

⁹¹ SDG&E Protest at 5.

⁹² Calpine Protest at 7-10.

b. Answers

81. CAISO maintains that paying RMR units their full annual cost of service, as CAISO does under the existing tariff provisions, is just and reasonable. CAISO avers that the RMR program is mandatory and, therefore, compensation based on full cost of service is appropriate.⁹³ In addition, CAISO highlights that CPUC and DMM are seeking to change tariff provisions that CAISO does not propose to change.⁹⁴ CAISO asserts that DMM's argument regarding inefficient investment incentives and price signals ignores clear Commission precedent that requires full cost-of-service compensation for a mandatory RMR program, and the principle that backstop procurement should be priced in a manner that discourages leaning on the backstop mechanism by load serving entities.⁹⁵

82. In response to Calpine's objection to removing the hardwired rate of return from the cost-of-service calculation CAISO contends that under FPA section 205 it has no obligation to show that the hardwired 12.25 percent rate of return is unjust and unreasonable, but only to demonstrate that its proposal is just and reasonable. CAISO asserts that it has shown the justness and reasonableness of requiring RMR resource owners to propose and justify a resource-specific rate of return because economic and business conditions change constantly and, therefore, it is appropriate to evaluate the rate of return based on the individual circumstances of the RMR owner or RMR unit. CAISO denies that its proposed revisions create confusion or an undue risk of protracted litigation. CAISO points out that, as required under the existing provisions, the RMR owner will be required to justify a rate that is just and reasonable, but that process will now also include the rate of return. CAISO also argues that the requirement that the owner must file the proposed rate of return with the Commission as part of its rate filing is sufficiently clear in the *pro forma* RMR contract. However, if the Commission prefers that the specific wording be in the *pro forma* RMR contract, CAISO commits to add it on compliance.⁹⁶

83. In its answer, PG&E argues that guaranteed full sunk cost recovery is inconsistent with compensation structures adopted in other jurisdictions and requests that the

⁹³ CAISO Answer at 94-96 (citing *N.Y. Indep. Sys. Operator, Inc.*, 155 FERC ¶ 61,076 at P 84 (“should NYISO propose an ‘exclusively mandatory RMR regime,’ NYISO should provide for compensation at a full cost-of-service rate.”)).

⁹⁴ *Id.* at 95.

⁹⁵ *Id.* at 97-98.

⁹⁶ *Id.* at 73-77.

Commission direct CAISO to provide generators with the ability to seek approval for a full range of compensation levels.⁹⁷

c. Commission Determination

84. CAISO essentially proposes to retain the existing compensation methodology for Condition 2 designations, which is based on full fixed cost recovery, less market revenues, plus return on investment, and we continue to find this approach to be just and reasonable. We disagree with protests regarding RMR compensation based on full fixed-cost recovery. As noted by CAISO, the Commission has previously held that, under a mandatory RMR program, RMR resources should receive full cost-of-service compensation.⁹⁸ Further, due to the mandatory nature of the RMR designation, we find no justification for requiring compensation based on going forward costs. As discussed above, we disagree with CPUC's argument that RMR designations are not, in fact, mandatory due to the requirement that resources receiving a conditional RMR designation participate in the bilateral resource adequacy market. Because we continue to find that CAISO's existing RMR compensation method is just and reasonable, we find no need to provide guidance on potential alternative methods of compensation, as requested by DMM.

85. We accept as just and reasonable CAISO's proposal to remove the 12.25 percent rate of return from the *pro forma* RMR contract, in favor of a resource-specific, cost-justified rate of return. The 12.25 percent rate of return was implemented approximately 20 years ago. Allowing the rate of return to reflect the economic and business conditions at the time an RMR agreement is filed is a preferable approach, as opposed to the use of a "hardwired" rate of return in the *pro forma* RMR contract. Because the rate of return justification will be part of the same submission that otherwise establishes the RMR contract rate, we find no merit in the administrative burden objection raised by Calpine. Thus, we also find that it is unnecessary for CAISO to add language to the *pro forma* RMR contract, as CAISO offered in its Answer, specifying that the rate of return information should be included in the resource owner's rate filing.

5. Allocation of RMR Costs and Resource Adequacy Credits

86. RMR costs are currently allocated only to participating transmission owners. CAISO proposes to revise Section 41.9 of the tariff to allocate, *ex post* on the basis of metered demand, RMR costs not recovered through market revenues to the scheduling coordinators for load serving entities in the TAC area in which the need for the RMR contract arose. CAISO states that if an RMR designation addresses a reliability need in

⁹⁷ PG&E Answer at 2-3.

⁹⁸ *N.Y. Indep. Sys. Operator, Inc.*, 155 FERC ¶ 61,076 at P 84.

more than one TAC area, the costs of the RMR will be allocated to load in all TAC areas that benefit from the designation (e.g., a system need would be allocated to all TAC areas). CAISO asserts that this methodology provides transparency and certainty and tracks the Commission-approved methodology for allocating the costs of risk of retirement CPM designations. Further, CAISO contends that under this proposal RMR costs will be spread to those entities that benefit most from the backstop procurement, i.e., load serving entities rather than transmission owners.⁹⁹

87. Because RMR costs will be allocated to load serving entities, CAISO also proposes to allocate, *ex ante* on the basis of resource's forecasted load share, resource adequacy credits that will offset those load serving entities' resource adequacy procurement requirements. CAISO represents that this methodology is consistent with all CPM reliability designations not resulting from resource adequacy showing deficiencies. CAISO also asserts that this approach provides certainty for load serving entities and allows them to plan their procurement in advance.¹⁰⁰

a. Comments and Protests

88. PG&E and CPUC oppose the proposal to allocate RMR costs above those covered by market revenues to load serving entities rather than to transmission customers. PG&E asserts that, because RMR has traditionally been used for local reliability issues that can be mitigated by transmission solutions, these costs should continue to be recovered through transmission charges. However, PG&E states that the need for system or flexible capacity generally cannot be mitigated by transmission solutions, so CAISO should retain its current RMR cost methodology for local reliability needs and work with stakeholders to develop an appropriate methodology for allocating the costs of system and flexible RMR procurement.¹⁰¹ CPUC and SoCal Edison contend that the proposed methodology is not aligned with the allocation of resource adequacy credit for the procured capacity and that customers who pay for the RMR capacity will not receive the benefit of the procurement when load migrates from, or returns to, a load serving entity. They assert that, because CAISO's proposal only addresses load migration for purposes of cost allocation, and not for the resource adequacy credits that reduce the otherwise applicable need for resource adequacy capacity, the proposal will result in free riding and double procurement when load migrates at any point during the year.¹⁰² CPUC states that it is

⁹⁹ CAISO Transmittal at 100-102.

¹⁰⁰ *Id.* at 102-103.

¹⁰¹ PG&E Protest at 18-19.

¹⁰² CPUC Protest at 43-46; SoCal Edison Comments at 9-11.

concerned that removing the participating transmission owner from the RMR cost allocation process and fragmenting the cost allocation and crediting process could adversely affect ratepayers.¹⁰³ SoCal Edison requests clarification that, if an RMR unit resolves both a local and system reliability need, CAISO will allocate the costs to the local reliability area as the primary driver of the need for the RMR contract.¹⁰⁴

b. Answers

89. CAISO reiterates that, under its cost allocation proposal, the costs for RMR procurement will be spread to those entities that will benefit most from the backstop procurement. In response to PG&E, CAISO notes that all other RTOs/ISOs allocate their RMR contract cost to load, not the participating transmission owner, even though these RTOs/ISOs also consider transmission solutions as alternatives to the RMR designation to satisfy the identified reliability need. In response to CPUC, CAISO highlights that it is the Commission, and not CAISO, the RMR owner, or the participating transmission owner, that determines the just and reasonable rate under an RMR contract. Thus, CAISO asserts that the non-participation of the participating transmission owner in the contract negotiation process is irrelevant and does not constitute a reason to reject CAISO's proposal. Further, CAISO contends that if CPUC is concerned about ratepayer protection, it will have the opportunity to intervene in the rate filing proceeding before the Commission.¹⁰⁵

90. CAISO contends that CPUC conflates RMR cost allocation with the crediting of the resource adequacy benefits of the RMR contract. CAISO argues that the cost allocation process is separate from the resource adequacy crediting process and has no impact on load serving entities' procurement. CAISO acknowledges that, without appropriate tracking and resource adequacy crediting measures, the potential for double procurement exists. However, CAISO asserts that concerns about intra-year load migration can be addressed within the confines of the proposed tariff language. For example, CAISO states that it could provide CPUC with a report specifying its proposed resource adequacy crediting from RMR capacity in advance of the year-ahead resource adequacy showings in order to give CPUC an opportunity to adjust the resource adequacy obligations. Alternatively, CAISO states that it could submit revised tariff language on compliance to specify that, instead of allocating the RMR capacity directly to load serving entities, it will allocate the credits to CPUC, which could then re-allocate the credit to load serving entities in advance of the year-ahead showings. CAISO states that

¹⁰³ CPUC Protest at 45.

¹⁰⁴ SoCal Edison Comments at 4-5.

¹⁰⁵ CAISO Answer at 77-79.

either approach would be consistent with its intent in providing resource adequacy credit for RMR designations. CAISO agrees with SoCal Edison that, under its proposed cost allocation methodology, if an RMR designation satisfies both a local and system need, the cost will be allocated to load in the local reliability area where the need arose.¹⁰⁶

c. Commission Determination

91. We find that CAISO's proposal appropriately allocates RMR costs to load serving entities in the area where the need for the RMR designation arose, based on actual monthly load. PG&E's argument that the current cost allocation methodology should be retained for local reliability RMR designations, because these reliability needs can generally be mitigated with transmission solutions, overlooks that ratepayers are the ultimate beneficiaries of meeting the identified reliability need through an RMR designation. Thus, we agree with CAISO that RMR costs are appropriately allocated to load serving entities, rather than transmission providers, directly based on their proportionate use of the system.¹⁰⁷ In addition, we find that CAISO's proposal will effectively address any load migration that might occur during the term of the RMR contract because CAISO will allocate RMR costs monthly based on actual monthly load.

92. We also find that CAISO's proposal to allocate the resource adequacy credits associated with the RMR capacity *ex ante*, on the basis of forecasted load, to be just and reasonable. The proposal tracks the existing Commission-approved methodology for CPM reliability designations.¹⁰⁸ Further, CAISO cannot assign resource adequacy credits to load serving entities in the same manner that it allocates RMR costs because that would require retroactive crediting. Actual load is unknown at the time that CAISO must apply resource adequacy credits from RMR contracts to the load serving entities' resource adequacy showings. However, to address concerns about intra-year load migration, we accept CAISO's alternative proposal in its answer to revise its tariff to afford CPUC an opportunity to make adjustments to resource adequacy requirements prior to the annual showings and find that such further revisions should mitigate any misalignment between RMR cost allocation and resource adequacy credits.¹⁰⁹ Thus, we

¹⁰⁶ *Id.* at 80-84.

¹⁰⁷ See *N.Y. Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,116 at P 20 (discussing appropriate RMR cost allocation measures and providing example of PJM Interconnection, LLC allocating RMR costs to load); *PJM Interconnection, LLC*, 107 FERC ¶ 61,112, at P 22 (2004) (stating that backstop procurement costs should be allocated to the local area benefitting from the reliability improvement).

¹⁰⁸ See CAISO Tariff, § 43A.9.

¹⁰⁹ CAISO Answer at 83-84.

direct CAISO to revise its tariff to make this adjustment in a compliance filing, due within 30 days from the date of this order.

6. Other Issues

a. Protests

93. NRG and Calpine object that CAISO's proposal fails to achieve the type of holistic reform the Commission encouraged in the risk of retirement CPM Order. NRG asserts that making narrow modifications to one narrow aspect of the reliability procurement structure, when fundamental modifications to the resource adequacy program remain under consideration, presents shortcomings and risks. NRG argues that there is no immediate problem that these proposed revisions must address without waiting for the development of a comprehensive approach. NRG urges the Commission to reject CAISO's proposal without prejudice.¹¹⁰ Calpine takes issue with CAISO's decision to reform its RMR framework without simultaneously considering modifications to CPM, including all elements of the CPM compensation scheme. Calpine recommends that the Commission direct CAISO to present any future proposals on CPM pricing as a whole, rather than in a piecemeal fashion, and to review holistically the interactions and consistency among all capacity procurement mechanisms.¹¹¹

94. SoCal Edison raises several issues with CAISO's current CPM designation process. SoCal Edison argues that CAISO should be required to implement a three pivotal supplier test for its annual CPM competitive solicitation process to ensure that CPM rates are just and reasonable. SoCal Edison contends that this modification is not beyond the scope of this proceeding given the Commission's prior guidance that CAISO propose a more comprehensive package of reforms that will "balance appropriate compensation for resources with the consideration of ratepayer concerns"¹¹² SoCal Edison asserts that ensuring the competitiveness of the annual CPM process is necessary to achieve this balance. In addition, SoCal Edison requests that the Commission direct CAISO to allocate the flexible capacity attribute of any resource procured via an annual CPM designation to all load serving entities that are paying the cost of the designation.¹¹³

¹¹⁰ NRG Protest at 3-5.

¹¹¹ Calpine Protest at 1-4.

¹¹² SoCal Edison Comments at 7-8 (citing ROR CPM Order, 163 FERC ¶ 61,023 at P 46).

¹¹³ *Id.* at 8-9.

95. Six Cities urge the Commission to direct CAISO to ensure that the scope of future CPM initiatives includes the level of the soft offer cap and also addresses broader questions of CPM compensation and market power.¹¹⁴

b. Answers

96. Calpine again emphasizes its belief that more holistic review and reform of CAISO's backstop procurement mechanisms is necessary. Calpine states its concern that, absent a Commission directive or the convening of a technical conference, CAISO and its stakeholders will not otherwise pursue comprehensive reform of CPM and RMR and their coordination with the resource adequacy program.¹¹⁵

97. CAISO argues that NRG fundamentally misunderstands and misinterprets the holistic approach described in the risk of retirement CPM Order. CAISO asserts that the risk of retirement CPM Order should be interpreted in the limited context of how both the RMR and CPM programs will address the risk of retirement of resources, and not resource adequacy more broadly. CAISO avers that the instant proposal constitutes a holistic approach to risk of retirement issues. In response to Calpine's concerns about future CPM stakeholder issues, CAISO asserts that the sufficiency of future CPM filings not yet before the Commission is beyond the scope of this proceeding.¹¹⁶ Finally, CAISO maintains that other arguments regarding CPM compensation and process are beyond the scope of this proceeding and do not support rejecting CAISO's proposed tariff revisions.¹¹⁷

c. Commission Determination

98. We find that protests related solely to CPM compensation or perceived deficiencies in the CPM process are beyond the scope of the revisions that CAISO is proposing in this proceeding. CAISO has not proposed tariff revisions related to CPM compensation or the other CPM issues highlighted by protestors in this filing, and we note that CAISO has initiated a stakeholder proceeding to address issues related to CPM compensation, including updating the soft offer cap and considering mitigation measures for 12-month CPM designations. We encourage stakeholders to participate in this process to address the issues raised here and also encourage CAISO to include all CPM-

¹¹⁴ Six Cities Protest at 9-10.

¹¹⁵ Calpine Answer at 3-4, 9-10.

¹¹⁶ CAISO Answer at 102-105.

¹¹⁷ *Id.* at 51-59.

related modifications in a single, comprehensive proposal rather than doing so in a piecemeal fashion.

C. CPUC Complaint

99. As part of its protest to CAISO's proposal, CPUC included what it styles as an FPA section 206 complaint, arguing that several aspects of CAISO's current CPM framework are unjust and unreasonable for the following reasons: (1) CPM compensation above the soft offer cap is unjust and unreasonable because the current tariff provisions provide for full sunk cost recovery plus the retention of market revenues and, therefore, guarantees cost recovery in excess of a resource's full fixed costs; (2) annual CPM designations do not account for the flexibility attribute of the procured resource, and that without the flexibility attribute, (a) RAAIM applies only during the less stringent system availability assessment hours, which could jeopardize reliability if there are not enough flexible resources bidding in the market, and (b) customers are not getting the full benefit of paying for the resource;¹¹⁸ and (3) compensation for annual CPM designations is unjust and unreasonable, arguing that although CPM designations are intended to be the product of competitive solicitations, in practice, it is not a competitive process. CPUC requests that the Commission direct CAISO to adopt CPM compensation based on going forward costs, without the 20 percent adder or, at a minimum, require CAISO to more closely examine this issue in its upcoming CPM stakeholder process.¹¹⁹

1. Answers

100. CAISO argues that the Commission should dismiss the complaint portions of CPUC's filing. CAISO contends that filings that attempt to comingle complaints with other types of filings fail to satisfy the essential FPA 206 complaint requirements.¹²⁰ CAISO asserts that the Commission consistently rejects complaints that are combined

¹¹⁸ CPUC points out that CAISO is now proposing to allocate flexible capacity credits for RMR procurement and, therefore, argues that CAISO should treat annual CPM designations analogously. CPUC Protest at 57-58.

¹¹⁹ *Id.* at 52-60.

¹²⁰ CAISO Answer at 106 (citing *Midcontinent Indep. Sys. Operator, Inc.*, 155 FERC ¶ 61,040, at P 18 (2016) ("The Commission has long held that a complaint should not be submitted as part of a motion to intervene or protest in an ongoing proceeding – such a filing does not allow interested parties sufficient notice of the complaint because it is not formally docketed and noticed.")).

with protests.¹²¹ CAISO also claims that CPUC fails to provide substantial evidence to support its allegations and, therefore, should be dismissed as deficient.¹²² Similarly, CAISO argues that SoCal Edison's comments that claim certain aspects of CAISO's tariff, which are not affected by the revisions proposed here, are effectively requests for the Commission to act under its FPA 206 authority. Therefore, CAISO contends that these requests must be dismissed for the same reasons as the complaint portions of CPUC's protest.¹²³

101. PG&E states that, to the extent the Commission elects to address CPUC's complaint in this proceeding, PG&E agrees with CPUC as to the need for additional processes to address concerns that CAISO's proposed tariff revisions fail to achieve sufficiently holistic reform of its backstop mechanisms.¹²⁴

2. Commission Determination

102. The Commission has long held that a complaint should not be submitted as part of a motion to protest or intervene in an ongoing proceeding, as such a filing does not allow interested parties sufficient notice of the complaint because it is not formally docketed and noticed.¹²⁵ Accordingly, we dismiss the complaint portion of CPUC's protest.

¹²¹ *Id.* (citing, e.g., *Midwest Indep. Transmission Sys. Operator, Inc.*, 108 FERC ¶ 61,248, at P 5 (2004); *TransCanada Power Mktg., Ltd. v. ISO New England, Inc.*, 123 FERC ¶ 61,149, at P 22 (2008); *Ind. Mich. PowerCo.*, 51 FERC ¶ 61,191, at 61,254 (1990)).

¹²² *Id.* at 107 (citing *Coalition of Eastside Neighborhoods for Sensible Energy v. Puget Sound Energy*, 153 FERC ¶ 61,076, at PP 59-60 (2015); *Morris v. Sw. Power Pool, Inc.*, 149 FERC ¶ 61,207, at PP 13-15 (2014); *Californians for Renewable Energy, Inc. v. Cal. Pub. Util. Comm'n*, 129 FERC ¶ 61,075, at PP 11-15 (2009)).

¹²³ *Id.* at 108.

¹²⁴ PG&E Answer at 4-5.

¹²⁵ *Midcontinent Indep. Sys. Operator, Inc.*, 155 FERC ¶ 61,040 at P 18 (citing Commission precedent regarding the necessity of filing a complaint separately from a motion to intervene or protest); *Golden Spread Elec. Coop., v. Southwestern Pub. Serv. Co.*, 115 FERC ¶ 61,136, at P 4 (2006) (citing *La. Power & Light Co.*, 50 FERC ¶ 61,040, at 61,062-63 (1990) (stating that complaints must be titled as such and cannot be included as part of a protest or motion to intervene)); *Yankee Atomic Elec. Co.*, 60 FERC ¶ 61,316, at 62,096-97 n.19 (1992) (explaining the importance of filing a complaint separately from a motion for clarification); *Entergy Servs., Inc.*, 52 FERC

Moreover, when considered as a protest, we find that the issues raised in this portion of CPUC's filing are beyond the scope of this proceeding because they pertain to CAISO tariff provisions that CAISO does not propose to modify here.

The Commission orders:

(A) CAISO's proposed tariff revisions are hereby accepted, subject to condition, effective September 28, 2019, as discussed in the body of this order.

(B) CAISO is hereby directed to submit a compliance filing, due within 30 days from the date of this order, as discussed in the body of this order.

(C) CAISO is hereby directed to submit informational reports for each proposed new RMR designation, beginning as of the date of this order, as discussed in the body of this order.

By the Commission. Commissioner Glick is dissenting in part with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

¶ 61,317, at 62,270 (1990) (stating that complaints must be filed separately from motions to intervene and protests).

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation Docket No. ER19-1641-001

(Issued September 27, 2019)

GLICK, Commissioner, *dissenting in part*:

1. I dissent in part from today's order because I do not believe it is appropriate to grant an RTO/ISO unbounded authority to retain resources through out-of-market contracts. I recognize that out-of-market contracts can sometimes be necessary in the relatively few instances when markets fail to procure the resources needed to ensure reliability. But the Commission has always stressed that those contracts should be 'measures of last resort' and, therefore, that the authority to enter those contracts must be carefully circumscribed. Today's order, by contrast, gives the California Independent System Operator Corporation (CAISO) near-*carte blanche* discretion to enter into out-of-market contracts without review by the Commission. That absence of any meaningful limitations on CAISO's authority is unjust and unreasonable and an abdication of our responsibility under the Federal Power Act (FPA). Accordingly, I dissent in part from today's order.

* * *

2. The Commission has explained repeatedly that retaining individual resources through out-of-market reliability must run (RMR) agreements should be a measure of last resort and appropriate only where market-based mechanisms have failed to provide the service in question.¹ In addition, the Commission has required that resources retained

¹ See, e.g., *N.Y. Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,116, at P 16 (2015), *order on reh'g & compliance*, 155 FERC ¶ 61,076 (2016), *order on reh'g & compliance*, 161 FERC ¶ 61,189 (2017), *order on clarification & reh'g*, 163 FERC ¶ 61,047 (2018) (NYISO Order) ("RMR filings should be made only to temporarily address the need to retain certain generation until more permanent solutions are in place and that all alternatives should be considered to ensure that designating a generator for RMR service is a last resort option for meeting immediate reliability needs."); *Midwest Indep. Transmission Sys. Operator, Inc.*, 140 FERC ¶ 61,237, at P 10 (2012) ("We continue to expect that MISO will use SSR Agreements only as a last-resort measure to meet short-term reliability needs precipitated by the retirement or suspension of a resource and will ensure that SSR [MISO equivalent of an RMR] Agreements have a limited and short duration."); see also *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,211, at PP 125, 130

through RMR agreements be needed to meet particular, well-defined needs that are not simply the product of the system operator's judgment or preferences.² And finally, the Commission has made clear that RMR constructs should be a short-term measure that is used only in the interim period while a more durable solution is developed.³

3. Today's order is inconsistent with those principles. The Commission is allowing CAISO to retain a resource for "any reliability need, as determined by CAISO" and to

(2011) (recognizing that the "the risk of retirement CPM authority was carefully designed to address a narrow situation that none of the existing measures can address" and directing CAISO to revise its tariff to "clarify that the risk of retirement CPM designation will be exercised only if all other available procurement measures fail to procure the resources needed for reliable operation").

² See, e.g., NYISO Order, 150 FERC ¶ 61,116 at P 15 (requiring NYISO's RMR process to "include the requirement that any future generation resource-specific RMR filing made with the Commission fully describe, at a minimum, the methodologies and findings in the underlying reliability studies and clearly state all potential reliability criteria violations"); Midcontinent Indep. Sys. Operator Tariff, § 38.2.7 ("The filing of a SSR Agreement with FERC shall be accompanied by a corresponding report on the Attachment Y Reliability Study and the Attachment Y Alternatives Study that details the methodologies used, study assumptions, Transmission Owner planning criteria used (including when the criteria became effective and the approving regulatory body, if any), analysis results, an evaluation of alternatives and the conclusion of the study (including a short explanation of the proposed solution to any reliability issue identified and estimated timetables for implementing the preferred solution).") see also *PJM Interconnection, L.L.C.*, 107 FERC ¶ 61,112, at P 22 (2004) ("In implementing RTO/ISO based backstops, the rules should provide for a clear triggering event that authorizes the RTO/ISO to act.").

³ See, e.g., NYISO Order, 150 FERC ¶ 61,116 at P 2 ("While the Commission has repeatedly stated that our jurisdictional markets should utilize market mechanisms to ensure that the resulting rates are just and reasonable, the Commission has also recognized that short-term remedies, such as RMR agreements, may be appropriate in certain circumstances to address an immediate problem at hand." (footnotes omitted)); *id.* ("[T]he Commission has emphasized that RMR agreements should be of a limited duration so as to not perpetuate out-of-market solutions that have the potential, if not undertaken in an open and transparent manner, to undermine price formation."); *Midwest Indep. Transmission Sys. Operator, Inc.*, 108 FERC ¶ 61,163, at P 368, *reh'g denied*, 109 FERC ¶ 61,157 (2004) (describing MISO's SSR program as a backstop measure designed to meet short-term reliability needs).

give that resource “any dispatch notice for any product and service.”⁴ I am not aware of any Commission precedent giving an RTO or ISO comparably broad authority to perform an end-run around the Commission-approved market structures in order to retain particular resources.⁵ Making matters worse, CAISO is not required to justify its decision to enter an RMR agreement in a filing before the Commission, as is required in other RTOs and ISOs.⁶ Instead, the only matter that will come before the Commission is whether the rate established for the RMR agreement is just and reasonable, not whether that agreement is needed or appropriate in the first place.⁷ Sacrificing any authority to review a system operator’s assessment of the perceived need for an RMR agreement abdicates the Commission’s basic responsibilities to ensure the reliability of the grid and that customers’ rates remain just and reasonable.⁸

⁴ *Cal. Indep. Sys. Operator Corp.*, 168 FERC ¶ 61,199 (2019), at PP 7, 18 (2019) (Order).

⁵ Even the Commission’s order establishing a short-term process for doling out a “fuel security” RMR in ISO New England Inc.—which I dissented from because it was inadequately supported—was based on the evidence in a particular study reviewed by the Commission. *ISO New England Inc.*, 164 FERC ¶ 61,003, P 49 (2018). Here, there is no comparable requirement to identify a study or even the minimum requirements of an as-yet-identified study in order to substantiate the need for an RMR.

⁶ In NYISO, for example, the Commission required the system operator to “fully describe, at a minimum, the methodologies and findings in the underlying reliability studies and clearly state all potential reliability criteria violations” in any filing seeking to designate a resource for an RMR agreement. *See* NYISO Order, 150 FERC ¶ 61,116 at P 15; *id.* (“Where an RMR determination is based on local planning criteria, any filing also must similarly provide . . . a full discussion of those local criteria, including, for example, documentation as to when the criteria became effective, how the criteria were applied, which regulatory body approved the standard, and any other supporting information.”).

⁷ *See* Proposed CAISO Tariff, § 41.2 (providing that CAISO will designate a resource for Reliability Must-Run service and then file a *pro forma* contract with the Commission).

⁸ Although, as noted, the Commission retains the authority review the rates in an RMR agreement, *see id.*, without any opportunity to review the evidence supporting the need for that agreement, the Commission will not be able to ensure that the actual rates customers pay are just and reasonable.

4. In addition, CAISO has not enumerated the criteria or studies that it would use to determine whether there is a reliability need or how it would determine whether the procurement of a specific resource is a necessary or appropriate solution for that reliability need. Nor is there any explicit limitation on the duration of an RMR agreement.⁹ In the typical situation where an RMR agreement is used to address an identified local reliability need, the RMR agreement may last only until a long-term solution, such as a new transmission solution, is in place.¹⁰ Under that arrangement, the relevant transmission planner must begin the process to develop the long-term solution as soon as practicable after the need for the RMR agreement is identified. CAISO's proposal, by contrast, does not appear to tie the availability of an RMR agreement to the development of a replacement solution, which could, in effect, allow the RMR agreement to remain in effect in perpetuity. In short, there is little in today's order to ensure that CAISO's RMR authority is consistent with the carefully circumscribed authority that the Commission has required in its past orders.

5. To its credit, CAISO appears to suggest some practical limitations on its authority. For example, CAISO indicates that it will use an RMR agreement to meet a NERC or WECC reliability criterion or any other reliability criterion established by CAISO.¹¹ Similarly, in its response to Commission staff's deficiency letter, CAISO noted examples of the types of CAISO-established reliability criteria it *might* rely on as well as the types of it studies it *might* use to substantiate the need to retain a resource.¹²

6. Those are helpful clarifications, and it is at least possible that every example that CAISO has provided in this proceeding would prove an appropriate circumstance to use an RMR agreement. But those examples of how CAISO might use its authority do not circumscribe its actual authority, which is what the Commission must ultimately evaluate when scrutinizing its proposed tariff. Here, CAISO's proposal creates an essentially unreviewable option to designate a resource for an RMR agreement. Stakeholders have no opportunity in the ordinary course of business to protest or dispute CAISO's designation before the Commission, nor is the Commission itself afforded an opportunity

⁹ Although the contract is set for only one year, CAISO does not point to any limit in the tariff on how many times these contracts can be renewed for an additional term.

¹⁰ *See, e.g.*, N.Y. Indep. Sys. Operator OATT, Attachment FF, § 38.11.2. In addition, in ISO New England, the Commission permitted the use of RMR agreements for "fuel security" only as an "interim" measure while the region developed a long-term, market-based solution. *ISO New England Inc.*, 164 FERC ¶ 61,003, at P 2 (2018).

¹¹ Order, 168 FERC ¶ 61,199 (2019) at PP 18, 23, 28.

¹² *Id.* P 23 & n.17.

to review that designation.¹³ So long as the tariff vests CAISO with unfettered discretion to enter RMR agreements for any purpose that CAISO deems a reliability need, I do not believe that the Commission can find that its proposal is just and reasonable.

7. In addition, I support the transparency that CAISO has proposed in response to protests, including the commitment to making an informational filing with the Commission that details each exercise of its RMR authority.¹⁴ But, although that transparency is better than nothing, relying on transparency alone only underscores the absence of any actual limitations on CAISO's authority to enter an RMR agreement. If the only check on CAISO's authority is a post-hoc requirement to explain why it used that authority, then that authority is functionally unchecked.

8. Finally, on a broader level, I disagree with the implication in both CAISO's proposal and today's order that vesting system operators with total discretion to retain any resource for any reason is an appropriate way to manage the transition to the electricity grid of the future. The resource mix in California is changing rapidly and, in CAISO specifically, electricity generated from renewable resources now often makes up the majority of the electricity produced at a given time.¹⁵ That trend is consistent with the state's goals and will only continue as a combination of state public policy and improving economics are leading to a rapid shift in the resource mix.¹⁶ Managing the electricity grid during such an important transition will almost certainly require changes to how the grid is planned, maintained, and operated. But the way to manage the transition to the electricity grid of the future is to identify clear, resource-neutral definitions of the services that the system operator will need to operate the grid safely,

¹³ See *supra* note 7. It seems that the only opportunity to dispute CAISO's determination is through an FPA section 206, 16 U.S.C. § 824e (2018), proceeding commenced before the Commission. It should go without saying that, in a case like this, a stakeholder's opportunity to file a complaint must not be the sole limiting factor a system operator's discretion under its tariff.

¹⁴ Order, 168 FERC ¶ 61,199 (2019) at P 28.

¹⁵ Indeed, on April 20, 2019, renewables served more than three-quarters of CAISO's load and CAISO has set records for both wind output and peak solar output in the last four months. *California ISO, Key Statistics: Peaks for August 2019*, <http://www.aiso.com/Documents/MonthlyStats-August2019.pdf> (last visited Sept. 27, 2019).

¹⁶ In 2018, California enacted S.B. 100, which establishes targets of 50 percent renewable generation by December 31, 2026, and 60 percent by December 31, 2030, in addition to the requirement to reach 100 percent carbon-free generation by 2045. See *The 100 Percent Clean Energy Act of 2018*, Cal. S.B. 100 §§ 2, 5.

economically, and reliability and then put in place transparent, market-based solutions for procuring those services.

9. Today's order does nothing to move in that direction. Instead, it approves what could be a crutch that ultimately stymies CAISO's ability to develop the resource-neutral, market-based mechanisms that I believe are necessary to maintain a safe, economic, and reliable electricity grid of the future. So long as a system operator can address perceived reliability needs through out-of-market contracts with familiar resources, it will be correspondingly less likely to develop new market-based mechanisms for procuring the services needed to address those reliability needs. That is the wrong approach. The way to deal with the fundamental shift taking place in regions like California is to identify the needs of the grid future, not to strive for ways to lock in place the grid of the past.

* * *

10. My concerns with this proposal should not be misconstrued as questioning CAISO's underlying motivation or any concerns it may have about its ability to meet near-term reliability challenges. I recognize that limited use of RMR agreements may sometimes be necessary as interim measure to address discrete, well-defined issues. But my concern is that the unchecked authority approved in today's order will ultimately forestall those fundamental changes in a way that may make the grid less reliable and will almost certainly make it more expensive. In other words, the sweeping authority conveyed in today's order is not just a pair of training wheels for CAISO to use while it develops the market mechanisms necessary to accommodate the evolving resource mix. Instead, it gives CAISO the permission, should it so choose, to stay off the bike entirely. That is not just and reasonable, and I urge CAISO not to use its authority in a manner even remotely close to that which the Commission sanctions in today's order.

For these reasons, I respectfully dissent in part.

Richard Glick
Commissioner