Reliability Must Run and Capacity Procurement Mechanism Enhancements

Draft Final Proposal

January 23, 2019

Market & Infrastructure Policy

Table of Contents

1. Executive Summary

The California Independent System Operator Corporation ("ISO") is reviewing, updating, and considering improvements to its backstop procurement mechanisms, the capacity procurement mechanism ("CPM") and Reliability Must-Run ("RMR") agreement, recognizing the significant changes that have occurred since the RMR agreement was first implemented and in light of recent experiences implementing RMR agreements and CPM designations, and to address concerns identified by the ISO and stakeholders about the ISO's use of backstop procurement. This initiative will review the RMR tariff provisions, pro forma agreement and procurement processes, and seek to clarify and align the use of RMR and CPM procurement. The scope of this initiative did not include updating the CPM soft-offer cap. Tariff section 43A.4.1.1.2 sets forth a separate process for updating the CPM soft-offer cap. The ISO is undertaking that initiative, which requires a cost of service study, this year. That effort also will consider compensation for 12-month CPMs.

The scope of this initiative is shown in Figure 1 below.

Figure 1 Scope of this Initiative

RMR and CPM

- Provide notice to stakeholders of resource retirements
- Clarify use of RMR versus CPM procurement
- Explore whether Risk of Retirement ("ROR") CPM and RMR procurement can be merged into one mechanism

RMR

- Develop an interim pro forma RMR agreement
- Make RMR resources subject to a must offer obligation ("MOO")
- Consider making RMR resources subject to the Resource Adequacy Availability Incentive Mechanism ("RAAIM")
- Consider whether RMR Condition 1 and 2 options are needed
- Update rate of return for RMR compensation
- Align pro forma RMR agreement with RMR tariff authority that provides ability to designate for system and flexible needs
- Allocate flexible Resource Adequacy ("RA") credits from RMR designations
- Streamline and automate RMR settlement process
- Lower banking costs associated with RMR invoicing

CPM

- Change CPM pricing formula for resources that file at the Federal Energy Regulatory Commission ("FERC") for a CPM price above the soft-offer cap price because the current methodology provides for full of service cost recovery plus retention of all market revenues.
- Evaluate if load serving entities ("LSEs") have been using CPM for their primary capacity procurement
- Clarify deadline for ISO to post CPM designation report

The major features of the revised straw proposal are summarized below.

1. The ISO will notify stakeholders when a resource 45 MW or greater informs the ISO that it is planning to retire, mothball or otherwise make the entire resource unavailable.
2. The ISO has the authority to procure resources under both the RMR and CPM mechanisms.
3. RMR procurement will be used to address resource retirements.
4. CPM procurement will be used to backstop the RA program.
5. All CPM and RMR resources will have a similar MOO.
6. All CPM and RMR resources will be subject to the Resource Adequacy Availability Incentive Mechanism ("RAAIM").
7. The ISO will merge the existing risk of retirement ("ROR") CPM procurement authority from the CPM portion of the tariff into the RMR portion of the tariff so that there is one procurement mechanism for all ROR situations.
8. To address the concern that CPM compensation may be excessive for CPM prices above the soft-offer cap, the ISO proposes to change the pricing formula for a resource that files for a CPM price above the soft-offer cap price to an approach where the resource can file at FERC based on the going forward fixed costs ("GFFC") of its resource using the same cost categories and same cost adder (20% adder) that are used for the CPM reference resource. CPM resources will continue to keep all market rents earned.
9. RMR agreements will be full cost of service agreements where resources will have their full cost of service paid, and all market rents earned above that amount will be credited against monthly payments. The ISO will eliminate the current Condition 1 option in which a resource is paid a portion of fixed costs and retains all market rents earned above variable operating costs.
10. The ISO proposes to align the pro forma RMR agreement so that it reflects the ISO's existing RMR tariff authority to designate for system and flexible needs.
11. The cost allocation for RMR resources will be to applicable LSEs.
12. To be offered an RMR designation, a resource must submit a formal retirement notice to the ISO, which must include a date that the resource is planning to retire or mothball. The resource must state that it is planning to retire or mothball at a certain date, but no later than 90 days prior to the date the resource intends to stop service. The ISO will expect the resource to also send a notice to the California Public Utilities Commission ("CPUC") indicating its intent to retire. To provide for an orderly process, mitigate potential impacts on the RA program, and provide for a longer runway for resources to make important business decisions, a resource can submit its retirement or mothball notice by February 1 of the year before it intends to retire or mothball.

13. The ISO proposes to remove the fixed rate of return that is currently in the RMR pro forma agreement and require that resource owners specify and support a rate of return for its resource in its RMR rate schedule filing at FERC following RMR designation.
14. The ISO proposes to allocate flexible RA credits from RMR designations to the extent the resource has Effective Flexible Capacity ("EFC").
15. The ISO proposes to leverage the current ISO settlement system and interface to automate the RMR validation and invoicing processes.
16. The ISO proposes to lower banking costs associated with RMR invoicing by using the ISO's market clearing account for all payments from and disbursements to RMR parties.
17. Where the ISO makes a CPM designation, except for Exception Dispatch CPM designations, that takes effect on the first day of the succeeding month, the ISO will post the designation report by the earlier of 30 days after the ISO selects the resource it will be designating or the tenth day of the month in which the designation takes effect.

On October 29, 2018, FERC approved a limited interim change to the pro forma RMR agreement that, effective September 1, 2018, applies to new RMR designations and allows the ISO to terminate the interim form of agreement effective at the end of the contract year and immediately re-designate RMR resources under the new substantive RMR agreement for the following contract year. The right to immediately re-designate would not apply to RMR resources under RMR agreements currently in effect.

The ISO plans to take its proposal for this initiative to the ISO Board of Governors for approval in March 2019. The enhancements are scheduled to be implemented as part of the fall 2019 technology release, and will be in effect on January 1, 2020.

A list of acronyms used in this second revised straw proposal is provided in Appendix 1.

2. Plan for Stakeholder Engagement

The ISO issued a second revised straw proposal on December 12, 2018 and held a stakeholder call on December 20, 2018 to discuss the second revised straw proposal. The ISO received written comments from stakeholders on January 10, 2019. The ISO has developed this draft final proposal based on the feedback received from stakeholders through written comments and the discussion that occurred during the December 20 call. A stakeholder meeting will be held on January 30, 2019 to discuss the draft final proposal. Written comments from stakeholders are due on February 22, 2019. The ISO plans to take a proposal to the ISO Board of Governors for approval on March 27-28, 2019. Concurrent with the posting of the January 23, 2019 draft final proposal, the ISO is also posting the first phase of draft tariff language. Specifically, the ISO is posting tariff sections 41 (Procurement of RMR Generation) and 43A (Capacity Procurement Mechanism). The ISO invites stakeholders to address the draft tariff language in their February 22 written comments. The schedule for this initiative is shown in Table 1.

Table 1 – Schedule for this Initiative

Stage	Date	Milestone
Milestones prior to May 30	Nov 2, 2017	ISO commits to undertake review of RMR and CPM
	Jan 2, 2018	Issue market notice announcing this initiative
	Jan 23	Post issue paper and straw proposal for two items
	Jan 30	Hold stakeholder meeting
	Feb 20	Stakeholder written comments due
	Mar 13	Post draft final proposal for two items
	Mar 20	Hold stakeholder meeting
	Apr 10	Stakeholder written comments due
Straw proposal	May 30	Hold working group meeting
	Jun 26	Post straw proposal
	Jul 11	Hold stakeholder meeting
	Aug 7	Stakeholder written comments due
Revised straw proposal	Aug 27	Hold working group meeting
	Sep 19	Post revised straw proposal
	Sep 27	Hold stakeholder meeting
	Oct 23	Stakeholder written comments due
Second revised straw proposal	Nov 1	Hold working group meeting
	Dec 10	Post second revised straw proposal
	Dec 20	Hold stakeholder conference call
	Jan 10, 2019	Stakeholder written comments due
Draft final proposal	Jan 23	Post draft final proposal
	Jan 23	Post draft CPM and RMR tariff language
	Jan 30	Hold stakeholder meeting
	Feb 15	Post draft RMR pro forma agreement language
	Feb 22	Stakeholder written comments due
Final proposal	Mar 27-28	Present proposal to Board of Governors
Implementation	Fall 2019	Implement in Fall 2019 Release, effective 1/1/2020

3. Decisional Classification

For this initiative, the ISO will seek approval from only the Board of Governors. The ISO believes this initiative falls outside of the scope of the Energy Imbalance Market ("EIM") Governing Body's primary and advisory roles because the initiative does not seek changes to

either rules of the real-time market or generally applicable rules of all markets. Rather, the initiative seeks modifications to the ISO's backstop capacity procurement authority to ensure that reliability requirements are met in the ISO's balancing authority area. These proposed changes will not apply to EIM balancing authority areas. The ISO seeks stakeholder feedback on this EIM classification of the initiative.

4. Background

The ISO is modifying its approach for this initiative based on FERC's April 12, 2018, order in Docket Number ER18-641. In that order, FERC rejected the ISO's January 12, 2018 filing to enhance the process for ROR CPM designations. One of the key features of the ROR CPM proposal was to create a new window each spring, in addition to the existing window each fall, for resources to request a ROR CPM designation. In its order FERC found that a spring window could result in front-running the RA process, price distortions and interference with bilateral RA procurement. In its order FERC noted that the ISO had initiated a stakeholder process to review RMR and CPM issues and strongly encouraged the ISO and stakeholders to adopt a holistic, rather than piecemeal, approach and encouraged the ISO to propose a package of comprehensive reforms.

This initiative will consider changes to the RMR and CPM paradigms. The ISO also is actively engaged at the CPUC in advocating improvements to the RA program. The ISO also has started an ISO stakeholder initiative to enhance the RA program that is in the ISO's tariff, which is called the RA Enhancements initiative. The ISO believes that through its efforts in this initiative and its efforts at the CPUC the ISO is reviewing holistically the most important aspects of procurement to ensure reliable operation of the grid.

RMR Authority

Since the startup of the ISO in 1998 the ISO has had authority through RMR designations/agreements to procure essential reliability services from resources. There were a considerable number of RMR resources in the early years of ISO operations. In 2005, the RA program was established to reduce RMR procurement and to cost-effectively secure capacity to meet the reliability needs of the grid. In 2006 the RA program was augmented to include local RA capacity requirements. These forward capacity procurement mechanisms significantly reduced the need for RMR resources. Between 2010 and 2016 there were just a handful of RMR resources under contract as the vast majority of the system's reliability needs were met through RA procurement. In 2018, there was an uptick in the number of resources under RMR. Because RMR use had been declining for years, the ISO had not seen a need to update the RMR provisions and structure. However, given the significant changes that have occurred on the system and traditional gas-fired resources face retirement pressures, the ISO believes the 20-year-old RMR construct should be updated to reflect current conditions, needs, and expectations. As part of the ISO Board of Governor's November 2, 2017 approval of an RMR designation for the Metcalf Energy Center, ISO management committed to commence a stakeholder initiative in early 2018 to look at the RMR framework process as well as potential modifications to RMR regarding Condition 1 and Condition 2 options.

CPM Authority

Since 2006, the ISO has had backstop procurement authority to meet specific reliability needs. Currently the ISO has authority to procure resources under its CPM tariff to ensure the reliable operation of the grid under the following situations: (1) there is insufficient RA capacity (system, local, flexible) in year-ahead and/or month-ahead RA showings; (2) there is a collective deficiency of local capacity resources; (3) a "Significant Event" occurs on the grid; (4) the ISO "Exceptional Dispatches" non-RA capacity; or (5) capacity is at risk of retirement that is needed for reliability in a future year. The ISO has updated the CPM several times since implementing it. In November 2017, the Board of Governors approved, and the ISO subsequently filed at FERC, enhancements to the ROR CPM process, which subsequently were not approved by FERC. During the November Board meeting, the ISO committed to examine the relationship between RMR and CPM procurement and explore whether they can be better aligned or consolidated.

RA Program

The ISO believes the RA program requires certain refinements to remain current and effective as the grid transforms. An improved RA program will ensure the right resources with the right capabilities and in the right locations are procured and available to the CAISO. Additionally, the RA program must ensure the use of CAISO backstop procurement remains infrequent. The CAISO is pursuing RA changes both at the CPUC and through its own stakeholder initiative, advocating for certain changes in the CPUC's RA proceeding, while simultaneously pursuing RA enhancements under the CAISO's tariff through the CAISO's RA enhancements initiative. The goal is to ensure that the CPUC's and the CAISO's RA pursuits remain collaborative and coordinated in ensuring the RA program remains viable.

On November 21, 2018, the CPUC issued a proposed decision adopting significant refinements to its RA program. Most notably, the proposed decision (1) establishes multi-year procurement requirements for local RA capacity and (2) designates the utility distribution companies ("UDCs") as central buyers for local RA capacity. Specifically, the CPUC's proposed decision would require its jurisdictional load-serving entities to procure local RA resources on a three-year forward looking basis. The LSEs would be required to procure 100% of necessary local RA capacity in the first and second years and 80% in the third year of each cycle. The CAISO will provide its local capacity study to serve as the basis for the local procurement requirements.

The CAISO expects the CPUC to address additional RA issues in Track 3 of the CPUC's RA proceeding. Issues the CAISO petitioned for in Track 3 include:

- Adopting an updated Effective Load Carrying Capability methodology for solar and wind resources that includes accounting for behind-the-meter solar.
- Considering availability limitations such as maximum run time and call events in meeting local capacity needs.
- Adopting a higher demand forecast for system RA requirements in months that exhibit greater peak demand variability.

Separate from the CPUC's RA proceeding, the CAISO is performing a comprehensive review of the ISO's RA tariff provisions and is proposing enhancements that ensure the effective procurement of capacity to reliably operate the grid all hours of the year. Proposed enhancements the CAISO is pursuing in its initiative include:

- Rules for import RA
- RAAIM enhancements, outage and substitution rules, and review of must offer obligations
- Local capacity assessment with availability limited resources
- Meeting local RA capacity needs with slow demand response resources
- RA Counting and Eligibility Rules
- System and Flexible Capacity Assessments and Adequacy Tests
- Maximum Import Capability Review
- Additional CPM and RMR Enhancements

5. Stakeholder Comments

Stakeholders provided written comments on the December 12, 2018 second revised straw proposal. The ISO has compiled all of the written comments into one document, sorted by initiative topic, which is available at: http://www.caiso.com/Documents/CommentsSummary-ReliabilityMust-RunandCapacityProcurementMechanismEnhancements-SecondRevisedStrawProposal.pdf.The ISO has summarized the written comments by each topic and provides ISO responses to each topic in section 7.

6. Changes from December 12, 2018 Second Revised Straw Proposal

The ISO lists below the changes to the second revised straw proposal made in this draft final proposal:

1. Linked an RSS feed to the Announced Retirement and Mothball List so any entity that subscribes to this RSS feed will receive an instant notification any time the list gets reposted.
2. Revised the timing of the due date for notification of a resource going out on mothball from the current no later than 60 days prior to now be no later than 90 days prior to the date the resource intends to stop service.
3. Added additional requirements for resources that submit requests to mothball the resource.
4. Revised Figure 3 in section 7.1.2 to state that study results will be provided to LRAs and LSEs, given that the CPUC has not yet made a final determination in its RA proceeding on the role of a central procurement entity.

5. Revised the cost allocation for RMR resources from the previous proposal to allocate costs to PTOs to now allocate costs to applicable LSEs.
6. Revised the RMR agreement to remove roles and responsibilities for the Responsible Utility, which historically was PTOs, to reflect proposed change in RMR cost allocation from the Responsible Utility to the applicable LSEs.
7. Added that the ISO is considering filing primary and alternate tariff sheets for the price that can be bid into the CSP above the soft-offer cap price; so, ` if FERC does not accept the primary proposal it could consider the alternate proposal.
8. Revised the CPM tariff language regarding the deadline for issuing designation reports for CPM designations other than Exceptional Dispatch CPM designations that become effective on the first day of the month.

7. Draft Final Proposal

This section presents the ISO's draft final proposal. The items in this section are divided into the following categories:

- RMR and CPM items (items that are common to or have an overlap between RMR and CPM),
- RMR items (items specific only to RMR tariff provisions, pro forma agreement or procurement processes), and
- CPM items (items specific only to the CPM tariff).

The ISO presents in each subsection below an introductory paragraph that summarizes at a high level the discussion in the December 12, 2018 second revised straw proposal. The details of the second revised straw proposal are not reproduced in this draft final proposal. For the specifics of what was presented in the second revised straw proposal please refer to the revised straw proposal at: http://www.caiso.com/Documents/SecondRevisedStrawProposal-ReliabilityMustRunandCapacityProcurementMechanismEnhancements.pdf.

7.1 RMR and CPM Items

This section discusses items that are common to or have an overlap between RMR and CPM.

7.1.1 Provide notifice to stakeholders of resource retirements

As part of this initiative, on July 6, 2018 the ISO implemented a new policy with the posting of a spreadsheet report wherein the ISO informs stakeholders of notifications it has received from resources that plan to retire, mothball or otherwise make the entire resource unavailable to the ISO long-term. The report includes all resource notifications, regardless of size.[1]

[1] See "Announced Retirement and Mothball List" posted to the ISO Reliability Requirements web page at: http://www.caiso.com/planning/Pages/ReliabilityRequirements/Default.aspx.

In the second revised straw proposal the ISO stated that it would use a 45 MW threshold for giving stakeholders a "heads up" notification in the ISO's Daily Briefing of the receipt of retirement/mothball requests. Retirement/mothball notices for resources less than 45 MW will be shown in posted report, but will not be noticed in ISO Daily Briefing market notice.

Stakeholder Comments

Calpine supports the posting of retirements/mothball notices received by the ISO. **CPUC** ED Staff appreciates changing the stakeholder notification of resource retirements and mothballs from a threshold size of 100 MW to 45 MW. **EBCE** strongly supports other stakeholders' recommendations to lower the notification threshold to 20 MW or to eliminate it entirely. **IEP** supports the proposed notice provisions. **NCPA** supports notices for all resource retirements, regardless of unit size. **PAO** supports providing notice to stakeholders and believes the ISO should provide timely updates, regardless of whether a new change meets the proposed 45 MW threshold to send an e-mail notification and the ISO should also include information in the spreadsheet noting the date on which the data for a resource was last updated. **SCE** supports the ISO sending market notices for 45 MW or higher resource retirements or mothballs. **SDG&E** supports the ISO proposal now that the threshold for notice has been lowered to 45 MW or higher. **Six Cities** support this element of the proposal.

Draft Final Proposal

The ISO has considered stakeholder comments, and requests that the MW threshold be lowered to below 45 MW for issuing a notification in the Daily Briefing. The ISO does not believe that it is necessary to go to a threshold as low as 20 MW or eliminate the threshold entirely. The ISO proposes to proceed with the 45 MW threshold and monitor the effectiveness of this approach. Retirement/mothball notices for resources less than 45 MW will be shown in the posted report, but will not be noticed in ISO Daily Briefing. Furthermore, the ISO has added an RSS feed to the report so any entity that subscribes to this RSS feed will receive an instant notification any time the list gets reposted, effectively eliminating any MW threshold. On a going forward based the ISO will monitor how well the RSS feed is received by stakeholders and may potentially eliminate the need to send future Daily Briefings on this subject.

7.1.2 Clarify use of RMR versus CPM procurement

Some stakeholders believe that the ISO should provide additional clarity on the use of RMR procurement versus CPM procurement. The ISO agrees that additional information would be helpful and will provide additional clarification in this initiative. The ISO will consider the interplay between RMR and CPM to ensure that both mechanisms work properly. The ISO will provide process flow information showing how retirement requests will be evaluated within the overall process. The goal is to provide an understanding of how the procurement processes interact with each other.

In the second revised straw proposal, the ISO proposed to keep both the RMR and CPM procurement mechanisms; use CPM procurement to backstop the RA program; use RMR procurement to address resource retirements; base RMR procurement on full cost of service;

base CPM procurement on bids submitted into the CSP or the soft-offer cap price if a bid has not been submitted in the CSP; require a MOO on all RMR and CPM resources; and use the RAAIM mechanism as the performance incentive for all RMR and CPM resources. The ISO provided a process flow diagram of the use of CPM procurement versus RMR procurement. The ISO proposed that if any resource owner wants to be considered for an RMR designation, the resource owner must submit a formal affidavit to the ISO of its plan to retire or mothball. The ISO also proposed new elements to the retirement/mothball process to mitigate the impacts on the RA program and provide a longer runway for resource owners, if they so choose, to make significant business decisions in a timely manner.

Stakeholder Comments

Calpine agrees with the ISO that the submission of a notice to mothball or retire must be submitted to the ISO prior to engaging the RMR process. Calpine continues to believe that the runway to RMR is unworkable. The proposal to allow for a renewed "early window" for submission of an unavailability notice does nothing to improve the constraints imposed. The ISO should wait to see what, if anything the CPUC approves as final and not appealable before taking anything to the Board. **CPUC** ED Staff appreciates establishing a timeline for requesting and approving RMR designations to allow for additional planning and retirement of the resource. Staff does not believe the ISO's second revised straw proposal is or will be ready for Board approval in March. The proposed compensation for CPM ROR/RMR and CPM continue to be inadequate to address the front running and withholding issues that are leading generators to choose the backstop path over a bilateral agreement. The proposed anti-toggling provisions are not adequate to address Staff's previously raised concerns regarding compensation incentives to switch between the ISO's backstop compensation and the bilateral market. The proposed retirement and ROR vehicle lacks necessary retirement request criteria and market tests needed to ensure that retirement requests are not leading to market withholding and manipulation. Staff does not support the proposed full cost-of-service compensation, primarily because it allows for resources to switch (toggle) between market compensation and cost-of-service compensation. The proposal fails to adequately mitigate market power concerns. The proposed RMR retirement affidavit requirements need to be more stringent and include supporting financial information and documentation that substantiates retirement decisions. **DMM** believes the ISO's proposal includes significant incremental enhancements to the existing backstop procurement design. However, the ISO's proposal does not address the following concerns: (1) the ISO's proposed cost recovery above the soft offer cap may be excessive if a supplier can file for its actual GFFC plus 20% and also retain market revenues; (2) the current soft offer cap may be too high for annual CPMs; (3) when CPM solicitations are not competitive, resources can attain compensation at the soft offer cap plus retain all market revenues and this compensation may be significantly in excess of a resource's GFFC plus a reasonable return; and (4) while the ISO will seek to limit RMR contracts for avoiding resource retirements, the current process and proposed enhancements could still allow for units that have no intention of retiring to seek RMR compensation. DMM suggests that the ISO set the expectation that cost filings will be subject to review by the ISO and/or DMM, and that submission of misleading information or evidence of market manipulation may be referred to FERC. DMM supports the

ISO clarifying when CPM versus RMR should be used, and its proposals to require an offer affidavit when a retirement notice is submitted to the ISO. The ISO could require resources attesting retirement to submit cost information to the ISO/DMM for review and also clarify potential consequences if it appears that a retirement decision constitutes potential physical withholding. The criteria for filing at FERC could also include the requirement that the generator make a showing that they intend to retire and it is not economic to stay on-line absent additional RMR compensation. Other ISO market monitors (PJM, NYISO, ISO-NE) require submission of resource costs and review resource costs to evaluate reasonableness of retirement decisions. **EBCE** believes the ISO should create a timeline that reflects a *residual* buyer scenario for the RA program. **IEP** supports using CPM to "backstop" the CPUC's RA program in instances in which LSE RA procurement proves to be insufficient to ensure grid reliability (local, system, and flexible). **NCPA** supports the clarification offered in the second revised straw proposal. NCPA is concerned with the underlying assumptions associated with the use of the term central buyer in section 7.1.2 as that concept is still under development at the CPUC. The timeline states "ISO publishes results of retirement/mothball study, and provides this info to central buyer." NCPA strongly believes this information should be distributed to all applicable LRAs, not just a central buyer, because there will still be LSEs procuring local (and other) RA on their own behalf. **NRG** believes **t**he ISO's proposal to not designate a unit as RMR until the September Board meeting leaves inadequate time for the RMR owner to prepare the complex and extensive cost-of-service filing required by the RMR contract by the end of October. **PAO** agrees with the proposal that if a resource declines a CPM designation, the resource must submit a legal affidavit attesting the resource will retire, unless some other type of procurement occurs, before the ISO considers it for an RMR designation. PAO recommends the ISO clarify that it will terminate the PGA by an established deadline for a resource with a legal affidavit attesting that the resource will retire, unless some other type of procurement occurs, if the ISO does not find a need for the resource. The ISO should discuss the eligibility of resources for mothballing and apply additional conditions to deter gaming, such as extending the minimum time period for mothballing a resource or limiting the frequency of requests to mothball. PAO believes the ISO should move forward with producing an ERR study. **PG&E** is concerned that the mothball request remains a significant loophole. Although the ISO proposes to require the same attestation by a company officer as for a retirement, there is nothing definitive about a mothball request, which can either be rescinded at any time prior to the effective date of the mothball, or the unit may mothball and then come out of mothball status with as little as a 30 day turnaround. Treating a mothball request equivalently to a retirement for purposes of RMR assessment permits price discovery for resources seeking to earn more than they would in a competitive market. The ISO has not proposed additional rules that hold resource owners accountable for the attestations provided when alternatives are subsequently identified and the deficiency is mitigated without contracting for the unit in question. **SCE** does not object to the lack of market power mitigation leading to a few months of CPM awards, but the ISO has not demonstrated that the soft-offer cap in the CSP is a sufficient market power mitigation mechanism for designations extending 12 months. SCE reiterates its request for a three pivotal supplier test to be implemented for any annual CSP. **SDG&E** opposes the ISO proposed use of RMR versus

CPM. The timing of the ISO process for generators puts notice far ahead of the normal annual RA program timing and front runs the CPUC process. It would be possible for generators to give notice of mothballing in February and find out if it is an ERR before annual RA contract negotiations begin. This effectively sets a full cost of service floor for LSE RA contract negotiations if the unit is an ERR. If the unit is not an ERR, the unit can exit mothballing with little or no harm because the attestation is not strong. This would drive up the cost of reliability for ratepayers. SDG&E supports a payment framework that recognizes ERRs have market power and that has the same result regardless of the path taken (RMR or CPM) probably based on full cost of service less net market revenues. **Six Cities** are generally supportive of the framework proposed by the ISO, but urge the ISO to consider whether there should be different or additional requirements applicable to mothballing resources. Six Cities note the ISO's view that rules prohibiting false statements and misrepresentations to the ISO should be adequate to thwart retirement and/or mothballing requests that are simply attempts to engage in price discovery or gauge the level of need for a particular resource. Six Cities urge the ISO to more fully consider and address the concern identified by SCE related to the potential exercise of market power by resources potentially subject to an annual CPM. **WPTF** believes the ISO has done a good job at explaining the functional differences between RMR and CPM and its intent to ensure each mechanism functions for its intended purpose.

Draft Final Proposal

The ISO has existing authority from FERC to do the majority of the things discussed in this section, and the ISO is not proposing wholesale changes to the overall RMR and CPM construct as the ISO believes that as a whole, these two existing procurement mechanisms work well and function as intended. The key features of the proposed RMR and CPM construct are summarized below.

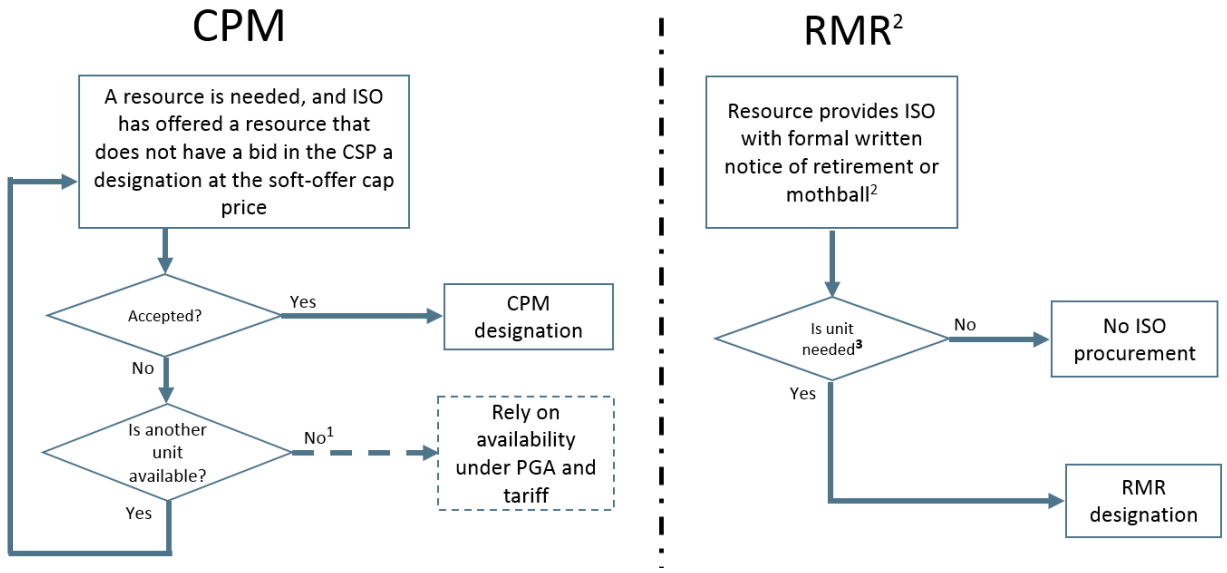
- The ISO will keep both the RMR and CPM procurement mechanisms.
- The ISO will use CPM procurement to backstop the RA program and for Significant Events and Exceptional Dispatches.
- The ISO will use RMR procurement to address resource retirements. As is the case today, resources must meet reliability needs supported by a reliability study.[2]
- All retirement procurement authority, including ROR, will be addressed through the RMR tariff provisions. Thus, going forward, RMR procurement will also encompass ROR CPM authority.
- RMR procurement will be based on full cost of service because RMR procurement is mandatory.
- CPM procurement is voluntary if a resource has not submitted a bid into the CSP.

[2] The ISO will continue to have the authority to designate resources needed for reliably services under the tariff to retain resources it needs for reliability in circumstances that require the ISO to act to retain such resources.

- If a bid has been submitted in the CSP and the ISO accepts that bid, then that resource cannot decline the CPM designation.
- All RMR and CPM resources will have a MOO.
- All RMR and CPM resources will be subject to RAAIM.

A process flow diagram of the use of CPM procurement versus RMR procurement is shown in Figure 2 below.

Figure 2 Use of RMR and CPM Procurement



If a resource declines a CPM designation, the ISO will offer the next most effective resource that can meet the need a CPM designation. If no other resources are available, the ISO will not go directly to offering the resource an RMR designation.

Any resource that wants to be considered for an RMR designation must submit a formal retirement or mothball affidavit to the ISO. This notice must be signed by an officer of the company who has the legal authority to bind such entity attesting the resource will not remain in service and that the decision to retire or mothball is definite unless some other type of ISO procurement of the resource occurs, the resource is sold to a non-affiliated entity, the resource receives some other contracts, or the resource enters into an RA contract. In the formal retirement or mothball notice to the ISO, the resource must state that it is planning to retire or mothball at a certain date, but no later than 90 days prior to the date the resource intends to stop service. The affidavit must also be notarized. If the resource wants to subsequently come out of its mothball status, the resource must submit a formal notice to the ISO that states which of the three conditions have changed for the resource, i.e., some other type of ISO procurement of the resource occurred, the resource was sold to a non-affiliated entity, the resource receives some other contracts

or the resource has entered into an RA contract.[3] The ISO will have the right to refer the resource owner to FERC if it appears that false information has been filed by the resource owner. For mothballs the ISO will revise the BPM for Generator Management to change the current no later than 60-day prior to requirement to now be no later than 90-days prior to termination effective date. The ISO will expect the resource to also send a notice to the CPUC, if applicable, indicating its intent to retire or mothball. If the resource owner does not wish to submit a retirement or mothball affidavit and notice of PGA termination, the resource remains available for dispatch under its Participating Generator Agreement and ISO tariff.

The ISO also proposes to add new elements described below to the retirement and mothball process to make it more orderly, mitigate the impacts on the RA program, and provide a longer runway for resource owners, if they so choose, to make significant business decisions in a timely manner. The new elements are summarized below and in Figure 3.

If a resource is not an RA resource in the current RA year and is planning to retire or mothball:

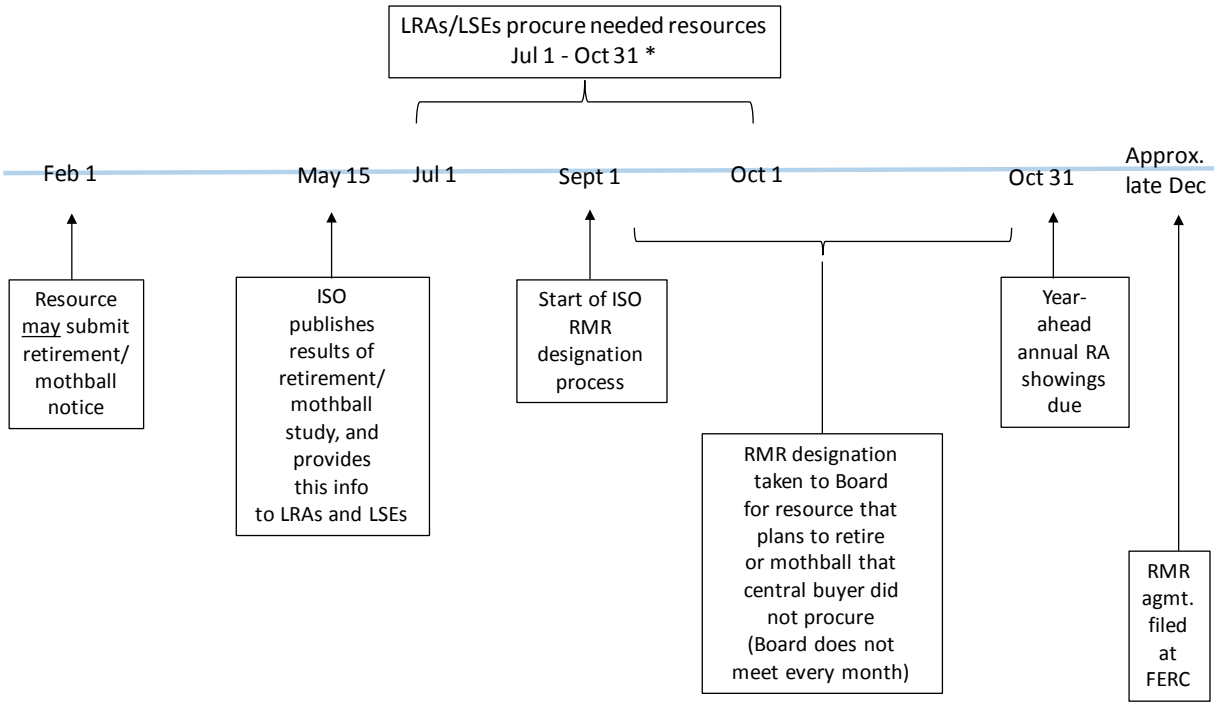
- A resource owner can submit a notice at any time during the year and the ISO will inform the resource owner of the study results promptly.
- If a resource owner wants to obtain a longer runway to make retirement/mothball decisions, the resource can choose to submit a notice before the PGA deadline.

If a resource is an RA resource in the current RA year and is planning to retire or mothball:

- If a resource owner wants a longer runway, it may submit a notice by February 1 of the current RA year, and the ISO will study/inform LRAs and LSEs of the results of the study by May 15. However, the ISO will not start its RMR procurement process for such resource until September 1. This delay until September will allow several months for procurement of a needed resource by an entity other than the ISO through RMR. This approach is consistent with the current RMR timeline where the ISO typically seeks new RMR designations from the Board at the September Board meeting. This provides the necessary time for the ISO to negotiate the RMR agreement, which must be filed by October 31 (for a January 1 effective date) to satisfy the 60-day notice requirement in the Federal Power Act. Any new RMR designations will be conditional to allow for LRAs and LSEs to procure such resources prior to the end-of-October deadline for submitting annual RA showings. This process also can provide earlier notice to resources filing retirement and mothball notices that they are needed (or not needed) and will be procured as RMR if they do not receive an RA contract, thus allowing them to make plans for the upcoming year.
- If a resource owner provides notice after February 1, the only commitment the ISO will have is to inform the resource of the study results within 60 days prior to the expiration of the RA contract or 90 days of the request, whichever is later.

[3] With respect to retirements, the ISO does not allow a resource owner to rescind the notice.

Figure 3 – Timeline of RMR Retirement Procurement and RA Process



Some stakeholders believe that resources seeking to retire or mothball (and potentially receiving an RMR agreement) should provide financial information so an assessment can be undertaken to determine the resource's financial condition. In connection with the ISO's ROR CPM, FERC rejected the ISO's proposal to require resources seeking CPM designations to provide financial information to deter gaming.[4] FERC stated that because market participants are prohibited from submitting false or misleading information to the ISO, the affidavit should be sufficient to establish that a resource cannot operate economically. Other ISOs, such as the New York ISO and Midcontinent ISO, do not require that retiring or mothballing resources demonstrate that they are uneconomic to receive and RMR or System Support Resource agreement.

The CPUC has expressed a concern that the ISO's proposal is not "adequate to deter resource from moving between backstop and market participation." The CPUC's concern is misplaced. The ISO's RMR cost compensation principles do not present the "toggling" incentives that FERC identified in its New York ISO orders, and FERC has no objection to pre se for resources to move back and forth from RMR to market. The ISO has distilled the following principles from FERC precedent.

- RMR service (or its equivalent) is fundamental to the proper and efficient operation of an electricity market. *New York Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,116 at P 9 (2015).

[4] *California Independent System Operator Corporation*, 134 FERC ¶61,211 at P 132 (2011).

- Each market is different, and thus there is no "one size fits all" approach that is appropriate for all RMR regimes. *PJM Interconnection, LLC*, 107 FERC ¶ 61,112, 61,362 (2004).
- For a mandatory RMR program, RMR compensation must be at full cost of service. *New York Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,116 at P 17; *Midcontinent Indep. Sys. Operator, Inc.*, 148 FERC ¶ 61,057, at P 84 (2014).
- Rules governing RMR status should be designed to "eliminate, or at least minimize, for a generator needed for reliability to toggle" between RMR and market status. *New York Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,116 at P 9.
- On the other hand, the 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." *New York Indep. Sys. Operator, Inc.*, 155 FERC ¶ 61,076 at PP 127-128.

The ISO's RMR compensation rules are consistent with FERC guidance and address toggling incentives appropriately. Limiting our discussion to Condition 2 consistent with the draft final proposal, the RMR contract is designed to compensate the RMR owner *for the year of RMR service at cost of service as required by FERC where RMR service is mandatory*. This principle applies both to undepreciated booked costs plus variable costs as well as any capital additions thereby addressing two toggling scenarios identified by FERC in New York Indep. Sys. Operator, Inc., 155 FERC ¶ 61,076 (2016) discussed in more detail below.

The first concern FERC identified is where a generator concludes that it would receive higher compensation under an RMR agreement than through market-based alternatives. Based on the mandatory nature of RMR service, the ISO must compensate RMR owners based on traditional cost of service. The ISO has modified the pro forma RMR Agreement to eliminate the hard wired 12.25 % percent return, a rate of return that many stakeholders argued was excessive. With this change, RMR owners will have to justify the proposed return in when they file their RMR Agreement and related rate schedules like any provider seeking to establish a regulated rate of service. As for variable costs and market revenues, the RMR owner is only entitled to retain market revenues up to the level of variable costs compensation included in the RMR contract. In other words, RMR units cannot retain revenues in excess of their FERC-approved cost of service. All market revenues above contract entitlement are applied to offset fixed costs payable under the RMR contract.

The second concern, is where a generator seeks an RMR contract to recover the cost of upgrades and then returns to market service. The ISO's RMR contract provides a mechanism for RMR owners to propose capital additions and for the RMR contract to compensate RMR owners for those capital additions. The ISO's mechanisms of significantly different from other ISOs. The ISO does not upfront fund capital additions. The RMR owner must fund or otherwise finance the capital additions. Each capital addition will have a depreciation schedule with the RMR compensation limited to the pro rata annual contribution for each year the resource remains under an RMR agreement. Thus, the ISO only compensates the RMR owner for a

"sliver" of its capital addition costs for each year of RMR service, and FERC must approve the RMR Agreement. Once the RMR agreement is terminated, the ISO's contribution towards any balance of unpaid capital additions costs, will also terminate if the resource returns to the market. If the resource retires following RMR service, the ISO is obligated to pay a termination fee pursuant to section 2.5 of the RMR contract if the resource closes within six months following the termination of the RMR contract, and stays closed for 36 months. However, the termination fee is calculated differently from the annual capital additions payments. The capital additions compensation includes a return on investment. The termination fee does not include this return on investment. The termination fee consists solely of the unpaid balance of cost of the capital addition plus interest at the FERC rate.

The ISO's RMR compensation mechanism is consistent with FERC precedent and appropriately balance the incentives without unduly benefiting either the owners' or the buyers' interests. It adequately addresses toggling concerns while recognizing that acceptance of an RMR agreement is mandatory. That buyers' would prefer to pay less for RMR service or RA capacity does not mean paying RMR owners their cost of service is unreasonably attractive or constitutes a windfall. In addition, when the RMR agreement terminates, the RMR owner must decide whether to return to the market or retire. The only potential issue here is where the resource closes and remains closed for the full 36-month period and then returns to service. Under the RMR agreement, the RMR owner would not be required to refund any of the termination fee that has already been paid to it. The ISO does not believe that getting a refund of balance of unpaid capital costs that the RMR had to pay to maintain its resource plus interest at the FERC rate is a sufficient incentive to remove its resource from the market for 36 months especially given that (1) a unit owner continues to incur certain fixed costs while the unit remains, and (2) once a resource is non-participating for this period of time the resource losses its deliverability. In addition, the resource would be required to follow the interconnection process to re-connect to the grid and re-establish deliverability.

7.1.3 Explore whether ROR CPM and RMR procurement can be merged into one mechanism

As part of this initiative the ISO is considering whether it is possible to integrate RMR and ROR CPM into a single, cohesive ISO procurement mechanism (or merge certain aspects of each) where the ISO would assess the two different reliability need horizons - the upcoming year (or "year one") and the year after that year (or "year two") - under a single procurement mechanism.

In the second revised straw proposal, the ISO proposed to delete from the CPM tariff the existing authority to designate a resource needed for "year two" with a bridge in year one and add that same authority to the ISO's RMR tariff to allow the ISO to designate a resource as RMR that is needed for year two with an appropriate length bridge.

Stakeholder Comments

Calpine –Calpine supports the elimination of CPM ROR, and the retention of RMR. **IEP** is not supportive of merging the CPM and RMR paradigms because they are designed to address

distinctly separate conditions that may arise in the marketplace. **NCPA** supports merging ROR CPM with RMR. **PAO** believes the ISO should clarify that it will incorporate any study of reliability need in year 2 into the existing local and flexible capacity technical study processes. And requests to mothball the resource should not qualify for an RMR based on a need in year 2. **PG&E** objects to this element of the ISO proposal because it believes the ISO's proposal not only results in over-procurement during year one but the year two need could fail to materialize when re-evaluated at the end of year one, leading to payments for unneeded capacity. **SCE** supports the ISO proposal. **SDG&E** supports moving ROR out of CPM and into RMR.

Draft Final Proposal

The ISO proposes that all retirement or mothball procurement authority, including ROR CPM, will be merged into one mechanism under the RMR tariff. The ISO will move to the RMR tariff the ISO's backstop authority that is currently reflected in the ROR CPM tariff. In other words, the ISO may designate as RMR for the upcoming year a resource that is needed for reliability before the end of the following year. This change will eliminate the current ROR provisions under the CPM tariff. The length of the ROR RMR procurement will remain a maximum of one year, as it is now under the ROR CPM tariff. The ISO already has this ROR authority in its tariff, and the ISO does not agree with stakeholders that the ISO should eliminate it because it may need this authority as a last resort to ensure resources needed to maintain reliable operation of the grid are available.

7.2 RMR Items

This section discusses items specific only to RMR tariff provisions, pro forma agreement or procurement processes.

7.2.1 Develop an interim pro forma RMR agreement

The ISO took to the ISO Board of Governors in July 2018 a non-substantive, limited interim change to the pro forma RMR agreement that would allow the ISO the right to terminate the RMR agreement and re-designate the RMR resource (and other resources at the same facility) under the new comprehensive pro forma RMR agreement (following the end of the RMR agreement year) once the new comprehensive pro forma RMR agreement is accepted by FERC. The right to immediately re-designate would not apply to RMR resources under RMR agreements currently in effect. The proposed interim RMR contract would apply to RMR designations following FERC acceptance of a new pro forma RMR contract.

In the second revised straw proposal the ISO stated that on October 29, 2018, FERC approved the interim change to the pro forma RMR agreement effective September 1, 2018.

Stakeholder Comments

NCPA supports the development of the interim pro forma RMR agreement. **NRG** believes the ISO should throw out the *pro forma* RMR contract and develop a new *pro forma* agreement. NRG is concerned with the ISO's proposal to throw out Schedule C and rely on the bid cost recovery process to guarantee recovery of fuel costs. NRG had to expend significant cost and

effort to file at FERC to recover unrecovered fuel costs in 2018 and objects to subjecting the RMR owner to that risk. **SCE** supports the ISO proposal. **SDG&E** supports the ISO proposal. **Six Cities** understand that this step has been completed.

Update for Draft Final Proposal

As stated above, this item has been completed with FERC approval of the interim change to the pro forma RMR agreement. Effective September 1, 2018, for new RMR designations the ISO will be able to terminate the interim form of agreement effective at the end of the contract year and immediately re-designate RMR resources under the new substantive RMR agreement for the following contract year. The right to immediately re-designate would not apply to RMR resources under RMR agreements currently in effect. The ISO and existing RMR Unit owners may mutually agree to transition to the new pro forma at any time.

7.2.3 Make RMR resources subject to a MOO

The RA program requires that procured resources offer into both the energy and AS markets. The current construct for RMR was developed at ISO startup, before the RA program was implemented, and does not require RMR resources to bid into energy and AS markets with a MOO. The ISO believes that it is appropriate that resources receiving RMR designations have a MOO for the energy and AS markets. In the second revised straw proposal the ISO proposed that RMR resources should have a MOO for energy and AS similar to the current RA MOO for energy and AS.

The second revised straw proposal described the bidding rules for RMR resources with a MOO and stated that all major maintenance costs (adders) and opportunity costs should be reflected in bids for RMR resources to ensure that the true cost of operation is considered in market decisions. Pursuant to existing provisions, the ISO would have the ability to instruct an RMR resource to not run.

Stakeholder Comments

Calpine continues to object to a MOO with mandatory marginal-cost-based bids for Condition 2 resources as it will result in price suppression. If the ISO enforces a variable cost-based MOO, the ISO should calculate and insert bids. **CPUC** ED Staff continues to support the ISO adding a MOO to RMR resource designations. **IEP** accepts that generators operating under RMR will be subject to MOO. **NCPA** supports making RMR resources subject to MOO. **NRG** believes the ISO's proposal for a full-time, cost-based MOO creates a host of issues, especially when coupled with the ISO's proposal to remove the availability provisions from the RMR contract and subject the RMR unit to RAAIM. A unit that is forced to offer at cost at all times may now run far more frequently than it has run in recent times; NRG opposes the ISO's proposal as it is likely inconsistent with the reason why the unit was designated as RMR in the first place. It is one thing for a unit owner that voluntarily signs an RA contract to take on that full-time MOO. It is another thing to force that full-time cost-based MOO on a unit that would otherwise retire. **PAO** continues to support the ISO's MOO proposal. **SCE** supports the ISO's MOO proposal and also supports the proposal on cost allocation. **SDG&E** supports the ISO MOO proposal. **Six Cities**

support application of a MOO and agree that the obligation should be a 24x7 requirement. The proposal to require resources to submit cost-based bids (inclusive of any major maintenance costs) with crediting for market rents above variable costs is reasonable. **WPTF** remains concerned that the ISO's proposal is still muddling the line between RMR and CPM by applying an at-cost MOO on RMR resources. Applying a MOO on RMR resources that are indifferent to market revenues would adversely impact market prices. Requiring the resources to bid in at ISO estimated cost during all hours will suppress market revenues. Imposing a MOO and subsequently applying RAAIM is not the best way to provide incentives. The ISO should explore other modifications.

Draft Final Proposal

Many stakeholders support the ISO moving forward with its proposal for a MOO; however, several stakeholders have requested that the ISO clarify how maintenance costs will be treated in bids given that an RMR agreement includes compensation for such costs. Several stakeholders believe the ISO should not file a MOO requirement until the ISO has conducted a thorough discussion with stakeholders of all of the items in the scope of this initiative. In addition, some stakeholders believe that if there is a MOO, additional resource performance requirements are needed relative to the current ISO proposal, which includes making RMR resources subject to the RAAIM mechanism that current RA resources are subject to. Several stakeholders object to having a MOO obligation as proposed by the ISO; however, the ISO disagrees and believes that RMR resources should have a MOO and be in the market for hours that the resource is physically capable of submitting bids, with the market making commitment and dispatch decisions based on the true cost of operating each resource and optimizing dispatch.

The ISO proposes that all RMR resources have a MOO, which will be a 24x7 requirement. RMR resources bidding into the market will be required to bid, as outlined below.

The ISO will continue to pay RMR resources their full cost of service and the following will apply:

- Submit cost-based bids into energy and AS markets;
- Credit all market rents above variable costs to the fixed payment;
- Receive uplift for all market rents below variable costs through existing bid cost recovery mechanism;
- Credit all Residual Unit Commitment ("RUC") revenues above $0 to the fixed payment;
- Insert ISO-generated cost-based bids if no bids are submitted by the SC; and
- Allow for special operating instruction from the ISO, including those for the resource not to run.

The ISO will revise systems so that ISO-generated cost-based bids for RMR resources can be it created and submitted for resource that have not bid into the market, similar to how the ISO currently generates and submits ISO-generated bids for RA resources. The ISO-generated bids will include:

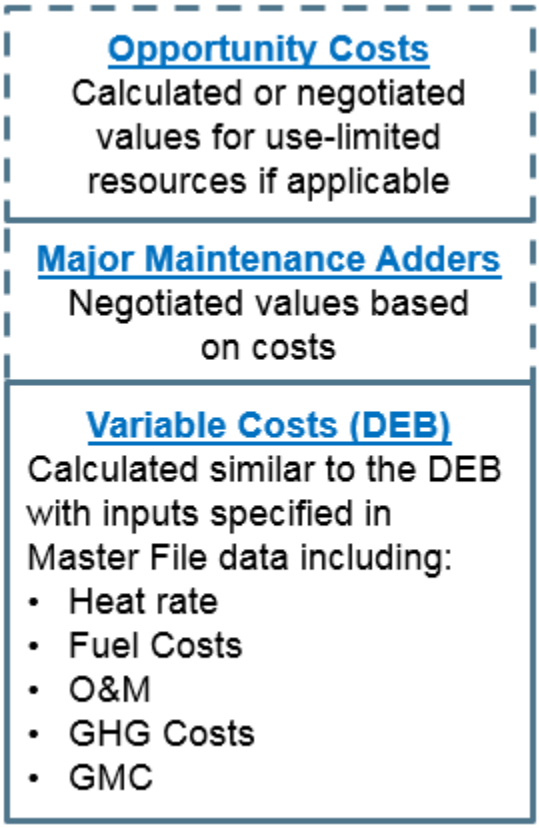
- Start-up costs;
- Minimum load costs;
- Energy costs; and
- Multi-Stage Generator ("MSG") transition costs (using registered default values).

The ISO will generate and submit AS bids at $0/MWh. The ISO-generated RUC bids will translate to $0 offers. Energy bids would include the following components:

- Fuel costs;
- Operation and maintenance;
- GHG costs;
- Grid Management Charge ("GMC"); and
- Opportunity costs.

Major Maintenance adders ("MMA") and opportunity costs, if applicable, will be reflected in bids to ensure true cost of operation is considered in market commitment and dispatch decisions. Thus, RMR resources will be required to bid into the market at total cost. Actual major maintenance costs will be fully compensated via the fixed payment of the RMR, similar to the current RMR design. Any market rents earned above variable costs specified in the RMR contract would be credited to fixed cost payment to prevent double recovery of major maintenance adders, opportunity costs and market rents earned by the resource through market commitment and dispatch instructions. Resources with RMR agreements will be eligible for bid cost recovery (BCR) payments when market earnings are insufficient to cover variable costs. This concept is illustrated below in Figure 4 below.

Figure 4 – Bids for RMR Resources



Note: MMAs and opportunity costs will be used only if applicable.

The ISO disagrees with some stakeholder feedback stating that imposing a MOO on RMR resources will inappropriately suppress market prices. ISO/RTO markets are based on the premise that in a competitive wholesale electricity market, a resource's offer will be approximately equal to short run marginal costs (including opportunity cost). The components and pricing of RMR unit market bids is consistent with this principle. Similarly, units with high marginal costs will have high RMR cost-based bids. Further, cost-based bids can include appropriate opportunity costs.

Under an RMR agreement, the ISO is procuring the entire resource and paying its full cost of service. Under these circumstances, the ISO should have access to all of the resource's attributes, including full participation in the energy market, when prices are above the variable operating costs for the resource. Less participation could lead to unnecessary over-procurement and ultimately ratepayers not receiving the full value of the resource for the money being paid.

7.2.4 Consider making RMR resources subject to RAAIM

It is important for RA, CPM and RMR resources to have performance incentives so that the resources are motivated to provide the services for which they were procured. RA and CPM resources are subject to the RAAIM performance incentive mechanism. RMR resources also need a performance incentive mechanism.

In the second revised straw proposal the ISO proposed that all RMR resources will be subject to the RAAIM mechanism and the current two resource performance incentive provisions in the RMR pro forma agreement will no longer be used as RAAIM will be applicable instead.[5]

Stakeholder Comments

Calpine supports the implementation of RAAIM for RMRs, so long as the units are not required to self-schedule and the other availability penalties of the pro forma RMR contract are eliminated. **CPUC** ED Staff supports making RMR resources subject to the same RA availability incentives as RA resources. However, given the potential changes to RAAIM as proposed in the RA Enhancement Initiative Straw Proposal, it will be important to design a RAAIM mechanism that incentivizes both resources under cost of service contracts and under a market-based contracts to be available to the ISO when they are needed, which may require carve outs for RMR/cost of service contracts where lowering its NQC will not impact the price it gets paid. **IEP** is concerned that the ISO proposes to make RMR resources subject to the RAAIM penalty, given that a RMR resource by definition has no substitute(s). **NRG** believes eliminating the RMR contract availability provisions and subjecting RMR units to RAAIM would be a highly controversial move, even knowing what the structure of RAAIM is right now. Eliminating the availability provisions and subjecting the RMR unit to RAAIM when the ISO and market participants have no idea what RAAIM will look like going forward, and will not know for many months, is unacceptably speculative. NRG respectfully urges the ISO to delay the CPM-RMR process so the consideration of transitioning RMR units to RAAIM can be synched up with the "holistic" redesign of RAAIM. **PG&E** agrees that reduced administrative burden can be a worthy goal, but remains unconvinced that using RAAIM as the mechanism outweighs the risks. PG&E contends that the RMR units, which are compensated at their full cost of service, should have a stronger incentive to be available at the specific times that match the specific needs for which they are being retained and not allowed to retire. **SCE** believes that the RAAIM mechanism by itself is not sufficient to ensure that the LSEs that pay for the resource receive commensurate benefit from the resource. SCE believes that instead of using RAAIM unaltered, the ISO, through the RMR negotiation, should define the minimum availability of the resource. Outages above this amount would result in a claw back of the capacity payment for the period of unavailability. The minimum availability can and should be shaped based upon the reliability need and typical energy prices for the month. **SDG&E** opposes the ISO proposed use of RAAIM. An RMR penalty should be based on actual performance over all hours and not just the limited RAAIM assessment hours and without a further dead-band to avoid penalties like RAAIM does. The penalty amount should be strictly tied to the individual level of RMR payment not a generic level like RAAIM. **Six Cities** support an appropriate enforcement mechanism and the ISO and stakeholders should focus on adopting a performance mechanism that would best encourage the expected level of performance under the RMR agreement. Requiring a non-performing RMR resource to return the capacity payment associated with any period of non-

[5] See Article 8 of Appendix G of the RMR pro forma agreement for the RMR Non-Performance Penalty and Long-term Planned Outage Adjustment.

performance appears to be a relatively straightforward enforcement mechanism that would be more consistent with the RMR structure. Stakeholders have not been provided with information demonstrating that use of a different penalty pricing structure for RMR agreements would result in an undue or inappropriate administrative burden for the ISO.

Draft Final Proposal

The current RMR availability payment in the RMR pro forma agreement does not provide an incentive to submit bids, and it limits the ISO's ability to streamline the RMR settlement process by requiring the ISO track and validate availability in a separate tracking system. The ISO believes applying the same performance mechanism to RA, CPM, and RMR resources is the best solution. RMR resources will be subject to RAAIM, like RA and CPM resources, and the ISO will no longer use the two existing penalty provisions currently in the RMR agreement.

RA, CPM, and RMR resources all meet reliability needs. For example, all capacity in a local capacity area helps meet the LCR requirements in that area, and should have similar obligations. RA and CPM resources meeting LCR requirements do not have "custom" penalty provisions if they are required to meet particular, targeted reliability needs. Neither should similarly situated RMR resources. A resource required to meet a specific reliability need should not have different obligations if it happens to be procured as RA, RMR, or CPM in a given year. Therefore, RMR resources should be subject to RAAIM, similar to resources procured via RA and CPM. Maintaining a separate set of incentives and requirements for each RMR resource creates inconsistencies between capacity procurement mechanisms, adds undue complexity to the ISO systems and processes, and establishes inefficiencies in the market optimization and settlement processes.

A MOO is a key element of the proposal to align RMR with the RA and CPM reliability capacity construct and streamline the process for dispatching market resources economically to meet the system needs. With the MOO in place, the ISO will dispatch RMR resources using the same process used to dispatch RA and CPM resources. The proposed approach is identical to treatment of CPM capacity, where monthly fixed capacity payments are combined with the assumption that the procured capacity is available for the entire month with potential incentives or penalties for availability and bidding. RMR will be able to substitute using the same rules applicable to RA and CPM resources, and should be subject to the same penalty mechanism.

The ISO permits resources to take planned outages without being subject to potential RAAIM penalties and believes that RMR resources do not face significantly different exposure in finding substitute capacity than do RA or CPM resources that are located in a local area. The ISO proposes to replace the RMR incentives and penalties with RAAIM so as not to impose duplicative measures. The ability to substitute for both planned and forced outages would be available to RMR resources because the resources will be modeled like RA and CPM capacity in the ISO systems and this will provide the ability to mitigate exposure to RAAIM penalties associated with outages.

The RAAIM penalty will claw back a portion of the capacity payments similar to application of RAAIM on CPM capacity.

Some stakeholders argue that ratepayers are paying a premium for RMR service and should be getting a superior product in terms of unit availability. They suggest that RMR units will have no incentive to provide availability during hours outside of the RAAIM availability assessment hours. This ignores that RMR resources will have the same MOO applicable to similarly situated RA and CPM resources. A resource's failure to meet its energy market obligations may constitute a tariff violation.[6] Further, the RAAIM penalty price for RMR resources will be the higher of the RMR agreement price or the RAAIM penalty price, similar to the approach for a CPM resource. So, if the RMR unit is paid a price above the RAAIM penalty price, any penalty will be based on the higher RMR agreement price.

The ISO recognizes that some stakeholders do not support using RAAIM "as is," and instead advocate for a different performance mechanism than RAAIM. The ISO proposes to address this concern by better describing to stakeholders how the ISO's outage process works with RAAIM. Further, if stakeholders still believe a different performance standard or mechanism should be used for RMR resources, the ISO will assess this in the ISO's RA Enhancement initiative, which is considering possible changes to the resource performance mechanism. Until any different mechanism is approved and implemented. RAAIM would apply to all resources. For the period up until that time, RMR resources subject to a must offer obligation should not have a different penalty structure than RA or CPM simply because the ISO is exploring alternatives to RAAIM in an ongoing stakeholder process.

7.2.5 Consider whether Condition 1 and 2 options are needed

When RMR was initially established it made sense to offer resource owners an option where the owner could be paid for some of its fixed costs and also earn market revenues that it could keep (Condition 1), or an option where the owner could be paid for all of its fixed and variable costs and in return would forfeit any market revenues it earned (Condition 2). Currently the resource owner can choose between the Condition 1 or Condition 2 option.

In the second revised straw proposal the ISO stated that it had decided to eliminate the Condition 1 option.

Stakeholder Comments

Calpine supports the Condition 2 structure for RMR compensation. While the elimination of Condition 1 does allow for settlement simplification, Calpine continues to believe that this market-revenue, risk-sharing option could assist greatly in the settlement of RMR contractual matters. **CPUC** ED Staff supports the ISO's decision to remove Condition 1 option from its proposal. **NCPA** supports elimination of condition 1. **NRG** believes it is difficult to make such a judgment in isolation; the viability of keeping or dropping either Condition will depend on how many other things in this (and other initiatives) turn out. **SCE** supports the ISO's proposal to

[6] *ISO New England, Inc.* 147 FERC ¶61,172 at P 38. FERC has also recognized that strong behavior rules and the ISO's must-offer obligation is sufficient to prevent the exercise of market power. *California Independent System Operator Corporation,* 112 FERC ¶61,61,310 at P 39 (2005).

eliminate Condition 1. **SDG&E** supports the ISO proposal to eliminate RMR Condition 1. **Six Cities** believes the proposal to eliminate Condition 1 is reasonable.

Draft Final Proposal

The ISO proposes to eliminate the Condition 1 option. The revised RMR tariff and pro forma agreement will no longer offer the option of having an RMR agreement with Condition 1 features. The RMR agreement will be revised to reflect the full cost-of-service approach with credit back of market rents above costs, similar to the Condition 2 option in the current agreement. The ISO believes that it is appropriate to eliminate the Condition 1 option as it creates the appropriate incentives, simplifies the RMR structure, provides clear separation between CPM and RMR compensation, and aligns with the proposal for RMR resources to have a MOO.

7.2.6 Update rate of return for RMR compensation

In this initiative the ISO has considered overall RMR compensation, including the rate of return that can be included in an RMR agreement. The current rate of return, as a component of the cost based rate of return, is specified as 12.25% in the RMR pro forma agreement.[7] This value is applicable on a pre-tax basis and is applied to the 'net-investment' value (undepreciated assets) for resources eligible for RMR. Despite changing economic and business conditions this rate has not been updated since the original language for the RMR agreement was implemented.

In the second revised straw proposal the ISO proposed eliminating the existing 12.25 percent from the *pro forma* agreement and requiring the RMR owner to establish the rate of return for schedule F cost as part of its initial rate schedule filing at FERC following designation for RMR service.

Stakeholder Comments

Calpine prefers a "hard-wired" ROR. If the ISO moves forward with a project-specific formulation, it must allow the resource to include the costs of developing the rate of return showing (by an outside expert, as needed) in the cost-of service. **CPUC** ED Staff supports this change since it will require the generator seeking compensation to justify its capital structure to FERC. **IEP** supports the ISO proposal to update the rate of return for RMR compensation. **NCPA** agrees that the fixed 12.25% return on equity should be removed from the pro forma RMR. NCPA does not oppose the ISO's proposal to require a resource owner to propose and justify a rate of return for its resource in its RMR rate schedule filing at FERC following RMR designation. **NRG** does not object to the ISO proposal for the RMR owner to develop and justify its own rate of return. **PAO** supports DMM's proposal to compensate resources based on their GFFC plus a reasonable profit. The reasonable profit should be an amount above GFFC that ensures the generator doesn't experience net expenses during the RMR agreement term. The

[7] The compensation for an RMR agreement is outlined in Schedule F of the Pro Forma RMR contract in the Tariff: http://www.caiso.com/Documents/AppendixG_ProFormaReliabilityMustRunContract_asof_Apr1_2017.pdf.

Wall Street Journal ("WSJ") Prime Rate, currently 5.5%, is a commonly used index of prime rates and would be suitable for the ISO Tariff to refer to. **PG&E** agrees with the ISO proposal to require the resource owner to propose and defend its rate of return in filing its individual RMR rate schedules at FERC. **SCE** supports the ISO proposal to have the Generator Owner propose a rate of return within the RMR agreement which will be subject to the FERC approval process. **SDG&E** supports the ISO proposal to have the Generator Owner propose a rate of return within the RMR agreement which will be subject to the FERC approval process. **Six Cities** believes the ISO's proposal to require resource owners to support a proposed rate of return in their cost of service filings to FERC is reasonable.

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RMR designations are mandatory, not voluntary on the part of the resource. In other words, the ISO can require a resource seeking to retire to remain in service if the resource is necessary to maintain reliability. FERC precedent establishes the principle that for mandatory backstop procurement designations, an ISO/RTO must compensate a resource for its full cost of service, not merely its going forward costs.[8] For example, in the 2016 order on compliance and rehearing to NYISO the Commission rejected "arguments in this compliance proceeding that a generator should not be eligible to request compensation up to its full cost-of-service under NYISO's proposal."[9] In its prior order, FERC stated that compensation to an RMR generator "must at a minimum allow for the recovery of the generator's going-forward costs, with parties having the flexibility to negotiate a cost based rate up to the full cost of service." GFFC does not include any rate of return, and would therefore imply a rate of return of 0%, which would be inconsistent with this FERC precedent. The general RMR compensation structure is consistent with FERC precedent and need not be changed.

However, the ISO sees a need to update the rate of return because it has not been updated in many years. Calpine and NRG differed in feedback to the straw proposal. Calpine preferred that RMR applicants not have to justify a rate while submitting an application for an RMR, while NRG felt strongly that RMR owners should be required to go through this process. The ISO acknowledges that requiring an RMR applicant to request a rate would require additional work, likely in the form of hiring an independent expert to calculate a reasonable number, and potentially additional effort during the negotiation process to reach an agreement on a specific number.

Based on the difficult of setting a rate of return in a pro forma agreement that would be generally applicable, the ISO is proposing to eliminate the existing 12.25 percent from the *pro forma* agreement and require the RMR owner to establish the rate of return for schedule F cost as part of its initial rate schedule filing at FERC following designation for RMR service. The rate of return for new capital additions under schedule L will continue to be handled per schedule L

[8] *N.Y. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,116, at P 17 (2015), *order on compliance and reh'g*, 155 FERC ¶61,076 at PP 84, 100 (2016); *Midcontinent Indep. Sys. Operator, Inc.*, 148 FERC ¶ 61,057, at P 84 (2014).

[9] *N.Y. Indep. Sys. Operator Corp.*, 155 FERC ¶61,076 at P 100 (2016).

submission with that rate established for each project based on project costs. This approach will result in an up-to-date rate of return for future RMR agreements.

7.2.7 Align pro forma RMR agreement with RMR tariff authority that provides ability to designate for system and flexible needs

In the second revised straw proposal the ISO stated that it intends to clarify that existing RMR authority includes the ability to make an RMR designation for system and flexible needs, in addition to RMR designations for local needs, and explained its existing authority.

Stakeholder Comments

Calpine supports the ISO's interpretation that is already has the ability to preserve reliability, including, as needed the RMR designation of any resource. **IEP** supports aligning the RMR agreement with the RMR tariff authority to designate units to meet system, local, and flexible capacity needs. We note that the costs of RMR flexible capacity procurement ought to be allocated to all beneficiaries. **NRG** does not object to the expanded rationale for designating RMR (to address system and flexible capacity shortfalls). **PAO** believes the ISO should clarify the applicable reliability criteria it would use in such an assessment and what technical studies it would perform to determine whether the criteria are met. **PG&E** continues to respectfully disagree with this aspect of the ISO proposal because the ISO has not established a similar set of reliability criteria for flexible or system services, nor a methodology to evaluate the absolute necessity of a specific resource providing those services without which reliability would be compromised. PG&E believes that to the extent ISO goes ahead with the current proposal and asserts its authority to issue an RMR for system and/or flex in order to retain a specific unit, it should further specify a different cost recovery mechanism for such an RMR award. PG&E believes the costs of system and flex generation procurement should properly be allocated to load, akin to CPM, and unlike the current RMR treatment, which allocates costs via transmission charges to all customers in the relevant PTO's TAC area. **SCE** supports the ISO proposal. **SDG&E** cannot support the ISO proposed use of RMR for system and flexible needs without the ISO calcifying how a non-local unit can be an ERR for either a system or flexible need. Costs for system and flexible needs should not be allocated to customers as a transmission charge, but treated as a procurement cost. **Six Cities** support the ISO's proposal.

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The ISO disagrees with stakeholders who argue that the ISO is seeking to add to its procurement authority and that RMR procurement should be limited to local reliability needs. RMR is not limited to addressing narrow, local reliability events that rarely occur. RMR will be used when a unit seeking to retire or mothball is needed for reliability. Other ISOs and RTOs do not limit the scope of their backstop procurement to very narrow and targeted reliability needs. There are a vast array of potential reliability needs in the rapidly changing energy environment. RMR must be effective in addressing, and available to address, all reliability needs as a "last resort" backstop procurement mechanism.

The ISO already has tariff authority to make RMR designations to meet reliably needs, which necessarily includes system, local, and flexible capacity reliability needs. To date, this authority has been implemented through the current *pro forma* RMR agreement only for local needs. Specifically, ISO Tariff Section 41.2 provides that "The CAISO will … have the right at any time based upon CAISO Controlled Grid technical analyses and studies to designate a Generating Unit as a Reliability Must-Run Unit." ISO Tariff section 41.3 provides that "In addition to the Local Capacity Technical Study under 40.3.1, the CAISO may perform additional technical studies, as necessary, to ensure compliance with Reliability Criteria." Appendix A to the ISO Tariff defines Reliability Criteria as "Pre-established criteria that are to be followed in order to maintain desired performance of the CAISO Controlled Grid under Contingency or steady state conditions." Therefore ISO Tariff section 41 gives ISO authority to enter into RMR contracts to meet any NERC, WECC or ISO established compulsory standards that otherwise cannot be met without the designated resources.

The ISO previously proposed to allocate the costs of local, system and flexible RMR resources to the applicable PTO(s), as is done today for local RMR resources. Based on stakeholder comments, where several stakeholders do not support allocating system and flexible RMR costs to the applicable PTO(s), the ISO has reconsidered its prior proposal. The ISO considered three options, which are shown in Table 2 below.

Table 2 RMR Cost Allocation Options Considered

Option	Type of Designation/Entity Billed		
	Local	**System**	**Flexible**
1	PTO(s)	All PTOs	All PTOs
2	PTO(s)	All LSEs	All LSEs
3 [10]	LSEs in applicable TAC area or areas	All LSEs	All LSEs

The ISO believes that option 3 is the best approach for allocating the costs for local, system and flexible RMR resources. This option addresses the concerns of several stakeholders with allocating costs for system and flexible RMR resources to PTOs, and establishes a cost allocation that allocates costs to the entities that benefit from the RMR designations, *i.e.*, applicable LSEs. This cost allocation also is consistent with how the ISO allocates the costs of CPM resources for meeting reliability needs. The ISO notes that other ISOs and RTOs allocate RMR-like costs to load. The ISO is interested in stakeholder feedback on option 2 and 3 and whether they support use of option 3 as proposed by the ISO.

[10] RMR costs would be allocated to applicable LSEs in the RTAC Areas(s) where the reliability need exists based on the based on the percentage of actual Load of each LSE represented by the Scheduling Coordinator in the TAC Area(s) to total Load in the TAC Area(s) as recorded in the CAISO Settlement system for the actual days during any Settlement month period over which the designation has occurred.

7.2.8 Allocate flexible RA credits from RMR designations

In the straw proposal, the ISO stated that CPUC Staff had requested that any future RMR designations include the flexible RA attributes of the RMR resource. CPUC Staff argued that because ratepayers are paying for all of the costs associated with the operation and dispatch of these RMR resources, ratepayers should be allocated the flexible RA capacity attributes of the resources.

In the second revised straw proposal, the ISO proposed to allocate flexible RA credits from RMR designations and take the credits off the top of the RA flexible requirement.

Stakeholder Comments

Calpine supports an allocation of all attributes (flex, local or system) of backstop contracts to loads. **CPUC** ED Staff continues to support the allocation of flexible RA capacity for RMR resources that have flexible capacity. Allocation of these resources will ensure that the benefits are not stranded. **IEP** supports allocating Flexible RA credits associated with designated RMR units to LSEs benefiting from the flexible capacity. **PAO** supports the allocation of flexible RA credits from RMR designations. **SCE** supports the ISO proposal. **SDG&E** supports the ISO proposal. **Six Cities** support this aspect of the ISO's proposal.

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Stakeholders and the ISO support allocating flexible RA credits from RMR designations. To qualify for RA flexible credit, an RMR resource must: have an approved Effective Flexible Capacity value that qualifies the resource as eligible to provide flexible RA capacity. Otherwise it cannot provide flexible capacity. The RMR pro forma agreement will specify that the resource must agree to fulfill RA flexible capacity requirements. RA credits will continue to be allocated as they are today. RMR capacity that meets these criteria will be taken off of the top of the RA flexible requirement.

7.2.9 Streamline and automate RMR settlement process

In the straw proposal, the ISO stated that the RMR invoicing process has remained relatively unchanged since April 2009. Generator transactions and costs are captured on a spreadsheet and submitted to the ISO for invoicing. The RMR invoice amount is based on calculations and validations executed manually outside the existing settlements system and timelines, then subsequently billed through a manual pass-through-bill mechanism. The ISO proposed to leverage the current settlement system and interface to automate the RMR validation and invoicing processes. The ISO manages invoice cycles for market settlement and separate invoice cycles for RMR settlement, which is prone to delays due to late invoice submittals by the scheduling coordinator. In order for all parties to manage resources more effectively, the ISO proposed to merge the timing of RMR invoicing with the current market settlement timelines. Rather than submit an invoice, the scheduling coordinator would submit revenue and cost requirements in time for RMR invoicing, which would occur at the same time as market invoicing of monthly settlement statements. In the straw proposal the ISO stated that it would provide a more detailed discussion of this item in the revised straw proposal.

In the straw proposal, the ISO discussed the following items in the RMR pro forma agreement that need to be updated:

- Remove Ancillary Service bid insufficiency test completely and revise the dispatch provisions to align with current market paradigm – In the straw proposal the ISO stated that the original pro forma RMR agreement contains several limitations on the ISO ability to dispatch RMR units and these limitations were designed when there was no market power mitigation and no capacity procurement requirement. These limitations remain in the current form of the RMR pro forma and include dispatch for non-competitive congestion, and dispatch for Ancillary Services ("AS") only after a bid insufficiency criteria has been met. Under the current ISO market construct, the RA obligations have been designed to ensure there is sufficient capacity bidding into the market where energy and AS bids are co-optimized in the Day-Ahead Market ("DAM") and Real-Time Market ("RTM"). Further, the ISO may commit additional capacity in the DAM to meet bid insufficiency conditions under Tariff section 31.5.4. With these mechanisms in place, the bid insufficiency limitation designed in the RMR agreement serves no purpose; therefore, these limitations may be lifted to allow for more efficient use of the resource by dispatching it to serve reliability needs, whenever the market is unable to meet those needs. Also, even with current co-optimization of energy and AS bids, the ISO still has the issue of being able to address inter-hour AS needs in the RTM. This gap can be filled by increasing ISO's flexibility to dispatch for AS beyond "bid insufficiency", since such situations arise in spite of sufficient bids in DAM. Additionally, applying RA type MOO for energy and AS resources to RMR resources, makes the bid insufficiency test anachronistic.
- Update pro forma RMR agreement Schedule M and Schedule C to include Greenhouse Gas ("GHG") compliance cost calculation, DAM and RTM gas price index, and updated Scheduling Coordinator (SC) charge calculation, update Schedule M to be consistent with ISO tariff and BPM rules on bidding, and seek input on defining a heat rate curve formula in Schedule C for multi-stage generator resources – In the straw proposal the ISO stated that Schedule C and Schedule M of the current RMR pro- forma agreement contain a few archaic provisions such as antiquated gas price indices, an out-of-date fixed scheduling coordinator charge, and no provisions to reflect GHG compliance cost. The RMR pro forma agreement also needs updates to accommodate the multi-stage generator resource model. The ISO currently has well defined tariff provisions and BPM sections for calculating the GHG cost adder for bids, DAM and RTM gas price indices, resource heat rate curves, and GMC based scheduling coordinator charges. The ISO recently included tariff and BPM defined forms of some of these concepts in the FERC filed RMR agreements for Metcalf Energy Center, LLC and Gilroy Energy Center, LLC, with definitive support from all parties. The ISO believes that while this does not affect the purpose or scope of the RMR agreement it helps improve efficient operation and administration of RMR units.

These pro forma RMR Agreement items were in a separate section in the straw proposal and the revised straw proposal and are incorporated now into this section due to dependency with the automate and streamline RMR Settlements portion of the proposal.

Stakeholder Comments

Calpine – Calpine supports changes that would allow simplification and automation of invoicing and settlement. Shifting the burden of invoicing to the ISO, where it can leverage existing systems, data and processes has significant benefits. While Calpine sees significant advantage to the RSP proposals for Condition 2 units, careful consideration of Condition 1 contracts is required with respect to bid cost recovery. **NCPA** supports streamlining this process.

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Consistent with the ISO's proposal to adopt a MOO obligation and RAAIM for all RMR resources, the ISO proposes revisions to the RMR contract to better align with existing tariff rules and processes, and intends to review the entire RMR contract in a holistic manner to better align with the policy changes proposed in this stakeholder process.

As the cost allocation of the RMR agreement costs are being shifted from the Responsible Utility to the Scheduling Coordinators of the LSEs based on the cost allocation used for significant event CPM and exceptional dispatch CPM, the RMR agreement will no longer contain roles and responsibilities for the Responsible Utility. The ISO believes this aligns well with the new cost allocation mechanism, and the streamlining of the RMR agreement to better align with tariff provisions and to leverage existing ISO business processes. All affected parties of interest will continue to have the ability to participate in the FERC filing process as intervening parties, as allowed under the FERC's rules and regulations.

Calpine and NRG supported the ISO exploring streamlining and automating the RMR settlement process. Regarding NRG's comment regarding RMR units being walled off from market credit default risk, the ISO acknowledges that the market credit risk will be different from the current approach based on the proposal to allocate RMR costs to LSEs. Under the current structure, the RMR owner would have protection against general market risk for amounts payable by the responsibility utility, but would bear the risk of default if the responsible utility defaults. With the costs allocated to Scheduling Coordinators of LSEs and treated as energy costs, RMR owners will be at risk of general market default, but no longer at risk of default of the responsible utility. Moreover, the default loss allocation spreads market defaults broadly across all market participants.

The ISO proposes to align RMR implementation to the extent possible with the RA/CPM paradigm for bidding, dispatch, penalties, incentives, settlements and payment to streamline RMR functionality for efficient market and reliability systems operations and maintenance. The goal is to revise the RMR implementation process and streamline to align with existing market and reliability tools including the following:

- Align bidding and dispatch with RA/CPM rules and operating procedures
- Simplify RMR compensation structure

- Fixed charges defined in Schedule B are proposed to change from hourly availability payments to fixed monthly payments similar to CPM and still based on costs as defined in Schedule F
- Variable cost recovery defined in Schedule C and Schedule D will be eliminated and replaced with the Bid Cost Recovery mechanism to ensure resources startup and minimum load costs are recovered
- Market rents received in excess of costs will be credited back to the LSEs responsible for the RMR agreement costs
- Penalties provisions including hourly availability reduction for outages, long term planned outage adjustment and the non-performance penalty would all be eliminated and replaced with application of RAAIM

- Align RMR Invoice/timeline with ISO market settlement invoicing process and timeline
- Revise the RMR Contract and ISO tariff accordingly

Simplifying and automating the RMR settlement process will require streamlining of the RMR process used to dispatch, as well, because many of the manual processes in RMR settlements stem from the RMR paradigm for dispatching RMR resources. The ISO proposes to represent RMR resources in ISO systems as RA/CPM resources as follows:

- Establish a MOO and bid insertion rules for RMR resources by modeling RMR capacity as RA/CPM capacity
- Consolidate the reliability dispatch processes by eliminating RMR dispatch procedures and modeling RMR capacity as RA/CPM capacity
  - Enables use of existing market and reliability mechanisms used for RA/CPM capacity to dispatch all reliability capacity when needed
- RMR capacity represented in CIRA as reliability capacity
- SIBR RA/CPM bidding rules would apply
- RAAIM incentives and penalties would apply to provide incentive for capacity to remain available and submit bids
- Major maintenance/opportunity cost adders utilized to ensure market dispatch considers appropriate costs and limits dispatching resources with any use limitations
- The ISO will still retain the right to instruct an RMR Unit not to submit bids for reliability reasons or for preserving future availability of the RMR unit

While the initiative previously discussed the proposal of establishing a MOO, the concept is repeated here to emphasize that this is a key element of streamlining the RMR dispatch process. The ISO market design includes mechanisms to dispatch resources for modeled constraints and use of Minimum Online Commitment (“MOC”) or ED for issues identified in

Voltage Stability Analysis ("VSA") and Dynamic Stability Analysis ("DSA") tools or offline studies. These mechanisms rely on bids in the market, so the MOO is critical to the streamlining effort. The must offer obligation must be supported with a bid insertion mechanism to ensure bids are available at all times. Modeling the RMR capacity in ISO systems as RA/CPM capacity will enable use of the existing bid insertion SIBR rules, application of the RAAIM and use of existing processes for dispatch to allow elimination of the manual workarounds and extra procedures used under the current RMR implementation.

Streamlining the RMR settlement process is also impacted in a significant way by the structure of the RMR compensation, so the ISO proposes to maximize the use of existing market functions and eliminating all RMR provisions covered by an existing market or reliability mechanism. The first of these is simplification of the fixed cost compensation by updating hourly availability payment to a monthly fixed payment and application of RAAIM discussed earlier. RAAIM penalties and incentives will apply as well as all RA/CPM substitution and replacement rules.

The variable cost provisions of the RMR Contract are intended to ensure market dispatches keep resources whole for variable costs. These costs are defined in Schedule C for costs associated with MWhs delivered and in Schedule D for startup costs. The Bid Cost Recovery provisions of the ISO Tariff provide this mechanism over each trade day and are proposed to replace Schedule C and D. Consistent with the cost-of-service resources, all market revenues in excess of calculated costs will be credited against the other RMR charges. Costs will be calculated using values and processes used in the Bid Cost Recovery ("BCR") mechanism with adjustments as needed to ensure no double recovery. This approach is similar to the RMR agreement variable cost definition as both use fuel price index to calculate cost based on the resource heat rate. These processes eliminate the need to identify RMR Dispatches which must be manually identified in the current market structure.

The current process for invoicing RMR contracts continues to be handled manually in an Excel spreadsheet template due to the complicated nature of the calculations involved with tracking of outage system availability, RMR dispatch hours, MWh, startups, fuel prices, market interval dispatches and bifurcation of RMR versus non-RMR service to compute monthly charges. Further, the RMR contract established a separate and unique invoicing timeline that does not align with the ISO market settlement timeline. With the simplifications discussed regarding bidding, dispatch and compensation structure and elimination of service limits, the RMR Invoicing can be transformed into a few line items within the ISO market settlement invoice process.

The ISO proposes to replace RMR invoicing template and owner submitted Excel based invoices and to use the ISO settlement system invoice process and timeline. With the simplification of the fixed payment to a fixed monthly amount as previously discussed in the RMR compensation structure section, there are no complicated calculations required as the settlements systems will receive the monthly amount through the same mechanism used to provide the CPM monthly payment amounts. Additional charge codes will be created to track costs and allocate to appropriate stakeholders, presently defined as the Responsible Utility but

to be changed to applicable LSEs, and to track excess market revenues to enable crediting of these back to the appropriate parties. The cumbersome RMR invoicing steps and RMR payment calendar would be eliminated by using the ISO market settlement timeline and invoicing process. In addition, the dispute process defined in the RMR Contract would be eliminated and replaced with the process defined in the ISO tariff. Figure 5, Figure 6, and Figure 7 below how validation tools and parameters available to support the ISO market settlement of the RMR invoice amounts, while a sample of the ISO payment calendar is shown in Figure 8.

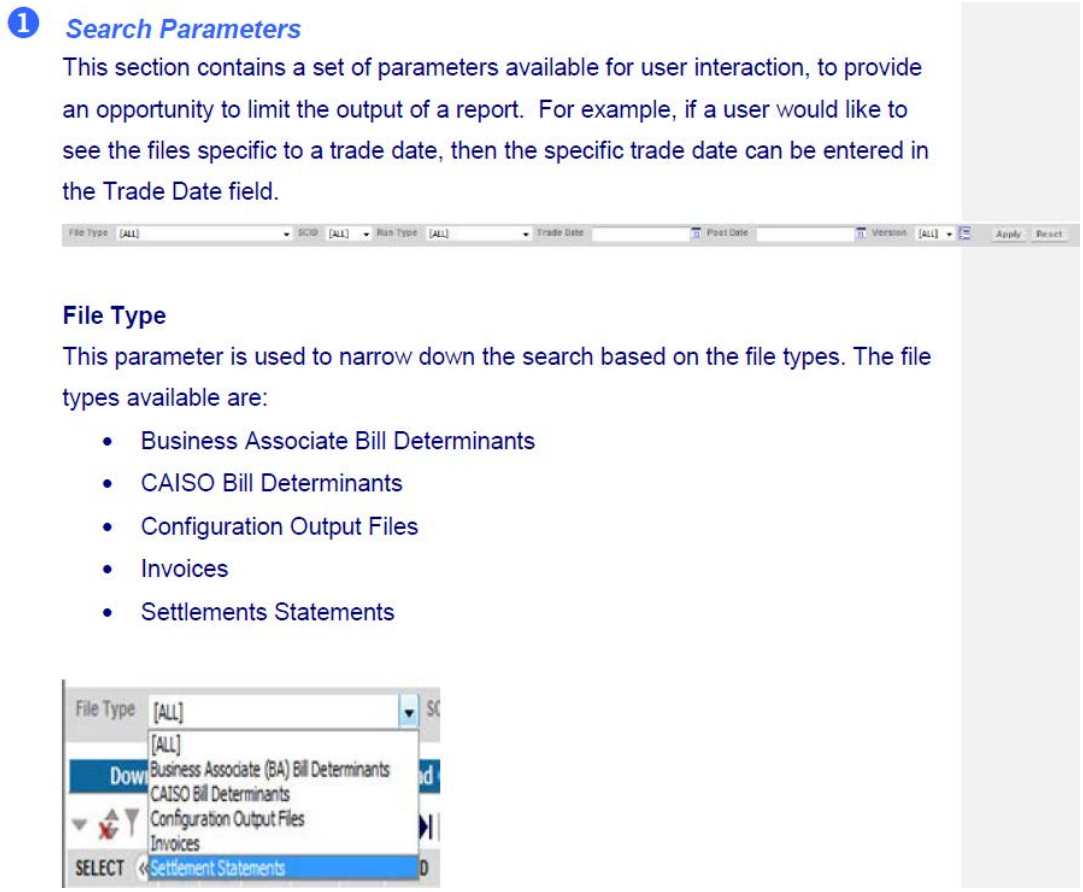

Figure 5 – Validation Parameters

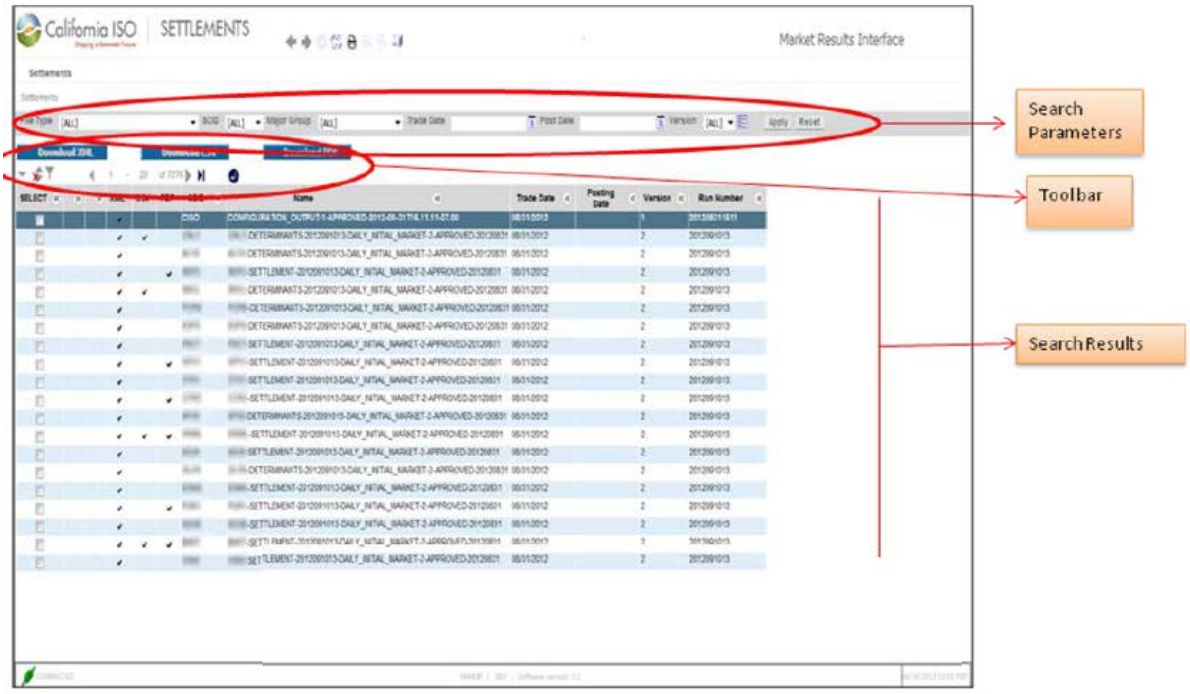

Figure 6 – Validation Tools

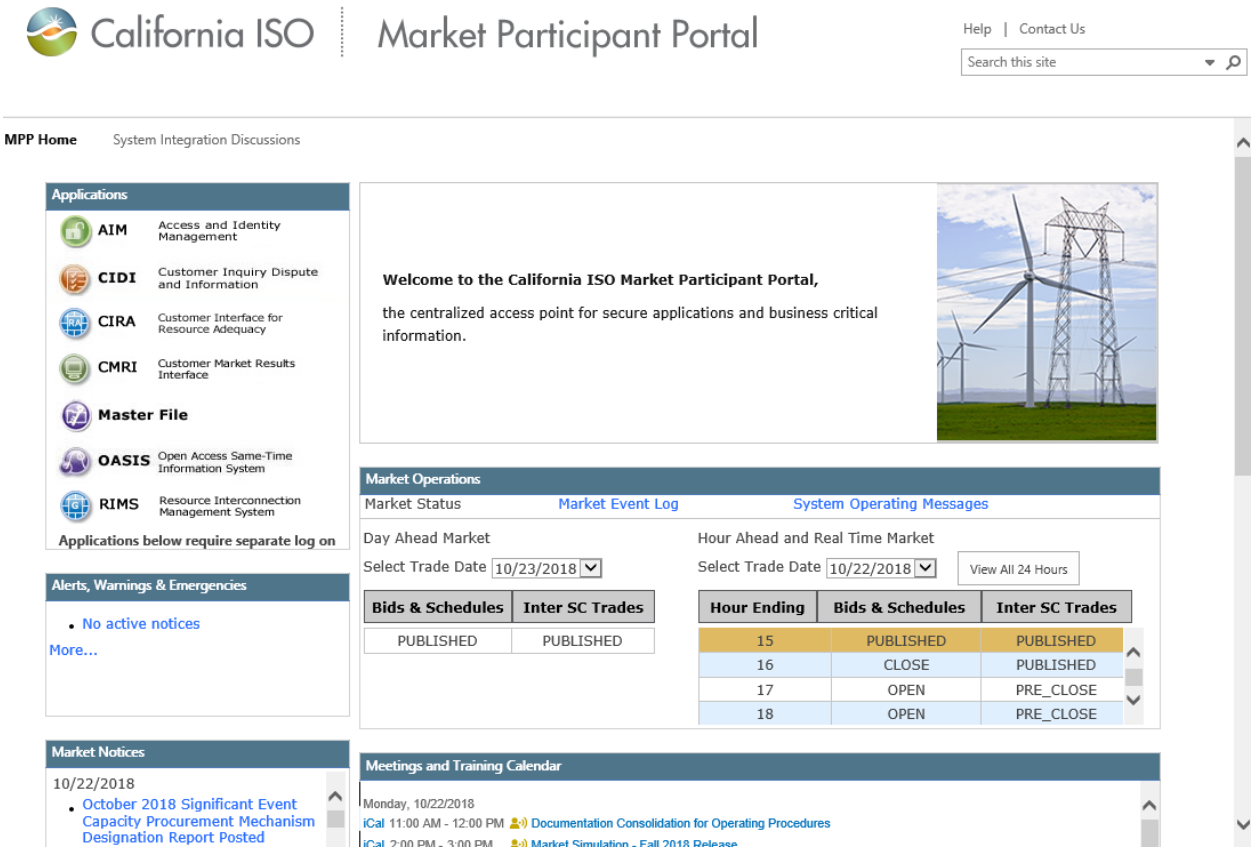

Figure 7 – Information available to Validate Invoice

California ISO

CAISO Payments Calendar
January 1, 2018 through December 31, 2018

Calendar Date	Day	Publish Initial Statement Publish Day-Ahead Price Corrections T+3B	Publish Real-Time Price Corrections T+5B	Receive End-Use Meter Data, Manual Submission of non-PTO Wheeling Data T+8B	Publish Recalculation Statement T+12B	End of SC Review Period T+26B	Receive End-Use Meter Data (to include non-PTO load) T+48B	Publish Recalculation Statement T+55B	End of SC Review Period T+77B	Meter Data Resubmittal Deadline (to include non-PTO load) T+8M (as T+172B - T+168B), optional Subject to Rule of Conduct	Publish Recalculation Statement T+9M (as T+194B), optional	End of SC Review Period for Incremental Changes T+216B, if applicable
1-Jan-18	Monday											
2-Jan-18	Tuesday	12/27/2017	12/22-12/25/2017	12/19/2017	12/13/2017	11/21/2017	10/20-10/22/2017	10/11/2017	09/11/2017	04/26-05/02/2017	03/27/2017	02/23/2017
3-Jan-18	Wednesday	12/28/2017	12/26/2017	12/20/2017	12/14/2017	11/22-11/26/2017	10/23/2017	10/12/2017	09/12/2017	04/27-05/03/2017	03/28/2017	02/24-02/26/2017
4-Jan-18	Thursday	12/29-01/01/2018, Dec 2017 Monthly	12/27/2017	12/21/2017	12/15-12/17/2017	11/27/2017	10/24/2017	10/13-10/15/2017	09/13/2017	04/28-05/04/2017	03/29/2017	02/27/2017
5-Jan-18	Friday	01/02/2018	12/28/2017	12/22-12/25/2017	12/18/2017	11/28/2017	10/25/2017	10/16/2017	09/14/2017	05/01-05/07/2017	03/30/2017	02/28/2017, Feb 2017 Monthly
6-Jan-18	Saturday											
7-Jan-18	Sunday											
8-Jan-18	Monday	01/03/2018	12/29-01/01/2018	12/26/2017	12/19/2017	11/29/2017	10/26/2017	10/17/2017	09/15-09/17/2017	05/02-05/08/2017	03/31-04/02/2017, Mar 2017 Monthly	03/01/2017
9-Jan-18	Tuesday	01/04/2018	01/02/2018	12/27/2017	12/20/2017	11/30/2017, Nov 2017 Monthly	10/27-10/29/2017	10/18/2017	09/18/2017	05/03-05/09/2017	04/03/2017	03/02/2017
10-Jan-18	Wednesday	01/05-01/07/2018	01/03/2018	12/28/2017	12/21/2017	12/01-12/03/2017	10/30/2017	10/19/2017	09/19/2017	05/04-05/10/2017	04/04/2017	03/03-03/05/2017
11-Jan-18	Thursday	01/08/2018	01/04/2018	12/29-01/01/2018	12/22-12/25/2017	12/04/2017	10/31/2017	10/20-10/22/2017	09/20/2017	05/05-05/11/2017	04/05/2017	03/06/2017
12-Jan-18	Friday	01/09/2018	01/05-01/07/2018	01/02/2018	12/26/2017	12/05/2017	11/01/2017	10/23/2017	09/21/2017	05/08-05/14/2017	04/06/2017	03/07/2017

Figure 8 – ISO Payment Calendar

Finally, the ISO proposes to remove or revise certain provisions from RMR pro forma agreement to complete the simplification process and maximize streamlining efforts. A high level summary of the provided in Table 3.

Table 3 – Pro Forma RMR Agreement Update Summary

Change	Term
Revise to reflect proposal	Art-3 Conditions, Art-4 Dispatch, Art-5 Delivery, Art-6 Market Transactions, Art-8 Rates and Charges, Art-9 Statements and Payments, Sch B–Monthly Option Payment,
Minor adjustments to address impacts	Art-1 Definition, Art-2 Term, Art-7 Operation and Maintenance, Art-12 Covenants of the Parties, Art-13 Assignment, Art-14 Miscellaneous Provisions, Sch A–Unit Characteristics, Limitations and Owner Commitments; Sch E–Ancillary Services, Sch F-AFRR, Sch J-Notices, Sch L-Cap Items, Sch N-NDA
Eliminate/use existing ISO Tariff provisions	Article 10 Force Majeure Events, Article 11 Remedies, Sch C–Variable Cost Payment, Sch D–Startup Payment, Sch G-Excess Service, Sch H-Fuel Oil Service, Sch I-Insurance, Sch K-Dispute Resolution, Sch M-Market Bids, Sch O-Invoicing, Sch P-Reserved Energy for Emission Limitations

7.2.10 Lower banking costs associated with RMR invoicing

Currently, each RMR agreement requires the establishment of two segregated commercial bank accounts (RMR Owner Facility Trust Account and Responsible Utility Facility Trust Account). These accounts are used to collect charges paid by the responsible utility and disbursed to the

RMR owner (and vice-versa). These accounts do not carry any balances as RMR funds are disbursed on the same day as they are received. The current protocol of establishing two accounts does not serve any discernable purpose since all funds are tracked and recorded, regardless of where they are received.

In the second revised straw proposal the ISO proposed to change the tariff provisions so that the requirement to open new accounts for each RMR contract are no longer required. In its place, the ISO will use the ISO's established market clearing account to administer RMR related transactions.

Stakeholder Comments
Calpine – Yes. Please.

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Given that all of the stakeholder comments that have been received support the ISO's previous proposal, the ISO reiterates that proposal here. The ISO proposes to use the ISO's established market clearing account to administer RMR related transactions. Going forward, all payments from and disbursements to RMR parties will be made from this account. The advantages to this change are:

- Streamlined process - Since RMR transactions will be processed using one account, it will be simpler for both the ISO and the RMR contract parties to administer the processing of payments and disbursements.
- Faster RMR contract implementation - Time and effort are required to open new bank accounts when new RMR contracts are signed. In addition, multi-stage testing is necessary to ensure that these accounts are visible on both the ISO and the RMR contract parties. Under this proposal, testing will be reduced or eliminated (if the RMR contract party has another RMR contract in place).
- Reduced bank fees - The ISO pays a maintenance fee for each bank account that is active. Each account costs $125 per month plus monthly charges for additional services (Wire Transfer, Payment Manager). Thus, less accounts to maintain will have both financial and other non-financial benefits (monitoring, reconciliation) as well.

Under any proposal, the possible sections of the ISO tariff that may need to be revised are:

- *11.13.2.1 Facility Trust Account* – References the establishment of the two accounts per contract.
- *41.6 –Reliability Must-Run Charge* – References the payment of RMR invoices to the established accounts.
- *11.29.9.2 CAISO Accounts to be established* – References the establishment and the use of the clearing account.

7.3 CPM Items

This section discusses items specific only to the CPM tariff.

7.3.1 Change CPM pricing formula for resources that file at FERC for CPM price above the soft-offer cap price

The ISO currently compensates CPM resources whose costs exceed the CPM soft-offer cap price and who desire compensation above the CPM soft offer cap a price based on the formula for determining cost of service compensation for RMR resources. The current FERC-approved formula uses Schedule F of Appendix G of the RMR tariff and allows the resource to keep all market rents earned. The Schedule F methodology does not allow for major maintenance capital additions to be considered in the compensation. Several stakeholders believe that allowing such resources to keep all market rents earned is excessive compensation.

In the second revised straw proposal the ISO proposed to change the pricing formula for a resource that files for a CPM price above the soft-offer cap price to an approach where the resource can file at FERC based on the GFFC of its resource using the same cost categories and same 20% cost adder that are used for the CPM reference resource and keep all market rents earned. The ISO also proposed to commence a stakeholder process in 2019 to assess the CPM soft offer cap, including performing a cost study, in accordance with tariff section 43A.4.1.1.2.

Stakeholder Comments

Calpine prefers the pricing formula of the first Revised Straw Proposal wherein bids would reflect the full cost of service, but energy rents are returned to the ISO. The current proposal (GFFC plus 20 percent) is unlikely to allow the recovery of incremental capital (e.g. major maintenance) and therefore discourages participation in the CSP. **CPUC** ED Staff appreciates changing the CPM compensation above the soft offer cap to eliminate the full cost-of-service option. Staff supports this change, but remains concerned that the CPM price is too high for annual designations. **DMM** supports the ISOs proposal to change CPM compensation above the soft offer cap to a structure based on GFFC instead of using Schedule F of the Pro Forma RMR contract. However, the ISO may allow for excessive recovery if a supplier can file for its actual GFFC *plus* 20% and also retain all net market revenues. DMM does not believe that an adder less than 20% is inconsistent with prior FERC orders and guidance. DMM reads FERC's ruling to apply to the soft offer cap, not necessarily resource-specific cost filings above the soft offer cap. DMM recommends that instead of assigning an arbitrary percentage adder to GFFC, the ISO could require suppliers seeking compensation above the soft offer cap to explicitly file for actual costs associated with long term maintenance or environmental upgrades. DMM believes it is important and timely for the ISO to reassess its soft offer cap for annual CPMs as it may too high. The current soft offer cap was justified under the assumption that use of CPM would be infrequent, and even less frequent for annual CPMs. DMM encourages the ISO to reassess its soft offer cap for annual CPMs, or alternatively, consider suggestions to apply a market power test to CPM solicitations. **IEP** does not support changing the CPM pricing formula filed at FERC at this time. Retaining the existing soft-offer cap price is key to incenting forward

LSE RA procurement to meet their full RA obligations and, thereby, mitigating the need to lean on the ISO for backstop procurement. **NCPA** does not believe 20% adder that is being proposed has been fully justified. **PAO** opposes adding a 20% cost adder to the GFFC to calculate the above-soft offer cap price for CPM resources. A CPM pricing formula which allows for a 20% adder to GFFC and allows that CPM resource to keep all market rents earned, is both unreasonable and inconsistent with the purpose of the CPM soft-offer price cap. Under the ISO's proposal here, that same resource would receive CPM compensation at $75.68/kW-year plus 20%, or $90.82/kW-year, effectively raising the CPM price and imposing additional unnecessary costs on ratepayers while overcompensating generators. **PG&E** generally agrees with the ISO's direction to retain CPM as a separate form of backstop procurement from RMR, with separate compensation principles, so long as the distinction is preserved in the use of the two instruments. Where the same unit can "test the waters" and pursue an RMR designation, by refusing a voluntary CPM award and then threatening to mothball or retire (without committing definitively to do anything irreversible), this distinction breaks down. The concern with compensation therefore arises for those units that have some degree of market power, due to insufficient competition. PG&E believes the soft-offer cap is an appropriate upper bound on compensation for shorter duration CPM awards, as any short-term gains are unlikely to weigh significantly in long-term decisions for the unit owner (i.e. with respect to bilateral RA market participation or a binding retirement or mothball of the unit), but the cap should not be the default compensation for annual CPM designations and any market revenues should be credited against the cost of the resource. For units with locational market power to receive annual CPM designations, the unit owner should be allowed to seek compensation up to the cost of service rate (that is, Schedule F of the RMR) with a credit back of any net market revenues. **SCE** believes the ISO has not demonstrated that the FERC considers GFFC+20%+market rents as necessary to compensate the resource's market cost of capital. SCE believes that prior FERC guidance on this issue as expressed by the ISO may not be indicative of the current set of circumstances. **SDG&E** opposes the ISO proposed CPM payment method. It could result in a potential windfall for generators with average or below average costs. The most appropriate payment for an ERR is its full cost of service (offset by all market revenues) whether above or below GFFC +20%. The ISO proposal will let units self-select paths to either RMR or CPM that provides them the highest compensation with no increase in reliability. **Six Cities** request that the ISO revise its proposal to provide that such resources are not entitled to retain market revenues in addition to recovery of their GFFC plus the adder, which would appear to result in the recovery of excessive revenues.

Draft Final Proposal

The ISO does not agree with suggestions from stakeholders that the ISO should make CPM designations mandatory and eliminate RMR procurement. Nor does the ISO believe that the pricing methodology approved by FERC for CPM needs wholesale change. The ISO agrees that it may be excessive to pay a resource a CPM price above the soft offer cap price based on the resource's full cost of service if it also allows a CPM resource to keep all market rents earned. Therefore, the ISO is considering, as a primary proposal, changing the pricing formula for a resource that files for a CPM price above the soft-offer cap price to an approach where the

resource can file at FERC based on the GFFC of its resource using the same cost categories (*i.e*., *ad valorem* costs, insurance and fixed operation and maintenance costs) and same cost adder (20%) that are used to establish the CPM soft-offer cap. The ISO does not propose to change the existing tariff provision allowing all CPM resources, those paid both below and above the soft-offer cap, to continue to keep all market rents earned. Using a 20% adder would parallel how the existing, FERC-approved CPM soft-offer price cap – which the ISO is not changing --is determined. It also is consistent with FERC's prior guidance that CPM compensation provide incentives and revenues for resources to perform long-term maintenance, make improvements that may be ne necessary to satisfy new environmental requirements or address reliability needs associated with renewable resource integration, or provide a meaningful opportunity to recover additional fixed costs.[11] This primary approach is also consistent with FERC decisions that full cost of service recovery is only required when the backstop procurement is mandatory, and accepting CPM designations is voluntary not mandatory.[12] The ISO is also considering an alternative proposal, if FERC does not accept the primary proposal, that prices above the soft offer cap be based on a resource's going forward costs only (without a 20% adder). This recognizes prior FERC orders that backstop procurement mechanisms that are voluntary need only provide for recovery of going forward costs at a minimum. CPM resources would continue to retain all market revenues.

Finally, in 2019, the ISO will commence a stakeholder process to assess the CPM soft offer cap, including performing a cost study, in accordance with tariff section 43A.4.1.1.2, and will consider compensation for 12-month CPMs. The ISO's second revised straw proposal is shown in Table 4.

Table 4 - Pricing for CPM Designations

Type of Designation	Price used to determine CPM Capacity Payment[13]
System monthly System annual Local monthly Local annual Local annual collective deficiency Cumulative flexible monthly Cumulative flexible annual Significant event Exceptional dispatch	1. Price bid into CSP – there is a "safe harbor" price at or below the $75.68/kW-year soft-offer cap price 2. If no bid in CSP - ISO may offer resource soft-offer cap price of $75.68/kW-year (and resource can decline designation if it chooses) 3. Resource can submit bid above soft-offer cap price - based on GFFC of its resource using the same cost categories and same 20% cost adder that was used for the reference resource that established the soft-offer cap price and resource keeps all market rents earned.

[11] *California Independent System Operator Corporation*, 134 FERC ¶61,211 at PP 57-59 (20111).
[12] *N.Y. Indep. Sys. Operator Corp.*, 150 FERC ¶ 61,116, at P 17 (2015); *Midcontinent Indep. Sys. Operator, Inc.*, 148 FERC ¶ 61,057, at P 84 (2014).
[13] CPM resources are paid a capacity payment and keep all market rents earned.

7.3.2 Evaluate if LSEs have been using CPM for their primary capacity procurement

This item was discussed at the May 30, 2018 stakeholder working group meeting. In the straw proposal the ISO agreed that one item from the CPM Offer of Settlement had been triggered through CPM designations that were made in December 2017.[14] The ISO stated that would consider in this initiative how those designations in the SDG&E area could have been prevented had the CPM design included additional remedial measures to discourage LSEs from relying on the backstop for forward capacity procurement. During the ensuing discussion with stakeholders the ISO stated that it believes that the December 2017 CPM designations were driven by circumstances unrelated to the design of the CPM.

Stakeholder Comments

Calpine understands that several LSEs in the San Diego load pocket sought waivers of the local requirements, and that ultimately CPM was used to acquire capacity. We agree with the ISO that these events do not constitute a cause for opening the CPM settlement or pricing conditions. **IEP** believes the evidence of LSEs leaning on the CPM mechanism will be the extent to which the ISO must employ CPM procurement to fill deficiencies in LSE forward RA procurement. **NRG** agrees that the CPM design was not responsible for the outcome that occurred in December 2017 and does not object to the ISO dropping this from the scope of the initiative. **Six Cities** believe the ISO's proposed resolution of this issue is reasonable.

Draft Final Proposal

The ISO has included in this initiative consideration of some changes to the design of the CPM. The ISO will continue to monitor future CPM procurement. As indicated above in section 7.3.1, in 2019 the ISO also will commence a stakeholder process to assess the CPM soft offer cap, including performing a cost study, in accordance with tariff section 43A.4.1.1.2.

7.3.3 Clarify deadline for ISO to post CPM designation report

This item is a new item that has been added to the ISO's proposal for the first time in this draft final proposal.

Stakeholder Comments:

NRG and WPTF recently raised questions regarding the deadline for the ISO to post CPM designation reports under tariff section 43A.6.2 in circumstances where the ISO indicates in the current month its intent to designate a resource as CPM effective the first day of the following month. The ISO has based the reporting date on the effective date of the CPM, as opposed to the date the ISO indicated its intent to designate the resource. WPTF and NRG recommend that the ISO issue such reports earlier.

[14] The item triggered was "any load serving entity meets more than 50 percent of its annual or monthly Resource Adequacy obligation for a year or month, respectively, with CPM Capacity procured by the CAISO on that load serving entity's behalf."

Draft Final Proposal

The ISO proposes to add the underlined language below to Section 43A.6.2 of the ISO tariff. The clarifying language would not apply to Exceptional Dispatch CPMs.

> The CAISO shall post a designation report to the CAISO Website and provide a Market Notice of the availability of the report within the earlier of thirty (30) days of procuring a resource under Sections 43A.2.1 through 43A.2.7 or ten (10) days after the end of the month; provided that where the CAISO makes a designation under Sections 43A.2.1.1, 43A.2.1.2, 43A.2.2.2, 43A.2.3, 43A.2.4, or 43A.2.7 that takes effect on the first day of the succeeding month, the CAISO will post the designation report by the earlier of 30 days after the CAISO selects the resource it will be designating or the tenth day of the month in which the designation takes effect.

7.4 Other Stakeholder Written Comments

IEP believes the ISO needs to build into its RMR/CPM Enhancement schedule time for stakeholders to reflect on the RA Track 2 Decision once rendered, because that decision likely will inform stakeholder's consideration of the ISO's RMR and CPM Enhancements. We suggest a 3-6 month delay in order to accommodate the CPUC RA decision-making. **NRG** reiterates two paragraphs from FERC's April 12, 2018 order on the CPM ROR amendment, ER18-641 and states the ISO can best ensure that it is addressing these interrelated issues in a "holistic" fashion by synching up the CPM-RMR process with the RA Enhancements process. **PG&E** believes the proposal, as crafted, does not meet the objective of providing a "holistic" process and will do little to avoid additional costly backstop procurement in the future. **WPTF** believes this proposal does not represent the holistic review of RMR/CPM the ISO committed to conducting at FERC. **CPUC** suggests that the ISO failed to follow FERC's guidance in its April 18, 2018 order on the ROR CPM proposal.

ISO Response: The ISO is not proposing to delay this initiative. There are important and distinct enhancements to both RMR and CPM that should be made now. The ISO believes that the items in this proposal are sufficiently separable from the RA proceeding at the CPUC and the RA Enhancements initiative at the ISO such that this initiative can proceed independently. In particular, this initiative never intended to address the multi-year procurement issues being addressed in the Track 2 RA proceeding. Comments that the ISO did not consider FERC's guidance in its April 18, 2018 order regarding the compensation for units at risk of retirement is incorrect. The ISO's pricing of RMR and CPM is fully consistent with FERC precedent regarding the appropriate pricing for mandatory and voluntary backstop procurement mechanisms. Further unlike the ISO's ROR CPM proposal last year, retiring units will not be able to earn their full cost of service and retain all market revenues. Likewise, CPM resources will no longer be able to recover their full cost of service and retain all market revenues. Rather, the ISO will claw back net market revenues. Also, the ISO will no longer guarantee RMR resources a 12.25 percent rate of return. Resource owners will have to justify a resource-specific return, and FERC will

determine the just and reasonable return. Thus, the ISO has made significant changes regarding compensation, while remaining consistent with FERC precedent regarding compensation for mandatory and voluntary procurement. Further, by linking RMR to resource retirement and mothballing, the ISO is using RMR as a procurement option of last resort. The ISO's proposal will help mitigate over-procurement by potentially identifying needed resources earlier in the process and first allowing LSEs to procure them before the ISO executes any RMR agreement. There is no basis to claim that generators will withhold from the bilateral market and seek higher compensation through backstop procurement. The ISO notes that it previously issued conditional RMR designation to the Ormond Beach and Ellwood units, and those units subsequently executed RA contracts that were approved by the CPUC, thus avoiding the need for any RMR filings. Cost of service pricing is not a windfall, particularly when resources are not both recovering their full cost of service and retaining all net market revenues. The ISO believes that this proposal reflects a holistic review.

8. Next Steps

The ISO will discuss the draft final proposal with stakeholders at a meeting on January 30, 2019. Stakeholders are encouraged to submit written comments by February 22, 2019 to initiativecomments@caiso.com. Please use the template available at the following link to submit your comments:
http://www.caiso.com/informed/Pages/StakeholderProcesses/Review_ReliabilityMust-Run_CapacityProcurementMechanism.aspx.

Appendix 1

List of Acronyms

AFRR	Annual Fixed Revenue Requirement
ARC	Applicable Reliability Criteria
AS	Ancillary services
BCR	Bid Cost Recovery
BPM	Business Practice Manual
Calpine	Calpine Corporation
CCA	Community Choice Aggregator
CEC	California Energy Commission
CHP	Combined heat and power
CLECA	California Large Energy Consumers Association
CPM	Capacity Procurement Mechanism
CPUC	California Public Utilities Commission
CRI	Center for Renewables Integration
CSP	Competitive Solicitation Process
DAM	Day-Ahead Market
DEB	Default Energy Bid
DMM	Department of Market Monitoring
DSA	Dynamic stability analysis
ED	Exceptional Dispatch
EFC	Effective Flexible Capacity
EIM	Energy Imbalance Market
ELCC	Effective Load Carrying Capability
FERC	Federal Energy Regulatory Commission
FRACMOO 2	Flexible Resource Adequacy Capacity Must-Offer Obligation Phase 2
GFFCs	Going forward fixed costs
GHG	Greenhouse Gas
GMC	Grid Management Charge
IEP	Independent Energy Producers Association
ISO	California Independent System Operator Corporation
IOU	Investor-owned utility
Joint CCA	East Bay Community Energy, Marin Clean Energy, Peninsula Clean Energy Authority, and Sonoma Clean Power Authority
LAR	Local Area Requirement
LCR	Local capacity requirements
LSE	Load Serving Entity
MIC	Maximum Import Capability
MMA	Major-maintenance adder
MOC	Minimum online commitment
MOO	Must-Offer Obligation
MSG	Multi-stage generator
NRG	NRG Energy, Inc.
OAL	Office of Administrative Law of State of California
OCC	Opportunity cost component
O&M	Operation and maintenance
ORA	Office of Ratepayer Advocates, California Public Utilities Commission

OTC	Once-through cooling
PGA	Participating Generator Agreement
PG&E	Pacific Gas and Electric
PRR	Proposed Revision Request
PTO	Participating Transmission Owner
PURPA	Public Utility Regulatory Policies Act
QF	Qualifying Facility
RA	Resource Adequacy
RAAIM	Resource Adequacy Availability Incentive Mechanism
RMR	Reliability Must Run
ROE	Return on equity
ROR	Risk of retirement
RTM	Real-Time Market
RUC	Residual unit commitment
SC	Scheduling Coordinator
SCE	Southern California Edison
SDGE	San Diego Gas and Electric
SIBR	Scheduling Infrastructure Business Rules
Six Cities	Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California
SWRCB	State Water Resources Control Board
TAC	Transmission access charge
VSA	Voltage stability analysis
WPTF	Western Power Trading Forum