Reliability Must Run and Capacity Procurement Mechanism Enhancements

Revised Straw Proposal

September 19, 2018

Market & Infrastructure Policy

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1. Executive Summary

The California Independent System Operator Corporation ("ISO") is reviewing and considering improvements to its backstop procurement mechanisms, the capacity procurement mechanism ("CPM") and Reliability Must-Run ("RMR") agreement, in light of recent experiences implementing RMR agreements and CPM designations and to address concerns identified by the ISO and stakeholders about increased use of backstop procurement by the ISO. 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 is shown in Figure 1 below.

Figure 1 – Scope of this Initiative

RMR and CPM

- Provide notice to stakeholders of resource retirements
- 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
- Update certain provisions of pro forma RMR agreement
- Make RMR resources subject to a must offer obligation ("MOO")
- Make 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 existing RMR tariff authority that currently 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
- Evaluate year-ahead CPM local collective deficiency procurement cost allocation to address load migration
- Evaluate if load serving entities ("LSEs") are using CPM for their primary capacity procurement

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

1. The ISO will notify stakeholders when a resource that is 100 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 RAAIM mechanism.
7. The ISO will move the existing ROR CPM procurement authority from the CPM tariff into the RMR tariff so that there is one procurement mechanism for 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 claw back all market revenues earned above the cost of service paid to such a resource.
9. The ISO proposes to update the RMR pro forma agreement so that the default would be a full cost of service agreement where the resource would have all of its full cost of service paid and must credit back all market revenues earned above that amount. At the ISO's discretion, and in limited circumstances, a resource may be able to negotiate an agreement where the resource is not paid all of its full cost of service and may keep market revenues earned above its cost of service.
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. 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. The ISO will expect the resource to also send a notice to the California Public Utilities Commission ("CPUC") indicating its intent to retire.
12. The ISO proposes to update the pre-tax rate of return for RMR resources so that it is based on a simple average of a blend of the rates that are being received by the three large investor-owned utilities ("IOU") in California.
13. The ISO proposes to allocate flexible RA credits from RMR designations.
14. The ISO proposes to leverage the current ISO settlement system and interface to automate the RMR validation and invoicing processes.
15. 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.
16. The ISO proposes to keep the current year-ahead CPM local collective deficiency procurement cost allocation methodology, as it believes that the issue of load migration has largely been addressed by the CPUC's June 2018 RA Decision.

On August 31, 2018 the ISO filed an interim change to the pro forma RMR agreement that would allow the ISO to terminate the RMR agreement and immediately re-designate RMR resources under the new substantive RMR agreement that will be developed under this initiative once that new pro forma agreement is accepted by FERC. The interim pro forma agreement provisions would be in effect for new RMR designations and agreements once this change is

accepted by FERC. The interim pro forma agreement provisions would not apply to RMR resources that are under the RMR agreements that are currently in effect, or RMR designations made prior to FERC accepting the interim pro forma agreement. The ISO has requested an effective date of September 1, 2018.

The ISO plans to take proposal for this initiative to the ISO Board of Governors for approval in March 2019. The goal is for the enhancements to be in effect for the 2020 calendar year.

A list of acronyms and abbreviations used in this straw proposal is provided in Appendix 1.

2. Plan for Stakeholder Engagement

The ISO issued a straw proposal on June 26, 2018 and held a stakeholder meeting on July 11, 2018 to discuss the straw proposal. The ISO received written comments from stakeholders on the straw proposal on August 7, 2018. The ISO held a working group meeting on August 27, 2018 to discuss with stakeholders its latest thinking on the items within this initiative and to gather stakeholder feedback. The ISO has developed this revised straw proposal based on the feedback received from stakeholders through both their written comments and the discussion that occurred during the August 27, 2018 working group meeting. A stakeholder meeting will be held on September 27, 2018 to discuss the revised straw proposal. Written comments from stakeholders are due on October 23, 2018. The ISO plans to take a proposal to the ISO Board of Governors for approval on March 27-28, 2019. The schedule for this initiative is shown in Table 1 below.

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

Stage	Date	Milestone
	Oct 23	Stakeholder written comments due
Second revised straw proposal	Nov 1	Hold working group meeting
	Nov 19	Post second revised straw proposal
	Nov 26	Hold stakeholder meeting
	Dec 21	Stakeholder written comments due
Draft final proposal	Jan 23, 2019	Post draft final proposal
	Jan 30	Hold stakeholder meeting
	Feb 22	Stakeholder written comments due
Final proposal	Mar 27-28	Present proposal to Board of Governors

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 will be staring an ISO stakeholder initiative to enhance the RA program that is in the ISO's tariff, which will be 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. Recently there has been an uptick in the number of resources under RMR due to policies and emerging trends in the energy industry that are fundamentally altering the resource procurement and RA landscape. Since RMR use had been declining for years, the ISO had not seen an urgent need to update the RMR provisions and structure. However, with the recent increased use of RMR, and the potential for more RMR as traditional gas-fired resources are under risk of retirement pressures, the ISO believes RMR should be updated to reflect current conditions. As part of the November 2, 2017 approval by the Board of Governors 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 designations.

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, most recently in November 2017 when the Board of Governors approved, and the ISO subsequently filed at FERC, enhancements to the ROR CPM process. 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 that the RA program should be improved to align with the operational needs of the transforming grid. An improved RA program could reduce the potential use of ISO backstop procurement. The ISO is actively participating in the CPUC's RA proceedings and is advocating several important changes to the RA program. The ISO is proposing the CPUC adopt in Track 2 of its RA proceeding the following items for RA year 2020.

- Establish multi-year procurement for all RA capacity types, including local, system and flexible capacity
- Establish a central buyer and specify its roles, responsibilities, and authority

- Require local capacity procurement at the more granular sub-area levels to prevent ineffective procurement
- Update its "transitional" Effective Load Carrying Capability ("ELCC") values for wind and solar resources

The ISO is proposing the CPUC adopt in Track 3 of its RA proceeding the following items for RA year 2021.

- Revise RA timeline to better accommodate RA processes and decision making
- Adopt updated ELCC methodology for solar and wind resources that includes accounting for behind-the-meter solar
- Consider availability limitations such as maximum run time and call events in meeting local capacity needs
- Adopt higher demand forecast for system RA requirements in months that exhibit greater net load uncertainty

The ISO will soon be starting a two phase RA Enhancements initiative that will consider changes to the ISO RA rules and tariff provisions, which will address:

Phase 1:

- Multi-year needs assessments and load forecasting
- RA validation tools, portfolio analysis, production simulation
- Revised RA timeline

Phase 2:

- Flexible Resource Adequacy Capacity Must-Offer Obligation Phase 2 ("FRACMOO 2")
- Capacity valuation rules
- Multi-year CPM and RMR
- Local availability assessments
- Slow response resources as local RA
- Review of Maximum Import Capability ("MIC")
- MOO review

5. Stakeholder Comments

Stakeholders provided written comments on the June 26, 2018 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-StrawProposal.pdf. The ISO has summarized the written comments by each topic and provides ISO responses to each topic in

section 7. Stakeholders also submitted written comments not specific to a particular topic. These comments are provided below, along with an ISO response.

Stakeholder Comments

Cogentrix encourages the ISO to explore and prioritize wholesale reform to the RA framework. **NRG** opposes pressing forward with "urgent" changes to the backstop mechanisms until the new design of the RA program has been determined and implemented and strongly opposes a recommendation to the Board on modifying the backstop mechanisms prior to the CPUC committing to fundamental RA program redesign. **Powerex** urges the ISO to take steps to facilitate the participation of external resources in the CPM CSP, and should immediately clarify that such resources are eligible to participate in the intra-month CSP. **WPTF** supports the ISO's direction in this initiative and believes it makes sense to postpone any larger overhaul until after the CPUC has concluded Track 2 and potentially Track 3 of the current RA proceeding. WPTF encourages the ISO to take this opportunity to consider changes to other aspects of capacity procurement outside of the backstops, such as the RA timeline.

ISO Response

As discussed in section 4 above, the ISO is active in the CPUC's current RA proceedings to improve the CPUC's RA program and is going to soon start a new ISO initiative to enhance the RA provisions in the ISO tariff. The timing of the CPUC's current proceedings dovetail well with the RMR and CPM Enhancements initiative as many RA improvements will have been well vetted prior to the ISO taking its RMR CPM proposal to the ISO Board of Governors in March 2019. The ISO has already taken steps to facilitate the participation of external resources in the CPM Competitive Solicitation Process ("CSP"); such resources participated in the bidding and external resources were designated as part of the Significant Event designations for September 2018.

6. Changes from June 26, 2018 Straw proposal

The ISO lists below the major changes made in this proposal since the June 26, 2018 straw proposal.

- Change the title of one of the columns of the resource retirements spreadsheet from "Resource Owner" to "PGA Holder" to mitigate the possibility of listing erroneous information, and established a 100 MW threshold for informing stakeholders of an update to the spreadsheet.
- Clarify that if a resource declines a CPM designation, the ISO will offer the next most effective resource a CPM designation; in the event no other resources are available, the ISO will not go directly to offering the resource an RMR designation. The ISO will inform the resource that if the resource wants to be considered for an RMR designation, the resource must submit a formal retirement notice to the ISO and the ISO expects the resource to also send a notice to the CPUC, if applicable, indicating its intent to retire.
- No longer propose to look at the reliability need in year three for ROR procurement.

- Report that the ISO filed the interim pro forma RMR agreement at FERC on August 31, 2018 and requested an effective date of September 1, 2018.
- Clarify how the MOO for RMR resources will work and bidding rules for RMR resources.
- Clarify how the RAAIM mechanism will work for RMR resources and explain that the RAAIM penalty price for RMR resources would be at the RMR agreement price.
- Request feedback on whether to retain the Condition 1 RMR option for use at the ISO's discretion or simplify the RMR design and only provide the Condition 2 option.
- Propose to update every four years the pre-tax rate of return for RMR resources based on a simple average of the most recent available approved values for the three California IOUs.
- Clarify that the ISO intends to align the pro forma RMR agreement with existing RMR tariff authority that currently provides the ability to designate for system and flexible needs.
- Clarify the conditions that must be met for an RMR resource to qualify for flexible RA credits.
- Provide a detailed proposal on how the ISO intends to streamline and automate the RMR settlement process.
- Change the CPM pricing formula for resources that file at FERC for CPM price above the soft-offer cap price so that all market revenues earned above the approved cost of service price will be clawed back.
- Clarify that the ISO will monitor the issue of load migration and drop this item from further active consideration in this initiative.
- Clarify that the ISO is proposing some changes to the CPM in this initiative, will monitor future CPM procurement consistent with the CPM Offer of Settlement, and drop this item from further active consideration in this initiative.

7. Revised Straw Proposal

This section presents the ISO's revised straw 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 June 26, 2018 straw proposal. The details of the straw proposal are not reproduced in this revised straw proposal. For the specifics of what was presented in the straw proposal please refer to the straw proposal at: http://www.caiso.com/Documents/StrawProposal-ReviewReliabilityMustRunandCapacityProcurementMechanism.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

In the straw proposal the ISO stated that it was in the process of implementing a new policy where the ISO will now notify stakeholders when it receives a notice that a resource plans to retire, mothball or otherwise make the entire resource unavailable to the ISO long-term; the policy was being implemented through a change to Generator Management Business Practice Manual ("BPM"), and was expected to be implemented by July 1, 2018. The new policy would establish that if a resource owner sends such a notice to the ISO the information will not be considered confidential. For more information on this item, see PRR 1056.[1]

Stakeholder Comments

CalCCA believes the ISO should ensure that the information that is posted is correct prior to releasing it to the public and a market message should be sent out alerting the market of updates. **Calpine** supports proactive resource owner communications, but believes that any prospective plans such as redevelopment, repowering, or decommissioning should be held confidential until the resource-owner decides to make them public by a filing at the CEC. **CPUC Staff** requests that the ISO alert market participants when it receives additional requests. **NRG** does not oppose what the ISO has implemented on this issue. **ORA** recommends that the ISO publish a market notice immediately following any modification to the list.

Revised Straw Proposal

The new notification policy was implemented with the posting of a spreadsheet report on July 6, 2018.[2] The ISO agrees that it should be careful to ensure that accurate information is published in the spreadsheet and the ISO should alert stakeholders when a significant retirement letter is received that causes the spreadsheet to be updated. The ISO has posted a revised version of the spreadsheet. The ISO changed the title of one of the columns from "Resource Owner" to "PGA Holder". This change will mitigate the possibility of listing erroneous information, as this information will be taken directly off of the executed Participating Generator Agreement ("PGA"). The ISO also has established a size threshold for informing stakeholders of an update to the spreadsheet. The ISO will notify stakeholders of an update to the spreadsheet in the ISO Daily Briefing whenever the ISO receives a retirement notice from a resource of 100 MW or greater size that triggers a study by the ISO. Specific plans of the resource owner, such as redevelopment, repowering, or decommissioning, will be held confidential until the resource-owner decides to make them public. However any information related to retention of deliverability and the deliverability retention time, that impacts other projects in the queue will be made public. This includes: deliverability retention choice, minimum deliverability retention date,

[1] At http://http://www.caiso.com/Documents/Presentation-BusinessPracticeManualChangeManagementMay222018.pdf.

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

if a replacement plan has been provided and the status of such replacement plan (the last two items impact the deliverability retention date).

7.1.2 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.

Stakeholder Comments

Calpine believes that RMR should be a last-gasp reliability tool, significant reforms of the RA timeline and degree of forward contracting are necessary to make it such, and encourages the ISO to consider independent and autonomous action to implement RA enhancements. Calpine views the ISO's straw proposal that RMR would only be used if the unit owner submits a retirement letter as an unjust and unreasonable free call-option, and if the ISO intends to use Exceptional Dispatch to meet otherwise unmet reliability needs that it adopt complementary changes to its tariff. **Cogentrix** proposes that the ISO should ensure that any resource awarded an RMR agreement to prevent its retirement must be prohibited from reverting back to a market based resource after the term of that agreement. **CPUC Staff** believes the ISO should combine RMR with CPM into one backstop mechanism, make all types of CPM mandatory from a compensation standpoint, establish an RMR approval and designation process that occurs only after the bilateral procurement process has concluded, and require generators to submit retirement requests by a certain date each year and if the notice is not submitted in a timely fashion then the need for the resource would not be assessed in the planning process. **DMM** recommends that the ISO consolidate annual backstop procurement into a single mechanism and a new timeline should be worked out in conjunction with reforms to the broader RA process for studying and awarding CPM contracts. **NRG** believes that the ISO's rationale for using RMR as the ROR mechanism and CPM as a short-term backstop mechanism seems appropriate, and the ISO underestimates the complexity involved in turning the RMR contract into a means to take RA-equivalent service from units at ROR. **PG&E** overall supports the direction of this initiative and holistically reconsidering significant features of the RMR and CPM, and believes the general direction of these reforms is correct. PG&E believes that only units that have given their 90-day notice for termination of the PGA should be studied for designation and be eligible to receive an RMR. PG&E requests the ISO clarify the anticipated timeline for the fall designation window for units either currently on an RMR agreement that may be eligible for renewal or units that will be designated starting January 1, and for units whose PGA termination is received close to the 90-day deadline. **ORA** requests the ISO clarify the intent in its proposal because there is confusion that the ISO might designate units as RMR simply because the resource owner rejects a CPM designation. **SCE** believes that the ISO should eliminate any

annual CPM as this would eliminate any incentive for resources to inappropriately seek an annual CPM when they would be more suited for an RMR, which would not compromise the RA mechanism. **The Six Cities** support making RMR designations only for needed resources that have notified the ISO of plans for retirement. **WPTF** asks the ISO to more concretely articulate which type of resources should use each mechanism, as the current lack of clarity is leading to concern over requiring a MOO and RAAIM for RMR resources.

Revised Straw Proposal

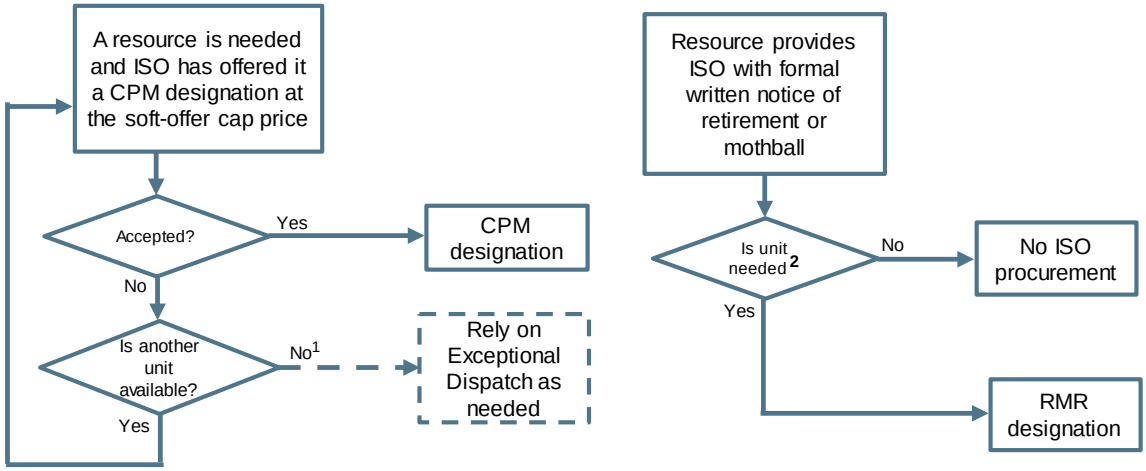
The ISO has existing authority from FERC to do the majority of the things discussed in this section, and the ISO is not proposing wholesale changes to the overall RMR and CPM construct as the ISO believes that as a whole, these two existing procurement mechanisms work well and function as intended. The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

- The ISO will keep both the RMR and CPM procurement mechanisms.
- CPM procurement will be used to backstop the RA program.
- RMR procurement will be used to address resource retirements.
- All retirement procurement authority, including ROR, will be addressed through the RMR tariff.
- RMR procurement will be based on full cost of service, as RMR procurement is mandatory.
- CPM procurement is voluntary if a resource has not submitted a bid into the CSP.
- 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 versus CPM Procurement

Will keep both RMR and CPM procurement mechanisms
- CPM will be used to backstop the RA program
- RMR will be used to address resource retirements



[1] If the resource declines the CPM designation offered, the ISO would not offer a RMR designation. Instead, if needed, and when needed, the ISO would use Exceptional Dispatch to meet reliability needs.
[2] For the ISO study for a potential RMR designation, all available resources are used in the analysis.

If a resource declines a CPM designation, the ISO will offer the next most effective resource a CPM designation. In the event no other resources are available, the ISO will not go directly to offering the resource an RMR designation. The ISO will inform the resource that if the resource wants to be considered for an RMR designation, the resource must submit a formal retirement notice to the ISO. This notice must include an affidavit 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 is definite unless some other type of ISO procurement of the resource occurs, the resource is sold to a non-affiliated entity, or the resource enters into an RA contract. In the formal retirement notice to the ISO, the resource must state that it is planning to retire at a certain date, but no earlier than 90 days from the notice of termination of the PGA. The ISO will expect the resource to also send a notice to the CPUC, if applicable, indicating its intent to retire.

If the resource does not wish to submit a retirement letter and notice of PGA termination, then the ISO will consider the resource available for dispatch under its participating generator agreement and ISO tariff. If the resource is needed to meet a reliability need, the ISO may Exceptionally Dispatch (“ED”) the resource to meet a reliability need, which may also trigger an ED CPM offer.

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

As part of this initiative the ISO will consider 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 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 years two or three with an appropriate length bridge.

Stakeholder Comments

Calpine supports the elimination of ROR CPM and the retention of RMR. **CPUC Staff** strongly opposes expanding RMR to years two and three as it believes this will expand the current front running issue that is occurring in the one-year framework and urges the ISO to remove any backstop authority for multi-year products at this time. **NRG** believes that the ISO has made a credible case for retaining two backstop mechanisms and the rules for each must be clearly specified. **ORA** opposes allowing the ISO to designate a resource as RMR that is needed for years two or three as this is a major departure from the current tariff and extending RMR to multiple years could motivate some resource owners to seek lucrative multi-year RMR contracts rather than offer competitive multi-year RA bids in LSE solicitations. **PG&E** does not support expanding the ISO's authority for needs in year two or three because the generator will know whether it has received an RMR designation prior to the bilateral market operating, and an action by the ISO could prevent the ISO from considering cost-effective transmission alternatives. **SCE** feels it may be more effective to merge the two mechanisms, which may prevent the risk of inappropriate use of one mechanism over the other. **The Six Cities** support the ISO's proposal for authority.

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The ISO proposes that all retirement procurement authority, including ROR, will be merged into one mechanism under RMR tariff. The ISO will move to the RMR tariff the authority that is currently in ROR CPM tariff to designate a resource in year one for an essential reliability need in year two , thereby providing a "bridge" during year one for a resource that is needed for year two. This change will eliminate the current ROR authority under the CPM tariff. The length of the ROR RMR procurement will be for a maximum of one year, as it is now under the ROR CPM tariff.

Note that the ISO has changed its proposal from the straw proposal and will no longer propose to look at the reliability need in year three. The ISO has decided to not seek authority to designate a resource under RMR for year three, as adding the year three authority should be addressed in the ISO's RA Enhancements stakeholder initiative where multi-year RA requirements and multi-year backstop procurement will be considered.

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

In the straw proposal the ISO described how the current RMR agreement allows the ISO to extend the term of agreement by giving notice no later than October 1 and limits the ISO's right to re-designate an RMR resource in the event the ISO terminates or does not extend the RMR agreement. The ISO may not designated during the one year period following termination, except under limited circumstances.

The ISO described its plan to take 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.

Stakeholder Comments

Calpine sees no need for these piecemeal changes, but appreciates the ISO's pledge that the provision will not be a part of the changes to the pro-forma contract submitted at the conclusion of this initiative. **NRG** does not oppose the ISO modifying the *pro forma* RMR contract and appreciates the ISO clarifying that the revised termination provisions are temporary. **PG&E** believes that revisions to the pro forma agreement should not be delayed while the ISO and stakeholders seek to work through other RMR and CPM issues.

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The schedule for the interim pro forma RMR agreement is shown in Table 2 below. The ISO received approval from the Board on July 25-26, 2018 to make a FERC filing. The ISO made a filing on August 31, requested a FERC order by November 1, and requested an effective date of September 1, 2018. RMR designations made after the approved effective date will be subject to the interim RMR agreement provisions.

Table 2 – Schedule for Interim Pro Forma RMR Agreement Filing

Stage	Date	Milestone
Proposal	May 30	Provide proposal in presentation at RMR/CPM working group
	Jun 12	Post draft of interim pro forma RMR agreement language
	Jun 25	Stakeholder comments due on draft agreement language
	Jun 26	Post straw proposal for Review of RMR and CPM initiative
	Jul 10	Hold stakeholder call on draft agreement language
	Jul 11	Hold stakeholder meeting for RMR and CPM initiative
Final Proposal	Jul 25-26	Present interim pro forma agreement proposal to Board
File at FERC	Aug 1	Post revised draft of interim pro forma RMR agreement
	Aug 10	Stakeholder written comments due on revised draft agreement

Stage	Date	Milestone
	Aug 31	File at FERC
	Nov 1	Date ISO requested for FERC order
	Sep 1	Effective date requested by ISO

7.2.2 Update certain terms of pro forma RMR agreement

In the straw proposal the ISO proposed several revisions to the pro forma RMR agreement and these revisions are discussed below.

7.2.2.1 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.

Stakeholder Comments

Calpine believes that to avoid price suppression RMR Condition 2 units should have no ubiquitous MOO and bids should be inserted and the unit should be dispatched only when reliability requirements demand its operation. As such, the bid insufficiency test may still be a necessary trigger for RMR dispatch. **NRG** does not oppose the elimination of the AS bid insufficiency test, but does oppose forcing cost-based energy and AS offers from RMR units in all hours. The current design of the RA MOO does not compel cost-based energy and AS offers.

Revised Straw Proposal

Consistent with the ISO's proposal of implementing a MOO obligation for all RMR resources, the ISO believes that the "AS bid insufficiency" is an anachronistic requirement and should be removed from the RMR Agreement.

7.2.2.2 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.

Stakeholder Comments

Calpine supports changes to the RMR schedules that represent undeniable variable costs of operations such as those suggested above. Regarding input on defining a heat rate curve formula in Schedule C for multi-stage generator resources, Calpine supports consistency in the formulations of bid components between the contract and Masterfile; it seems more efficient that the RMR agreement schedules merely refer to values embedded within the Masterfile. **NRG** strongly supports restructuring Schedule C to eliminate the archaic gas price mechanism. In so doing, the ISO must replace this mechanism with a mechanism that better reflects actual gas procurement costs. NRG supports updating Schedule M. NRG believes that Schedule C will also need to be modified to allow for configuration-specific heat rates. Other schedules must be modified (Schedule D) or created (Schedule D-1) to account for MSG transition costs. NRG believes that should the ISO insist on modifying the RMR contract it must also consider modifying other provisions of the RMR contract, including the ISO's authority to dispatch under Section 4.1, how contract service limits are determined, and how service in excess of those contractual service limits is compensated

Revised Straw Proposal

The ISO continues to propose and support 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.

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 straw proposal the ISO proposed that all RMR resources, including resources under the Condition 1 or Condition 2 option, would have a MOO for energy and AS similar to the current RA MOO for energy and AS. The straw proposal described the bidding rules for RMR resources with a MOO and provided that 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 believes that a MOO for Condition 1 is not objectionable and bids submitted by the unit can be at any level, subject only to bid caps. Calpine also believes that forcing Condition 2 units to bid at costs all hours would unduly suppress energy market prices and supports bid insertion for Condition 2 units only when a reliability need is in evidence. **Cogentrix** believes that more detailed studies should be completed prior to implementing a MOO to determine the extent of the market distortions, as Cogentrix sees the possibility of RA price suppression. **CPUC Staff** supports the proposal to add a MOO. **NRG** does not support the MOO proposal as: (1) nothing in the current RA program design compels RA units to submit cost-based offers for energy and AS; (2) it represents a significant departure from the current Condition 2 which require cost-based offers only when the RMR unit is required to operate to maintain local reliability or mitigate non-competitive congestion; (3) forcing full-time cost-based offers has the potential to unduly impact energy and AS market prices. Units that the ISO forces into continued operation should be operated only when they are required to operate to maintain local reliability. The ISO is essentially looking to turn the RMR contract into a vehicle to take generic RA service and would be better off scrapping the RMR contract and creating a wholly new contract for this purpose. **PG&E** supports the extension of the full RA MOO to both RMR Condition 1 and 2. **SCE** believes the MOO should be consistent between RMR and CPM resources. **The Six Cities** support the ISO's MOO proposal. **WPTF** does not oppose a MOO for Condition 1, but forcing Condition 2 resources that are indifferent to market revenues to bid in at cost during all hours will suppress market revenues. The ISO could explore other modifications to differentiate between resource types, such as an additional mandatory CPM category and two more distinct RMR types.

Revised Straw 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 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 to be a MOO additional resource performance requirements are needed beyond what the ISO has proposed to date, such as making an RMR resource subject to the RAAIM mechanism that RA resources are subject to. Several stakeholders object to having as extensive of a MOO as is proposed by the ISO; however, the ISO disagrees and believes that RMR resources should have a MOO and be in the market for the hours in which the resource is physically capable of submitting bids, with the market seeing the true cost of operating each resource and optimizing dispatch.

The ISO proposes that all RMR resources would have a MOO. The MOO will be a 24x7 requirement, but subject to special rules like those the ISO has for use-limited RA resources. RMR resources bidding into the market will have different bids depending on Condition 2 or Condition 1 status.

Condition 2 resources would be paid cost of service, and

- Will submit cost-based bids into energy and AS markets;
- All market revenues above variable costs would be clawed back;
- All Residual Unit Commitment ("RUC") revenues above $0 would be clawed back;
- The ISO would insert ISO-generated cost-based bids if no bids were inserted by the resource; and
- May be instructed by the ISO to not run.

Condition 1 resources would be paid less than 100% of their cost of service, and

- Would bid into the market at market-based bids;
- The ISO would insert ISO-generated cost-based bids if no bids were inserted by the resource; and
- May be instructed by the ISO to not run.

The ISO would revise its systems so that the ISO can create and submit ISO-generated cost-based bids for RMR resources 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 would include:

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

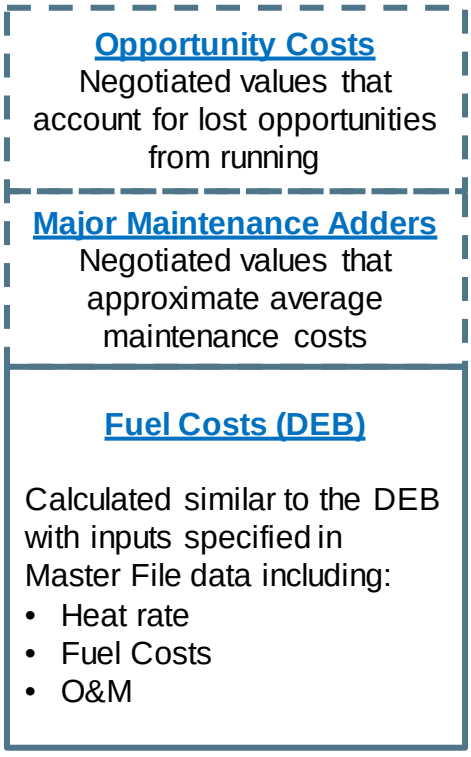
The ISO would generate and submit AS bids at $0/MWh. The ISO-generated RUC bids would translate to $0 offers. Energy bids would include the following components:

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

Major Maintenance adders ("MMA") and opportunity costs, if applicable, would be reflected in bids to ensure true cost of operation is considered in market decisions. Actual MMA costs would be fully compensated, similar to the current RMR design. Any market revenues from MMAs bid into the market would be clawed back to prevent double recovery of these costs. Market revenues from bid opportunity costs would also be clawed back. Resources with RMR agreements would be eligible for BCR payments when market earnings are insufficient to cover fuel costs.

Condition 2 RMR resources would be required to bid into market at total cost, including variable, MMA and opportunity costs. Variable costs would be compensated through energy market revenues. The actual costs of major maintenance would be compensated for RMR resources through the agreement and opportunity costs would not be compensated. The costs that would be included in RMR resource bidding into the market are shown in Figure 3 below.

Figure 3 – RMR Resource Bidding



7.2.4 Make 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 to have a performance incentive mechanism. In the straw proposal the ISO proposed that all RMR resources would be subject to the RAAIM mechanism and the current two resource performance incentive provisions in the RMR pro forma agreement would no longer be used as RAAIM will be applicable instead.[3]

Stakeholder Comments

Calpine believes that tailoring RAAIM to an RMR unit is incongruous because an RMR unit: (1) must self-schedule when the market does not support operation but the unit is required for reliability and because it is not considered an economic bid a self-schedule would unjustly expose the unit to penalties when complying with a dispatch order; (2) could receive RAAIM incentive payments for high availability in addition to other fixed cost recovery; and (3) has no ability to substitute in order to manage or avoid RAAIM. Calpine believes the incentives in the current RMR pro-forma are better tailored to RMR units and under no circumstance would Calpine support exposure to both RAAIM and the pro-forma availability charges. **CPUC Staff** supports the ISO proposal and the RMR pro forma performance penalty provisions in addition to RAAIM. **NRG** strongly agrees with the premise that RMR units should be subject to either the availability incentive mechanism present in the RMR contract or RAAIM but not both. NRG cannot now say that it supports subjecting RMR units to RAAIM instead of the RMR availability incentive mechanism because: (1) RAAIM is going to undergo significant modification soon; (2) the RAAIM penalty price may be misaligned with the imputed capacity price paid under the RMR contract; and (3) RAAIM is currently intended to create an incentive for a resource to offer in all hours, which is something that NRG opposes being applied to the RMR contract. **PG&E** believes an RMR unit should be exempt from RAAIM and subject to the non-performance penalties in the RMR pro forma because RAAIM penalties are lower than the non-performance penalties and RMR resources do not have the ability to provide replacement. **SCE** supports RAAIM-like performance incentives, but not a fixed penalty price, and supports instead a claw back of the contract payments commensurate with the period of unavailability. The ISO should develop a standard for maintenance outages that if the outage request is approved by the ISO would not result in a contract revenue claw back. **The Six Cities** support the ISO's RAAIM proposal. **WPTF** believes that RAAIM is not the best way to provide such incentives and the current RMR pro-forma availability charges may be more appropriate.

Revised Straw Proposal

The ISO believes that the best solution is to have RA, CPM and RMR resources all have the same performance incentive mechanism. RMR resources would be subject to RAAIM, like RA

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

and CPM resources are, and the ISO would no longer use the two existing penalty provisions in RMR agreement. The RAAIM penalty price for RMR resources would be at the RMR agreement price, like is done for a CPM resource that is paid above the soft-offer cap price. The ISO has the ability for resources to take outages without being subject to potential RAAIM penalties and believes that RMR resources do not face a significantly different exposure to challenges in finding substitute capacity than other RA or CPM resources that are located in a local area. Under the proposed RMR Implementation, RMR resources would not be required to self-schedule an RMR Dispatch; with the MOO in place, RMR resources would be dispatched using the same process used to dispatch RA and CPM resources. The proposed approach is identical to treatment of CPM capacity; monthly fixed capacity payments include an assumption the capacity is available for the entire month in general with potential for both incentives or penalties for availability and bidding greater than or less than the standard. RMR will be able to substitute using the same rules applicable to RA and CPM resources. The ISO proposal is to replace the RMR incentives and penalties with RAAIM so as not to impose duplicative measures. Rather, the proposal is to align incentives and penalties with RA and CPM because all mechanisms procure capacity required to operate the grid; therefore, the incentives and penalties need to be similar. The RMR penalty would be handled like CPM capacity priced above the soft-offer cap, where the penalty would be based upon the higher of RAAIM or CPM price. 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. Further, the ability to substitute would be available to RMR resources because the resources will be modeled like RA and CPM capacity in the ISO systems. The penalty would claw back a portion of the capacity payments similar to CPM capacity. The current RMR availability payment does not provide an incentive to submit bids and it limits the ability to streamline the RMR settlement process by continuing requirement to track and validate availability in a separate tracking system. Further, maintaining a separate set of incentives and requirements creates inconsistencies between capacity procurement mechanisms, adds complexity to the ISO systems and processes, and establishes inefficiencies in the market optimization. The ISO plans to discuss enhancements to the RAAIM mechanism and resource substitution rules in the ISO's RA Enhancement initiative. The ISO will determine how to comparably apply any changes RAAIM and resource substitution rules to RA, CPM, and RMR resources as part of the RA Enhancements initiative.

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. The ISO would like to explore with stakeholders whether there is a need to continue to have Condition 1 since other capacity procurement mechanisms

exist today, such as RA and the its ISO backstop, the CPM, which did not exist at the inception of the RMR agreement.

In the straw proposal, the ISO proposed to update the RMR pro forma agreement so that the default RMR pro forma agreement would be a cost of service agreement with a MOO where the resource would have its cost of service paid and any market revenues earned above its cost of service would be credited against monthly fixed costs. The ISO proposed that at the ISO's discretion, and in limited circumstances when appropriate, the resource owner may be able to negotiate an RMR agreement where the resource would not be paid all of its cost of service and would be able to keep market revenues earned above its cost of service.

Stakeholder Comments

Calpine sees no reason to eliminate Condition 1 and supports the continued availability of Condition 2 and the unit-owner's discretion to choose between the two options. **NRG** does not oppose the ISO's position to keep both options but use Condition 2 as the default. NRG supports Condition 2 as the default and retaining the option for Condition 1. **The Six Cities** support the ISO's proposal for a default compensation mechanism, but with discretion for the ISO to negotiate in appropriate circumstances a different compensation arrangement.

Revised Straw Proposal

The ISO proposes to update the RMR pro forma agreement so that the default would be a full cost of service agreement with a MOO where the resource would have all of its full cost of service paid and must credit back all market revenues earned above its full cost of service, i.e., a Condition 2 arrangement. The ISO further proposes that, at the ISO's discretion, and in limited circumstances, a resource may be able to negotiate an agreement where the resource is not paid all of its full cost of service and may keep market revenues earned above its full cost of service, i.e., a Condition 1 arrangement. However, the ISO also is considering no longer having the Condition 1 option for a number of reasons. First, a design objective of this initiative is to ensure that resources are not incentivized to hold out from RA or CPM procurement for an RMR contract. The RMR construct is designed to be used as a last resort to extend the life of resources slated to retire that are needed for a specific reliability reason until a new resource or transmission upgrade is available. As a result, the ISO proposes that RMR should be mandatory and receive its cost of service. Condition 1 provides for CPM like cost recovery and the possibility that a resource could recover more than its cost of service. Condition 1 contracts may also provide incentives for resources to select the cost recover method that provides the greatest revenue. For example, a highly depreciated unit may prefer a Condition 1 contract while units with substantial net plant may prefer a Condition 2 contract. On the other hand, the Condition 1 option may be useful to help the parties to the RMR negotiations reach consensus on an RMR agreement and thus avoid a lengthy and costly rate case. Also, there may be specific circumstances where a Condition 1 approach aligns better with grid needs, so the ISO may not want to eliminate this option all together. The ISO requests feedback from stakeholders on whether to retain the Condition 1 RMR option for use at the ISO's discretion or simplifying

the RMR and only providing the Condition 2 option. The ISO will use this feedback in developing the second revised straw proposal in November.

7.2.6 Update rate of return for RMR compensation

In this initiative the ISO has considered whether to revise RMR compensation. 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.[4] 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 condition this rate has not been updated since the original language for the RMR agreement was implemented. In the straw proposal the ISO presented six potential options for updating the rate of return. These options are shown in Table 3 below.

Table 3 - Potential Options for Updated Allowed Rate of Return

No.	Option
1	Leave current 12.25% rate of return in place, i.e., "no action" option
2	Determine a base rate that is allowed to float – up or down - relative to a benchmark rate
3	Have an independent expert construct a rate of return to use, which is inserted and periodically updated
4	Require market participants to propose and justify a rate of return in RMR filings
5	Use a blended rate from recent transmission projects, plus an agreed upon risk adder (or could use responsible utility's rate of return)
6	Determine a methodology for an "in-house" calculation to determine a rate of return to use, which is periodically updated

Stakeholder Comments

Calpine believes that resources needed for reliability must have a reasonable opportunity to recover their costs-of-service including a return of (depreciation) and on (rate of return) its investment. Calpine does not believe a review of the allowed rate of return is necessary. The ISO must recognize the significant differences between a pre-tax rate-of-return and referenced after-tax values. The ISO should be cautious if it considers using a "proxy" after-tax rate-of-return as this would require substantial changes. Calpine vigorously objects to any obligation to establish from a blank slate an after-tax rate-of-return for each RMR on a case-by-case basis. **CPUC Staff** recommends for RMR designations the ISO should change the compensation from full cost recovery (AFRR) to GFFC, plus provisions for any needed capital additions to the extent not already including in GFFC. **DMM** believes the current RMR compensation should be

[4] 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.

replaced with a single mandatory CPM annual framework where compensation is based on GFFC. **NRG** does not oppose re-examining the rate of return. A new rate must account for the rate of return being a pre-tax rate of return. NRG's strong preference is that the RMR owner be allowed to offer a proposed rate of return in its FERC filing. **PG&E** supports revising the current rate and recommends setting the rate at the same rate as the Participating Transmission Owners ("PTO") return on equity. The current rate should be reduced to reflect the current lower federal tax rate. **SCE** believes that overall the compensation for annual CPM and annual RMR should be similar. RMR should not allow market revenue retention. **The Six Cities** support the ISO's proposal to update the allowed rate, but at this time do not advocate for a specific methodology and instead provide in their comments several general principles that should apply. The determination of a rate is generally the product of settlement discussions. Requiring RMR owners to propose, support, and submit their proposed rate of return to FERC for approval would likely prove to be the most workable solution.

Revised Straw Proposal

DMM and the CPUC have indicated a desire to change compensation for RMR resources from the existing full cost of service compensation paradigm to Going Forward Fixed Costs ("GFFC"). GFFC does not include any rate of return, and would therefore imply a rate of return of 0%. The ISO does not believe that this would be appropriate, and would contradict recent FERC precedent. In a 2000 initial decision for RMR designations in the ISO, FERC notes that "rates must provide an opportunity for service providers to recover their cost of service, which subsumes both a return of and on investment."[5] Additionally, more recent orders continue to uphold this principle, including 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. In the RMR Order, the Commission 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.'"

> *Consistent with our determinations in other RMR proceedings, the Commission will reject the intervenors' request to limit cost recovery to going-forward costs or to a form of levelized costs … full cost of service recovery is consistent with the cost-of-service provisions of Market Rule 1 and thus appropriate for RMR Agreements."*[6]

In summary, the ISO has concluded that the overall current RMR compensation structure is consistent with FERC precedent and need not be changed.

The ISO sees a need to update the rate since it has not been updated in many years. Calpine and NRG differed in their feedback. 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

[5] Reference Judge Young Order in 2000.
[6] Reference Mystic Filing.

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 then it may take additional effort during the negotiation process to reach an agreement on a specific number.

The ISO proposes to update rate based on a blend of rates that are being received by the three large investor-owned utilities in California: PG&E, SCE and SDG&E. The rate would be calculated as a simple average of the most recent available approved values for the three utility's pre-tax rates, as follows:

(PG&E rate + SCE rate + SDG&E rate) / 3

The ISO proposes to update the rate in the pro forma every four years. The updated rate in the pro forma would not apply to any existing filed RMR rate schedule of an RMR owner. Moreover, the pro forma rate does not take precedent over the RMR owner's Federal Power Act right under Section 205 to file for a higher rate. The RMR owner would have the burden of establishing that its proposal is just and reasonable. The default rate in the pro forma would be available and deemed just and reasonable once FERC accepts it and it would not be necessary to litigate this value.

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

In the 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. In the straw proposal the ISO explained its existing authority. In the revised straw proposal below the ISO further clarifies its proposal.

Stakeholder Comments

Calpine supports the proactive expansion of the ISO's designation authority to include both system and flexibility needs. **CPUC Staff** does not support the ISO expanding its authority as expanding RMR will lead to further front running of the competitive bilateral process. **NRG** does not oppose designating units that would otherwise be retired as RMR to meet system and flexible capacity needs, but such units should be required to submit cost-based offers only when they are required to operate to cure the deficiency for which they were designated RMR. **ORA** believes it is not clear that the ISO's proposal is necessary or beneficial, and it seems very unlikely that the ISO would ever reach a point where it would need to RMR a unit for system or flexibility reasons. The ISO has not addressed whether it would seek an annual RMR contract for system or flexible needs depending on the duration of any actual need. **PG&E** does not support expanding the ISO's authority because the current excess in system capacity precludes the possibility of an RMR designation being needed to preserve system reliability and flexibility is not a transmission reliability attribute for which an RMR would be an appropriate remedy as costs for flexible needs should not be allocated to customers as a transmission charge but

rather as a procurement cost. **SCE** believes that all attributes of an RMR resource should be considered procured, even if the procurement decision is for only a specific attribute. The bid should be set at the default energy bid for the resource to appropriately reflect its marginal cost in the optimization of the market. SCE notes that there will be certain periods that the default energy bid may not be appropriate such as during the late night/early morning hours to avoid the optimization cycling a resource unnecessarily. **The Six Cities** support the ISO's proposal.

Revised Straw Proposal

The ISO does not agree with some stakeholders who argue that the ISO is seeking to add to its procurement authority. The ISO already has tariff authority to make RMR designations for system and flexible needs. The existing ISO tariff already provides the ISO with authority through RMR to meet Applicable Reliability Criteria, which includes meeting system, local and flexible needs. To date, this authority has been implemented for local needs. The RMR pro forma agreement (versus the tariff) currently does not reflect the existing authority for system and flexible needs and the pro forma agreement needs to be aligned with the RMR tariff. The ISO proposes to change the pro forma RMR agreement so the existing RMR tariff authority and the language in the pro forma RMR agreement are aligned.

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 since 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. The ISO indicated that it supports this policy and requested stakeholder input on any conditions that might need to be established.

Stakeholder Comments

Calpine supports an allocation of flex, local or system attributes of backstop contracts to loads. **CPUC Staff** supports the ISO's proposal to allocate flexible benefits and requests the ISO clarify that system benefits will also be allocated. **NRG** does not oppose allocating flexible RA credits, but opposes imposing a cost-based obligation to offer in all hours. **ORA** supports allocation of flexible RA value for RMR resources. **SCE** believes that all attributes of a procured resource should be allocated, regardless of the reason for procurement. **The Six Cities** support the ISO's proposal.

Revised Straw Proposal

Stakeholders support allocating flexible RA credits from RMR designations. The ISO also supports allocating flexible RA credits from RMR resources. However, the ISO proposes that not all RMR designations will automatically qualify as a flexible RA resource. 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, the resource owner must agree in the RMR agreement to fulfill RA flexible capacity requirements such as offering economics bids, and RMR resources eligible for flexible RA credits must submit economic bids based on

the assigned flexible category and may choose to self-schedule for remaining hours. 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.

Stakeholder Comments

Calpine - Yes. Please. **NRG** does not object to using existing ISO market settlement systems to streamline and automate RMR settlements if RMR units would be walled off from any exposure to ISO market defaults or to other ISO charges that are based on market participation.

Revised Straw Proposal

Since the ISO did not provide a specific proposal in the straw proposal, written stakeholder comments were minimal. Calpine and NRG did support the ISO exploring streamlining and automating the RMR settlement process. Regarding NRG's comment regarding RMR units being walled off, the intent is that going forward RMR resources would be treated as RMR resources are treated today.

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

  - Variable cost recovery defined in Schedule C and Schedule D will be replaced with the Bid Cost Recovery mechanism to ensure resources startup and minimum load costs are recovered
  - Market revenues received in excess of costs for Condition 2 resources will be credited back to the Responsible Utility
  - Penalties provisions including hourly availability reduction for outages, long term planned outage adjustment and the non-performance penalty would all be eliminate and replaced with use of the Resource Adequacy Availability Incentive Mechanism (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

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 currently recovered through a payment based on hourly availability. With application of the RAAIM to RMR, the hourly availability based on an hourly charge and hourly availability using outage records would represent duplicative penalties. The existing hourly charge is derived by dividing the annual fixed costs by the target available hours, which are calculated by subtracting expected outage hours from the hours in the year. Given that the RAAIM has considerations for outages and ability to substitute during certain outages or gain approval for planned outages without replacement, the hourly availability payment structure will be replaced with a monthly fixed payment calculated by dividing the annual costs by 12 months. 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. This is substantially equal to the current RMR variable cost recovery in which the RMR resource is compensated for it costs for each hour of operation under an RMR dispatch and the market revenues for the applicable hours is then credited against the RMR costs to ensure the costs above the market clearing price are covered or return any excess market revenue to the Responsible Utility. Some stakeholders note that an evaluation to ensure the cost are covered over the trade day, as is done in BCR, rather than the hourly assessment in the current RMR provisions may reduce profits for resources operating under Condition 1. While this may be the case, depending on assumptions associated with the determination of RMR Dispatch and market prices during RMR versus non-RMR hours, the RMR Contract use and purpose has changed drastically since its original development. The RMR Contract paradigm was replaced with the RA/CPM paradigm and its provisions must be updated to align with provisions applicable to the RA/CPM mechanisms to remove all possible differences. For Condition 2 RMR 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. These processes eliminate the need to identify RMR Dispatches which must be manually identified in the current market structure, so this will eliminate the manual efforts required to determine RMR dispatch.

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, and to track excess market revenues to enable crediting of these for Condition 2 resources back to the Responsible Utility. 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 as this is yet another duplicative and different process creating inefficiency for no apparent gain.

Finally, the ISO proposes to remove certain provisions from RMR pro forma agreement to complete the simplification process and maximize streamlining efforts. As mentioned above, tracking of availability and service limit quantities (service hours, MWh, and startups) are all proposed to be eliminated because each is covered through another mechanism in the CAISO market. The availability based payments was discussed previously as covered with the addition of the RAAIM provisions of the ISO tariff. Some stakeholders argue that the RMR resources need a stronger incentive than the RAAIM provides; however, this is an unsupported claim in the current paradigm. While the claim that RMR capacity is more valuable to reliability may have been valid under the original RMR paradigm when all local capacity was designated to be RMR, there is absolutely no indication that RMR is any more important to grid operation than the 25,000 MW of local reliability capacity provided to the ISO through the RA/CPM mechanisms. The RA program is designed with the intent to supply all capacity required to maintain both system and local reliability and the RMR Contract is only used in the event either the RA program or the CPM mechanisms are not able to secure that capacity or another need not identified in the RA requirements. All the capacity procured under either RA or CPM may have a critical reliability as important as capacity secured through an RMR agreement. Regardless of where a resources importance would fall on a scale of criticality, the RAAIM rules apply to all equally as similarly situated and this should be not different for capacity procured through an RMR agreement.

Regarding the subject of service limits and excess service provisions of the RMR agreement, these are also proposed to be eliminated due to being unnecessary and administratively burdensome. The concept behind the service limits is to provide a mechanism to compensate the RMR owner in the event that the dispatch of the resource for service hours, MWhs or startups exceeds the five year average of these values during and particular contract year. The

primary intention is based on the assumption that fixed costs of operating the plant would increase as a step function with the service that exceeds the historical average. In reality, each resource is unique and the amount by which the fixed costs actually increase when service exceeds the five year average will vary depending on the circumstances and may actually result in a windfall for the resource. Conversely, given that the excess service compensation is arbitrary, it may also result in under compensation. Further, the calculation of service under the current provision of RMR agreement requires tracking of RMR dispatch versus non-RMR dispatch and this is not feasible without significant investment in software or continued burdensome manual processes to determine hours requiring RMR dispatch. In addition to arbitrary nature of the compensation and the burdensome tracking appear to make these provisions inappropriate, these provisions are also unnecessary, because there are better avenues available to manage the concerns the provisions were intended to address.

Concerns regarding the potential of dispatch in excess of historical use or more importantly beyond the fixed costs filed in the contract can be managed with opportunity cost adjustments to bid costs or, in extreme cases, the ISO will retain the right to instruct resources not to bid; this can be managed by making the resource Use Limited and instructing the resource to submit bids for the specific hours required to address reliability needs. In the unlikely event, that these measures do not keep the resource service at levels covered by their fixed costs, there are additional avenues the owner my pursue depending on the nature of the additional fixed cost related to the excessive service. Given that the contract is a cost of service tariff, the owner would be able to pursue regulatory remedies; however, the RMR agreement will retain the ability for the owner and ISO to work together on appropriate remedy including use of the Capital Item and or Repair Item provisions if appropriate.

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 straw proposal the ISO stated that with the recent increase in RMR contracts, the ISO, in its effort to streamline processes and reduce bank fees, would like 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 would propose to use the ISO's established market clearing account to administer RMR related transactions.

Stakeholder Comments

Calpine - Yes. Please. **NRG** supports the ISO's proposal.

Revised Straw Proposal

Given that all of the stakeholder comments that have been received support the straw 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

In the straw proposal the ISO stated that currently compensation for CPM resources whose costs exceed the CPM soft-offer cap price and who desire compensation above the CPM soft offer cap price is 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 revenues earned. Several stakeholders believe that allowing such resources to keep all market revenues earned is excessive compensation. In the straw proposal the ISO proposed to change the methodology to an approach where the resource can file at FERC based on

the GFFCs 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% adder) that are used for the CPM reference resource and keep all market revenues earned. The ISO argued that using a 20% adder would provide incentives or revenue sufficiency for resources to perform long-term maintenance or make improvements that may be necessary to satisfy new environmental requirements or address reliability needs associated with renewable resource integration.

Stakeholder Comments

Calpine believes that CPM should allow for full cost-of-service, but if the resource does seek recovery of costs above the soft offer cap any market revenues must be returned. **CPUC Staff** recommends for CPM designations where the resource files at FERC for a payment above the soft-offer cap price the 20% adder be removed from the compensation calculation. **DMM** believes the current RMR compensation should be replaced with a single mandatory CPM annual framework where compensation is based on GFFC. The ISO should consider two GFFC-based approaches: (1) compensate resources GFFC plus a reasonable fixed profit and credit net market revenues back to ratepayers (the ISO's current proposal of including an adder to GFFC of 20% of GFFC while also allowing the resource to keep net market revenues may be excessive); or (2) compensate a resource at its GFFC and allow it to keep net market revenues. When the current CPM soft-offer cap is paid to a resource for all 12 months of an annual CPM this compensation is likely to significantly exceed the annual GFFC of many resources; therefore, the ISO should reconsider the soft-offer cap price for annual CPMs. Resources may be compensated for multi-year maintenance or environmental retrofits if those items are deemed necessary over the period the resource is needed for reliability The ISO should consider granting limited exceptions to the all-hours MOO in instances where easing the MOO will be more cost effective than having the resource undergo major maintenance when the resource is only projected to be needed for one to two years. **NRG** believes the quantity of the CPM designation must factor into any consideration of whether the ISO's proposal is reasonable. The ISO has the authority to issue a CPM designation for a quantity of capacity that could be as small as the unit's minimum load amount. In that case the CPM unit may require a per-MW level of cost support for the designated CPM amount that is higher than either the per-MW rate that would be set by the unit's GFFC or even by the unit's full cost of service. NRG requests that the ISO clarify its proposal by discussing how the designation quantity factors into this issue. **SCE** believes that the 12-month CPM should either be folded into the RMR structure or be priced identical to RMR. The 12-month CPM should be a cost of service, including a rate of return with forfeiture of the market rents, consistent with RMR. Overall, the compensation for annual CPM and annual RMR should be similar. CPM compensation (GFFC+20% adder) should be capped at cost of service. CPM should not allow market revenue retention. **The Six Cities** support the ISO's straw proposal to revise the CPM pricing formula for resources that file at FERC for a CPM price above the CPM soft-offer cap.

Revised Straw 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 CPM price above the soft offer cap price and allow a CPM resource to keep all market revenues earned. Therefore, the ISO proposes to change the pricing formula for a resource that files for a CPM price above the soft-offer cap price such that all market revenues earned above the cost of service filed for the resource would be clawed back. The ISO's revised straw proposal is illustrated in Table 4 below.

Table 4 - Pricing for CPM Designations

Type of Designation	Price used to determine CPM Capacity Payment[7]
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 cost of service compensation set forth in Schedule F of RMR agreement, and the actual price paid will be approved by FERC, and all market revenues earned above that price will be clawed back

If the resource desires to submit a bid into the CSP at a price above the soft-offer cap price, and since the compensation will be cost of service for the whole resource, the resource owner must bid the entire resource into the CSP and when considering a CPM designation for such a bid resource the ISO would only designate the whole resource. Such a rule is necessary as it would not be possible to separate out market revenues for a resource that was only partially procured under CPM for only part of the resource, i.e., the only way clawing back revenues can work is if the ISO designates the entire resource.

7.3.2 Evaluate year-ahead CPM local collective deficiency procurement cost allocation to address load migration

In the straw proposal the ISO stated that Southern California Edison ("SCE") had requested that the issue of year-ahead CPM cost allocation to address load migration be addressed in this initiative. The primary concern was allocation of costs for collective CPM procurements not reflecting actual load share ratios, a concern which has been increased in recent years due to the rapid growth of community choice aggregators ("CCAs"). The straw proposal noted that a May 22, 2018 CPUC decision included treatment of new CCAs in the annual RA procurement process, which may ameliorate any need for further improvements of cost or credit allocation during the CPM process.

[7] CPM resources are paid a capacity payment and keep all market revenues earned, but if CPM price in CSP is above soft-offer cap price, then all market revenues earned above the filed cost of service will be clawed back.

Stakeholder Comments

Calpine believes allocations should be based on deficiency first and then based on actual load ratio shares. **CalCCA** requests that a new initiative be added to the stakeholder catalog to change the tariff to allow for an individual LSE to be credited the CPM cost for their share of a collective deficiency should they have purchased MW from a unit that is designated through CPM. **NRG** believes that the issue of how to address load migration is complex and difficult and to the extent forecasts are not accurate it is a problem outside of the allocation of CPM costs. **ORA** supports further discussion of year-ahead CPM cost allocation because unpredictable changes to load migration can occur throughout the year and there should be provisions to true up cost and credit allocations. **SCE** agrees that the CPUC's June 2018 decision largely addresses the load migration issue, but cautions that should there be changes pertinent to all LSEs' participation in RA the ISO should revisit this topic.

Revised Straw Proposal

Although some stakeholders have expressed an interest in the ISO continuing to consider this item, the ISO believes that the CUC's June 2018 RA Decision for the 2019 RA compliance year largely mitigates the concern regarding load migration. The ISO prefers maintaining the existing framework for costs and credits as it believes that framework is sufficient for calculating cost and credit allocations going forward. Although a change to the current methodology for allocating costs and credits could be implemented, changes to align costs and credits immediately prior to each RA month would impose a significant cost while offering little benefit once the rules from the CPUC Decision are in place for the 2019 RA year. The ISO proposes to monitor the situation in the future and drop this item from further active consideration in this initiative.

7.3.3 Evaluate if LSEs are 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.[8] 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 not related to the design of the CPM.

[8] 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."

Stakeholder Comments

Calpine agrees with the ISO that the December 2017 events do not constitute a cause for opening the CPM settlement or pricing conditions. **NRG** agrees that the CPM design was not responsible for the outcome that occurred in December 2017.

Revised Straw Proposal

The ISO has received limited stakeholder comments on this item. The ISO has included in this initiative consideration of some changes to the design of the CPM. The ISO proposes to monitor future CPM procurement and drop this item from further active consideration in this initiative.

8. Next Steps

The ISO will discuss the revised straw proposal with stakeholders during a meeting on September 27, 2018. Stakeholders are encouraged to submit written comments by October 23, 2018 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