



California ISO

Review of Reliability Must Run and Capacity Procurement Mechanism

Draft Final Proposal for Phase 1 Items and Items under Consideration for Phase 2

March 13, 2018

Market & Infrastructure Policy

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Appendix 1: Background on RMR

Appendix 2: Stakeholder Written Comments on January 23, 2018 Issue Paper and Straw Proposal for Phase 1 Items

1. Executive Summary

The California Independent System Operator Corporation (“ISO”) is reviewing and considering improvements to its existing 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 as well as stakeholders about the increasing 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 procurement and backstop procurement under the CPM tariff.

This initiative will proceed in two phases. Phase 1 will include RMR items that require immediate attention and implementation, such as having a must-offer obligation (“MOO”) for RMR units comparable to the MOO applicable to resource adequacy (“RA”) resources so that they can be effective for RMR agreements that may be needed in 2019. Phase 2 will address potential additional refinements to the RMR tariff provisions and pro forma agreement and procurement process, and evaluate creating a comprehensive and cohesive RMR and CPM procurement framework. The proposed scope is shown in Figure 1 below.

Figure 1 - Scope of this Initiative

<p>Phase 1 (in place in fall 2018 for 2019 operating year – Board approval on May 16-17, 2018)</p> <ul style="list-style-type: none">• Make RMR Condition 1 and 2 units subject to a MOO for energy and ancillary services• Provide notification to stakeholders when a resource informs the ISO it is planning to retire <p>Phase 2 (in place in fall 2019 for 2020 – Board approval TBD)</p> <ul style="list-style-type: none">• RMR and CPM<ul style="list-style-type: none">○ Clarify when RMR procurement is used versus CPM procurement○ Explore whether RMR and ROR CPM can be merged into one backstop procurement mechanism○ Review allowed rate of return on capital for RMR and CPM compensation○ Explore expanding ISO’s tariff authority regarding LCR criteria as well as integration of renewable resources• RMR<ul style="list-style-type: none">○ Consider whether both Condition 1 and 2 units are still needed○ Streamline and automate RMR settlement process○ Lower banking costs associated with RMR invoicing○ Review cost allocation alternatives for RMR procurement○ Expand designation authority to include flexibility needs○ Consider allocating Flexible RA credits from RMR designations (new)• CPM<ul style="list-style-type: none">○ Align CPM tariff to current RMR rules that allow for recovery of needed capital additions○ Review year-ahead CPM cost allocation to address load migration○ Per CPM settlement, evaluate if LSEs are using CPM for primary capacity procurement (new)
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The ISO's draft final proposal for the phase 1 items is summarized below.

- **MOO** - A MOO requirement will be added for energy and Ancillary Services ("AS") for all RMR units. For Condition 1 RMR units, the SC will be required to submit energy and AS market-based bids up to full the RMR capacity during all hours that the unit is physically available. For Condition 2 RMR units, the SC will be required to submit energy and AS cost-based bids up to the full RMR capacity during all hours that the unit is physically available. For both Condition 1 and 2 units, if energy and AS bids are not submitted by the SC up to full RMR capacity, the ISO will submit cost-based bids up to RMR capacity, with bids generated in the same way that the ISO generates bids when an RA unit fails to submit bids. The ISO generated energy bids will include start-up costs, minimum load costs, and energy costs. The ISO generated AS bids will be priced at \$0/MW per hour. The penalties in the current RMR agreement will be used to incent performance.
- **Notification** - The ISO will modify affected Business Practice Manuals ("BPM") to allow stakeholder notification when the ISO receives a written notice from a resource owner that its resource may retire. The ISO will communicate this information to stakeholders through a market participant communication that will summarize key information such as the date received, affected unit and requested retirement date.

The MOO item requires an amendment to the ISO tariff and RMR pro forma agreement. Therefore, the ISO plans to take the MOO item to the ISO Board of Governors for approval on May 16-17, 2018. The ISO's goal is to have the MOO implemented in the fall of 2018 for any new RMR contracts that would be in effect for 2019.

The notification item does not require Board approval, as implementing it does not require a tariff amendment and it can be effectuated through a change to the existing BPMs. The ISO plans to have the notification process in place as soon as possible, with the actual timing dependent on stakeholder feedback received on this item in the stakeholder comments that are due on April 10.

Through this paper, the ISO is continuing work on phase 2 items in parallel with the phase 1 work. The first step of the phase 2 process was providing the ISO's initial thoughts on the potential scope for phase 2 in the January 23, 2018 Issue Paper and Straw Proposal for Phase 1 Items. In written comments received on February 20, stakeholders commented on the items initially identified by the ISO and provided additional suggestions for the scope of phase 2. The revised scope based on stakeholder feedback for phase 2 items is summarized in Figure 1 above. The ISO plans to present its proposal for the phase 2 items to the ISO Board of Governors for their approval in 2019, with sufficient lead time so the enhancements can be in effect for the 2020 calendar year.

2. Plan for Stakeholder Engagement

The schedule for this stakeholder initiative is shown in Table 1 below. The schedule for phase 2 will be refined in the next paper, after stakeholder comments have been received on April 10, 2018.

Table 1 – Schedule for this Initiative

Stage	Date	Milestone
Kick-Off	Nov 2, 2017	ISO management commits to Board of Governors to undertake a review of RMR and CPM
	Jan 2, 2018	Issue market notice announcing this new initiative
Issue Paper and Straw Proposal for Phase 1 Items	Jan 23	Post issue paper and straw proposal for Phase 1 items
	Jan 30	Hold stakeholder meeting
	Feb 20	Stakeholder written comments due
Draft Final Proposal for Phase 1 Items	Mar 13	Post draft final proposal for Phase 1 items
	Mar 20	Hold stakeholder meeting
	Apr 10	Stakeholder written comments due
Final Proposal for Phase 1 Items	May 16-17	Present phase 1 proposal to Board of Governors
Straw Proposal for Phase 2 Items	May 30	Hold working group meeting
	Jun 26	Post straw proposal for Phase 2 items
	Jul 11	Hold stakeholder meeting
	Aug 7	Stakeholder written comments due
Revised Straw Proposal for Phase 2 items	Aug 27	Hold working group meeting
	Sep 19	Post revised straw proposal for Phase 2 items
	Sep 27	Hold stakeholder meeting
	Oct 23	Stakeholder written comments due
Draft Final Proposal for Phase 2 Items	TBD	TBD
Final Proposal for Phase 2 Items	TBD	Present phase 2 proposal to Board of Governors

3. Decisional Classification

For this initiative, the ISO seeks approval from the Board of Governors only. The ISO believes this initiative falls outside 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 initial EIM classification of the initiative.

4. Introduction

Since the ISO startup in 1998, the ISO has relied on RMR agreements to secure essential services from resources to reliably operate the grid. There were a considerable number of RMR units 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 two forward capacity procurement mechanisms significantly reduced the need for RMR units.¹ Between 2010 and 2016 there were just a handful of RMR units 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 units 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.² 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.

Since 2006, the ISO has had backstop authority under the CPM and its predecessors³ to meet specified 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 CPM risk of retirement 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.

¹ RMR does not include a MOO because it was developed prior to the development of the RA program. Given that the ISO's load serving entities ("LSEs") are now procuring RA for reliability needs and RMR must be used to retain capacity unmet through the RA program, it is appropriate to now update the RMR paradigm to include a MOO for energy and AS similar to the RA MOO requirements.

² Calpine Corporation's June 2, 2017 letter to ISO states that additional units may be at risk of retirement and Calpine may seek RMR designations in the future.
http://www.caiso.com/Documents/Decision_ReliabilityMust-Run_Designation_MetcalfEnergyCenter-Attachment-Nov2017.pdf.

³ For instance, the Reliability Capacity Services Tariff, Transitional Capacity Procurement Mechanism and Interim Capacity Procurement Mechanism.

This initiative will consider changes to the RMR and CPM paradigms. The ISO will consider enhancements to the RA program, in alignment with the California Public Utility Commission’s (“CPUC”) planned RA enhancements, in a separate stakeholder initiative.⁴

Appendix 1 provides additional background on RMR.

5. Stakeholder Comments and ISO Responses

This section provides a summary of the written stakeholder comments that were received on the January 23 Issue Paper and Straw Proposal for Phase 1 Items, as well as the ISO’s responses to those comments. The full version of the written stakeholder comments that were received is provided in Appendix 2.

Comments on Phase 1 MOO Item

Stakeholder Comments: In their February 20 written comments stakeholders are split on whether RMR units should have a MOO in phase 1 of this initiative. Table 2 below summarizes the stakeholder comments on the proposed MOO.

Table 2 – Stakeholder Comments on a MOO in Phase 1

Entity		Condition 1 Units	Condition 2 Units
		Support MOO?	Support MOO?
Resource Owners	Calpine	Yes	No
	IEP	No (additional study needed)	No (additional study needed)
	NRG	No (focus on improving RA)	No (focus on improving RA)
	WPTF	No (not without broader reforms)	No (not without broader reforms)
Load Serving Entities	PG&E	(need to describe use plan)	(need to describe use plan)
	SDG&E	Yes	Yes
	SCE	Yes	Yes
	Six Cities	Yes	Yes
Other	CLECA	Yes	Yes
	CPUC	Yes	Yes
	ORA	Yes	Yes

Calpine has no concern with imposing a MOO on Condition 1 units, but has concerns with imposing a MOO on Condition 2 units as it could change expected market prices and affect investment and operational decisions of other market participants. The ISO should postpone

⁴ This initiative is referred to as “RA Enhancements (Track 1 and 2),” see 2018 Policy Initiatives Roadmap at <http://www.caiso.com/Documents/2018FinalPolicyInitiativesRoadmap.pdf>.

decisions on a MOO for Condition 2 units until more is known in phase 2 of this initiative and possible CPUC RA reforms.

CLECA supports a MOO for Condition 1 and 2 Units.

CPUC Staff supports addressing the MOO in an expedited manner and Board approval in mid-May. It is not clear what part of the current tariff is preventing existing RMR resources from getting a MOO applied to them and Staff requests that the ISO clarify this. Staff would like the ISO to describe the penalties that exist in the RMR agreement that would ensure performance and clarify how scheduled and forced outage rules apply to the RMR units under the existing tariff.

DMM believes that creating a MOO and generating bids for Condition 2 units that do not submit bids would be a major improvement to the ISO's RMR policy.

IEP is concerned that a MOO requirement may distort local market signals and undermine market opportunities for other resources. Rather than rushing to submit a proposal to the Board by April 2018, additional study is warranted.

NRG believes the RMR agreement was not designed to serve as a generic mechanism to address risk of retirement and should have been abandoned following the implementation of the RA program and local market power mitigation. Bolting a generic MOO onto the RMR agreement would upset the balances carefully designed and negotiated into it. The ISO and stakeholders should focus on fixing the fundamental RA paradigm problems.

ORA supports the change to allow the RMR designation to function similar to other RA products, most of which operate with a MOO.

PG&E asks the ISO to provide additional details on how it will implement the use plan that identifies and preserves the specific hours for RMR dispatch operation while requiring market participation during other periods.

SDG&E supports making Condition 1 and 2 units subject to a MOO for energy and AS.

SCE supports the ISO proposal for a MOO on Condition and 2 units.

The Six Cities strongly support a MOO for energy and AS to Condition 1 and 2 resources.

WPTF believes that imposing a MOO on Condition 1 resources seems reasonable. However, sometimes a MOO would make sense and sometimes it might not; therefore, the ISO should not simply impose a MOO on RMR resources in isolation of broader, much needed reforms. Phase 1 and 2 must be combined to determine reasonable payments, requirements, and purpose for both RMR and CPM.

ISO Response – Stakeholders are split on whether the ISO should impose a MOO requirement on RMR units in phase 1 of this initiative. The ISO believes that it is important to impose a MOO requirement as soon as possible on all RMR units to make RMR units function more like RA units. The ISO believes that it should not wait for possible CPUC RA reforms to occur, as this could take quite some time and there may be additional RMR designations in the future that should have a MOO. The ISO does not believe that it is necessary to wait for phase 2 of this initiative to impose a MOO, as there is a pressing need to start now to update parts of the RMR construct. A MOO needs to be established now for both Condition 1 and Condition 2 units because the RMR agreement allows an RMR unit to change from Condition 1 to Condition 2 during the term of the agreement subject to notification requirements. The proposed MOO reflects the ISO's goals of treating RMR units like RA units and not distorting the market. The proposed bid components will reflect in the market the cost of dispatching an RMR unit so that it can be optimized by the market software. The proposed bid components, which may also include opportunity costs, can reflect the use-limited nature of RMR units so those units can be in the market subject to a MOO.

Regarding the CPUC's question regarding what part of the current tariff is preventing existing RMR units from getting a MOO applied to them, the answer is that an executed RMR agreement is an existing agreement that is filed as an RMR unit owner's FERC rate schedule. The ISO can amend the ISO tariff and the pro forma version of the RMR Agreement, but these changes would not affect an existing RMR rate schedule. The ISO could enter into negotiations in an effort to amend the existing rate schedule to conform to the newer version of the RMR pro forma Agreement. Or, the ISO could file a complaint under section 206 of the Federal Power Act, but the ISO would have the burden of proof to demonstrate that the current rate schedule is no longer just and reasonable. In addition, an RMR agreement prevails over the ISO tariff in case of a conflict.

The ISO could decide not to extend an existing RMR agreement and then try to designate the resource under the new form of agreement, but section 2.2 of the agreement prescribes very specific conditions that may make such an approach impracticable and risky, if a resource continues to be needed for RMR services.

Regarding the CPUC's request for information regarding how outages apply to RMR units and the penalties that exist in the RMR agreement that would ensure performance, Appendix 1 of this paper provides the text from section 8.5 Non-Performance Penalty of the pro forma RMR agreement. Scheduled and forced outage rules apply to RMR units under the existing tariff in the same manner as they apply to all other units on the system. The ISO tariff allows all units on the system to provide substitutions under certain circumstances, and the substitution provisions for RMR units are described in Appendix 1 of this paper.

Comments on Phase 2 Items Identified by ISO

Stakeholder Comments: Calpine generally supports the consideration of the items listed in the issue paper. Calpine believes it would assist stakeholders if the ISO was more specific regarding the components of CPM it seeks to review.

CLECA is concerned about the ISO's proposal to expand its tariff authority to designate RMR and CPM resources. The need for procuring the "right resources," through the ISO's backstop authority indicates a failure of the current RA process. The ISO does not need to expand its authority to achieve this. Instead, there is a need for a transparent process for conveying local RA needs and assuring that resources are acquired to meet them.

CPUC Staff believes the ISO needs to first clarify the intended use of the CPM and RMR, before evaluating how these mechanisms need to be individually modified: Staff supports the ISO clarifying when RMR and CPM are to be used. Staff does not oppose looking at whether both Condition 1 and 2 options are needed, the cost allocation, streamlining the settlement process, and lowering banking costs. Staff does not support expanding the RMR tariff authority to flexible capacity needs. Staff opposes aligning the CPM tariff to RMR rules to allow recovery for needed capital additions.

IEP believes that a modest four-month delay in reviewing the RMR and CPM mechanisms, until July 2018, may reap tremendous benefits in the end.

NRG is not opposed to any of the proposed Phase 2 items *per se*. However, the ISO should not utilize RMR arrangements to undercut the CPM or RA programs. NRG is strongly opposed to proceeding with Phase 2 except in conjunction with a simultaneous and holistic review of the RA program.

ORA supports the ISO's proposal to review the allowed rate of return on capital for RMR and CPM. ORA recommends that the allowed rate of return on capital for RMR and CPM be benchmarked against current industry standards. ORA opposes an expansion of the ISO's RMR and CPM tariff authority absent a clear justification of why that expansion is necessary for maintaining reliability. ORA supports further discussion of a possible merging of Condition 1 and 2. ORA supports the ISO's proposal to review the cost allocation of RMR agreements. ORA does not support the proposal to expand the ISO's designation authority to include flexibility needs. ORA opposes the ISO's proposal to allow CPM-designated resources to recover capital addition costs in the same way RMR-designated units do.

PG&E believes that the timing of Phase 2 should be accelerated to address the urgency of the coming wave of early economic retirements of gas-fired generation and the likelihood of new backstop procurement for 2019. PG&E does not agree with expanding the RMR authority to address flexibility needs and advocates the removal of the RMR for flexibility from Phase 2.

SDG&E supports merging RMR and CPM into a single cohesive backstop procurement mechanism. SDG&E believes that the allowed rate of return on capital for RMR and CPM need to be the same and the ISO should consider updating the rate of return on a regular basis. SDG&E does not see any current need to expand the ISO's tariff authority for RMR and CPM. Condition 1 appears to be no-longer needed for RMR under current market dynamics so it could be eliminated. The cost allocation for both RMR and CPM needs to be refined, particularly for reliability needs that span adjacent TAC areas. SDG&E is concerned about how capital additions are decided upon and how their costs are recovered. The RMR designation authority should be expanded to include flexibility needs.

SCE supports considering a single mechanism that requires a resource to participate in the market. It seems that elimination of Condition 2 should be a natural next step and this item should be moved to Phase 1. SCE thanks the ISO for noting CPM cost allocation review due to load migration. However, this item needs to be in Phase 1. The ISO should change the cost allocation from the existing fixed monthly load ratio share to a variable monthly share based on load ratios that will accurately represent actual load served.

The Six Cities support a comprehensive review of the CPM and RMR frameworks with an objective of clarifying and rationalizing them. The Cities believe there should be different treatment of resources that are planning to exit the ISO's markets absent procurement by the ISO versus resources that have not established an exit plan. Further analysis is necessary regarding eligibility criteria for ISO procurement of resources that say they are planning to exit the markets absent procurement by the ISO. The ISO should consider clarifications to the process for determining when CPM or RMR procurement is necessary. The current structure of the compensation under the CPM competitive procurement process is generally appropriate for CPM designations for resources that have not demonstrated a plan to retire in the absence of ISO procurement. It would make sense to eliminate the Condition 1 option. There should be a reevaluation of the fixed return on equity figure currently included in the *pro forma* RMR agreement, The Six Cities oppose expansion of support for capital additions or major maintenance projects.

ISO Response: The ISO's highest priority for phase 2 is to provide clarity on the intended use of RMR and CPM, and in particular when RMR procurement is used versus CPM procurement. The ISO does not intend to undertake a wholesale redesign of the RMR or CPM constructs. Nor does the ISO intend to completely overhaul the RMR or CPM compensation methodologies that FERC has found to be just and reasonable. Rather, the ISO's goal is to make targeted changes to update certain RMR and CPM items, as needed, to better reflect current conditions. The ISO also will undertake items that may be relatively simple to implement and non-controversial (like the "Streamline and automate RMR settlement process" and "Lower banking costs associated with RMR invoicing" items). The ISO also will consider whether it makes sense to combine RMR and risk-of-retirement CPM ("ROR CPM") into a single procurement mechanism to address risk of retirement issues and assess reliability needs over the two separate time horizons currently addressed by RMR (reliability need for the upcoming year, which can be extended on a year to year basis) and ROR CPM (reliability need for the following year). The ISO also is willing to explore whether there is a need to continue to have both Condition 1 and Condition 2 as an option for RMR units. However, because RMR procurement is mandatory it may not be realistic to have a paradigm where the ISO could force a unit owner to take an RMR Condition 1 agreement and have exposure to market risk and end up not fully recovering the costs incurred for service that was mandated by the ISO. The ISO also believes it is important to consider aligning the ROR CPM tariff to the current RMR rules that allow for the recovery of needed capital additions. Currently, the RMR agreement allows for capital additions during the term of the designation, but the ROR CPM designation does not allow for recovery of the costs capital additions that occur during the term of the designation. Rather, an ROR CPM resource must use any net market revenues it earns to offset the costs of such capital additions and repairs.

The ISO will continue to discuss with stakeholders in phase 2 possibly expanding the RMR tariff authority to include RMR procurement for flexible capacity needs. The ISO also believes that it should continue to discuss with stakeholders in phase 2 possibly expanding the RMR and CPM tariff authority regarding local capacity requirement (“LCR”) criteria as well as for integration of renewable resources and has provided additional information on this item in section 8 of this paper.

Additional Items Suggested for Phase 2 by Stakeholders

Stakeholder Comments: Calpine notes the CPM Settlement contains a trigger for review when “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 ISO on the load serving entity’s behalf.” Calpine supports a narrow inquiry as opposed to a reconsideration of the hard-fought and consensus-based CPM settlement.

CLECA believes the consequences of the ISO’s designation of certain facilities through year-ahead CPM or RMR to address local RA needs should be a very high priority. CLECA would like to encourage greater transparency in the way such designations are made. CLECA is very concerned that the ISO does not intend to address local RA procurement problems until Track 2 of the RA Enhancements stakeholder initiative, which is being treated separately from this initiative. CLECA urges the ISO to work with the CPUC to find optimal solutions to meet the reliability needs of California’s grid, including those related to local reliability mentioned above and those related to the impact of the state of the natural gas fleet. The ISO should do look-ahead assessments of the potential impacts of anticipated or likely retirements in 2018 and 2019 to determine how these could affect future local RA requirements.

CPUC Staff requests that any future straw proposal include coordination with the RA bilateral procurement process. Procurement of RMR generation is too broad to allow for coordination with the current bilateral process to avoid front running any over procurement. Staff recommends that any future changes to the RMR process should consider an opportunity for alternatives to be evaluated prior to making or extending an RMR designation and these alternatives should include preferred resource and transmission options. A detailed review may be necessary of the RMR cost of service pro forma (Appendix G of the ISO tariff). Depending on the outcome of the review of RMR and CPM, it may be necessary to completely refine the RMR cost of service pro forma. Future refinements to RMR tariff should include establishing criteria for generators requesting RMR studies. Staff would like to include a review of the current CPM tariff provision that allows a generator the option to be compensated at a rate higher than the CPM soft offer cap if the resource owner makes the specific cost recovery filing with FERC. Staff recommends that the current CPM tariff be modified to exclude a compensation option above the CPM offer cap; if one is to be provided it needs to be based on a fair cost-of-service calculation that provides for market revenues to be netted out of costs. Given the recent 2018 annual CPM designations in the SDG&E region, Staff believes trigger 2 of the CPM Settlement has been met, and therefore it is appropriate to explore all aspects of the CPM tariff including its intended use and its compensation price. Specifically, Staff requests that this include a diligent review and needed revisions of the cost based compensation calculation in the RMR pro forma.

Staff believes that a framework for retiring a resource should be included in the establishment of any future mechanism that would be used for designating units at risk of retirement. CPUC Staff would like the current scope of Phase I to include the allocation of flexible RA capacity. The current RMR contracts do not cover the procurement and allocation of flexible capacity. Staff would like to ensure that any future RMR designations include the flexible attributes of the resource. To the extent that the CAISO cannot address this issue on an expedited basis for Board approval in mid-May, Staff requests that this issue be addressed in Phase 2.

DMM encourages the ISO to address the following two items in Phase 2. (1) The timeline of the RA program and CPM process should be moved back to accommodate the actual timeline needed to make decisions about resource retirements and potential alternatives for meeting local needs. (2) The ISO's first option for procuring additional capacity needed to meet reliability requirements – the CPM – is voluntary and can be declined by suppliers with local market power. Further, DMM recommends that the ISO not base its RMR (or other backstop procurement) compensation policy on the incorrect assertion that FERC is requiring ISOs to compensate RMR units based on the units' full sunk capital costs (minus depreciation).

NRG agrees that certain LSEs recently have relied on the CPM backstop to meet RA deficiencies. In NRG's view, that recent reliance reflects other regulatory constraints placed on LSEs far more than it might reflect the sudden transformation of the CPM mechanism to becoming an attractive or preferred mechanism to meet LSE RA needs. As a result, should the ISO feel compelled to re-examine the CPM structure, it must consider whether (1) this recent undue reliance on CPM gives rise to the need to fundamentally reform the RA process, and (2) the CPM pricing is sufficient to dissuade LSEs from relying on CPM to meet their RA obligations.

ORA believes the ISO should consider changes to its RMR and CPM processes to increase stakeholder involvement and transparency. The ISO should include consideration of market power issues for RMR contracts in Phase 2. The ISO should adopt a process to notify all stakeholders when owners request analysis on the potential retirement of their resources and provide information on the capabilities of the resource and its relationship with the grid. The ISO should add a review of the competitive solicitation process ("CSP") to the scope, with the goal of providing more information on the stakeholder process and addressing market power concerns. The ISO should include a review of CPM term lengths, in particular the Non-System Exceptional Dispatch CPM which has a minimum term of 60 days.

PG&E believes Phase 2 should be expanded to include changes to the transmission planning process ("TPP") and LCR study processes to support the early identification of needs and assessment of alternatives to new backstop procurement. The ISO's CPM tariff offers the ISO the discretion as to whether or not to exercise its backstop authority when there is a deficiency; PG&E believes this discretion should be discussed within the scope of this stakeholder process, including whether the 'may' in the ISO tariff should be changed to a 'shall.' PG&E believes RMR compensation should be based on going-forward fixed cost to eliminate arbitrage by generators choosing between CPM and RMR.

SDGE believes that the scope should be expanded to include how major changes to an existing plant can be proposed and implemented to better fit with changing reliability needs. SDGE believes that it appears that a reopening of the CPM settlement has been triggered by a number of LSEs using CPM for more than half their capacity needs. SDG&E believes the ISO should start a stakeholder initiative to discuss the CPM initiative as it committed to FERC during CPM replacement. SDG&E does not believe the CPM settlement discussion should be grouped as part of phase 2 in the initial stages.

SCE believes the ISO should address how the procurement of non-RA-deficiency CPM and procurement of RMR will interact with RA requirements. SCE is concerned that the terms and conditions established by the ISO for backstop procurement will serve as a direct competitor to the RA bilateral procurement process.

Six Cities recommends that Phase 2 include a comprehensive review of existing provisions relating to capital additions and/or major maintenance expenses to ensure that ratepayers receive appropriate value for any payments the ISO makes to resources and that risks of market distortions are minimized.

ISO Response - Several stakeholders have requested that the ISO provide greater transparency when a resource owner contacts the ISO regarding its unit possibly retiring and the ISO subsequently performing reliability studies. In response the ISO has added a second item to the scope of phase 1 to increase transparency titled "Providing Notification that a Resource is planning to Retire."

The ISO has added to the scope of phase 2 an item that will evaluate if LSEs are using CPM for primary capacity procurement and an item that will consider the possible allocation of flexible RA capacity from RMR procurement.

Several stakeholders have asked that the ISO reevaluate the compensation structure of CPM and RMR, including modifying the current CPM tariff to exclude a compensation option above the CPM offer cap. FERC has found the current RMR and CPM compensation structures to be just and reasonable, and the ISO is not planning to significantly change in this initiative the overall compensation structure. In connection with considering whether to include a separate capital additions cost recovery provision for ROR CPM resources similar to that contained in the RMR agreement, the ISO will consider with stakeholders any accompanying change to the current provisions allowing ROR CPM resources to retain any net market revenues.

CPUC Staff asks that future refinements to RMR and CPM be coordinated with the existing RA bilateral-procurement process to avoid front running and over procurement. SCE asks the ISO to address how the non-RA-deficiency CPM and RMR procurement will interact with RA requirements. The ISO will consider interactions with the existing bilateral process and RA requirements under the "Clarify when RMR is used versus CPM procurement" item.

ORA asks that the ISO add to the scope a review of the CSP and a review of CPM term lengths, in particular the Non-System Exceptional Dispatch CPM which has a minimum term of 60 days. Per the existing tariff, the ISO is currently posting information to OASIS on the bids submitted in the CSP and believes this level of information is adequate and in conformation with the tariff.

The term lengths of the current CPM were established as part of a settlement package agreed among the parties and the ISO does not plan to change the 60-day term that was part of the settlement.

PG&E has proposed increasing the scope of this initiative to include changes to the transmission planning and local capacity study processes. Those proposals are beyond the scope of this initiative and the ISO considers that the issues are already adequately addressed in the ISO tariff and current processes. Section 24 of the ISO tariff specifically calls out the ability of the ISO to study transmission solutions – which can include hybrid solutions also relying on some level of preferred resources – to address the need for local capacity. Section 24.4.6.7 states “...the CAISO will conduct the High Priority Economic Planning Studies selected under Section 24.3.4 and any other studies that the CAISO concludes are necessary to determine whether additional transmission solutions are necessary to address: ... (b) Local Capacity Area Resource requirements;” Consistent with this language, the ISO has indicated in the draft 2018-2019 Transmission Plan Study Plan posted on February 22, 2018,⁵ that: “The ISO is undertaking a review of the existing local capacity areas in the 2018-2019 planning cycle to identify potential transmission upgrades that would economically lower gas-fired generation capacity requirements in local capacity areas or sub-areas. Recognizing that a thorough and comprehensive review of all local capacity areas in a single planning cycle is unrealistic, the ISO will target exploring and assessing alternatives to reduce requirements in half of the existing areas and sub-areas. The local capacity areas and sub-areas to be studied will be prioritized based on the attributes of the gas-fired generation to provide other system benefits and on the gas-fired generation being located in disadvantaged communities. Subsequent recommendations for approval of the identified transmission upgrades will be based on the results of the economic assessments.” (Section 5.2 Local Capacity Areas, Page 48)” These issues can be further explored in the stakeholder consultation efforts specific to the transmission planning process.

The ISO is not planning to change the CPM tariff to change the ISO’s discretion as to whether or not to exercise its backstop authority when there is a deficiency (not planning to change the tariff language from “may” to “shall”) as this language was approved by FERC.

The ISO is not planning in this initiative to move the RA timeline back, but this change has been suggested by stakeholders in the CPUC’s current proceeding to enhance the RA program.

Other Comments

Stakeholder Comments: CRI understands that the ISO will soon be opening an initiative to consider how to utilize storage as a transmission asset, and we recognize that the ISO may wish to consider use of the RMR model in that initiative instead of the present one. CRI does not have an opinion on which initiative would be the best home for the topic we are proposing. We want to ensure, however, that this topic will be given thorough consideration in at least one of these initiatives.

⁵ Study Plan can be found at <http://www.caiso.com/Documents/Draft2018-2019StudyPlan.pdf>.

ISO Response - The ISO will soon kick-off a new stakeholder initiative called “Storage as a Transmission Facility” and CRI should participate in that stakeholder process. The “Review of RMR and CPM” initiative will not consider the use of storage as a transmission asset.

6. Changes from January 23, 2018 Paper

The ISO has made the changes listed below from the January 23 Issue Paper and Straw Proposal for Phase 1 Items to create this paper.

- Provided a proposed schedule for phase 2 items.
- Revised the MOO for Condition 2 units to state that the Scheduling Coordinator (“SC”) for the RMR unit will have the primary responsibility for submitted energy and AS bids (and not the ISO as was proposed in the January 23 paper). The ISO will submit bids only to the extent that the SC does not do so pursuant to its obligations.
- Provided additional detail on the components of the bids that will be submitted by the SC and the ISO if the SC does not submit bids (for both Condition 1 and 2 units).
- Added information on the ISO’s plan for implementing the MOO.
- Clarified the pricing of AS bids to be submitted by the SC and the ISO.
- Added that if the ISO has to submit bids to meet the MOO obligation there will be an obligation in residual unit commitment (“RUC”) for the full RMR capacity at \$0.
- Added a second item to phase 1 where the ISO will notify stakeholders when the ISO receives a written notice from a resource owner that its resource may retire.
- Included two new items suggested by stakeholders as possible scope for phase 2: “Consider allocating Flexible RA credits from RMR designations,” and “Per CPM settlement, evaluate if LSEs are using CPM for primary capacity procurement.”

7. Draft Final Proposal for Phase 1 Items

This section presents the ISO’s draft final proposal for the phase 1 items. The following two items are included in phase 1 of this initiative.

- Making RMR units subject to a MOO that is comparable to the MOO for RA capacity; and
- Providing notification to stakeholders when the ISO receives a notice from a resource owner that its resource may retire.

7.1 Making RMR Units subject to a MOO

The current construct for RMR does not include a MOO as RMR was developed at ISO start-up, long before there was an RA program with MOO obligations for energy and AS. Given that the ISO is procuring RA for reliability needs and recently the use of RMR has been increasing, it is appropriate to update RMR to include a MOO for energy and AS. The Department of Market

Monitoring of the ISO (“DMM”) submitted a filing to FERC on November 22, 2017 that provides arguments for a MOO (see excerpts below).⁶

Under the Reliability Must-Run (RMR) Service Agreement filed in this proceeding, the Metcalf Energy Center (“MEC”) would operate under Condition 2 of the CAISO’s RMR tariff and contract provisions. As a Condition 2 RMR resource, the Metcalf Energy Center and other units seeking Condition 2 RMR agreements would be withheld from participating in the CAISO markets during many – and possibly most -- hours, even though consumers would be bearing the full fixed and variable costs of this capacity. The limits on market participation by Condition 2 units are economically inefficient, distort overall market prices, undermine the CAISO’s automated market power mitigation procedures, and are unjust and unreasonable for consumers. To ensure mitigation of local market power and avoid artificial inflation of overall market prices, the limits on market participation by Condition 2 units must be removed and a must offer requirement must be established for all units under both Condition 1 and Condition 2 of the CAISO’s RMR tariff and contract provisions.

The ISO’s draft final proposal is for all RMR units to have a MOO for energy and AS that is similar to the current RA MOO. The current RMR penalties in the RMR agreement will be used to incent performance.^{7 8}

MOO for Condition 2 RMR Units - The SC for the RMR unit will be required to submit energy and AS cost-based bids during all hours that the unit is physically available.⁹ If energy and AS bids are not submitted by the SC up to full RMR capacity, the ISO will submit cost-based bids up to RMR capacity, with bids generated in the same way that the ISO generates bids when an RA unit fails to submit bids.^{10,11} The ISO generated energy bids will include start-up costs, minimum load costs, and energy costs. The ISO generated AS bids will be priced at \$0/MW per hour. Pursuant to existing provisions, the

⁶ See DMM filing at <https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14762784>.

⁷ See section 8.5, Non-Performance Penalty, of the pro forma RMR agreement for the performance provisions.

⁸ The RMR unit will be exempt from the Resource Adequacy Availability Incentive Mechanism (“RAAIM”) performance penalties and bonuses in section 40.9 of the ISO RA tariff.

⁹ Including costs in Schedule M of the RMR agreement. AS bids can be greater than \$0/MW per hour using the formula in Schedule M. The SC can include opportunity costs and major maintenance adders in bids. Pursuant to existing provisions, the SC will credit back to the Participating Transmission Owner (“PTO”) market revenues above the RMR contract cost.

¹⁰ Including costs in Schedule M of the RMR agreement for the energy bid. However, if the ISO inserts AS bids, the AS bids will be priced at \$0/MW per hour like is done for RA capacity. Will include major maintenance adders in start-up costs and minimum load costs and opportunity costs. Bids will be submitted for all AS services that the unit is certified to provide. Pursuant to existing provisions, the SC will credit back to the PTO market revenues above the RMR contract cost.

¹¹ There will be an obligation in RUC for the full RMR capacity at \$0. If the design of RUC changes over time, the ISO will revisit this provision.

ISO will have the ability to instruct a unit to not run, such as for a reliability or environmental limitation, or if unit would exceed its contract service limits.

MOO for Condition 1 RMR Units - The SC for the RMR unit will be required to submit energy and AS market-based bids during all hours that the unit is physically available.^{9,12} If energy and AS bids are not submitted by the SC up to full RMR capacity, the ISO will submit cost-based bids up to RMR capacity as is done for Condition 2 RMR units whose SC does not submit bids up to the full RMR capacity.

Implementation – The goal is for the ISO to have the ability by January 1, 2019 to insert energy and AS bids if the required bids are not submitted by the SC for the Condition 1 or 2 RMR unit. The ISO is currently assessing whether this functionality can be in place by January 1, 2019, or whether it may take longer than that to implement this functionality. If the new functionality cannot be in place on January 1, 2019, the ISO proposes the SC for the RMR unit will have the obligation to submit energy and AS bids as described above. The ISO will monitor the bidding of the SC, if bidding requirements are not being fulfilled, the ISO will notify the unit owner to remedy the situation, and if the bidding requirements are not met after consultation with the ISO, the ISO will have the right to impose a 25 percent reduction of the daily Annual Fixed Revenue Requirement (“AFRR”) payment until the situation is remedied.¹³

The MOO item requires an amendment to the ISO tariff. Therefore, the ISO plans to take this item to the ISO Board of Governors for approval on May 16-17, 2018. The ISO’s goal is to have the MOO in place in the fall of 2018 for any new RMR contracts that would be effective for 2019.

7.2 Providing Notification that a Resource is planning to Retire

Several stakeholders have requested additional transparency when the ISO receives a notification from a resource owner that its resource may retire. The ISO agrees that this information is something the ISO should share with stakeholders in a timely manner and has added this item to the scope of phase 1.

The ISO proposes to notify stakeholders through a market participant communication when the ISO receives such notice. The BPM will establish that if a resource owner sends such a notice to the ISO the information will not be considered confidential. The ISO will not post the actual owner’s notification letter, but will summarize the key information from the notice such as the date received, affected unit and requested retirement date

The notification item does not require Board approval, as implementing it does not require a tariff amendment and can be effectuated through a change to existing affected BPMs. Therefore, it can move on a path separate from the Board of Governors approval required for the other phase 1 item (a MOO for RMR units). If this proposed policy is supported by

¹² Condition 1 market bids are subject to local market power mitigation.

¹³ It is assumed that simple errors in submitting bids would not be considered a breach of the RMR agreement, but continued non-compliance with the MOO requirement after consultation with the ISO would be considered a breach.

stakeholders in the comments that are due on April 10, it may be possible to implement ISO notifications prior to or shortly after the May 16-17, 2018 Board meeting. The ISO's goal is to implement the new policy as soon as possible.

Additionally, the ISO intends to provide market participant communication information on notifications received from resource owners in 2018 prior to the implementation of the new policy so stakeholders have a full and complete view of pending retirement requests.

8. Potential Phase 2 Items

This section discusses the items that may be candidates for phase 2 of this initiative. It includes items suggested by both the ISO and stakeholders. The ISO requests stakeholders comment on the priorities for these potential phase 2 items.

The ISO plans to take the phase 2 items to the ISO Board of Governors for approval in 2019 with sufficient lead time so enhancements can be implemented in the fall of 2019 and in effect for 2020.

The potential items 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).

8.1 RMR and CPM Items

Clarify when RMR is used versus CPM procurement

Some stakeholders have expressed concern that it is unclear when the ISO uses RMR procurement versus CPM procurement. The ISO will include this issue in the scope for phase 2 and explore how to provide greater clarity. For this item, the ISO will consider the process interplay between RMR and CPM to ensure that the interplay between the mechanisms works properly. The ISO will provide a process map 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.

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

The ISO will explore with stakeholders whether it is possible to integrate RMR and 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 (upcoming year and the year after) under a single mechanism. The ISO is interested in hearing from stakeholders what an alternative construct might look like.

Review allowed rate of return on capital for RMR and CPM compensation

Compensation for CPM units whose costs exceed the soft offer cap and who desire cost-based compensation is tied to the formula for determining compensation for RMR units (Schedule F of Appendix G of the ISO tariff regarding RMR), which includes the rate of return on capital which

is currently 12.25%. This number is “hard wired” (specifically stated). The number was developed years ago for RMR and has not been updated to reflect current conditions in the financial market and rate cases. The ISO would like to explore updating the number as some stakeholders have stated in response to the RMR agreements effective for 2018 that the number is too high for today’s conditions. Options include hard wiring a new number or establishing a reference to a source where the number could be periodically changed without a tariff change or amendment to the RMR agreement. The ISO would like to make the allowed rate of return on capital the same for both RMR and CPM.

Explore expanding ISO’s tariff authority regarding LCR criteria as well as integration of renewable resources

The ISO would like to consider tariff bases for RMR and CPM to potentially expand the ISO’s authority to designate RMR and CPM resources based on a technical criteria updated to reflect the latest mandatory NERC/WECC/ISO reliability standards as well as integration of renewable resources in order to reliably operate the grid.

8.2 RMR Items

Consider whether both Condition 1 and 2 Units are still needed

When RMR was initially established it made sense to offer unit owners an option (Condition 1) where the owner could be paid for some of its fixed costs and also earn market revenues that it could keep, or an option (Condition 2) where the owner could be paid for all of its fixed costs and, in return, would forfeit any market revenues it earned. Today, it appears the greater uncertainty around earning sufficient market revenues is causing unit owners to generally choose the Condition 2 option to ensure they can recover their costs. The ISO would like to explore with stakeholders whether there is a need going forward to continue to have both options available.

Streamline and automate RMR settlement process

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 proposes 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 proposes 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.

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.

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 establish a bank trust account specific to administering RMR related transactions. Going forward, all payments from and disbursements to RMR parties will be made from this bank account. The advantages to this change are:

- Streamlined process. Since RMR transactions will be processed using one bank 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 bank 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.

Review cost allocation alternatives for RMR procurement

The responsible utility identified in the RMR agreement is currently responsible for the costs paid to the RMR owner under the RMR agreement. The ISO is open to discussing potentially changing this cost allocation, as some stakeholders have suggested there may a better way to allocate RMR costs. The ISO is interested in hearing stakeholders' perspectives on this issue and what they think may be other viable cost allocation alternatives.

Expand designation authority to include flexibility needs

RMR currently is structured based on the need for unmet local capacity. Flexible capacity is also crucial to the reliable operation of the grid. However, the ISO is unable to procure flexible capacity through the existing RMR agreement. The ISO will explore using RMR as a backstop to cover unmet flexibility capacity needs.

Consider allocating Flexible RA credits from RMR designations (new)

CPUC Staff has requested that this item be added to the scope of this initiative. As explained by the CPUC in its written comments: “Staff would also like the current scope of Phase I to include the allocation of flexible RA capacity. The current RMR contracts do not cover the procurement and allocation of flexible capacity. Staff would like to ensure that any future RMR designations include the flexible attributes of the resource. Since ratepayers are paying for all of the costs associated with the operation and dispatch of these resources, they should, be allocated the flexible capacity attributes on the resources. Essentially, the flexible attributes associated with the resource become sunk, if they are not allocated. Staff believes that this would be a small modification, and we request that it be made with the addition of a MOO in the current RMR tariff. To the extent that the CAISO cannot address this issue on an expedited basis for Board approval in mid-May, Staff requests that this issue be addressed in Phase 2 of this initiative.”

8.3 CPM Items

Align CPM tariff to current RMR rules that allow for recovery for needed capital additions

The RMR agreement has separate provisions that allow for the recovery of needed capital additions, including costs for major maintenance. CPM currently provides for market-based, *i.e.*, bid-based compensation up to the soft offer cap, and cost-based compensation for resources whose fixed costs exceed the soft offer cap based on the annual revenue requirement for RMR resources as set forth in Schedule F of the RMR agreement.¹⁴ The ISO recently proposed that compensation for risk of retirement CPM designations be cost-based only using the Schedule F formula.¹⁵ CPM does not have any separate provisions specifically addressing the recovery of needed capital additions or repairs during the term of the designation, including costs for major maintenance. The Schedule F formula provides for compensation associated with net plant in service. The ISO would like to explore treating the recovery of needed capital additions, including costs for major maintenance, similar for both RMR and CPM. If RMR and CPM were merged into a single ISO procurement mechanism (see the discussion above in the RMR and ROR CPM subsection) the issue possibly could be addressed through that means. Another issue is how to address this topic in a competitive-solicitation based CPM framework, where resource owners can submit bids up to a soft-offer cap. Should this option only apply to cost-based bids?

¹⁴ See section 43.A4 of the ISO tariff at http://www.caiso.com/Documents/Section43A_CapacityProcurementMechanism_asof_Sep25_2016.pdf

¹⁵ The Schedule F formula can be found in Appendix G of the ISO tariff at http://www.caiso.com/Documents/Section41_ProcurementOfRMRGeneration_May1_2014.pdf.

Review year-ahead CPM cost allocation to address load migration

A stakeholder raised the issue that the ISO might engage in backstop procurement under the CPM and under certain circumstances may buy an annual product, in which case the ISO would allocate the costs to load serving entities on a load ratio share at the time of the procurement (unless the shortfall is attributable to a single load serving entity). Given the potential for load migration, this stakeholder believes the issue of year-ahead CPM cost allocation to address load migration should be addressed in this initiative. The ISO has included this item as an issue to be addressed in phase 2.

Per CPM settlement evaluate if LSEs are using CPM for primary capacity procurement (new)

The current CPM is the result of a negotiation process conducted among interested stakeholders. That negotiation process concluded with the ISO filing tariff provisions and an additional offer of settlement.¹⁶ The Offer of Settlement included three items “that do not constitute a rate, term, or condition of service provided by the CAISO and that therefore are not addressed in the revised tariff provisions.”¹⁷ One of those three additional items was that the ISO would “monitor the use of the CPM to ensure that load serving entities are not relying on the CPM as a primary means of capacity procurement to meet Resource Adequacy obligations . . .”¹⁸ Specifically, the Offer of Settlement established two triggers that, if met, would result in the ISO opening a “a stakeholder initiative to explore whether load serving entities have relied on the CPM, to an unacceptable extent, as a primary means of capacity procurement.”¹⁹ The two triggers were:

- 1) Within a rolling 24-month period, the same load serving entity twice relies on the CPM to meet any Resource Adequacy deficiency (either in an annual or monthly Resource Adequacy plan).
- 2) 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.”

The Offer of Settlement explained that if either trigger were met, then the stakeholder initiative “would consider the CPM designation(s) that triggered the stakeholder initiative and possible solutions to discourage load serving entities from relying on the CPM for forward capacity procurement in the future” and also could “consider prospectively-applicable remedial measures designed to avoid load serving entity reliance on the CPM.”

In an order issued on October 1, 2015, FERC accepted the proposed CPM tariff provisions, but noted that the “Offer of Settlement is not a settlement filed pursuant to Rule 602 of the

¹⁶ *Cal. Indep. Sys. Operator Corp.*, Tariff Amendment and Offer of Settlement, FERC Docket No. ER15-1783 (May 26, 2015) (May 2015 filing).

¹⁷ Offer of Settlement, § 5.1.

¹⁸ Offer of Settlement, § 5.2.

¹⁹ *Id.* [Offer of Settlement, § 5.2.]

Commission's Rules of Practice and Procedure" and as such would be treated "as record evidence in support of CAISO's section 205 filing."²⁰

In its comments on the Issue Paper and Straw Proposal for Phase 1 Items, the CPUC states that the second trigger was met and "therefore it is appropriate to explore all aspects of the CPM tariff including its intended use and its compensation price."²¹ NRG and Calpine also view the second trigger potentially as being met, but observe that the resulting stakeholder process should be narrower in scope than the scope for which the CPUC advocates.

As noted, FERC did not accept the Offer of Settlement. As such, its terms are not necessarily binding on the ISO or any of the "Supportive Stakeholders" identified in the May 2015 filing.²² Nevertheless, the ISO will abide by the spirit of the Offer of Settlement, which was that if a LSE appeared to be using the CPM as a means of primary procurement (which is what the two triggers were crafted to capture), then the ISO would hold a stakeholder initiative to consider how it might discourage such behavior.

As a result of the CPMs the ISO issued through the annual competitive solicitation process for the 2018 RA year, some LSEs in the SDG&E TAC area will be credited from the CPM more than half of their local capacity obligation for the SDG&E TAC area. The ISO has concluded that this situation reasonably could be viewed as raising an appearance that those LSE used the CPM for primary procurement.

Based on that conclusion, the ISO intends to consider in phase 2 of this initiative how the circumstances surrounding the year-ahead CPM 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. Based on the potential remedial measures identified, phase 2 also may consider whether those measures should be adopted prospectively through tariff amendments or other appropriate means.

9. Next Steps

The ISO will discuss the draft final proposal for phase 1 items and items under consideration for phase 2 with stakeholders during a meeting on March 20, 2018. Stakeholders are encouraged to submit written comments by April 10, 2018 to initiativecomments@caiso.com. Please use the template available at the following link to submit your comments:

<http://www.caiso.com/Documents/CommentsTemplate-ReviewofReliabilityMustRunandCapacityProcurementMechanism-DraftFinalProposal.docx> .

²⁰ *Cal. Indep. Sys. Operator Corp.*, 153 FERC ¶ 61,001, P 28 n.53 (2015).

²¹ CPUC comments, at 10.

²² May 2015 filing, at 2 n.3.

Background on RMR

The ISO has broad authority under Section 41 of the tariff to designate a unit as RMR based on studies identifying a reliability need. The ISO has a pro forma RMR agreement as Appendix G of the ISO tariff. The RMR agreement is between the ISO and the RMR resource owner and is filed at FERC as the rate schedule of the RMR owner. The responsible utility (as identified in the RMR agreement) is responsible for costs paid to the RMR owner under the RMR agreement.

The RMR agreement allows a RMR unit to operate under one of the following options: Condition 1 or Condition 2. The RMR owner designates the applicable condition prior to the effective date of the RMR agreement and can transfer between options subject to certain timing restrictions. The terms of the options are covered the RMR agreement.

The ISO currently has four facilities under a RMR agreement, which are summarized in Table 2 below.

Table 2 – Current RMR Facilities

Owner and Facility	Capacity (Megawatts)	Condition 1 or 2
Dynegy Oakland	165	Condition 2
Calpine Feather River	47	Condition 2
Calpine Yuba City	47	Condition 2
Calpine Metcalf Energy Center	593	Condition 2

Under Section 4.1 of the pro forma RMR agreement, the ISO can dispatch an RMR unit for energy solely for purposes of meeting local reliability needs or managing non-competitive congestion constraints. Dispatch for local reliability includes any local reliability need, i.e., not just the local reliability reason for the RMR designation. RMR dispatches for AS, except for voltage support or black start, are more limited per 4.1(c) – such dispatches require a bid insufficiency test.

Under Section 41.9 of the tariff, for Condition 2 units only, the ISO may Exceptionally Dispatch a RMR Unit for reasons other than under the RMR agreement if needed for energy or operating reserve or to manage congestion, if no other generating unit is available to meet the need.

RMR owners have the right to substitute a unit under the RMR agreement. The substituted unit may not necessarily be an RMR unit, under the circumstances existing at the time; however, it must be capable of providing equivalent system reliability benefits.

The RMR agreement pays for fixed costs (Schedule B) and variable costs (Schedules C and D). The fixed costs may include capital item additions (Schedule L-1) or repair items (reimbursed through an RMR invoice) which are approved through the process defined in the RMR agreement in Article 7.

California ISO - Draft Final Proposal for Phase 1 Items and Items under Consideration for Phase 2

The RMR invoice template is created by the ISO and posted on the ISO website, subject to provisions of Schedule O of the RMR agreement.

Condition 1 units can substitute RMR dispatches with market transactions only for energy, under Section 5.2 of the RMR agreement. Additional rules for Condition 1 units for market transactions substituting for RMR dispatch (calculating “counted start-ups”, “counted MWh” and “counter service hours”) are provided in Section 5.3 of the RMR agreement. “Hybrid MWhs” for Condition 1 units are calculated as per Section 8.3(b) of the RMR agreement and represent energy from market transactions substituted for RMR dispatches.

The ISO can limit the RMR owner’s market transactions under Section 6.1, if an RMR unit could exceed its contract service limits.

A Condition 2 unit is only allowed and required to submit cost based bids for energy and AS during RMR dispatch period.

A Condition 1 unit is expected to maximize its market transactions because its RMR capacity payments are calculated under an expectation for it to bid.

A comparison of Condition 1 and Condition 2 RMR units is provided below in Table 3.

Table 3 – Comparison of RMR Condition 1 and Condition 2

	Condition 1	Condition 2
Expectation and requirement to bid	No requirement. but expectation is unit will bid to earn market revenues	Required and expectation to bid only during RMR dispatch operating hours (hours determined by ISO)
Market transactions	Allowed to bid at any time	Can bid only during RMR dispatch operating hours
Market revenues	Retain all market revenues	Credit to Participating Transmission Owner any market revenues from a RMR dispatch
Substitution with market transactions ²³	Can substitute market transaction for RMR dispatch notice for energy only	Market substitution provisions only available to Condition 1 RMR Units
Market bids	Submit market bids subject to local market power mitigation	Required to submit cost based energy and AS bid (Schedule M of RMR agreement)
Start-up charge	Prepaid startup charge and adjustments	No prepaid startup charge (invoiced based on actual starts)

²³ This provision provides the Condition 1 RMR Unit to elect to retain market revenues in lieu of crediting them to the responsible utility and being paid the contract variable payments defined in the RMR contract, Schedule C.

	Condition 1	Condition 2
Fixed option payment factor	Custom factor based on net or estimated market revenues	Factor is always 1.0
Surcharge payment factor for capital items	Equals fixed option payment factor, but can be negotiated further for large capital items	Factor is always 1.0
AS payments	Has preempted dispatch payments to make RMR owner whole with respect to original market transaction	No preempted dispatch payments

Provided below is section 8.5 of the pro forma RMR agreement.

8.5 Non-Performance Penalty

(a) If a Unit fails to comply fully with a Dispatch Notice and such failure is not due to a Force Majeure Event under this Agreement, the Unit shall be subject to a Non-Performance Penalty computed in accordance with this Section 8.5.

(b) The Non-Performance Penalty shall be calculated for each hour of the Penalty Period in which Owner is not deemed to be in full compliance with a Dispatch Notice and is not excused from performance. The Non-Performance Penalty shall be the sum of the amounts calculated for each Settlement Period in the Month by multiplying (i) the Availability Deficiency Factor for the Settlement Period by (ii) the sum of the Hourly Penalty Rate and the Hourly Surcharge Penalty Rate for the Unit as set forth on Schedule B; provided that the Non-Performance Penalty for any Month shall not exceed the sum of the Condition 1 Availability Payment and Condition 1 Surcharge Payment (for Units on Condition 1), or the sum of the Condition 2 Availability Payment and Condition 2 Surcharge Payment (for Units on Condition 2) for the Month. For purposes of this calculation:

(i) an Availability Deficiency Factor shall be calculated for each hour of the Penalty Period as one minus the number determined by dividing (a) the Delivered MWh for the hour in question by (b) the product of the Unit Availability Limit and the percentage of the hour (up to 100%) that the Unit was subject to a Dispatch Notice;

(ii) the Penalty Period shall be the 72 hour period beginning at the time Owner fails to comply fully with a Dispatch Notice, provided that if Owner in accordance with Section 7.2(a) had scheduled an outage to begin during the 72 hour period, the Penalty Period will terminate at the time the outage was scheduled to begin.

(iii) the Unit Availability Limit shall be the Unit Availability Limit as it existed at the time CAISO issued the Dispatch Notice with which Owner failed to comply but reduced to eliminate the effect of any Force Majeure Event affecting deliveries during the Penalty Period.

(c) For purposes of this Section 8.5 and Section 4.9(a)(i), a Unit shall be deemed to be in full compliance with a Dispatch Notice if the Unit Delivers (i) at least 97 percent of the Requested MW or (ii) not more than 2 MW less than the Requested MW.

**Stakeholder Written Comments on
January 23, 2018 Issue Paper and Straw Proposal for Phase 1 Items**

This section provides the full written comments submitted by stakeholders on February 20, 2018. The ISO has summarized these comments and provided ISO responses in section 5.

Calpine	Calpine Corporation
CLECA	California Large Energy Consumers Association
CPUC	Energy Division Staff, California Public Utilities Commission
CRI	Center for Renewables Integration
DMM	Department of Market Monitoring
IEP	Independent Energy Producers Association
NRG	NRG Energy, Inc.
ORA	Office of Ratepayer Advocates, California Public Utilities Commission
PG&E	Pacific Gas & Electric
SCE	Southern California Edison
SDGE	San Diego Gas and Electric
Six Cities	Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California
WPTF	Western Power Trading Forum

1. Comments on phase 1 proposal to make RMR Condition 1 and 2 Units subject to a MOO for Energy and AS.

Calpine - Calpine has no concern with imposing a MOO on Condition 1 RMR units. If an owner selects (as is its unilateral right under the pro forma RMR contract) Condition 1, it is voluntarily choosing to recover only a portion of its costs through market transactions. Imposing a market-based bidding requirement on *these Condition 1 units only reinforces that which would be a natural outcome of the risk/reward balance* that the owner selected. Further, Calpine supports automated bid-insertion if the resource owner does not submit bids.

With respect to the imposition of a MOO on a Condition 2 resource, the owner voluntarily and affirmatively *rejects* the risk of exposure to market revenues and, in fact, credits any marginal economic market rents back to the CAISO/PTO. While the owner of the Condition 2 RMR unit would be largely indifferent to operations (because it is collecting most of its cost-of-service regardless of operation), there are broader market impacts that make the decision to impose a bid obligation, on Condition 2 units more difficult. In fact, imposing a MOO on a Condition 2 unit changes expected market prices and could affect investment and operational decisions of other market participants. However, the nature of these changes depends on the base assumptions of the analysis.

- One view is that without the RMR designation, the designated unit would be retired/mothballed/unavailable. The absence of the resource would result in a counterfactual condition of higher baseline prices whenever the removed resource would have been at or below the bid price of the marginal resource. With this base assumption, enforcing a MOO suppresses market prices for all other resources whenever the unit is: (1) not needed for local reliability, (2) is infra-marginal, and (3) required to bid. These lower market prices discourage

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investment or operation of alternatives (including storage, EE, DR and DG) and hasten the financial blight on all other conventional resources. In the long run, it's bad for consumers.

- The opposite view sets a base assumption that the designated resource would have been in the market even without the RMR (implicitly discounting the fact that the resource was uncontracted through the RA program and the owner's assertions that it would be unavailable to the market). With this base assumption, the counterfactual prices would start out lower as the presence of the resource shifts the supply curve to the right. The absence of a MOO would, therefore, raise prices (the argument supported by DMM, the CPUC and others.)
- Finally, another view is that if consumers pay for the whole resource (meaning the full cost of service, including return of, and on investment), they should get all of its attributes, including a MOO – so that in the short run consumers are better off.

Some might argue that, in theory, the effects of energy price changes on other market units can be mitigated by complementary changes in capacity compensation. With structural changes to RA this theory might be more compelling (e.g., moving the RA demonstration date back 6 months, establishing multi-year requirements, enforcing all sub-area local reliability requirements, and establishing a central buyer of local capacity.) Bottom line: imposing a must-offer obligation on Condition 2 RMR units may have undesirable consequences that must be carefully reviewed in the light of holistic capacity procurement reforms. These consequences may be favored or disfavored depending on the lenses through which stakeholders view the base assumptions. Calpine recommends that the CAISO, if it chooses, move forward with a must-offer obligation on Condition 1, but postpone decisions on Condition 2 units until more is known in both Track 2 matters in this initiative and possible CPUC RA reforms.

CLECA - CLECA supports a MOO for RMR Condition 1 and 2 Units. These units should be participating in the market as they have been designated for reliability reasons, similar to facilities under RA contracts.

CPUC - Energy Division Staff appreciates the CAISO's efforts to address the MOO for RMR designated resources in an expedited manner that calls for a Board approval in mid-May of this year to ensure that any new RMR contracts for 2019 are subject to a MOO. We agree with the CAISO that this issue needs to be resolved on an expedited basis.

Ideally, Staff would prefer that the MOO extend to both new and existing RMR contracts. However, Staff understands that this is not possible given that Section 2.2 of the current RMR pro forma reads:

If CAISO terminates the Agreement or does not extend the term of the Agreement as to a Unit, CAISO shall not re-designate the same Unit, or designate another non-reliability must-run unit at the same Facility, as a Reliability Must-Run Unit during the one year period following termination or expiration of the Agreement as to that Unit unless (i) CAISO demonstrates that the unit is required to maintain the reliability of the CAISO Controlled Grid or any portion thereof and the need to designate the unit as a Reliability Must-Run Unit is caused by an extended outage of a generation or transmission facility not known to CAISO at the time of the termination or expiration or (ii) the unit is selected through an CAISO competitive process in which Owner participated. For purposes of the foregoing, CAISO's need for spinning reserves, non-spinning reserves, replacement reserves or regulation as defined in the CAISO Tariff shall not be grounds for re-designating the Unit or designating another unit at the Facility as a Reliability Must-Run Unit.

It is not clear from the issue paper that this portion of the current tariff is what is preventing existing RMR resources from getting a MOO applied to them. Staff requests that CAISO clarify this in the next iteration of its straw proposal.

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In its issue paper and straw proposal, CAISO specifies that RMR will be exempt from the RA Availability Incentive Mechanism (RAAIM). CAISO states that: “[t]he penalties in the current RMR agreement will be used to incent performance.” Staff would like the CAISO to identify and describe the penalties that currently exist in the RMR agreement that would ensure performance. Additionally, Staff requests further clarification from CAISO on how scheduled and forced outage rules apply to the RMR units under the existing tariff. For example, are there specific penalties in place in the RMR pro forma that address forced outages?

DMM - The ISO proposes that for condition 2 RMR units the ISO will generate and submit bids using the “ISO-generated bid calculation methodology for that unit the same way the ISO currently does for RA units that do not submit an energy or AS bid.” Creating a MOO and generating bids for condition 2 units that do not submit bids would be a major improvement to the ISO’s RMR policy. This should mitigate the potential for future RMR designations to significantly harm spot market efficiency by artificially inflating energy market prices.

IEP -IEP is concerned that the imposition of a MOO requirement on RMR contracted units may trigger unintended consequences. For example, imposing a MOO obligation on RMR contracts may distort local market signals and, thereby, undermine market opportunities for other resources. As a practical matter, the incidence of RMR contracting is low and likely will remain low. Rather than rushing to submit a proposal to the CAISO Board by April 2018, IEP believes additional study and review would be welcome and warranted.

NRG - NRG urges the CAISO to focus on the cracks in the RA program that have appeared in the past several years. The RMR process should not be used to paper over the underlying problem: that resources needed for reliability are not being picked up in the RA program. This indicates a significant problem with the design of the RA program that cannot be solved by imposing a generic MOO on Condition 1 and 2 RMR units. The CAISO should resist the temptation to utilize the RMR process to solve resource adequacy issues.

As the CAISO noted: RMR units are already subject to must-offer requirements. Specifically, Condition 2 units are required to offer at cost-based rates (determined in accordance with formulae in Schedule M of the *pro forma* Reliability Must-Run contract) *when the CAISO requires the unit to operate in accordance with the limitations and conditions set forth in the RMR contract* (see RMR Contract Sections 6.1 (b) and 4.1 (b)). Likewise, Condition 1 units also have an implicit MOO, because the CAISO has the ability to call on those units to operate when needed *limited to the purposes set forth under the RMR contract*.

Imposing an RA-like MOO on RMR units amounts to chiseling grooves in the face of a hammer when a screwdriver is needed simply because the hammer is not a screwdriver (and perhaps the right kind of screwdriver does not yet exist). NRG respectfully urges the CAISO and stakeholders to focus instead on the real problem(s).

When the RMR contract was developed, Condition 2 was intended and designed for generating units that were required to operate under some conditions to maintain reliability (and thereby had the potential to exercise local market power), *but were unlikely to recover any significant portion of the unit’s fixed costs from the CAISO’s energy and ancillary service markets*. When Condition 2 was designed, no one could imagine that a highly efficient combined cycle unit would seek Condition 2 status. (Admittedly, at the same time, no one could imagine that the CAISO would have negative prices across afternoon hours in the spring and the fall.)

Because of this history, the RMR contract was not designed to serve as a generic mechanism to address risk of retirement. Instead, it was intended to address the potential exercise of local market power. The

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RMR contract served a necessary purpose during the start-up of the CAISO's markets, but should have been abandoned following the implementation of the RA program and the implementation of local market power mitigation in the CAISO's energy markets. The use of RMR contracts to keep critical reliability units not subject to an RA contract in operation must be viewed as an indictment of the RA program, not of the RMR contracting process. Tweaking one part of a complex contract to make it better suited for a purpose it should not have been used to begin with for is a second wrong that makes nothing right.

The Section 4.1 (b) limitations on the CAISO's use of the RMR contract were carefully and painstakingly negotiated, as were all the other provisions restricting the CAISO from using RMR units for purposes other than for what they were required. The MOO present in the Condition 2 RMR contract ensures that the Condition 2 resource is used for the purposes reserved under the contract and provides some modest credit back against fixed costs payments for energy that is economic *when the unit is needed for reliability*. The same can be said for the "implicit" MOO present for Condition 1 (i.e., the narrow RMR "MOO" is the CAISO's right to dispatch energy from the Condition 1 unit when that unit is needed for local reliability or non-competitive congestion). Adding a generic MOO to the RMR contract either for Condition 1 or Condition 2 completely upends the fundamental purpose and nature of the agreement.

Unquestionably, it is both bizarre and telling that an efficient unit like Calpine's Metcalf facility is under a Condition 2 RMR contract and not an RA contract. This curious outcome points to fundamental flaws in the RA program, the backstop risk of retirement mechanism, or both. The CAISO has made clear that existing RMR contracts will not be affected by this stakeholder process, so the purpose of adding a MOO to a contract that, by all rights, should not be used as an RA surrogate is unclear.

In sum, simply bolting a generic MOO on to the RMR contract would upset the balances carefully designed and negotiated into that contract. Instead, the CAISO and stakeholders should focus on fixing the fundamental RA paradigm problems that led to the RMR contract being used in this way.

ORA - Phase 1 of this initiative seeks to implement a MOO for future RMR agreements. ORA supports this change to allow the RMR designation to function similar to other RA products, most of which operate with a MOO. CAISO introduces this change to address a concern of the Department of Market Monitoring (DMM) "To ensure mitigation of local market power and avoid artificial inflation of overall market prices, the limits on market participation by Condition 2 units must be removed and a must offer requirement must be established for [all Condition 1 and Condition 2 units]."¹ The addition of a MOO to both conditions only partially meets DMM's concerns of market power and market distortion. ORA raises additional issues in Section 3 of these comments, which should be included in Phase 2 of this initiative to address market problems caused by RMR and CPM.

PG&E - With regard to the Phase 1 proposal to create a MOO, CAISO's proposal must address use limitations. Phase 1 of this initiative is intended to immediately address and implement a MOO for RMR units, comparable to RA and CPM resources. RMR resources are procured to ensure that the reliability of the CAISO Controlled Grid is maintained. The CAISO noted within its presentation, that the CAISO already has broad dispatch rights for RMR units such as dispatching a unit for energy solely for meeting local reliability needs or managing non-competitive congestion constraints. RA requires that the CAISO maintain reliability using dependable resources without the guarantee of an energy only resource operating at the same time. The MOO allows for resources to economically bid or self-schedule and ensures that the CAISO has authority to commit and dispatch resources through its day ahead and real time markets. The CAISO has the ability to re-dispatch generation through the CAISO market via congestion management but this is only possible when market bids can be used to meet the reliability needs. When resource bids are no longer able to meet those needs the CAISO would issue a dispatch

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notice to an RMR facility to meet those needs but this is only possible if the RMR facility that would have a MOO hasn't exceeded its contract service limits. The CAISO should provide additional details to describe how it will implement the use plan that identifies and preserves the specific hours for RMR dispatch operation while requiring market participation during other periods.

SDGE - SDG&E supports making RMR Condition 1 and 2 units be subject to a MOO for energy and AS. The prices bid by RMR units into the markets should be cost based. Market clearing prices will be appropriate with cost based bids.

SCE - SCE supports the CAISO proposal for a MOO on both Conditions for a RMR resource.

Six Cities - The Six Cities strongly support application of a must offer obligation for Energy and AS to RMR Condition 1 and 2 resources. Conceptually, RMR resources receive compensation for capacity costs to ensure that they remain available to the ISO's markets. In the context of Resource Adequacy capacity and capacity procured under the ISO's Capacity Procurement Mechanism, the ISO assesses availability through compliance with must offer obligations. For the same reasons that MOOs apply to RA capacity and CPM capacity, RMR resources should be required to comply with must offer obligations for any and all products that the RMR resource is capable of supplying.

WPTF - Phase 1 proposes to make RMR Condition 1 and 2 subject to a MOO for energy and ancillary services. WPTF notes that while this may be appropriate for some resources, it may unintentionally increase ratepayer costs for other resources. It entirely depends on the use of RMR and resource. Therefore WPTF opposes (and will oppose at FERC) any CAISO filing that in isolation sets up a MOO for resources without being in the context of broader RMR and CPM reform.

RMR for retiring resources - When the RMR process is used as a lifeline to preserve reliability until a substitute can be put into place, typically plants that receive an RMR designation are old and about to retire. The Dynegy Oakland plant is a good example. It is old, runs on oil, and cannot be dispatched frequently or it would need constant (expensive) repairs. From a ratepayer cost perspective the best use of this plant would be for the CAISO to dispatch it when needed for reliability and at no other time. This would preserve the plant until a replacement could be put in place and avoid costly repairs from more frequent dispatches. From a market perspective, in a competitive market, this plant would retire or only bid in during expected, consistent high price intervals (concurrent with reliability need). Therefore forcing it to bid-in 24/7 would be an energy market distortion and likely increase costs to rate payers.

RMR for resources that should be RA resources or who accept Condition 1 - When the RMR process is inappropriately used as a backstop for RA, this is reflective of a market failure. In this circumstance it would seem appropriate for the resource to have a MOO identical to the RA requirement because this should have been the competitive market outcome. However, the RMR process should not be used as an RA backstop in the first place. That said, if the RMR is being used as a backstop for RA, WPTF understands why other stakeholders would want the resource to have a MOO.

Additionally, resources that accept a Condition 1 RMR obviously believe they can run frequently enough to make sufficient energy revenues to cover a portion of their fixed costs plus a return. WPTF therefore also believes therefore imposing a must-offer obligation on these resource seems reasonable.

The CAISO cannot currently distinguish whether it would make sense for an RMR resource to have a MOO and therefore the determination should be part of a holistic review of the RMR and CPM rules.

As WPTF noted above, sometimes a MOO would make sense and sometimes it might not. The CAISO therefore should not simply impose a MOO on RMR resources in isolation of broader, much needed

reform. Phase 1 and 2 must be combined for the CAISO to be able to determine reasonable payments, requirements, and purpose for both RMR and CPM.

2. Comments on potential phase 2 items listed in issue paper and straw proposal for phase 1 items.

Calpine - Calpine generally supports the consideration of those items listed in Section 6 of the Issue Paper, generally referred to as “Phase 2” items. We do believe, however, that it would assist stakeholders if the CASIO was more specific regarding the components of CPM it seeks to review. For instance, we assume, but do not know, that when the CAISO refers to “CPM”, its reference is to the CPM risk-of-retirement provisions. As the CAISO is well-aware, there are several alternatives conditions that could trigger CPM designations and the ISO should limit the scope to those it deems necessary.

With this in mind, the CPUC representative has observed that the CPM Settlement might allow for a broader review and revision to the provisions of CPM. We disagree. The CPM Settlement contains a trigger for review when “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 the load serving entity’s behalf.” The CPUC asserts that this condition has been triggered. The assertion has been made that since the trigger has been met, *all* components of the CPM settlement should be open for review. We disagree. The CPM settlement requires only that the CAISO “open a stakeholder initiative to explore whether load serving entities have relied on the CPM, to an unacceptable extent, as a primary means of capacity procurement.” Calpine supports this narrow inquiry as opposed to a reconsideration of the hard-fought and consensus-based CPM settlement.

CLECA - CLECA is concerned about the CAISO’s proposal to expand its tariff authority to designate RMR and CPM resources. Consistent with the CPM settlement, the current procurement structure is based on LSEs procuring sufficient resources through the RA process to allow the grid to be operated reliably and relying minimally on the CAISO for capacity procurement. In CLECA’s opinion, the need for procuring the “right resources,” particularly local resource adequacy (RA), through the CAISO’s backstop authority indicates a failure of the current process. The CAISO does not need to expand its authority to achieve this. Instead, there is a need for a transparent process for conveying local RA needs and assuring that resources are acquired to meet them while avoiding the ability for market power to be exercised. We realize that this is a challenging balancing act.

The CPUC policies that combine local areas or sub-areas were designed to mitigate market power. Our concern is that if the CAISO believes certain resources need to be procured, this combining of local areas or sub-areas, while mitigating market power, leads to situations where the actual procurement does not meet the CAISO’s reliability principles and thus leads to backstop procurement. If the backstop procurement is done through the CPM mechanism¹, it is voluntary to the resource, and the resource can decline or, in the alternative, seek compensation in excess of the soft offer cap, which might or might not be approved by the FERC. If the resource declines, the only option for the CAISO is RMR. It seems preferable to come up with a way that the CAISO can convey to the LRAs what resources are going to be needed before RA compliance commitments have been made in order to minimize backstop procurement. This may involve a decision by the LRA to direct procurement of such resources by an entity on behalf of other LSEs. Reconciling the need for confidentiality to mitigate market power with the necessity for transparency will admittedly be tricky.

For example, the CAISO could inform an LRA such as the CPUC that it might engage in backstop procurement for local resources. The CPUC could then direct an Investor Owned Utility (IOU) to engage in such procurement on behalf of all of its jurisdictional LSEs. While the LSEs would understandably

prefer to engage in their own procurement, this approach would be better than having the CAISO determine after the fact that in aggregate the LSEs did not procure the resources needed for reliability and proceed to engage in backstop procurement at additional customer expense.

Furthermore, it would be useful for the CAISO to engage in look-ahead assessments of the potential impacts of anticipated or likely retirements in 2018 and 2019 to determine how these could affect future local RA requirements. We are concerned that waiting until a resource announces its intention to retire and then performing a study of the impact of the loss of that resource alone, will not ensure the most cost-effective or efficient results for consumers on a comprehensive basis.

CPUC - Staff appreciates the CAISO carving out Phase 2 of this initiative to address the broader issues related to CPM and RMR procurement. Given the recent increase in RMR and CPM designations, a complete review of these two mechanisms is warranted. In its Issue paper, CAISO lays out a series of topics that they plan to consider in Phase 2, divided into three categories: 1.) RMR and CPM, 2.) RMR and 3.) CPM. Staff agrees with many of the topics identified by the CAISO; however, recommends several clarifications, revisions and suggested additions to the scope and sequencing of these categories, as described below.

CAISO needs to first clarify the intended use of the CPM and RMR, before evaluating how these mechanisms need to be individually modified:

Before addressing the identified topics that are specific to 2.) RMR and 3.) CPM, Staff requests that the CAISO first clearly identify the issue that it is seeking to solve with regards to the interaction of RMR and CPM in category 1. This should include a clarification of the intended purpose of each of these mechanisms to determine if both mechanisms are needed or if they should be merged. Once this is done, then parties will be able to effectively identify what additional reforms are necessary for both CPM and RMR.

In its issue paper, CAISO states that, "with the 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." CAISO footnotes Calpine's letter to the CAISO regarding additional units that may seek RMR in the future. Additionally, CAISO's issue paper indicates a need to expand the RMR authority to flexible needs.

The issue paper, as highlighted above, could be interpreted to imply that RMR will/may be the future mechanism used to retain resources that claim they are at risk of retiring. If this interpretation is accurate, Staff does not support this implication prior to evaluating both mechanisms side by side.

Staff supports the CAISO clarifying when RMR and CPM are to be used. This clarification should thoughtfully include the bilateral procurement process. As described above, it should also be done first prior to examining what changes are needed for each of these mechanisms. Staff recommends that the CAISO refine its issue paper to include more background on these mechanisms and the historical and future intended use.

RMR Specific Topics:

At this time Staff does not oppose looking at the weather both Condition 1 and 2 options are needed, the cost allocation, streamlining the settlement process, and lowering banking costs. However, as stated above, prior to diving into the details of reforming the RMR tariff, Staff requests that the CAISO first define the purpose of CPM and RMR side by side so as to determine if both mechanism are needed or if they should be merged. Once these larger issues are resolved, this would help inform what specific areas of RMR need to also be reformed.

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Do not expand the RMR tariff authority to flexible capacity need:

The CAISO is potentially seeking to expand its RMR procurement authority prior to defining the purpose and use of RMR. Staff strongly opposes this approach. Expanding procurement authority on the RMR while at the same time determining if RMR should be merged with CPM does not make sense. Under CAISO's existing CPM tariff, it already has the authority to procure for flexible needs. Moving in the RMR direction signals to stakeholders that the ISO intends to use the RMR process for risk of retirement requests which would completely obviate the need for CPM Risk of Retirement (ROR) tariff authority and raises the question of the intended purpose of RMR. If RMR is to be used as a mechanism to retain existing generation that is at risk of retirement, the tariff needs to be completely reformed to reflect that purpose and need.

CPM Specific Topics:

At this time Staff opposes aligning the CPM tariff to RMR rules to allow recovery for needed capital additions, but agrees that we should review cost allocation. Staff requests that CAISO first define the purpose of CPM and RMR side by side so as to determine if both mechanism are needed or if they should be merged and whether it would be appropriate to include capital additions in a mechanism that is meant to be market based. Once these larger issues are resolved, this should help inform what specific areas of CPM need to be refined.

NRG - NRG is not opposed to any of these proposed Phase 2 items *per se*. However, the CAISO should not utilize RMR arrangements (however constituted) to undercut the CPM or RA programs. Doing so would constitute a collateral attack on those programs and further undermine the integrity of the already fragile CAISO market.

NRG is strongly opposed to proceeding with Phase 2 except in conjunction with a simultaneous and holistic review of the RA program.

Further, NRG is concerned that the CAISO's presentation at the January 30, 2018 meeting could be read as suggesting that RMR contracts can be a substitute for RA or CPM awards. While the RA, RMR and CPM mechanisms are interrelated, they serve very different purposes. The nearly two-decade-old RMR contract was never intended to serve a RA purpose. By contrast, the RMR program is a local reliability product that is intended to prevent the exercise of local market power by ensuring the CAISO access to cost-based energy when that energy was needed for local reliability or to manage non-competitive congestion. If the RMR contract had been intended to serve a RA purpose, the narrow conditions under which the CAISO could call on energy under the contract would have been completely inadequate for that purpose.

The creation of the RA program in the mid-2000s and the implementation of market power mitigation within the CAISO's energy market should have rendered the RMR contract largely obsolete. Following the implementation of the RA program, no RMR contracts should have been awarded; certainly not to address bulk power system resource adequacy issues. However, since the RMR program has recently been used to address some of the serious problems with the RA framework, modifications to the RMR contract cannot be considered in isolation without also considering changes to the RA framework. Because the RMR program works for its narrow intended purpose, the CAISO and stakeholders should be ensuring that generators needed for resource adequacy are compensated through the underlying *RA program or the CAISO's backstop authority – not through the RMR contract*. To reiterate, while NRG has no comments on any of the items proposed for Phase 2, NRG is strongly opposed to moving forward with any of the Phase 2 items outside of a simultaneous consideration of changes to the RA framework.

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ORA - RMR & CPM: Review allowed rate of return on capital - ORA supports CAISO's proposal to review the allowed rate of return on capital for RMR and CPM. Prudent adjustments to the current 12.25% rate to consider current market conditions could lead to significant ratepayer savings. ORA recommends that the allowed rate of return on capital for RMR and CPM be benchmarked against current industry standards. Proposals to change from a "hard wired" uniform rate to one which may shift for each agreement may be feasible if properly supported in a proposal.

RMR & CPM: Explore expanding tariff authority - ORA looks forward to the next draft of this Proposal in which the CAISO will explain how its tariff authority is currently deficient. ORA is not aware of any instance in which CAISO desired to issue an RMR or CPM but was not able to do so. If such an event has occurred and CAISO wishes to pursue this issue, the next draft of this initiative should include an example of how an expansion of tariff authority would enhance grid reliability. Current tariff authority appears to be adequate, and further expansion unnecessary. ORA prefers that all RA procurement occur between Load Serving Entities (LSEs) and generator owners through the existing regulated market processes, which have a greater capability to mitigate market power and result in competitive market-based costs. An expansion of CAISO authority to issue RMR and CPM may lead to additional backstop procurement outside of the market, and such procurement typically costs twice as much as average capacity rates procured in the market. Therefore, ORA opposes an expansion of CAISO's RMR and CPM tariff authority absent a clear justification of why that expansion is necessary for maintaining reliability.

RMR: Consider whether both Condition 1 and Condition 2 units are needed - ORA joins DMM, PG&E and the CPUC in supporting increased market participation of RMR units, such as would occur with Condition 1 RMR agreements, in order to avoid high ratepayer costs. Condition 2 units essentially depart the market, which prevents the units from offering a market bid to meet load if CAISO does not direct an offering be made. Without the units available to the market, a unit with a higher cost bid will be selected to meet load. Generators state that Condition 1 is currently undesirable since they generally do not expect full cost recovery is possible if costs are recovered in part from market activity. Stakeholder proposals and discussions may be able to design a merger of the two Conditions, or revise Condition 2 to facilitate further market involvement for the unit. ORA supports further discussion of a merging of the two Conditions which, depending on its ultimate design, may decrease ratepayer costs by increasing the market participation of RMR units.

RMR: Review cost allocation - ORA supports CAISO's proposal to review cost allocation of RMR agreements. RMR contracts are used to procure resources to meet a reliability need. The Proposal states that the "responsible utility identified in the RMR agreement is currently responsible for the costs paid to the RMR owner under the RMR agreement." Resolving a reliability deficiency in a local area may benefit more than a single utility or LSE and, therefore, it is appropriate to determine how costs can be allocated across all benefiting entities. As more LSEs emerge in California and these contracts provide benefits to multiple LSEs, equitable cost allocation is necessary to ensure cost indifference between bundled and unbundled ratepayers.

RMR: Expand designation authority to include flexibility needs - CAISO is currently authorized to contract RMR resources based on unmet local capacity needs but not flexible capacity needs. ORA does not support the proposal to expand CAISO's designation authority to also include flexibility needs. It is premature to expand CAISO's authority to RMR resources based on flexible capacity needs when discussion in CAISO's Flexible Resource Adequacy Criteria and Must Offer Obligations (FRACMOO2) stakeholder initiative is ongoing. CAISO is proposing energy market enhancements that will improve scheduling and dispatch of resources. CAISO has not demonstrated that additional changes are needed to flexible capacity products, let alone to whether the CAISO needs to expand its authority to designate

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RMR for flexibility needs. Additionally, the CPUC's RA program requires LSEs to demonstrate that they have procured at least 90% of the next year's monthly flexible capacity needs in the year-ahead showing. It is only in the month-ahead showing that LSEs need to demonstrate 100% procurement to satisfy flexible capacity requirements for that month. Given this time frame for compliance, it is unclear why CAISO would need to designate resources as RMR for flexibility purposes when it already has the capability to procure resources under CPM if the LSE's showings demonstrate insufficient procurement. This stakeholder initiative should focus on resolving the current problems with RMR and CPM and not on an unnecessary requirement that would increase ratepayer costs.

CPM: Align CPM tariff to RMR rules to allow recovery for needed capital additions - ORA opposes CAISO's proposal to allow CPM-designated resources to recover capital addition costs in the same way RMR-designated units do. The majority of past CPM designations have had terms lasting between one or two months and need not include new cost recovery provisions to ensure the long-term operations of the resource. Allowing cost recovery for capital additions through CPM could incentivize resources to delay investments if they expect to receive a CPM designation in the future. Additionally, funding such capital additions through the CPM could enable the resource to offer more competitive prices in future market solicitations, putting resources that do not use CPM to fund capital additions at a disadvantage. Two CPM types, "Risk of Retirement" and "Annual Local" may have longer terms and require capital additions to operate. FERC is currently considering using RMR-style calculations for Risk of Retirement CPMs.¹² Annual Local CPM can recover capital costs through its Competitive Solicitation Process (CSP) bid price or through authorization from FERC. Since Risk of Retirement and Annual Local CPMs have other options for cost recovery of capital additions, there is no need to duplicate this in the current initiative.

PG&E - The timing of Phase 2 should be accelerated to address the urgency of the coming wave of early economic retirements of gas-fired generation and the likelihood of new backstop procurement for 2019. The issue paper identifies a calendar of activities in this initiative that will eventually lead to the development of specific proposals on Phase 2 items following the May Board meeting. There is no reason for this delay. PG&E has advocated that Phase 1 and Phase 2 should move on parallel tracks, so that Phase 2 discussions can begin immediately. If the problem is a lack of CAISO staff bandwidth, PG&E strongly advocates re-prioritization of other market design efforts on the policy roadmap that, while important, are not equally time critical to complete in 2018. Recommendations for urgent policy changes must be submitted to the Board as timely as possible, before decisions are required with regard to any new backstop designations for 2019. PG&E notes that during the stakeholder meeting, CAISO legal staff asserted that the terms and conditions of an RMR agreement are based on the current, FERC approved CAISO tariff at the time of Board approval of the original RMR designation, even when the agreement is renewed for subsequent years. Therefore, any new RMRs that may be designated during the course of this initiative will effectively be grandfathered under the current tariff, and never subject to the policy changes developed and approved through this initiative. It is therefore even more critical that policy changes to improve and streamline the backstop procurement processes be brought to the Board for approval as expeditiously as possible, before designation of any additional new RMRs under the current, outdated, flawed rules.

SDGE - SDG&E supports merging RMR and CPM into a single cohesive backstop procurement mechanism. Conflict and inefficiencies will remain no matter how much fine tuning is done for overlapping products like RMR and CPM. Considerable time can be saved by creating a new backstop procurement mechanism that covers all situations targeted by current RMR and CPM and can possibly cover situations currently missed by both.

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The allowed rate of return on capital for RMR and CPM need to be the same and be considered for discussion in phase 2.

The CAISO should also consider updating the rate of return on a regular basis.

SDG&E does not see any current need to expand the CAISO's tariff authority for RMR and CPM. The replacement procurement mechanism for both RMR and CPM should be able to cover any current shortfalls with RMR and CPM.

Condition 1 appears to be no-longer needed for RMR under current market dynamics so it could be eliminated.

The cost allocation for both RMR and CPM needs to be refined particularly for reliability needs that span adjacent TAC areas as in the combined LA basin/San Diego areas.

RMR designation authority should be expanded to include flexibility needs. RMR payments are set to reflect the purchase of all available attributes including flexibility.

SDG&E is concerned about how capital additions are decided upon and how their costs are recovered. It is not clear at this time what should be done and should probably wait until RMR and CPM are combined.

SCE - SCE supports considering a single mechanism that requires a resource to participate in the market. The CAISO also prefers market mechanisms to address grid needs, thus, the ultimate design goal of this initiative should be toward a market-participating mechanism. Such a mechanism should not function along the lines of a Condition 2 RMR but rather be similar to a Condition 1 RMR. Thus, it seems that elimination of Condition 2 should be a natural next step and should be moved from Phase 2 of this initiative to Phase 1.

SCE thanks the CAISO for noting CPM cost allocation review due to load migration. However, this item needs to be in Phase 1. The best-case-scenario of fall 2019 Phase 2 implementation will not help address the large magnitude of load migration. This migration is happening sooner than anticipated and the current, inaccurate cost allocation is an unfair obligation on load serving entities. The CAISO should change the cost allocation from the existing fixed monthly load ratio share to a variable monthly share based on load ratios that will accurately represent actual load served.

Six Cities – The Six Cities offer below some preliminary observations and suggestions. However, as Phase 2 of this initiative evolves, the Six Cities may revise their views based upon input from other market participants or the ISO.

(a) At this time, there appears to be substantial overlap in the CPM and RMR procurement programs but also significant differences between the programs that may lead to inconsistent treatment of similarly-situated resources or resolution of reliability needs. The Six Cities support a comprehensive review of the CPM and RMR frameworks for backstop capacity procurement by the ISO with an objective of clarifying and rationalizing (i) the scope of the ISO's authority to procure capacity, (ii) eligibility criteria for ISO procurement, (iii) compensation terms for capacity procured by the ISO, and (iv) availability obligations for capacity procured by the ISO.

(b) With respect to the scope of the ISO's authority to procure capacity, the ISO should procure capacity only when (i) RA designations by LSEs fail to satisfy identifiable reliability needs (but recognizable needs should include flexible capacity requirements and capacity subjected to Exceptional Dispatch), or (ii) a resource that the ISO needs to maintain reliability will retire unless it receives capacity payments from the ISO. As a preliminary matter, the Six Cities believe that a construct generally similar to the current CPM competitive procurement process should apply to a type (i) situation, and a modified RMR approach

should apply in a type (ii) situation. Stated differently, the Cities believe that it makes sense to provide for different treatment of resources that are planning to exit the ISO's markets absent procurement by the ISO versus resources that have not established an exit plan.

(c) Further analysis is necessary regarding eligibility criteria for the two types of ISO procurement described above, especially with respect to the demonstration that should be required of resources that say they are planning to exit the markets absent procurement by the ISO. The eligibility criteria should be practical but also should seek to prevent exploitation of a potential need for ISO procurement to front-run the RA market or engage in price discovery. Recently-submitted revisions to the Risk-of-Retirement CPM Tariff provisions include eligibility criteria, but Phase 2 of this initiative should consider whether further refinements to those criteria are appropriate as well as potential clarification of the ISO's process for determining when CPM or RMR procurement is necessary.

(d) With regard to compensation terms, the Six Cities' preliminary view is that the current structure of the compensation under the CPM competitive procurement process (market-based with soft-cap and opportunity to file with FERC to demonstrate costs above the soft cap) is generally appropriate for CPM designations for resources that have not demonstrated a plan to retire in the absence of ISO procurement. Likewise, if the current CPM competitive procurement structure is applied for resources that have not demonstrated a plan to retire absent procurement by the ISO, it would make sense to eliminate the Condition 1 RMR option.

For resources that demonstrate they will retire from the markets absent procurement by the ISO, compensation should be based on costs, and market revenues in excess of variable costs should be credited against capacity payments. There should be a reevaluation of the fixed ROE figure currently included in the *pro forma* RMR agreement, and the ROE allowance for any resource procured by the ISO should be consistent with then-current costs of capital. Potential methodologies for achieving such consistency would include establishing the allowed ROE on a case-by-case basis for procured resources through FERC proceedings, FERC establishment of a generic ROE allowance subject to periodic review and update, or adoption of a mechanism for indexing the ROE allowance.

The Six Cities oppose expansion of support for capital additions or major maintenance projects. Providing payments for such costs to resources that are expected to remain in the ISO's markets would have the effect of subsidizing such resources and distorting market outcomes. For capacity that the ISO procures in order to defer retirement, payment for capital additions or major maintenance projects should be considered on a case-by-case basis only when there is a compelling demonstration that the expenditures are necessary to keep the resource available for the time period it will be required by the ISO. In addition, the Six Cities recommend that Phase 2 of this initiative include a comprehensive review of existing provisions relating to capital additions and/or major maintenance expenses to ensure that ratepayers receive appropriate value for any payments the ISO makes to resources and that risks of market distortions are minimized.

3. Suggested additional items for phase 2 that are not listed in issue paper and straw paper for phase 1 items.

CLECA - The consequences of the CAISO's designation of certain facilities through year-ahead CPM or RMR to address local RA needs should be a very high priority. Such designations in 2017 resulted in procurement in excess of aggregate RA requirements that were not triggered to cure individual LSE deficiencies, but rather because apparently the LSEs signed RA contracts with "the wrong resources" in the CAISO's view. In particular, the designation of Moss Landing and Encina through CPM in December 2017, after RA showings had been made, and apparently without any provision of information to the LRA

for these LSEs that these resources were required for local reliability, resulted in higher than necessary levels of overall procurement in total MW and higher costs for consumers. We understand that costs to cure deficiencies are allocated to deficient LSEs. However, the costs for year-ahead procurement for area reliability appear to be allocable across the entire TAC area, per the CAISO tariff. This would increase the amount of RA allocated to all customers in the TAC area, regardless of what their LSE had already procured. In turn, such procurement would increase costs for all customers. It is our understanding that this is what happened with the Moss Landing CPM designation. CLECA would like to encourage greater transparency in the way such designations are made. While we understand that the CAISO determined that the RA procurement did not meet its reliability principles, how that determination was made is unclear. Did the CAISO run a power flow analysis with the contracted RA capacity that was shown for RA compliance and deem it inadequate?

There are clearly overlapping issues between this stakeholder process and the CAISO's proposed new RA Enhancements stakeholder process. CLECA is very concerned that the CAISO does not intend to address local RA procurement problems until Track 2 of the RA Enhancements stakeholder process, which is being treated separately from this initiative. According to the 2018 Final Policy Initiatives Roadmap, this process will not lead to any results until the year 2020, which will lead to no implementation of changes until the 2021 RA compliance year. We share the CAISO's concern to gain approval of a MOO for RMR effective no later than 1/1/2019 in phase 1 of this stakeholder process. However, the rationalization of local capacity procurement and the minimization of use of CPM and RMR are inter-related and urgent. Otherwise there is a very real risk of additional CPM and RMR designations in 2018 for the 2019 RA year and more for the 2020 RA year.

Another problem with RMR is that it is initiated by resource owners who go privately to the CAISO to announce an intention to retire unless the resources are deemed needed for local reliability and put under a CPM agreement or an RMR contract. This results in the CAISO performing a one-off analysis that does not allow for a holistic review of alternatives. There should be a direct connection between the annual local reliability assessment performed by the CAISO and the procurement of "the right" local RA as part of the annual RA process. If current CPUC RA procurement rules regularly fail to result in contracts for resources that the CAISO deems necessary, the CAISO and the CPUC need to find a way to create rules that result in procurement that meets local RA needs but avoids the exercise of market power. It would also be helpful for the CAISO to explain why it is performing more backstop procurement for local RA than in the past. It is worthwhile mentioning here that the recent decision in the CPUC's Integrated Resource Planning (IRP) proceeding (D. 18-02-018 at 145) also refers to the issue of coordination between RA and other processes at the Commission as well as the CAISO. The decision adopts the IRP's assumption that, with the exception of the Once through Cooling (OTC) plants, other natural gas resources will be needed for reliability and directs Commission staff to work with the CAISO to study the most important attributes of the natural gas fleet in coordination with the RA proceeding activities. Accordingly, CLECA urges the CAISO to work with the CPUC to find optimal solutions to meet the reliability needs of California's grid, including those related to local reliability mentioned above and those related to the impact of the state of the natural gas fleet.

CPUC - Staff believes that a clear definition of the intended use of RMR and CPM, as well as potential coordination between the two, needs to be addressed prior to revising the specific components of these mechanisms. However, depending on how this coordination is resolved, Staff has identified some issues that may need to be addressed subsequently.

Future refinements to RMR and CPM need to be closely coordinated with the existing RA bilateral procurement process, which seeks to minimize ratepayer costs:

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Staff request the any future straw proposal include coordination with the RA bilateral procurement process. Procurement of RMR generation is too broad to allow for coordination with the current bilateral process to avoid front running any over procurement. The current RMR tariff continues to provide the CAISO broad discretion and authority to designate a resource at any time, however, it no longer requires an annual RMR technical evaluation. Specifically, Section 41.2 of the current tariff states.

The CAISO will, subject to any existing power purchase contracts of a Generating Unit, have the right at any time based upon CAISO Controlled Grid technical analyses and studies to designate a Generating Unit as a Reliability Must-Run Unit.

In 2006, pursuant to the stated policy preference of the CPUC, the CPUC implemented the local RA program. The local RA program was developed from a 2005 CAISO straw proposal titled "CPUC Resource Adequacy Requirements Local Study CAISO Local Capacity Study Methodology and Criteria" the CAISO stated that "it is the ISO's intent and long-term objective to phase out RMR Generation."

In D.06-06-064, the CPUC identified the need to coordinate the Local and System RA requirement process with the RMR process. The timing of the RMR process and the Year-ahead RA filing deadline needed to be coordinated in order to allow RMR resources to count towards system and local requirements. In this decision, the Commission adopted a preliminary local filing and pushed the annual RA filing due date back from October 2nd to the end of October. This change to the timeline was done to accommodate the annual RMR contract process (which as the time concluded on or around the same time October 2nd). The intent of the preliminary local RA filings was to alert the CPUC and the CAISO that RMR resources had been contracted for in the competitive RA procurement process so as to inform the CAISO of whether or not they needed to renew the RMR contract for the next compliance year. The CPUC acknowledged that "if compliance showings occur simultaneously with the CAISO's RMR designations two problems occur. First, there is little to no chance for LSE procurement to take the place of RMR. Second, there is no chance for CAISO's RMR procurement to be credited against the LSE's local RA obligation." In this decision, the CPUC adopted a modified version of the CAISOs proposed schedule to coordinate the timing of the RMR and LSE procurement.

In its straw proposal the CAISO highlighted the interaction that the local RA program would have with the RMR process and a potential need for a back stop mechanism to be developed.

It is possible that the flexibility in LSE procurement may result in a set of resources that meets the MW obligation, but does not fully ensure the CAISO's ability to respond to all contingencies.

Therefore, the CAISO expects to develop a Local Area Reliability Contract ("LARC") where the CAISO may enter into a contract in a limited or "backstop" role to ensure the reliable operation of the CAISO Controlled Grid within the redesigned market and Resource Adequacy paradigm.

As documented in its 2007 tariff language, CAISO did develop a backstop mechanism that would assist in the annual local capacity procurement process. Section 43.2.1.3 "2007 Local RCST Designations for Deficiencies" provides:

Following the ISO's identification of any Local Resource Adequacy Requirement Deficiency, and after the time for any consultation with the ISO and the CPUC-established or Local Regulatory Authority established opportunity to make up such deficiency, the ISO may designate Eligible Capacity to provide services under the RCST consistent with the criteria set forth in Section 43.2.2. The ISO may designate Eligible Capacity to provide service under this Section 43.2.1 to the extent necessary to satisfy any remaining Local Resource Adequacy Deficiency only after: (i) RMR Units have been designated in the local area reliability study process for 2007, and (ii) the ISO has completed its evaluation of all

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Resource Adequacy Plans for 2007 and taken into account the effect of the resources identified in such plans (whether or not any of those resources are located in a 2007 Local Reliability Area).

At this time the CAISO still had the RMR tariff section 30.6A.3 that stated:

On a yearly basis, the ISO will carry out technical evaluations based upon historic patterns of the operation of the ISO Controlled Grid and the ISO's forecast requirements for maintaining the reliability of the ISO Controlled Grid in the next year. The ISO will then determine which Generating Units it requires to continue to be Reliability Must-Run Units, which Generating Units it no longer requires to be Reliability Must-Run Units and which Generating Units it requires to become the subject of a Reliability Must-Run Contract which had not previously been so contracted to the ISO.

Future changes to the RMR process should consider alternatives:

Staff recommends that any future changes to the RMR process should consider an opportunity for alternatives to be evaluated prior to making or extending an RMR designation. These alternatives should include preferred resource and transmission options.

Staff emphasizes that prior implementation of the current local reliability program the CAISO used a process known as the annual LARS process to make RMR determinations. It was through this process that CAISO determined how to mitigate local reliability problems. It began with a study, very similar to the current Local capacity requirement technical study, which identified specific constrained areas and the technical requirements to mitigate reliability problems in these areas. (However, the study at that time was based on a 1 in 5 load forecast and an N-1 contingency.) Following the publication of the study CAISO held a competitive solicitation to satisfy the identified requirements. In its LARS process, CAISO encouraged market participants to submit alternatives to the RMR generation (including transmission, generation, and demand-side related proposals). CAISO also considered transmission projects from PTOs. The ISO would compare the alternatives to the existing eligible resources and select and present the preferred alternatives to the ISO board for approval.

The CAISO's then current RMR tariff Section 5.2.5 (later modified to 30.6A.3) read:

On a yearly basis, the ISO will carry out technical evaluations based upon historic patterns of the operation of the ISO Controlled Grid and the ISO's forecast requirements for maintaining the reliability of the ISO Controlled Grid in the next year. The ISO will then determine which Generating Units it requires to continue to be Reliability Must-Run Units, which Generating Units it no longer requires to be Reliability Must-Run Units and which Generating Units it requires to become the subject of a Reliability Must-Run contract which had not previously been so contracted to the ISO.

A detailed review of the cost of service pro forma (Appendix G of the ISO tariff) may be necessary

Depending on the outcome of 1.) RMR and CPM, it may be necessary to completely refine the RMR cost of service pro forma. The RMR pro forma was crafted at a time when the energy markets were largely deregulated and local market power was a large concern. Therefore, Staff recommends that the cost-of-service calculation be largely reformed so as to align with any future purpose(s) that the RMR mechanism will be intended to serve. For example, if the RMR is to be used as the mechanism to retain existing generation at risk of retirement, then the pro forma need so be revised for that purpose. The current pro forma allows generators to recover their sunk cost. However, it makes little sense for ratepayers to pay sunk costs to retain a generator that is at risk of retirement. Instead, the going forward costs should be

used, since this is what is required in the future to have the generator available. By allowing sunk cost recovery, the ISO is incentivizing generators to use the RMR process rather than the bilateral process.

Future refinements to RMR tariff should include establishing criteria for generators requesting RMR studies. Depending on the outcome of RMR and CPM, it may be necessary to refine the RMR tariff to include criteria that will be required of generators requesting an RMR study. As we saw in 2017, Calpine merely sent a letter to the CAISO requesting that the units be studied, claiming they were considering making them unavailable for 2018. If RMR is to be used in the future as a risk of retirement back stop mechanism, then the tariff needs to be reformed to reflect some burden of proof that a generator is uneconomic and has made plans to retire.

With regards to CPM issues not addressed in the issue paper, Staff would like to include a review of the current tariff provision that allows a generator the option to be compensated at a rate higher than the CPM soft offer cap if the resource owner makes the specific cost recovery filing with FERC pursuant to the CAISO's RMR pro forma. The current tariff language states:

CPM Capacity shall not be compensated by the CAISO at a rate higher than the CPM Soft Offer Cap unless a Resource Owner of Eligible Capacity makes the required resource-specific cost filing with FERC pursuant to Section 43A.4.1.1.1.

Under Section 43A.4.1.1.1 of CAISO tariff a generator may justify a price higher than the CPM offer cap, through a filing to FERC. This filing is required to be made in accordance with the annual fixed revenue requirement methodology identified in the RMR pro forma agreement (CAISO tariff Appendix G)). This section of the tariff specifically states:

A Scheduling Coordinator for a resource may offer a price in excess of the CPM Soft Offer Cap. The resource owner whose capacity is offered in excess of the CPM Soft Offer Cap must justify in a filing to FERC a price above the CPM Soft Offer Cap, which shall be determined in accordance with the methodology for determining the Annual Fixed Revenue Requirement of an RMR unit as set forth in Schedule F to the pro forma RMR Agreement in Appendix G of the CAISO Tariff.

The RMR pro forma specifically allows a generator to calculate its cost-of-service compensation, whereas the soft offer cap price is based on the going forward cost (plus a 20% adder) of a combined cycle generator. Additionally, the cost-of service calculation does not allow for market revenues to be netted out of the fixed revenue requirement. Therefore, under this provision of the tariff a resource would be compensated for all its fixed costs while also being able to earn revenues in the market that it would keep. This appears to be a complete oversight by all parties during the design of the CPM tariff.

Staff became aware of this issue towards the end of the CAISO's recent CPM Risk-of-Retirement stakeholder initiative. The final tariff, filed with FERC, based the compensation price on the annual fixed revenue requirement calculation using the RMR pro forma agreement. Staff recently protested this tariff filing at FERC stating:

CAISO's proposed tariff amendment is materially flawed because it allows for cost-of-service compensation, potentially including recovery of sunk costs, without market revenue return. CAISO's cost proposal would guarantee both full cost recovery including depreciation and return on investment, with an additional, and duplicative, opportunity to further recover revenues from the market. This treatment is inconsistent with the reliability must-run ("RMR") agreements in CAISO's tariff and RMR agreements in other jurisdictions.

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Staff recommends that the current CPM tariff be modified to exclude a compensation option above the CPM offer cap. If one is to be provided, it needs to be based on a fair cost-of-service calculation that provides for market revenues to be netted out of costs.

The current CPM settlement allows for a reevaluation of CPM if certain triggers are met. On May 26, 2015, the CAISO filed its tariff amendments and CPM settlement offer with FERC. The settlement addressed issues that were not reflected in the tariff revisions but were part of the overall settlement. Included in these issues was the use of CPM as LSEs primary procurement mechanism. The settlement resolved this issue by establishing two triggers that would warrant a stakeholder initiative to evaluate reliance on CPM. Specifically, the offer of Settlement states:

1. The CPM is not intended to be a source of primary capacity procurement by load serving entities. The Offer of Settlement defines two separate triggers that indicate whether load serving entities might be using the CPM for primary capacity procurements: (1) within a rolling 24-month period, the same load serving entity twice relies on the CPM to meet any resource adequacy deficiency; or (2) 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 the load serving entity's behalf. The first time either trigger is met, per the Offer of Settlement, the CAISO would "open a stakeholder initiative to explore whether load serving entities have relied on the CPM, to an unacceptable extent, as a primary means of capacity procurement." The stakeholder process may consider prospectively applicable remedial measures design to avoid load serving entity reliance on the CPM.

Given the recent 2018 annual CPM designations in the SDG&E region, Staff believes trigger 2 has been met, and therefore it is appropriate to explore all aspects of the CPM tariff including its intended use and its compensation price. Specifically, Staff requests that this include a diligent review and needed revisions of the cost based compensation calculation in the RMR pro forma.

Clarify the framework for retiring a resources in CAISO tariff:

The current scope makes no mention of a framework for retiring a resource. Staff believes that this should be included in the establishment of any future mechanism that would be used for designating units at risk of retirement.

DMM - The second phase of this initiative has a longer timeline and larger scope. In several recent FERC and ISO proceedings DMM has commented on the shortcomings of the CPM and RMR processes. In DMM's comments in the FERC proceedings on the Metcalf Energy Center RMR, DMM described several general issues with current CPM and RMR policy. DMM strongly encourages the ISO to address each of these issues in Phase 2 of the initiative:

- The timeline of the resource adequacy program and the CPM process should be moved back to accommodate the actual timeline needed to make decisions about resource retirements and potential alternatives for meeting local needs.
- The ISO's first option for procuring additional capacity needed to meet reliability requirements – the CPM – is voluntary and can be declined by suppliers with local market power. This could undermine the capacity procurement mechanism if suppliers view RMR compensation to be more favorable than capacity procurement mechanism compensation

Moreover, the ISO's current RMR policy allows cost recovery of (and rate of return on) a resource's stated sunk capital costs, minus depreciation. The ISO refers to this as "full fixed cost of service." DMM

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believes that compensating a resource based on its full sunk capital costs (after depreciation) is unjust and unreasonable.

In the ISO's Risk of Retirement Capacity Procurement Mechanism proceeding at FERC, the ISO argued that FERC precedent requires that RMR compensation must be based on this "full fixed cost of service" value. As stated by the ISO:

They [the protesters] also ignore Commission precedent that compensation for any mandatory backstop designation – which, under the CAISO's proposal, would include ROR CPM designations – must be based on a resource's full fixed costs, not its going-forward fixed costs.

This assertion is incorrect. FERC has not established the precedent that RMR compensation must be based on full fixed cost of service. FERC has ordered that some fixed cost recovery is reasonable, but has left room for RTO/ISOs to negotiate an appropriate RMR rate somewhere between going forward fixed costs and full fixed cost of service. In a 2015 NYISO RMR tariff filing FERC stated, "[c]ompensation 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 generator's full cost of service."

DMM strongly recommends that the ISO not base its RMR (or other backstop procurement) compensation policy on the incorrect assertion that FERC is requiring ISOs to compensate RMR units based on the units' full sunk capital costs (minus depreciation). The ISO should work with DMM and other stakeholders to establish the appropriate theory for determining the fixed cost compensation for RMR and other backstop procurement resources.

ORA - CAISO should consider changes to its RMR and CPM processes to increase stakeholder involvement and transparency. For 2018, three resources have been given new RMR agreements and three other units were granted Annual Local CPMs. These agreements total 1,749 megawatts (MW) for the year, 14 a substantial volume of resources whose capacity rates are significantly higher than RA market prices.¹⁵ Many stakeholders have raised concerns with the lack of information from CAISO, expedited timeframes, and uncertainty regarding the process.¹⁶ In particular, the CPUC was unable to confirm if "the rates filed by Metcalf are just and reasonable" for Metcalf's RMR designation before the FERC.¹⁷ Lack of information from CAISO means stakeholders cannot anticipate and react to new RMR and CPM designations which carry with them significant ratepayer costs. In order to facilitate informed procurement and ratemaking decisions by all stakeholders involved in the RA market, CAISO should include in the scope of this initiative proposals which would allow stakeholders to:

- be notified of potential upcoming RMR and non-contingency CPM designations when CAISO decides to conduct a study for possible backstop
- work with CAISO to understand the justification for the designation and explore preferable alternatives
- understand the costs of the designation and its allocation to LSEs (not to include market-sensitive data)
- analyze data to anticipate the cost impacts to ratepayers

CAISO should add a review of the CSP to the scope of this initiative, with the goal of providing more information on the stakeholder process and addressing market power concerns. The CSP is intended to be competitive, but as of 2014 only four of the 26 CPM dispatches have had a price lower than the soft offer price cap of \$6.31/kW-mo. The recent Annual Local CPMs are also at or very near the cap and by themselves will likely exceed the total costs of all other CPMs since 2012. The rates of Annual Local

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CPMs deserve particular attention because of the scale of the total costs, and because the Annual Local CPMs grant the generators implicit market power, since no other resource can be used to meet the local deficiency. The CSP is conducted in-house by CAISO with minimal, if any, input from or notification to stakeholders. Despite the scale of the Annual Local CPMs, CAISO has only held two meetings with scheduling coordinators and did not send a notice of those meetings to other stakeholders nor discuss how rates or resource selection was determined. This is very troubling since ratepayers are subjected to increased costs from CPM prices that result from an opaque CSP process. CAISO should use this initiative to explore increased reporting of the CSP to stakeholders and the general public. In-depth reporting may also be considered for stakeholders who have signed non-disclosure agreements when market sensitive data of ratemaking is concerned. This reporting would reduce the problems inherent with dealing with a market power situation and allow CAISO to justify increases to ratepayer costs.

CAISO should include in this initiative a review of CPM term lengths, in particular the Non-System Exceptional Dispatch CPM which has a minimum term of 60 days. This CPM was recently used at Mandalay 7 to ensure reliability during the Ventura County fires at a total cost of \$7 million. A 30-day term with an option to renew if necessary would have been a prudent course of action to provide the same reliability assurances at potentially half the ratepayer cost. This initiative is an opportunity for CAISO and stakeholders to make adjustments to the tariff in order to decrease costs without harming CAISO's capability to address reliability concerns.

CAISO should include consideration of market power issues for RMR contracts in Phase 2 of the initiative. Recently, resource owners have approached CAISO with requests for analysis on the potential retirement of specific resources and CAISO has waited until the analysis has found a need before informing stakeholders. This process leaves no time to consider procurement of alternative solutions and provides those generators with information on their market position. Additionally, RMR contracts may fund capital investments to the facility that will enable it to continue operation beyond the life of the RMR contract and could potentially provide it with a competitive advantage over other resources when bidding into future procurement solicitations. CAISO should consider how to address these market power issues in this initiative. CAISO could provide a demonstration of precise local needs that rely on specific resources for reliability through its LCR studies. This would include analysis to identify essential resources before they consider retirement so the CPUC can explore procurement of alternatives to introduce competition and minimize ratepayer costs. At a minimum, CAISO should adopt a process to notify all stakeholders when owners request analysis on the potential retirement of their resources and to provide information on the capabilities of the resource and its relationship with the grid. CAISO will need time to conduct its analysis to determine whether the resource can retire, but early information about a potential retirement will enable consideration of alternative resources.

PG&E - The Phase 2 scope should be expanded to include changes to the TPP and LCR study processes to support the early identification of needs and assessment of alternatives to new backstop procurement. In order to achieve the objective of a holistic review of the conditions that are driving the need for new backstop procurement, it is essential that the scope of Phase 2 issues not be narrowly limited to just the RMR and CPM provisions of the CAISO tariff. The initiative must also consider such changes as are necessary throughout the CAISO tariff, including to the processes upstream of a backstop procurement, in order to alleviate and where possible, avert the conditions that currently allow local reliability needs to emerge only after needed generation threatens to retire, once it is already too late to consider lower cost alternatives to backstop procurement.

Currently, the TPP and LCR studies are failing to identify local area and subarea reliability needs created by generation at risk of retirement. Current planning criteria only require a sensitivity of generator

retirement if a unit will attain 40 years of age or more during the planning horizon. The economic criteria driving early retirement are not considered. As a result, free reign is given to the resource owner to navigate the process and game the timing of its own retirement (or threatened retirement) announcement, in order to “jam” the end of year decision window for new backstop designations.

Immediate change is needed to take this discretion away from generation resource owners. The planning processes at the CAISO must routinely and effectively identify reliability needs of the system and assess cost-effective alternatives (including transmission solutions, as well as preferred resources and energy storage), on a timeline that can effectively avert or mitigate the need for costly new backstop procurement. In particular, PG&E believes that CAISO should assess necessary changes to the annual TPP and LCR studies to:

- 1) Allow for the timely³ identification of local area and subarea needs that would be created by the early economic retirement of at-risk generation;
- 2) Allow for the timely consideration of lower cost alternatives to backstop procurement (including both wires and non-wires solutions); 4 and
- 3) Allow for annual re-study of all in-place RMRs (or CPM Risk of Retirement contracts), to ensure that cost effective alternatives are being developed and deployed, and that any backstop contracts are retired as expeditiously as possible.

While the above changes should be coordinated with the CPUC’s Integrated Resource Planning (IRP) proceeding and the upcoming review of the overall CPUC RA framework in the CPUC RA Proceeding, timing is critical to prevent the coming wave of retirements from resulting in additional costly RMR contracts. PG&E notes that the CAISO, on its own, can play a very helpful role by improving the early identification and mitigation of transmission reliability needs even before addressing other systemic problems in the RA market.

The CAISO’s CPM tariff offers the CAISO the discretion as to whether or not to exercise its backstop authority when there is a deficiency in meeting reliability requirements. In particular, the tariff states that the CAISO may procure to make up any local deficiencies. For example, the CAISO analysis can set a local requirement at 400 MW which compels LSEs to procure 400 MW, but, if LSEs only show 380 MW, it allows the CAISO to forego procuring the additional 20 MW. CAISO routinely exercises this discretion, and does not procure to the full capacity requirements it establishes through the LCR studies. This discretion is unjust and unreasonable since it allows the CAISO to require LSEs to meet a procurement target associated with a reliability standard, but does not compel the CAISO itself to procure to that same standard when LSE procurement falls short of the required level. This discretion also introduces uncertainty into the capacity market since it calls into question the exact procurement requirements and provides incentives for LSEs not to procure. CAISO exercise of this discretion also suggests the CAISO may routinely be setting local procurement requirements at levels that are higher than required to meet local reliability needs. PG&E believes this discretion should be discussed within the scope of this stakeholder process, including whether the ‘may’ in the CAISO tariff should be changed to a ‘shall.’

PG&E does not agree with an expanded RMR authority to address flexibility needs and advocates the removal of the RMR for flexibility from the Phase 2 scope. Among the items listed for consideration within the Phase 2 scope is an expansion of the CAISO’s current RMR designation authority to include an RMR for units the ISO may deem necessary to meet flexibility requirements the system. PG&E believes this proposal is premature, unwarranted, and likely to create further opportunities for gaming and front-running of the bilateral RA marketplace. First, system flexibility is not a transmission reliability attribute for which an RMR may be an appropriate remedy. Flexibility is a characteristic of the mix of generation resources

and the need to procure sufficient flexible reserves to manage uncertainty in the forecasting of both load and resource behavior at different forward time intervals. In addition to energy market products, CAISO procures pre-determined levels of flexible operating reserves through the ancillary services market, in order to ensure adequate flexible capacity is available to manage both uncertainty and unforeseen contingencies, such as the forced outage of a generator or the loss of a major transmission line. Given the availability of energy, ancillary service, and capacity market instruments to procure flexibility, it is unclear what additional flexible system characteristics might warrant the designation of an RMR for an individual unit at risk of retirement. Creating a new RMR for flexibility will only serve to grant a guarantee of cost-of-service regulated transmission rate recovery to those flexible units that threaten to retire early, incenting further gaming of the retirement process. PG&E believes that the better solution to preserving the economics of units with desired flexible attributes is for the CAISO to establish the correct market-based products for pricing the flexible attributes the system needs. How would CAISO determine that a specific unit is required for flexibility, above and beyond the resources available to it via the energy and ancillary services markets? The durable definition of flexibility is an active subject of discussion in the ongoing Flexible Resource Adequacy Criteria and Must-Offer Obligation Phase 2 (FRACMOO2) initiative that is expected to inform Track 2 of the CPUC RA proceeding. By establishing a backstop authority for flexibility, the CAISO would be presuming the failure of this entire process and instead offering those economically distressed generators with flexible characteristics a further incentive to bypass the bilateral RA process in order to seek a more attractive RMR.

SDGE - How major changes to an existing plant can be proposed and implemented to better fit with changing reliability needs. For example: how could a current CC plant be converted to only simple cycle to gain flexibility, minimize Pmin burden and eliminate all steam related costs?

SCE - The CAISO should address how the procurement of non-RA-deficiency CPM and procurement of RMR will interact with RA requirements. Neither of these two types of procurement are done due to RA deficiencies on part of LSEs, yet they are being procured for reliability reasons and as a result of Phase 1 of this stakeholder process will likely have a MOO. If these resources are procured without an offset to LSEs RA requirements, the amount of capacity procured will exceed the system/local/flexibility needs. As a result, LSEs, in total, will pay for an excessive amount of reliability. As such, the CPM/RMR process must be considered in light of the RA program with requirements adjusted/credited as appropriate. Further, SCE is concerned that the terms and conditions established by the CAISO will serve as a direct competitor to the RA bilateral procurement process. If the CAISO procurement fails to have a MOO, fails to have an RAIM penalty, fails to count the resource as meeting the RA need, and fails to require a replacement/substitution obligation on the resource in the event of an outage, resource owners will have a significant incentive to seek CAISO CPM or RMR designation rather than participate meaningfully within the bilateral RA market.

4. Other Comments.

CPUC - Staff would also like the current scope of Phase I to include the allocation of flexible RA capacity. The current RMR contracts do not cover the procurement and allocation of flexible capacity. Staff would like to ensure that any future RMR designations include the flexible attributes of the resource. Since ratepayers are paying for all of the costs associated with the operation and dispatch of these resources, they should, be allocated the flexible capacity attributes on the resources. Essentially, the flexible attributes associated with the resource become sunk, if they are not allocated. Staff believes that this would be a small modification, and we request that it be made with the addition of a MOO in the current RMR tariff. To the extent that the CAISO cannot address this issue on an expedited basis for Board approval in mid-May, Staff requests that this issue be addressed in Phase 2 of this initiative.

CRI - CRI is working to facilitate adoption of “alternative transmission solutions” (“ATS”), such as energy storage, as transmission assets to address needs identified in the CAISO transmission planning process (“TPP”). There is ample regulatory basis for ISOs/RTOs to consider ATS in their infrastructure planning processes and, when an ATS is found to be a cost effective solution to a transmission need, to incorporate that ATS into the ISO---controlled transmission system and compensate its FERC-approved revenue requirements through the regulated transmission cost recovery mechanism such as the CAISO’s transmission access charge (“TAC”). Our current efforts to advance ATS have focused specifically on the CAISO TPP, to develop a roadmap describing how an ATS developer could participate in the TPP, be successful in having the CAISO select a proposed ATS as the preferred solution to a transmission need, then proceed to construction, incorporation into the CAISO Controlled Grid, and cost recovery through the TAC. In the course of this effort we have also begun to examine the RMR model as a possible mechanism that could, with some modifications, advance adoption of ATS. For example, RMR Condition 1 already provides a model for an asset on the grid to recover a portion of its costs through a regulated cost---recovery mechanism and a portion through market participation. This type of cost---recovery arrangement does not yet exist for transmission assets, yet would be desirable for some ATS projects to ensure their financial viability while enabling them to qualify as the preferred solution in the TPP. At the same time, the current RMR construct would probably require some modifications for it to be workable for ATS. For example, the current one-year-at-a-time RMR contracting process would probably not be sufficient to secure financing for an ATS. CRI understands that the CAISO will soon be opening an initiative to consider how to utilize storage as a transmission asset, and we recognize that the CAISO may wish to consider use of the RMR model in that initiative instead of the present one. CRI does not have an opinion on which initiative would be the best home for the topic we are proposing. We want to ensure, however, that this topic will be given thorough consideration in at least one of these initiatives, and that there is coordination between both initiatives with regard to actions that will affect future uses of RMR.

IEP - IEP was an active participant in the FERC settlement process with the CAISO and the CPUC related to the existing CPM Mechanism. Moreover, we have been active litigating RMR matters over the years both here in California and at the FERC. Because it is likely that the process may take multiple years to amending the CAISO tariff related to CPM and/or RMR, involving tremendous investments of time and resources by the CAISO, the CPUC, and stakeholders, we believe that a modest 4 month delay in reviewing the RMR and CPM mechanisms, until July 2018, may reap tremendous benefits in the end. The CPUC is conducting a review of its RA framework in 2018. Track 1 is addressing time sensitive matters, including consideration of a multi-year RA Framework, which would be designed to fix in whole or in part the flawed aspects of the current RA framework. The CPUC’s decision in Track 1, scheduled for June 2018 at the latest, will inform many of the issues raised in the CAISO’s *Issue Paper and Straw Proposal for Phase 1 Items*. Certainly, CPUC Track 1 refinements to the current RA framework should lessen the necessity for the CAISO to employ its CPM and RMR backstop procurement mechanisms in the future. IEP believes that reducing, if not eliminating, backstop out-of-market procurement would be a good outcome. Accordingly, we recommend a short pause at the CAISO in order to allow the CPUC to complete its Track 1 process by June 2018.

NRG - At the January 30, 2018 meeting, some stakeholders seemed to suggest that some provisions of the Offer of Settlement transmitted to FERC on May 26, 2015 in Docket No. ER15-1783 had been “tripped”. Those provisions are below (NRG’s emphasis):

5.2. The CAISO will monitor the use of the CPM to ensure that load serving entities are not relying on the CPM as a primary means of capacity procurement to meet Resource Adequacy obligations, which

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the Supportive Stakeholders and the CAISO agree is an inappropriate use of the CPM. The first time either of the two following conditions occur the CAISO will open a stakeholder initiative to explore whether load serving entities have relied on the CPM, to an unacceptable extent, as a primary means of capacity procurement:

- 1) Within a rolling 24-month period, the same load serving entity twice relies on the CPM to meet any Resource Adequacy deficiency (either in an annual or monthly Resource Adequacy plan).
- 2) 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.

NRG agrees that certain LSEs have relied on the CPM backstop to meet RA deficiencies. In NRG's view, that recent reliance reflects other regulatory constraints placed on LSEs far more than it might reflect the sudden transformation of the CPM mechanism to becoming an attractive or preferred mechanism to meet LSE RA needs. As a result, should the CAISO feel compelled to re-examine the CPM structure, it must consider whether (1) this recent undue reliance on CPM gives rise to the need to fundamentally reform the RA process, and (2) the CPM pricing is sufficient to dissuade LSEs from relying on CPM to meet their RA obligations.

PG&E – RMR compensation should be based on going-forward fixed cost to eliminate arbitrage by generators choosing between CPM and RMR. The CAISO has the authority at any time to designate a unit as RMR to meet an unmet grid reliability need. In addition, resource owners are likely to find that the CAISO's RMR process is still preferable to the CPM option. RMR requests do not require an attestation to retire if denied and can be requested at any time. Maintaining this broad level of discretion is important to ensuring that CAISO has the ability to meet an unmet reliability need, but there must be a consistent and integrated approach that prevents resource owners from gaming the system in an unjust manner. This can best be accomplished by aligning the RMR compensation with the objectives of a competitive market to procure the least-cost resource to meet reliability. Generators are expected to bid in their incremental costs in the capacity or energy market with the expected market price being set by the marginal unit needed to meet reliability. Compensation based on going-forward fixed cost provides the efficient market signal for alternatives to be considered and is the most cost-effective way to meet reliability requirements. The current full embedded cost-of-service compensation for RMR resources, which includes recovery of the undepreciated capital value of the plant, encourages inefficient investment in alternatives and undermines the resource adequacy market for resources with locational market power.

SDGE - It appears that a reopening of the CPM settlement has been triggered by a number of LSEs using CPM for more than half their capacity needs. SDG&E believes the CAISO should start a stakeholder initiative to discuss the CPM initiative as it committed to FERC during CPM replacement. SDG&E does not believe the CPM settlement discussion should be grouped as part of phase 2 in the initial stages. But it may merge with phase 2 of this initiative as necessary.