California ISO

Attachment A

Stakeholder Process:
Reliability Must-Run and Capacity Procurement Mechanism Enhancements Proposal

Summary of Submitted Comments

Stakeholders submitted four rounds of written comments to the ISO on the following dates:

- Round One, Issue Paper comments received 2/20/18
- Round Two, Initial Proposal comments received 4/10/18
- Round Three, Straw Proposal comments received 8/7/18
- Round Four, Revised Straw Proposal comments received 10/23/18
- Round Five: Second Revised Straw Proposal comments received 1/10/19
- Round Six: Draft Final Proposal comments received 2/22/19

Parties that submitted written comments: Calpine* (Calpine Corporation), **CalCCA*** (California Community Choice Association), **CLECA*** (California Large Energy Consumers Association), **Cogentrix*** (Cogentrix Energy Power Management, LLC), **CPUC** (California Public Utilities Commission), **CRI*** (Center for Renewables Integration), **DMM** (Department of Market Monitoring), **EBCE*** (East Bay Community Energy), **IEP*** (Independent Energy Producers Association), **Joint CCAs*** (East Bay Community Energy, Marin Clean Energy, Peninsula Clean Energy Authority and Sonoma Clean Power Authority), **NCPA** (Northern California Power Agency), **NRG** (NRG Energy, Inc.), **PAO** (Public Advocates Office, California Public Utilities Commission), **PG&E** (Pacific Gas & Electric), **Powerex*** (Powerex Corporation), **SCE** (Southern California Edison), **SDG&E** (San Diego Gas & Electric), **Sierra Club*, Six Cities** (Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California), and **WPTF*** (Western Power Trading Forum)

**** Entity did not submit comments in response to the Draft Final Proposal.***

Stakeholder comments are posted at: http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=A3F2218A-3294-4949-AB04-B243216A58F5

Other stakeholder efforts include:

- Issue Paper meeting, 1/30/18
- Initial Proposal meeting, 3/20/18
- Straw Proposal working group meeting, 5/30/18
- Straw Proposal meeting, 7/11/18
- Revised Straw Proposal working group meeting, 8/27/18
- Revised Straw Proposal meeting, 9/27/18
- Second Revised Straw Proposal working group meeting, 11/1/18
- Second Revised Straw Proposal conference call, 12/20/18
- Draft Final Proposal meeting, 1/30/19
- Outreach calls with individual entities

Management Proposal	Generally or Conditionally Supports	Does not Support	Management Response
Rules for Use of RMR and CPM	CPUC – Supports establishing timeline for requesting and approving RMR designations to allow for additional planning and retirement of resource. DMM – Supports limiting RMR designations only to units that would retire without RMR contracts. NRG – Supports clarification of use of RMR and CPM. Would be willing to explore single backstop mechanism, but understands rationale for keeping both. PG&E – Progress has been made, but ISO should issue a notice when a decision is made to not cure a deficiency. SDG&E – Proposal contains items that will clarify use of RMR and CPM. Six Cities - Generally support concept. Stakeholders have concerns regarding use of mothballing notifications to engage in price discovery, facilitate cherry-picking of compensation structures, or	CPUC – Proposed RMR anti-toggling provisions are inadequate.	Management believes its existing FERC-approved compensation rules appropriately address potential of “toggling” between being an RMR resource and a market resource. RMR agreement compensates owners on a year-by-year basis. RMR resources cannot voluntarily “toggle” between RMR and market year-by-year. If ISO offers an RMR agreement to a resource or an extension of an existing agreement, resource owner must accept it. To prevent resources from “fishing” for an RMR contract, if resource is found to not be needed for reliability, it will be expected to retire or mothball as indicated in affidavit. ISO settlements system will ensure that RMR services provided are compensated at their cost of service. All market rents above costs established under agreement are applied to offset fixed costs payable under agreement. RMR resources cannot recover amounts in excess of their FERC-approved fixed cost of service and actual variable costs. ISO differs significantly from other ISOs/RTOs because ISO does not upfront fund all capital addition costs. The accelerated, up-front payment of needed capital improvements that exist in other ISOs/RTOs does not exist in the ISO. Rather, RMR resource owner must up-front fund or finance all capital additions. Each capital addition will have a depreciation schedule with RMR compensation limited to pro rata annual contribution for each year resource remains under an agreement. ISO only compensates RMR owner for a one-year portion of its capital addition costs for each year of service based on depreciation schedule. FERC must approve RMR

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	engage in inappropriate “toggling” between procurement regimes.		agreement, including the depreciation schedule. Once the agreement is terminated, ISO’s contribution towards any balance of unpaid capital additions costs terminates if resource returns to market.
Early Notification of Planned Resource Retirements	NRG - Does not object to proposal. PG&E – Supports, but ISO should update its report when it has completed its evaluation to either approve or deny the request by a resource owner to retire or mothball. Six Cities – Supports the proposal.	N/A	Stakeholders support this element of the proposal. ISO has implemented this aspect of the proposal, effective July 6, 2018. It is working well in that it provides comprehensive, timely information to stakeholders, who can use it to procure resources in lieu of ISO procuring the resource under its backstop procurement authority.
Formal Retirement/Mothball Notice for RMR Designations	DMM – Supports, but proposed enhancements could still allow for units that have no intention of retiring to seek RMR. Encourage ISO to have provision that resource owner attest it will be uneconomic for its resource to remain in service to apply for retirement. PAO – Supports, but recommends ISO revise proposal to specify resource cannot use energy-only or non-unit-contingent contracts to avoid retirement or mothball. SCE – Supports, but mothball or retirement affidavit should be revised such that only a resource-specific market contract should be	CPUC - Ability for resources to game process and choose between RMR and CPM backstop mechanisms needs to be addressed by strengthening affidavit requirements to require resource owner to attest that it is “uneconomic” for resource to remain in service and retirement is definite. NRG - There is no reason for ISO to restrict resource’s ability to mothball or return to service; requests ISO eliminate restrictions on why mothballed unit may return to service. PG&E - Retirement or mothball request should require resource	Management has added additional requirements to affidavit that must be submitted to mothball a resource. Resource owner must state reason it is seeking to retire or mothball. Management proposes a change to draft final proposal to the affidavit which requires a resource owner to state if it is retiring or mothballing because it is uneconomic for resource to remain in operation, and eligible to receive an RMR designation, or if resource is retiring for other reasons (such as loss of license). Mothball is definite unless resource is procured or sold to an unaffiliated entity. Resource cannot return from a mothball unless it is procured or sold. FERC has rules against submitting false information. Management believes that if a resource receives a contract it should be allowed to return to service from retirement or mothball. Management does not agree that a resource-specific market contract would be

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	allowed as criterion to return to service. Six Cities – Supports, but ISO should monitor both retirement and mothballing notifications and refer to FERC any notifications that appear to be materially inaccurate or undertaken for improper purposes.	owner to attest resource is uneconomic to operate. Mothball request from unit that has not clearly indicated its intention to retire should not be considered for RMR designation. SDG&E - Permitting resources to request mothballing or retirement as early as February allows price discovery and exercise of market power. Minimum mothballing period should be four months. Minimum criteria to exit mothballing early should be more than receiving a contract or selling one MW of RA capacity. Should limit mothball requests to time of year that will not impact bilateral RA negotiations period.	required to return to service or that owners could not use energy-only or non-unit-contingent contracts to return to service. ISO will monitor both retirement and mothballing notifications and refer to FERC any notifications that appear to be materially inaccurate or undertaken for improper purposes. To return early from the mothball date, the resource will have to show that at least one of the conditions that it stated in its affidavit have changed.
Moving Risk of Retirement CPM Authority into RMR Tariff	PAO – Supports proposal, but recommends clarifying for final proposal that resources that may be mothballed should not be allowed to get RMR designation for year 1 based on need in year 2.	PG&E - Mothball resources should only be considered for procurement in upcoming year. If resource is needed in following year, ISO should delay its procurement decision until resource is actually needed.	Management proposes to retain authority that is currently in tariff to address potential need for a resource in the second year by providing a bridge procurement for the next year so resource can be available in second year when it is needed for reliability. This existing authority has already been approved by FERC. Management does not see a need for different treatment for mothball versus retirement resources and proposes to move the authority from the CPM tariff to the RMR tariff where resources will be compensated at their cost of service. This will make it so all retirement procurement authority is in one tariff mechanism and not two (CPM and RMR) as is currently the case.
Elimination of RMR Condition 1 Option	CPUC – Supports elimination of Condition 1 RMR.	NRG - While NRG understands rationale for eliminating Condition 1, but does not yet know whether	Stakeholders generally support this proposal. No stakeholders oppose this element, although Calpine has

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	DMM – Supports elimination of Condition 1 RMR. Six Cities – Supports. Proposal is reasonable.	proposal will be reasonable in light of other contemplated or pending but not yet realized changes to ISO's and CPUC's RA provisions.	previously stated that having Condition 1 option can assist greatly in negotiation of RMR agreements.
RMR Compensation and Rate of Return	CPUC – Supports changing RMR rate of return compensation, but changing rate does not mitigate CPUC's anti-toggling concerns. NRG - Supports proposal to require RMR owner to develop and justify rate of return that applies to its unit. Six Cities – Supports. Proposal for rate of return is reasonable.	CPUC - Opposes "full" cost-of-service compensation for RMR as it allows resources to toggle between market and cost-of-service compensation, especially if there is no test to ensure resource is "uneconomic." Need closer look at RMR compensation to determine if cost-of-service compensation is appropriate for resources that are not truly seeking to retire or have received market revenues for years. ISO should add to RMR agreement language that requires owner to use finance life of asset to develop its undepreciated book costs. DMM- Proposal allows supplier's discretion over depreciation methodology used to calculate sunk costs eligible for recovery and return on investment, which could allow for excessive compensation and further enable toggling between market and cost-of-service based compensation. PAO – Recommends using prime rate as rate of return.	Several stakeholders want to reduce RMR compensation from annual full cost of service pricing that has been in effect since the inception of RMR. They argue a methodology based on going-forward fixed costs. Management does not agree and believes that full cost of service compensation is appropriate given that acceptance of an RMR designation is mandatory. FERC precedent requires that mandatory backstop procurement -- like RMR -- be priced based on a resource's full cost of service, not just going-forward fixed costs. Stakeholders generally support the proposal to update rate of return by removing the fixed 12.25 percent and having the resource owner file at FERC and justify a rate of return for its resource. Management does not support using prime rate as the rate of return as suggested by PAO, as Management believes the proposed approach is superior as it reflects attributes of each RMR resource.

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Must-Offer Obligation for RMR Resources	CPUC – Supports expansion of must-offer obligation to RMR resources. DMM—Supports RMR resources being subjected to a must-offer obligation like RA resources, which will help mitigate any system market power issues that could result from limiting the RMR resource to providing only reliability services. Six Cities - Supports must offer obligation and proposed parameters around bidding and crediting of market rents.	NRG – Concerned about ISO's ability to incorporate RMR owner's expected gas procurement costs into cost-based bid and whether cost-based bid will cause RMR unit to run in a manner completely inconsistent with its recent history.	Several resource owners oppose a 24x7 must-offer obligation for RMR resources. They are concerned that it will inappropriately suppress prices in the energy market and cause RMR resources to run excessively. Management disagrees. A 24x7 must-offer obligation will result in efficient pricing and dispatch. ISO/RTO markets are based on the premise that in a competitive wholesale electricity market a resource's efficient offer is approximately equal to its marginal costs. In ISO markets, this includes major maintenance and opportunity costs, as applicable. Management proposes to require RMR resources to include these costs in their bids. Thus, bids from RMR resources should not be below their marginal costs. Proposed pricing of cost-based RMR market bids is consistent with FERC's competitive pricing principles. Some resource owners argue that a 24x7 must-offer obligation may cause some resources to run more than they have in the past. This may or may not be true, but argument ignores that RMR resources with high marginal costs, reflecting fuel and heat rate and major maintenance costs, will have high RMR cost-based bids and therefore will run infrequently. Further, use-limited RMR resources will be required to bid opportunity costs, if applicable, which will make their cost-based bids higher and less likely to be dispatched. RMR resources with eligible use-limits will be required to establish those limits during the RMR agreement negotiation process, resulting in agreed-upon use-limits that are translated into opportunity cost adders. If there are approved capital items, such costs also would be reflected in the major maintenance adder component of the bids.
Performance Incentive	PAO – Supports applying Resource Adequacy Availability Incentive Mechanism ("RAAIM")	NRG - Does not support proposal to eliminate unit-specific availability incentive provisions in agreement for	Management proposes that RMR resources will be subject to RAAIM, similar to RA and CPM resources.

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Mechanism for RMR Resources	to RMR resources and agrees with ISO that general refinement to RAAIM is best suited to RA Enhancement initiative.	three reasons: future design of RAAIM is not yet known, imposes a 96.5% availability target without regard to condition or recent operating history of the resource, and it is not reasonable to subject resource to non-availability charge higher than resource's fixed cost recovery rate on resource that cannot decline designation. PG&E - RMR resources should not be permitted to substitute without transferring incentives and performance penalties associated with contract. ISO should clarify how it will use retained authority to instruct RMR resources to not bid during certain hours. SCE - Availability assessment hours for RMR resources should be for all hours of day rather than limited to current hours for system and flexible resources. SDG&E – Should not allow RMR resources to be substituted with other resources that would be subject to a different RAAIM penalty than RMR resources and allowed to retain market rents as this would allow RMR resources to be fully compensated without any non-performance charges.	These rules have worked for RA and CPM and have enabled ISO to maintain grid reliability. Management proposes a change to draft final proposal where an RMR resource will not face a non-availability charge higher than a resource's fixed-cost recovery rate. For RMR resources, the RMR penalty price will be the RMR agreement price. This addresses NRG's concern. RA, CPM and RMR resources are all needed to meet reliability needs. The procurement mechanism used does not necessitate a different resource availability obligation. Applying separate incentive mechanisms for each RMR, RA or CPM resource can create inconsistencies between procurement mechanisms, add unnecessary complexity to the ISO's systems and processes, and create inefficiencies in the market optimization and settlement processes. RMR resources will have a 24x7 Must Offer Obligation ("MOO"). Failure to comply with the MOO could constitute a tariff violation or a violation of FERC's market behavior rules. (RAAIM assessment hours are 4:00-9:00 p.m. for system and local RA, and 5:00 a.m. – 10:00 p.m. for Category 1 flexible RA). The resources likely to receive RMR designations are all flexible capacity resources and thus would have a 17-hour, seven days a week MOO. Further, the ISO will submit bids for non-use-limited RMR resources if they do not bid. Thus, RAAIM is essentially a forced outage metric for RMR resources. It is not credible to suggest that RMR owners will only make their resources available to meet the RAAIM availability assessment hours and then take forced outages all of the other hours of the day. Management proposes to

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		Six Cities – Prefer instead approach where resources would return capacity payments associated with any period of non-performance and question whether substitution as is permitted under RAAIM is realistically available for RMR resources.	report an RMR resource's compliance with its MOO to DMM on a monthly basis. Stakeholder concerns that RMR resources might be unavailable when needed for reliability is also effectively addressed by ISO's outage coordination process. Whenever a resource requests an outage, ISO operations engineers review the time frame of the outage relative to other outages and system operating conditions to ensure the resource outage would not impact reliable operation of the grid. Operations engineers will not approve outages impacting reliable operation and will require mitigation or cancellation of other outages before approving an outage. Finally, some argue that adopting RAAIM for RMR resources is inappropriate while the ISO is considering alternatives to RAAIM in its RA Enhancements initiative. These stakeholders ignore that RA and CPM are currently subject to RAAIM. If ISO adopts a different performance metric(s) going forward, ISO will also apply it to RMR resources to ensure consistency across RA, CPM and RMR.
Cost Allocation for RMR Resources	PAO – Supports. Proposal will enhance transparency of grid charges associated with RMR, benefitting load serving entities' knowledge of their allocated costs. Six Cities - Do not oppose, but request ISO explore continuing role for Responsible Utility and load-serving entities in RMR agreement negotiation process.	CPUC - Has not had time to work through implications of proposal; moving to load serving entity approach will take additional time and stakeholder input. PG&E - Additional specification should be given to demonstrate how cost allocation aligns with causation. SCE -Would only support a change if ISO were to identify cause of RMR and then allocate costs for	Other ISOs and RTOs allocate backstop procurement costs to load serving entities, not to participating transmission owners. ISO will allocate RMR costs using the same methodology for allocating several types of CPM reliability costs. Load serving entities, not participating transmission owners, are beneficiaries of RMR designations. ISO is eliminating the Responsible Utility role as a result or eliminating any transmission based cost allocation. However, ISO is not proposing to eliminate the role of the CPUC as a partner in the negotiations. In addition, all stakeholders can participate as a party in the FERC proceeding, including participating in any RMR settlement

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		transmission based RMR procurement to participating transmission owner and allocate costs for retirement-based RMR procurement to all load.	negotiations at FERC. Historically interested parties have included participating transmission owners, load serving entities and the CPUC. It is expected that this will continue. The proposed cost allocation will not preclude this.
Allocating Flexible RA Credits for RMR Resources	NRG - Does not object to this aspect of the proposal. Six Cities – Supports. Requests ISO clarify proposed allocation of flexible RA credits will align with the cost allocation for the RMR procurement.	N/A	There was no opposition to this proposal. Allocation of flexible RA credits will align with cost allocation for RMR procurement. ISO will allocate flex credits to load serving entities that ISO allocated cost to (same for system and local credit). So, e.g., if ISO issues an RMR for a local need in PG&E TAC area, all LSEs in that TAC will be allocated the RMR cost based on their load-share ratio. Same load serving entities will receive flex credit (if applicable) based on their load-share ratio (same for system and local credit).
Streamline and Automate RMR Settlement and Banking	NRG - Supports this aspect of the proposal.	N/A	There was no opposition to this proposal.
Align System and Flexible RMR Authority	NRG does not object to this aspect of proposal. Six Cities – Supports, but ISO should delineate criteria it will use to determine whether RMR procurement of specific resource is necessary and appropriate.	PG&E - ISO should provide specific NERC, WECC, or ISO standards that would be basis of RMR designation for system or flexible needs.	If ISO has a reliability need, be it system, flexible, or local, ISO must be able to procure a resource to meet that need. FERC has not required ISOs and RTOs to list every single standard that might be the basis for backstop procurement.
CPM Compensation	CPUC – Supports changing CPM compensation above soft offer cap to eliminate current cost-of-service option.	CPUC – Believes proposed soft offer cap is too high (especially for a 12-month designation) to sufficiently mitigate local market power because it includes both 20% adder on a resource's GFFC and allows	Stakeholders support different methodologies for calculating price paid to resources that bid above CPM soft-offer cap. Generally, these methodologies include paying cost of service with a claw back of all market rents, paying only resource's GFFC, GFFC with a small adder (less than 20

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	DMM – Supports changing from fixed compensation above soft offer using Schedule F of the pro forma RMR agreement, which includes full cost recovery and a return on sunk fixed costs cap to going-forward fixed costs ("GFFC") instead. NRG - Does not object to proposal to limit CPM compensation above soft-offer cap to resource's going-forward fixed costs plus 20%. Would strongly object to alternate proposal that limits compensation to going-forward fixed costs.	resource to retain market revenues. ISO should add a pivotal supplier test. DMM - Current soft offer cap may be too high for annual CPMs. Primary proposal for pricing above soft-offer cap may be excessive if a supplier can file for its actual GFFC plus 20% and also retain all market revenues. Alternative proposal does not explicitly account for potential costs associated with needed capital additions. NCPA - Enabling a resource to retain market revenues while also recovering GFFC plus a 20% adder may result in excessive revenues. Prefers alternate proposal. PAO - Supports alternative proposal for CPM compensation above soft-offer cap. PG&E - Supports alternative proposal as 20% adder seems arbitrary. For resources that have market power and receive annual designations, compensation should be defaulted at GFFC with a credit back of any net market revenues and the opportunity to seek compensation up to its cost of service.	percent) as a contribution to capital, or GFFC plus a 20-percent adder. Paying full cost of service with market revenue claw back is essentially RMR pricing and that type of pricing is only required for mandatory backstop procurement. Acceptance of a CPM designation is voluntary, not mandatory. FERC precedent makes clear that pricing of voluntary backstop procurement need only provide for the recovery of GFFC. The ISO proposes to file two alternative tariff sheets for CPM pricing above the soft offer cap, reflecting a preferred approach and an alternative approach. ISO Management seeks Board approval to file both preferred and alternate tariff sheets. Timely approval is critical to the timely implementation of the ISO's proposal, and the filing of alternative tariff sheets will facilitate this outcome. The preferred approach will compensate a resource based on its specific GFFC plus a 20-percent adder. This parallels the methodology for calculating the level of the soft offer cap, which includes a 20-percent adder. FERC has previously ruled that CPM pricing must provide for some meaningful fixed cost contribution to permit resources to undertake necessary upgrades and capital maintenance. The ISO's preferred proposal for a price that can be bid above the soft-offer cap price is consistent with FERC's specific precedent regarding CPM compensation. Management notes that FERC previously rejected an ISO proposal to base compensation on GFFC, plus a 10 percent adder. Management's alternative approach, which ISO will ask FERC to consider only if it rejects the preferred approach, is to compensate above-cap CPM offers based solely on the resource's specific GFFCs, without any adder. This approach is based on general FERC statements in other

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		SCE - ISO's alternate proposal is a positive development. ISO should add market power mitigation three pivotal supplier test for annual CPMs and if test is failed ISO should pursue RMR agreement. SDG&E - Supports using full cost-of-service less market revenues as pricing formula for annual CPMs whether their full cost-of-service is above or below soft-offer cap. Six Cities - Retention of market revenues while also recovering going forward fixed costs and 20% adder appears to result in excessive revenues, particularly for annual CPM designations. Urges filing alternative proposal as primary proposal. If application of criteria indicate resource has market power, pricing for annual CPM should be based on resource's cost of service.	proceedings that voluntary backstop procurement must, at a minimum provide for recovery of going forward fixed costs. Several stakeholders are seeking changes to CPM soft offer cap, different compensation for CPM designations that last for 12 months, and/or imposition of additional market power mitigation measures. Some stakeholders argue that ISO should consider paying only cost of service or GFFC for 12-month CPM designations. These requested changes are beyond the scope of this initiative and the tariff changes Management is proposing. Management has committed to starting a stakeholder process this year to update the CPM pricing, including considering the compensation to be paid for a 12-month CPM designation. ISO tariff requires ISO (or the California Energy Commission) to undertake a cost of service study before ISO can change CPM soft offer cap. No such study has been undertaken at this time. Further changes to CPM pricing should be undertaken in connection with this cost study so all decisions are based on the most up-to-date cost data. Also, there are significant implementation impacts associated with pricing 12-month CPMs differently, which would not allow the RMR and CPM Enhancements initiative to be implemented by the end of this year.