



# **Review of Reliability Must Run and Capacity Procurement Mechanism**

## **Issue Paper and Straw Proposal for Phase 1 Items**

**January 23, 2018**

**Market & Infrastructure Policy**

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Appendix 1: Background on RMR

## 1. Executive Summary

The California Independent System Operator (“ISO”) is reviewing and considering improvements to its existing capacity procurement mechanisms in light of experience gained with implementing new reliability must-run (“RMR”) agreements and capacity procurement mechanism (“CPM”) designations, and to address concerns identified by the ISO and by other stakeholders. This initiative will review the RMR tariff provisions, pro forma agreement and procurement process, and seek to clarify and align the use of RMR procurement and backstop procurement under the CPM tariff. The 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”) on RMR units comparable to the MOO applicable to resource adequacy (“RA”) and CPM resources.<sup>1</sup> Phase 2 will (1) address potential additional refinements to the RMR tariff provisions and pro forma agreement and procurement process, and (2) evaluate creating a cohesive RMR and CPM procurement framework, including possibly integrating RMR and CPM into a single ISO procurement mechanism. The scope of the two phases is summarized in Figure 1 below.

### Figure 1 - Scope of “Review of RMR and CPM” Initiative

Phase 1 (in place in fall 2018 for 2019 – Board approval on May 16-17, 2018)

- Make RMR Condition 1 and 2 units subject to a MOO for energy and ancillary services

Phase 2 (in place in fall 2019 for 2020 – Board approval TBD)

- RMR and CPM
  - Clarify when RMR is used versus CPM procurement
  - Explore whether RMR and CPM can be merged
  - Review allowed rate of return on capital for RMR and CPM
  - Explore expanding RMR and CPM tariff authority
- RMR
  - Consider whether both Condition 1 and 2 units are needed
  - Review cost allocation
  - Streamline and automate RMR settlement process
  - Lower banking costs associated with RMR invoicing
  - Expand designation authority to include flexibility needs
- CPM
  - Align CPM tariff to RMR rules to allow recovery for needed capital additions
  - Review cost allocation

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<sup>1</sup> The current construct for RMR does not include a MOO because it was developed prior to the development of the RA program. Given that the ISO load serving entities 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.

The ISO's proposes the following changes for phase 1 of this initiative.

- A MOO will be added for energy and Ancillary Services ("AS") for both Condition 1 and Condition 2 RMR units. For Condition 2 RMR units, the ISO will generate and submit the energy and AS bids, which will be cost-based 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. For Condition 1 RMR units, the RMR unit's scheduling coordinator will generate and submit the energy and AS bids, which will be cost based, but if the scheduling coordinator does not bid in the full RMR contract capacity the ISO will submit energy and AS 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 a bid. The energy bids will be based on start-up, minimum load and energy costs. The ISO will have the ability to determine periods when the RMR unit will not run, such as when there is a specific reliability or environmental reason or the unit would exceed its contract service limits. The penalties in the current RMR agreement will be used to incent performance.<sup>2</sup>

The ISO plans to seek Board approval of its phase 1 proposal at the May 16-17, 2018 Board of Governors meeting.

Through this paper, the ISO is starting work on phase 2 in parallel with the phase 1 work. The first step of the phase 2 process is, in this paper, providing the ISO's initial thoughts on the potential scope for phase 2. Stakeholders are encouraged to identify the issues that they would like to discuss in phase 2 and explain why the issues need to be addressed. The ISO will provide milestones for phase 2 in the next paper, after stakeholder comments are received on February 20, 2018.

## 2. Introduction

Since 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 capacity RA requirements. These two forward capacity procurement enhancements significantly reduced the need for RMR units. Between 2010 and 2016 there were just a handful of RMR units under contract as the vast majority of the system's 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 RMR provisions and structure. However, with the increased use of RMR,

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<sup>2</sup> The RMR unit will be exempt from performance penalties and bonuses under the RA Availability Incentive Mechanism.

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.<sup>3</sup> As part of the November 2, 2017 approval by the Board of Governors of a 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 predecessors (*i.e.*, the Reliability Capacity Services Tariff, Transitional Capacity Procurement Mechanism, and Interim Capacity Procurement Mechanism) 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 CAISO 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.

This initiative will consider changes to the RMR and CPM paradigms. The ISO will consider enhancements to the RA program, in alignment with the CPUC RA enhancements, in a separate stakeholder initiative.<sup>4</sup>

Appendix 1 provides additional background on RMR.

### 3. Initiative Scope and Schedule

The schedule for this stakeholder initiative is provided in Table 1 below. The ISO plans to present its proposal for phase 1 items to the ISO Board of Governors for their approval on May 16-17, 2018. 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 2020. The specific schedule for Phase 2 will be provided in the next paper, after stakeholder comments on phase 2 have been received on February 20, 2018.

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<sup>3</sup> 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](http://www.caiso.com/Documents/Decision_ReliabilityMust-Run_Designation_MetcalfEnergyCenter-Attachment-Nov2017.pdf).

<sup>4</sup> 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>.

Table 1 – Schedule for this Stakeholder 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 proposal to Board of Governors
Develop Proposal for Phase 2 Items	After May 17	Continue initiative, focused on Phase 2 items

#### 4. Decisional Classification

For this initiative the ISO plans to seek approval from the Board of Governors only. The ISO believes this initiative falls outside of the scope of the 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 in EIM balancing authority areas. The ISO seeks stakeholder feedback on this initial EIM classification of the initiative.

#### 5. Straw Proposal for Phase 1 Items

This section presents the ISO's straw proposal for the one phase 1 item of this initiative. The ISO's goal is to have this RMR enhancement in place in the fall of 2018 for any new RMR contracts that would be effective for 2019. The ISO plans to take this phase 1 item to the ISO Board of Governors for approval on May 16-17, 2018.

##### **Make RMR Condition 1 and 2 units subject to a MOO for energy and AS**

The current construct for RMR does not include a MOO. RMR was developed at ISO start-up, long before there was an RA program with RA MOO obligations for energy and AS. Given that the ISO is procuring RA for reliability needs and the use of RMR is increasing, it is appropriate to now 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).<sup>5</sup>

*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.*

#### Overview of proposal

The ISO proposes to make RMR Condition 1 and 2 units subject to a MOO for energy and AS.

If the unit is a Condition 2 unit:

- The ISO will pay all fixed costs of the unit.
- The ISO will submit all energy and AS bids for Condition 2 units.

If the unit is a Condition 1 unit:

- The ISO will pay a fixed payment contribution to the unit based on a “net of market” analysis.
- The ISO will submit bids for Condition 1 units if a unit does not submit energy and AS bids for all of its contracted capacity.
- The ISO will create bids for RMR Condition 1 units the same way the ISO creates bids when RA units fail to submit bids.

The 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.

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<sup>5</sup> See DMM filing at <https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14762784>.

MOO for Condition 2 units

- The ISO will generate and submit cost-based energy bids using ISO-generated bid calculation the same way the ISO does for RA units that have not submitted bids, and will include the following elements:
  - Start-up costs;
  - Minimum load costs; and
  - Energy costs.
- The ISO will generate and submit AS bids at a price of \$0/MW per hour. This price is the same price that the ISO uses for ISO generated bids for all resources that carry certified AS capacity regardless of whether the unit is RA or there is a MOO. Such bids will be submitted for all AS services for which the unit is certified to provide.
- Pursuant to existing provisions, above-cost market revenues earned by the unit will be “clawed” back from the unit.
- The 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.
- The current RMR penalties in the RMR agreement will be used to incent performance. The RMR unit will be exempt from RAIM performance penalties and bonuses.

MOO for Condition 1 units

- The RMR unit will submit energy and AS bids through its scheduling coordinator.
- If the RMR unit does not submit energy and AS bids up to the full RMR contract capacity, the ISO will generate and submit bids for the unit up to the full contract capacity.
- The ISO will generate energy and AS bids the same way that the ISO generates energy and AS bids when a RA unit fails to submit bids (and in the same manner as the ISO proposes above for Condition 2 RMR units).

## 6. Potential Phase 2 Items

This section discusses topics that may be candidates for phase 2 of this initiative. The ISO encourages stakeholders to comment on these potential items, and to identify any additional matters they believe should be considered and indicate why they should be included in the scope of phase 2. The ISO plans to take the phase 2 items to the ISO Board of Governors for approval in 2019 with sufficient lead time so that the enhancements can be implemented in the fall of 2019 and in effect for 2020. The potential items are divided into the following categories: combined 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 and procurement process), and CPM items (items specific only to the CPM tariff).



## **6.1 RMR and CPM Items**

### **Clarify when RMR is used versus CPM procurement**

Some stakeholders have expressed a concern that it currently may be unclear when the ISO may use 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 will be to provide an understanding of how the processes interact with each other.

### **Explore whether RMR and CPM can be merged**

The ISO would like to 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). Merging the two ISO procurement methods, or certain individual components thereof, may eliminate the current situation where there might be two options to meet a similar reliability need. The ISO is interested in hearing from stakeholders how they view this item and what an alternative construct might look like.

### **Review allowed rate of return on capital for RMR and CPM**

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 RMR and CPM tariff authority**

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 to reliably operate the grid.

## **6.2 RMR Items**

### **Consider whether both Condition 1 and Condition 2 Units are 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 that it earned. Today, it appears the greater uncertainty around earning sufficient market revenues is causing unit owners to choose the

Condition 2 option to ensure that they can recover their costs. The ISO would like to explore with stakeholders whether there is a need to continue to have both options, or whether there should only be Condition 2 units as an option going forward.

#### Review cost allocation

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 in the past few years that there may be 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.

#### 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.

#### 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, RMR is not currently set up to allow the ISO to procure flexible capacity through a RMR agreement. The ISO would like to explore possibly having RMR as an option to cover unmet flexibility capacity needs.

### **6.3 CPM Items**

#### Align CPM tariff to RMR rules to allow 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.<sup>6</sup> The ISO has recently proposed that compensation for risk of retirement CPM designations be cost-based only using the Schedule F formula.<sup>7</sup> CPM does not have any separate provisions specifically addressing the

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<sup>6</sup> See section 43.A4 of the ISO tariff at

[http://www.caiso.com/Documents/Section43A\\_CapacityProcurementMechanism\\_asof\\_Sep25\\_2016.pdf](http://www.caiso.com/Documents/Section43A_CapacityProcurementMechanism_asof_Sep25_2016.pdf)

<sup>7</sup> 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](http://www.caiso.com/Documents/Section41_ProcurementOfRMRGeneration_May1_2014.pdf).

recovery of needed capital additions, including costs for major maintenance. The Schedule F formula does provide for compensation associated with net plant in service. The lack of a separate maintenance provision has led some resource owners whose plants needed capital additions and/or major maintenance to seek only a RMR designation in lieu of a CPM designation. 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 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?

#### Review cost allocation

A stakeholder has 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 that 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.

## **7. Next Steps**

The ISO will discuss the issue paper and straw proposal for phase 1 items with stakeholders during a meeting on January 30, 2018. Stakeholders are encouraged to submit written comments by February 20, 2018 to [initiativecomments@caiso.com](mailto:initiativecomments@caiso.com). Please use the template available at the following link to submit your comments <http://www.caiso.com/Documents/CommentsTemplate-ReviewReliabilityMustRunandCapacityProcurementMechanism-issuepaperandstrawproposal.docx> .

Appendix 1

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.

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 <sup>8</sup>	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)

<sup>8</sup> 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	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