



RMR and CPM Enhancements

Stakeholder Meeting
January 30, 2019

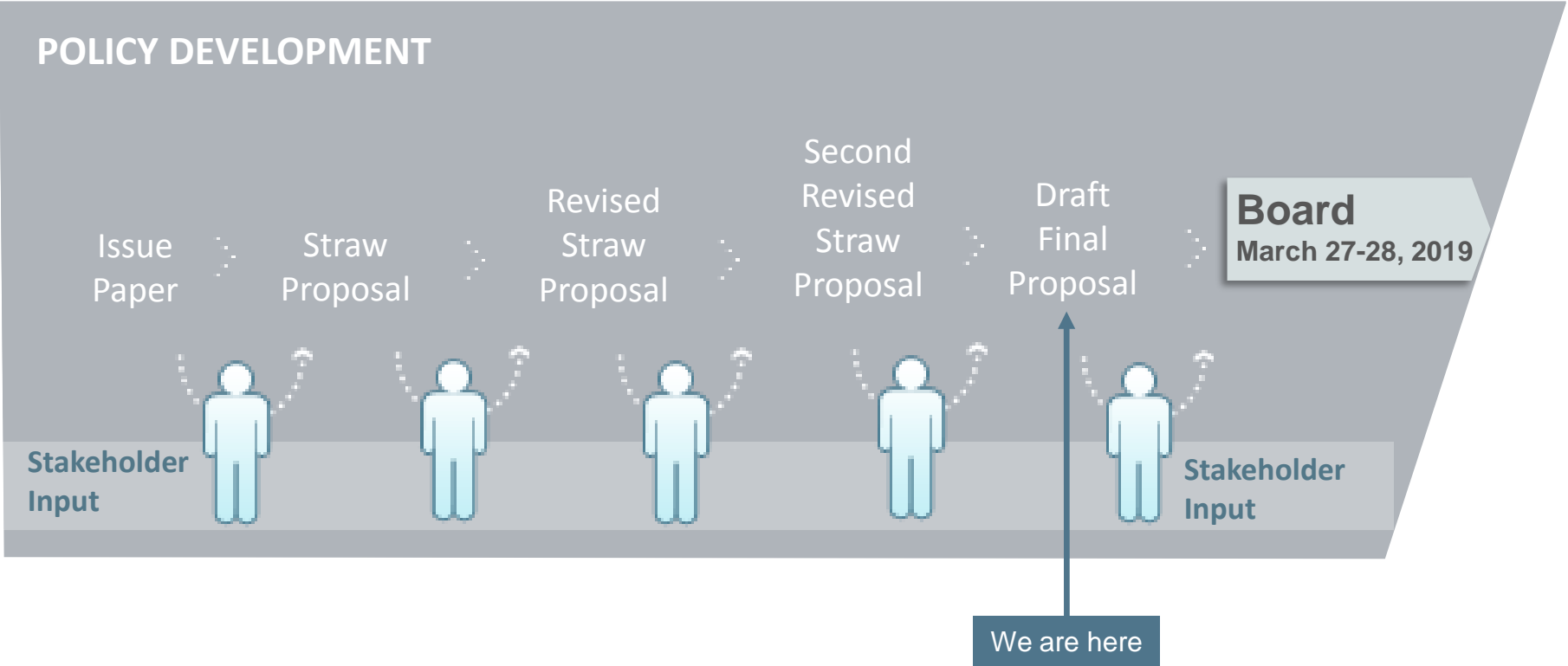
Keith Johnson
Infrastructure & Regulatory Policy Manager

Agenda

Time	Item	Presenter
10:00-10:15	1. Stakeholder process	Jody Cross
10:15-11:25	2. RMR and CPM items <ul style="list-style-type: none"> a. Provide notice to stakeholders of resource retirements & mothballs b. Clarify use of RMR versus CPM procurement c. Merge ROR CPM and RMR procurement into one mechanism 	Keith Johnson Catalin Micsa
11:25-12:00	3. CPM items <ul style="list-style-type: none"> a. Change formula for price above soft-offer cap price b. Clarify deadline for ISO to post designation report 	Keith Johnson
12:00-1:00	Lunch break	(on your own)
1:00-2:40	4. RMR items <ul style="list-style-type: none"> a. Develop an interim pro forma RMR agreement b. Consider whether Condition 1 and 2 options are needed c. Make subject to a MOO d. Consider making subject to RAAIM e. Update rate of return f. Align agreement and tariff authority for system and flexible needs g. Streamline and automate settlement process h. Allocate flexible RA credits i. Lower banking costs 	Keith Johnson Gabe Murtaugh Catalin Micsa Bob Kott
2:40-3:55	5. RMR and CPM draft tariff language	Sidney Mannheim Anthony Ivancovich
3:55-4:00	6. Next steps	Jody Cross

1. STAKEHOLDER PROCESS

Stakeholder Process



Schedule

	Date	Milestone
Milestones prior to Aug 27	Nov 2, 2017	ISO commits to review RMR and CPM
	Nov 3 – Aug 26	See Sept 19, 2018 revised straw proposal for milestones
Revised straw proposal	Aug 27	Hold working group meeting
	Sept 19	Post revised straw proposal
	Sept 27	Hold stakeholder meeting
	Sept 28	Discuss initiative at MSC meeting
	Oct 23	Stakeholder comments due on revised straw proposal
Second revised straw proposal	Nov 1	Hold working group meeting
	Dec 12	Post second revised straw proposal
	Dec 20	Hold stakeholder conference call
	Jan 10	Stakeholder comments due on second revised straw proposal
Draft final proposal	Jan 23	Post draft final proposal
	Jan 23	Post draft CPM and RMR tariff language
	Jan 25	Discuss initiative at MSC meeting
	Jan 30	Hold stakeholder meeting
	Feb 15	Post draft RMR pro forma agreement language
	Feb 22	Stakeholder comments due on draft final proposal
Final proposal	Early Mar	Obtain opinion from MSC
	Mar 27-28	Present proposal to Board of Governors
Implementation	Fall 2019	Implement in fall 2019 Release, effective 1/1/2020

Items to note

- **Decisional classification**
 - Will seek approval from only ISO Board of Governors
 - Initiative falls outside Energy Imbalance Market Governing Body's primary and advisory roles because does not seek changes to rules of real-time market or generally applicable rules of all markets
- Section 6 lists eight changes from December 12, 2018 second revised straw proposal
- Stakeholder comments are combined into one document at the following web page:
<http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=A3F2218A-3294-4949-AB04-B243216A58F5>

List of Acronyms

AFRR	Annual Fixed Revenue Requirement
AS	Ancillary Services
BCR	Bid Cost Recovery
CAISO	California Independent System Operator Corporation
CIRA	Customer Interface for Resource Adequacy
CPM	Capacity Procurement Mechanism
CPUC	California Public Utilities Commission
CSP	Competitive Solicitation Process
DEB	Default Energy Bid
ERR	Essential Reliability Resource
FERC	Federal Energy Regulatory Commission
GFFC	Going-forward fixed costs
GHG	Greenhouse gas
GMC	Grid Management Charge
ISO	California Independent System Operator Corporation
LSE	Load serving entity
MSC	Market Surveillance Committee
MSG	Multi-stage generator
MMA	Major maintenance adder
MOO	Must-offer obligation
O&M	Operation and maintenance
PGA	Participating Generator Agreement
RA	Resource Adequacy
RAAIM	Resource Adequacy Availability Incentive Mechanism
RAVE	Reliability Must-Run Application Validation Engine
RMR	Reliability Must-Run
ROR	Risk of retirement
RTO	Regional Transmission Organization
RUC	Residual Unit Commitment

2. RMR AND CPM ITEMS

2a. Provide notice to stakeholders of resource retirements and mothballs

- On July 6, started posting a list of announced planned retirement and mothball resources
- Notices received for resources less than 45 MW are shown in list but not noticed in Daily Briefing
- Have added RSS feed so can subscribe and receive instant notification when list is reposted - effectively eliminating any MW threshold
- ISO will monitor how well RSS feed is received by stakeholders – in future may eliminate notice in Daily Briefings

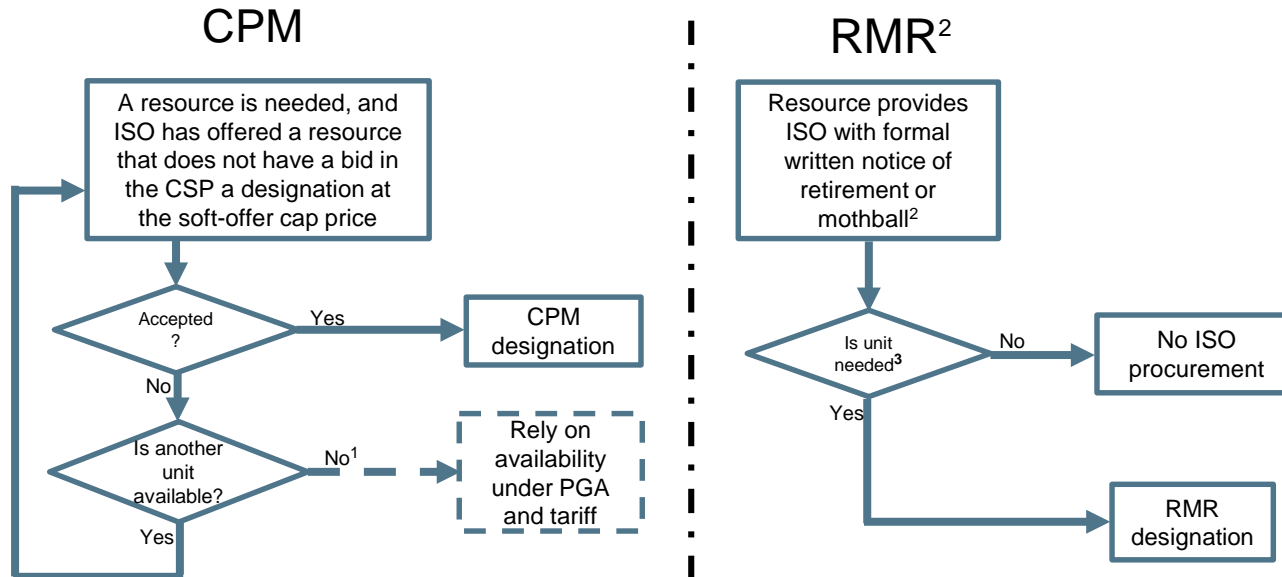
2b. Clarify use of RMR versus CPM procurement

- Will retain RMR and CPM procurement mechanisms
- CPM used to backstop RA program
- RMR used to address resource retirements
- RMR compensation based on full cost of service, as procurement is mandatory
- CPM compensation is
 - Voluntary if resource has not submitted a bid into CSP
 - If a bid submitted in CSP and ISO accepts bid, resource cannot decline designation
- RMR and CPM resources will have MOO and be subject to RAIM like RA resources are

Use of RMR and CPM Procurement

CPM used to backstop RA program

RMR used to address resource retirements



¹ If resource declines a CPM designation offered, and resource owner does not wish to submit a retirement or mothball affidavit and notice of PGA termination, the resource remains available for dispatch under its PGA and ISO tariff

² ISO will have authority to study reliability needs for upcoming year and year after, and has discretion to study year after if ISO believes that resource may be needed in year after even if resource is found to not be needed in upcoming year

³ For ISO study for a potential RMR designation, all available resources are used in the analysis

Any resource that wants to be considered for RMR designation must submit a formal retirement or mothball affidavit

- Affidavit must
 - Be signed by officer who has legal authority to bind entity, attesting resource will not remain in service and decision to retire or mothball is definite unless: 1) some other type of ISO procurement of resource occurs; 2) resource is sold to non-affiliated entity; 3) resource receives some other contracts; or 4) resource enters into RA contract
 - State resource is planning to retire or mothball at certain date, but no later than 90 days prior to date resource intends to stop service
 - Be notarized
- Expect resource to notify CPUC of its intent to retire or mothball

There are requirements if a resource wants to come out of its mothball status

- Resource must submit formal notice that states which of four conditions have changed for resource (four conditions on previous slide)
- ISO has right to refer resource owner to FERC if it appears false information has been filed
- For mothballs, will revise BPM for Generator Management to change current “no later than 60-day prior to” requirement to be “no later than 90-days prior to date resource intends to stop service”

There are elements to mitigate impacts on RA program and provide longer runway for business decisions

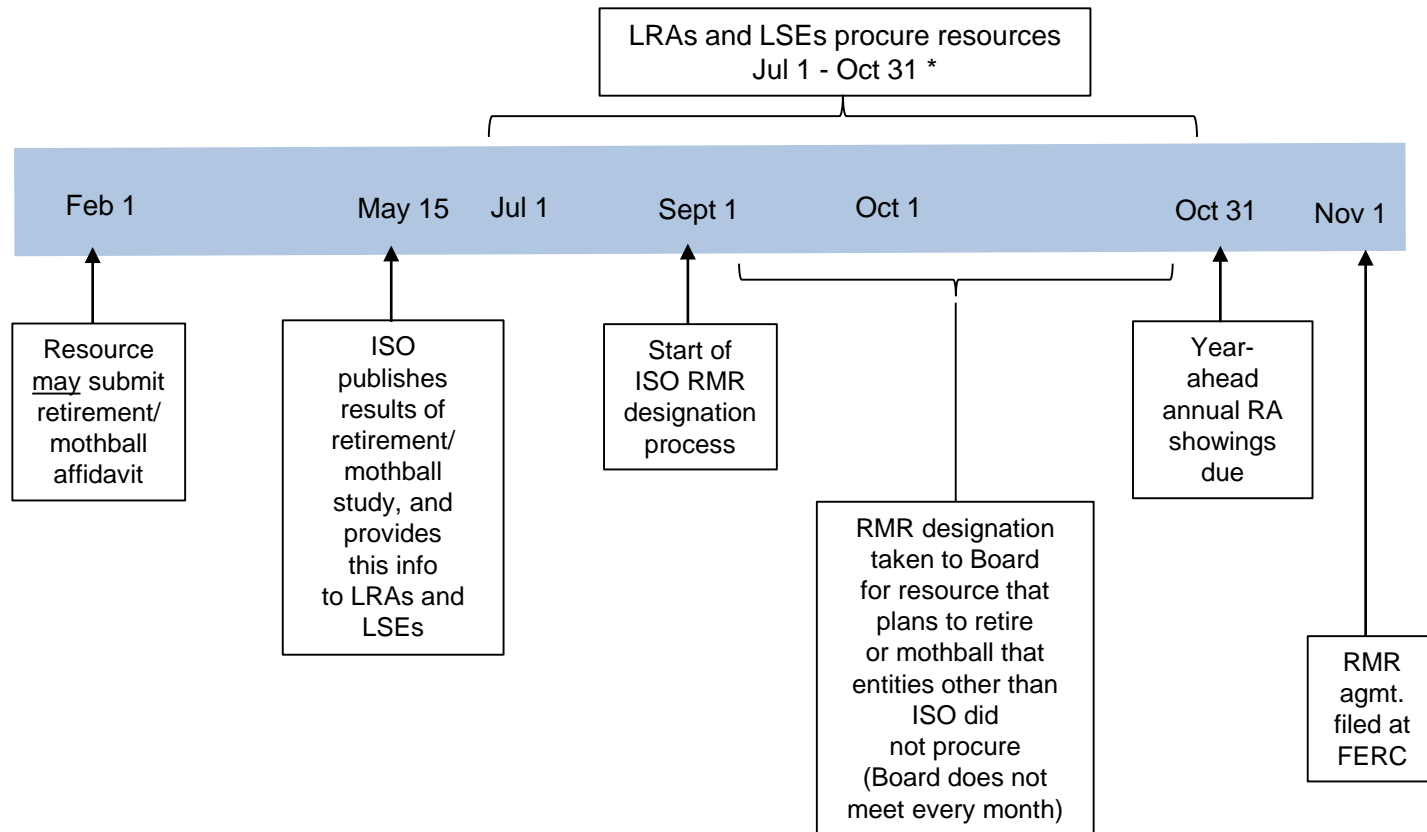
- If not RA in current RA year and planning to retire/mothball
 - Can submit notice at any time during year and ISO will inform resource of study results promptly
 - If want to obtain longer runway to make retirement decisions, resource can submit notice before PGA deadline

Adding elements (continued)

- If RA in current RA year and planning to retire/mothball
 - If want longer runway, may submit notice by Feb 1 of current RA year and ISO will study/inform all stakeholders of results by May 15 – by May 15 resource will know if needed next year, i.e., a long runway
 - ISO will not start its RMR procurement process for such resource until September 1, which allows several months for procurement by an entity other than ISO through RMR
 - If resource provides notice after Feb 1, only commitment ISO will have is to inform resource of study results within 60 days prior to expiration of RA contract or 90 days of request, whichever is later

Adding elements (continued)

Timeline of RMR Retirement Procurement and RA Process



Some stakeholders believe resources seeking to retire or mothball should provide financial information

- In connection with ISO's ROR CPM filing, FERC rejected ISO's proposal to require resources seeking CPM designations to provide financial information to deter gaming
 - FERC stated because market participants are prohibited from submitting false information, affidavit should be sufficient to establish resource cannot operate economically
- New York ISO and Midcontinent ISO do not require retiring or mothballing resources to demonstrate they are uneconomic to receive an RMR agreement

Proposal is consistent with FERC guidance and appropriately addresses two FERC toggling concerns

1. Where generator concludes it would receive higher compensation under RMR than market-based alternatives
 - Under proposal RMR resources cannot retain revenues in excess of their FERC-approved cost of service
2. Where generator seeks RMR to recover cost of upgrades then returns to market service
 - Under proposal RMR resource is only compensated for a one-year slice of its capital addition costs for each year of RMR service and once agreement is terminated contribution towards any balance of unpaid capital additions costs will terminate if resource returns to market

2c. Merge ROR CPM and RMR procurement into one mechanism

- Retirement procurement authority, what was formerly known as ROR CPM, will be merged into one mechanism under RMR tariff and receive RMR contract
 - Will move to RMR tariff backstop authority currently reflected in ROR CPM tariff
 - Will eliminate current ROR provisions under CPM tariff
- ISO can designate as RMR for upcoming year a resource that is needed before the end of the following year
- Length of procurement will remain a maximum of one year, as it is now under ROR CPM tariff

3. CPM ITEMS

3a. Change formula for price above soft-offer cap price

- ISO proposes to retain three current pricing options for CPM designations
 1. Can submit bid in CSP (if bid selected, designation is not voluntary)
 2. Can be paid soft-offer cap price of \$75.68/kW-year if no bid is submitted in CSP (designation is voluntary – resource can decline designation)
 3. Can bid price higher than soft-offer cap price in CSP and file at FERC for approval of price (if bid selected, designation is not voluntary)
- ISO proposes to change formula for option 3 above

Current CPM Compensation Structure

1. Bid into CSP (at or below \$75.68 kW-year)

<p><u>Market Rents</u> Resource keeps all market rents earned</p>
<p><u>BID</u></p> <p>Price bid into CSP</p> <ul style="list-style-type: none">• Price is consider “good” (safe harbor) if the price bid is below soft-offer cap price of \$75.68 kW-year

2. Soft-Offer Cap Price (\$75.68 kW-year)

<p><u>Market Rents</u> Resource keeps all market rents earned</p>
<p><u>20% Adder</u></p>
<p><u>Going Forward Fixed Costs</u></p> <p>Which is the sum of the amounts shown below for the reference unit specified in CPM tariff:</p> <ul style="list-style-type: none">• Fixed O&M costs• <i>Ad valorem</i> costs• Insurance

3. Above Soft-Offer Cap Price (above \$75.68 kW-year)

<p><u>Market Rents</u> Resource keeps all market rents earned</p>
<p><u>Bid Cost of Service</u></p> <p>Amount determined using cost of service methodology in Schedule F of Appendix G of RMR agreement</p> <ul style="list-style-type: none">• Methodology does <u>not</u> include major maintenance capital expenditures

Note that under all CPM designations, resource keeps all market rents earned

ISO is considering filing both a primary and an alternative proposal at FERC

Primary Proposal

- Resource can file at FERC based on going-forward fixed costs of its resource using same cost categories and same 20% cost adder as is used for CPM reference resource, based on following costs
 - *Ad valorem* costs
 - Insurance costs
 - Fixed operation and maintenance costs
- Resource will retain all market rents earned

Primary proposal (continued)

- Using 20% adder
 - Parallels existing, FERC-approved soft-offer cap price formula
 - Is consistent with prior FERC directives that price should provide for some contribution to fixed cost recovery to facilitate incremental upgrades and investments by resources
- Formula results in CPM using a going-forward fixed costs approach and RMR using cost of service approach (consistency)
- In 2019 an ISO stakeholder process will assess CPM soft-offer cap, including performing a cost study, and will consider compensation for 12-month CPMs

Primary proposal (continued)

Proposed Pricing for CPM Designations

Type of CPM Designation	Price used to determine Payment
System monthly	<ol style="list-style-type: none">1. Price bid into CSP – there is a “safe harbor” price at or below the \$75.68/kW-year soft-offer cap price2. If no bid in CSP - ISO may offer resource soft-offer cap price of \$75.68/kW-year (and resource can decline designation if it chooses)3. Can submit bid above soft-offer cap price - based on GFFC of its resource using same cost categories and same 20% cost adder as is used for reference resource that establishes soft-offer cap price and resource keeps all market rents earned *
System annual	
Local monthly	
Local annual	
Local annual collective deficiency	
Cumulative flexible monthly	
Cumulative flexible annual	
Significant Event	
Exceptional Dispatch	

* Proposed formula

ISO considering also filing an alternative proposal, that FERC can choose if it does not accept primary proposal

Alternate Proposal

- Price above soft offer cap price will be based on resource's going forward fixed costs only, without a 20% adder
- Recognizes prior FERC orders that backstop procurement mechanisms that are voluntary need only provide for recovery of going forward fixed costs at a minimum
- Resource will retain all market rents earned

3b. Clarify deadline for ISO to post designation report

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

Clarify deadline (continued)

- Propose to add underlined language to Section 43A.6.2 of ISO tariff
 - *The CAISO shall post a designation report to the CAISO Website and provide a Market Notice of the availability of the report within the earlier of thirty (30) days of procuring a resource under Sections 43A.2.1 through 43A.2.7 or ten (10) days after the end of the month; provided that where the CAISO makes a designation under Sections 43A.2.1.1, 43A.2.1.2, 43A.2.2.2, 43A.2.3, 43A.2.4, or 43A.2.7 that takes effect on the first day of the succeeding month, the CAISO will post the designation report by the earlier of 30 days after the CAISO selects the resource it will be designating or the tenth day of the month in which the designation takes effect.*
- Clarifying language would not apply to Exceptional Dispatch CPMs

4. RMR ITEMS

4a. Develop an interim pro forma RMR agreement

- Filed at FERC on August 31
- On October 29, 2018, FERC approved interim change to pro forma RMR agreement
 - Effective September 1, 2018 applies to new RMR designations
 - Allows ISO to terminate interim form of agreement effective at end of contract year and immediately re-designate under new substantive RMR agreement for following contract year
 - Right to immediately re-designate would not apply to RMR resources under RMR agreements currently in effect

4b. Consider whether Condition 1 and 2 options are needed

- Revised tariff and pro forma agreement will no longer offer option of having Condition 1 features
- Agreement will be revised to reflect full cost-of-service approach with credit back of market rents above costs, similar to Condition 2 option in current agreement
- Believe it is appropriate to eliminate Condition 1 option
 - As it creates appropriate incentives
 - Simplifies RMR structure
 - Provides clear separation between CPM and RMR compensation
 - Aligns with proposal for RMR resources to have a MOO

4c. Consider making subject to MOO

- ISO believes RMR resources should
 - Have a MOO
 - Be in market for all hours resource is physically capable of submitting bids
 - With market making commitment and dispatch decisions based on full marginal cost of operating each resource and optimizing dispatch

RMR resources will have a 24x7 MOO

- Will submit cost-based bids into energy and ancillary services markets
 - If resource does not submit bids, ISO will insert cost-based bids
- Credit all market rents above variable costs to fixed payment
- Receive uplift for all market rents below variable costs through existing bid cost recovery mechanism
- Credit all Residual Unit Commitment and ancillary service revenues to fixed payment
- RMR agreement allows for instructions from ISO to not bid

If RMR resource does not submit bids, ISO will submit ISO-generated bids

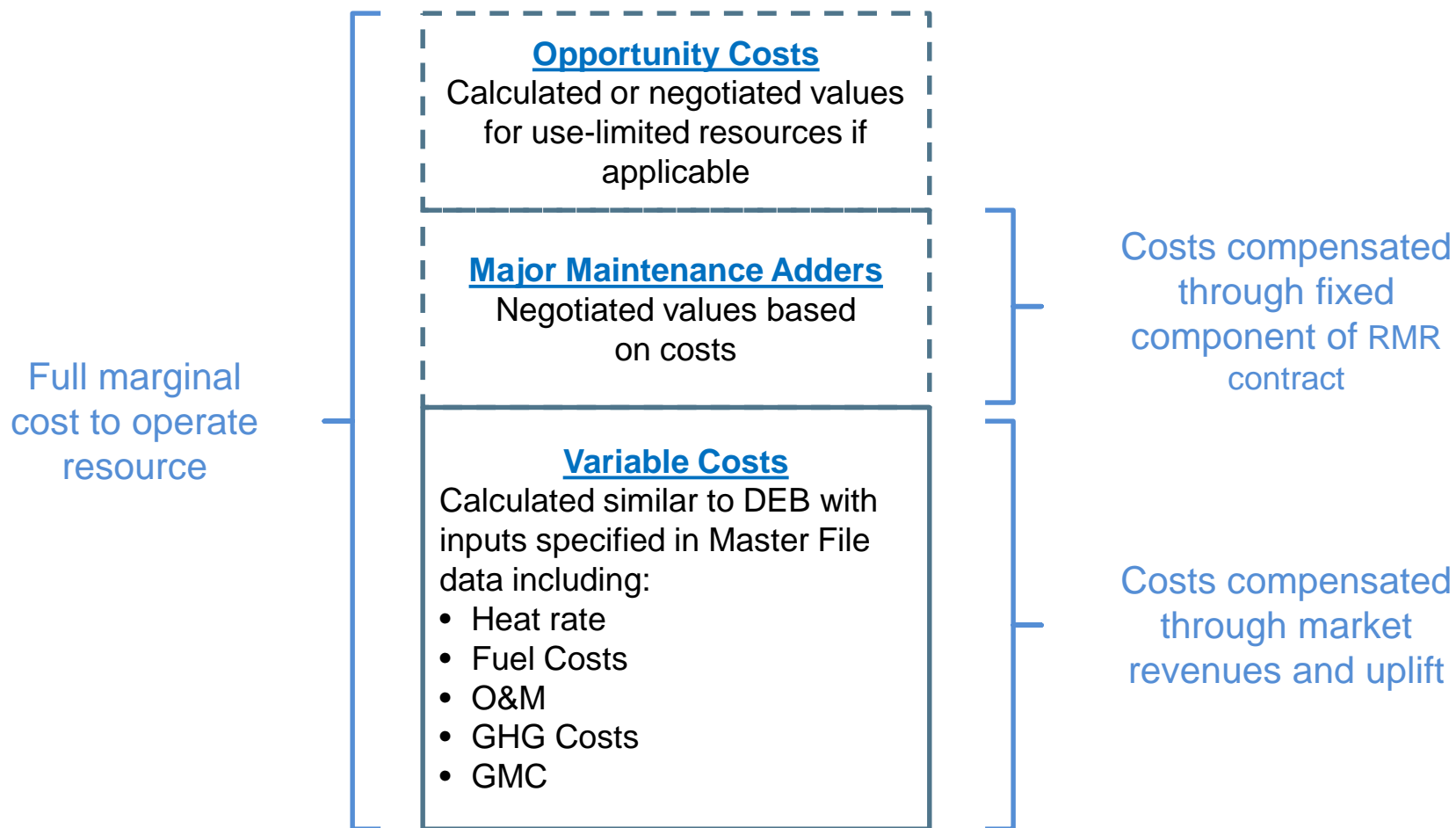
- ISO-generated bids will include
 - Start-up costs
 - Minimum load costs
 - Energy costs
 - Multi-stage generator transition costs (using registered default values)
- ISO generated bids will include opportunity costs and major maintenance values, where applicable
- ISO-generated AS bids are at \$0/MWh
- ISO-generated RUC bids translate to \$0 offers

- Each of these components is co-optimized with values for other resources for efficient dispatch of the entire fleet

As an example, ISO generated energy bids will include opportunity costs

- ISO-generated energy bids will include
 - Fuel costs
 - Operation and maintenance
 - Greenhouse gas costs
 - Grid management charge
 - Opportunity costs

RMR resources will be required to bid into market at their true cost of operation



Stakeholder comments

- Some stakeholders advocate that RMR resources be required to bid only in the hours when reliability need that led to RMR designation is triggered
 - ISO disagrees with this position as ISO is procuring entire resource and paying its full cost of service
 - Under these circumstances, ISO should have access to all of resource's attributes, including full participation in energy and ancillary service markets
 - Less market participation could lead to unnecessary over-procurement and ratepayers not receiving full value of resource for money being paid

Some stakeholder support more limited bidding hours

- Some stakeholders believe imposing a MOO on RMR resources will inappropriately suppress market prices
 - RMR resources are needed to reliably operate the grid, similar to other resources procured for RA, and therefore should be bid into the market
 - ISO/RTO markets are based on premise that in a competitive wholesale electricity market a resource's offer will be approximately equal to short run marginal costs
 - Proposed components and pricing of RMR bids is consistent with this principle

4d. Consider making subject to RAAIM

- Current RMR availability payment in RMR pro forma agreement
 - Does not provide an incentive to submit bids
 - Limits ISO's ability to streamline RMR settlement process by requiring ISO to track and validate availability in a separate tracking system
- ISO believes applying same performance mechanism to RA, CPM, and RMR resources is best solution
- RMR resources will be subject to RAAIM, like RA and CPM resources

RMR resources will be subject only to RAAIM mechanism

- Will delete current Availability based payment, Non-Performance Penalty and Long-term Planned Outage Adjustment provisions
- Penalty price will be RMR agreement price
 - Like is currently done for CPM resource paid a price above soft-offer cap price
 - Annual fixed costs and major maintenance capital expenditures that comprise the Monthly Option Payment will both be “at risk”
- Will apply current RAAIM availability standard of 96.5% per month
- Will apply current RAAIM availability range of plus and minus two percent (94.5%-98.5%)

RAAIM proposal (continued)

- RMR resources will be treated just like RA and CPM resources currently are treated
 - Resource can be charged a non-availability charge for month if below performance band
 - Resource can receive an availability incentive payment for month, with payment paid to resource owner, if above the performance band
 - ISO systems provide ability for RMR resources to take outages like RA and CPM resources

ISO recognizes that some stakeholders do not support using RAAIM “as is”

- Some stakeholders argue
 - Ratepayers are paying a premium for RMR service and should receive a superior product in terms of unit availability; thus ISO should use a higher standard of availability than RAAIM
 - RAAIM assessment hours might not result in RMR resource being available when RMR service is needed

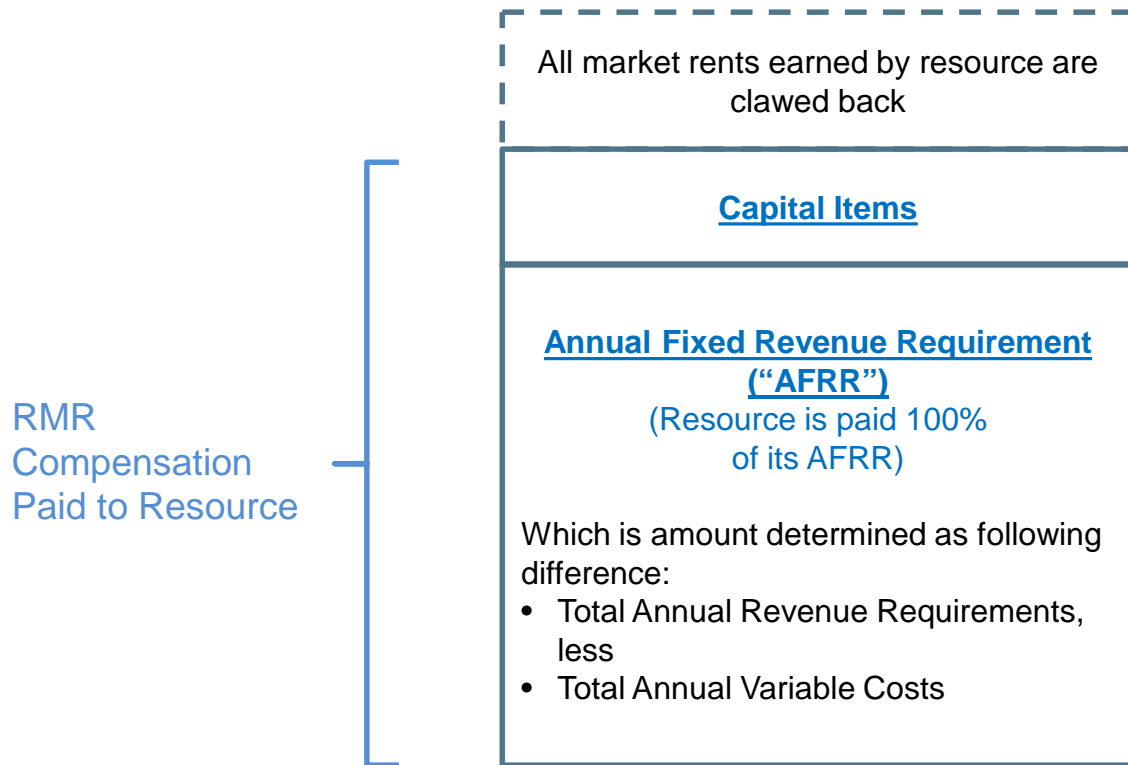
Stakeholder comments (continued)

- ISO notes that under proposal RMR resources will have same MOO applicable to similarly situated RA and CPM resources
- An RMR resource's failure to meet its energy market obligations may constitute a tariff violation
- ISO has historically managed RMR/RA/CPM resource availability in outage management process to ensure resource is available when needed
- If stakeholders believe different approach than RAAIM “as is” should be used for RMR/RA/CPM resources, ISO will assess this in RA Enhancement initiative

4e. Update rate of return

- The ISO does not propose to change the major components of the RMR compensation structure, which is based on full cost of service
 - RMR designations are mandatory, not voluntary on the part of the resource
 - ISO can require a resource seeking to retire to remain in service if the resource is necessary to maintain reliability
 - FERC precedent establishes principle that for mandatory backstop procurement designations, an ISO/RTO must compensate a resource for its full cost of service, not for only going forward fixed costs

Current RMR Compensation Structure



* RMR agreements also include a Termination Fee that may be owed to resource owner under certain circumstances

The ISO does see a need to update the rate of return because it has not been updated in many years

- Current pre-tax rate of return is “hard-wired” into pro forma RMR agreement at 12.25%
- Value has not changed in many years, despite changing economic conditions and corporate tax rates
- ISO proposes to remove specific 12.25% from pro forma tariff language

Rate of return proposal

- Propose to eliminate existing 12.25% from RMR pro forma agreement and require RMR owner to establish rate of return for its schedule F costs as part of its initial filing at FERC following designation for RMR service
- Rate of return for new capital additions under schedule L will continue to be handled per the schedule L submission, with that rate established for each project based on project costs

4f. Align agreement and tariff authority for system and flexible needs

- Tariff already provides authority through RMR to meet Applicable Reliability Criteria
 - Which includes meeting system, local and flexible needs
 - To date, authority has been implemented for local needs
- RMR pro forma agreement (versus the tariff) currently does not reflect existing system and flexible authority
- Propose to change pro forma RMR agreement so existing RMR tariff authority and language in pro forma RMR agreement are aligned

Tariff section 41 provides authority to designate to meet any NERC, WECC or ISO established compulsory standards that otherwise cannot be met without RMR designated resources

- 41.2 provides “The CAISO will have the right at any time based upon CAISO Controlled Grid technical analyses and studies to designate a Generating Unit as a Reliability Must-Run Unit.”
- 41.3 provides “In addition to the Local Capacity Technical Study under 40.3.1, the CAISO may perform additional technical studies, as necessary, to ensure compliance with Reliability Criteria.”
- Appendix A defines Reliability Criteria as “Pre-established criteria that are to be followed in order to maintain desired performance of the CAISO Controlled Grid under Contingency or steady state conditions.”

ISO disagrees with stakeholders who argue that RMR procurement should be limited to local reliability needs

- RMR is not limited to addressing narrow, local reliability events that rarely occur
- Other ISOs and RTOs do not limit the scope of their backstop procurement to very narrow and targeted reliability needs
- There are a vast array of potential reliability needs in the rapidly changing energy environment
- RMR must be effective in addressing, and available to address, all reliability needs as a “last resort” backstop procurement mechanism

ISO proposes to change RMR cost allocation as part of implementing system and flexible RMR designations

- Several stakeholders do not support allocating system and flexible RMR costs to the applicable PTO(s)
- ISO has reconsidered its prior cost allocation proposal, and has considered three options

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

Under option 3, RMR costs would be allocated to applicable LSEs in TAC Areas(s) where reliability need exists based on percentage of actual Load of each LSE represented by the Scheduling Coordinator in TAC Area(s) to total Load in TAC Area(s) as recorded in ISO Settlement system for actual days during any Settlement month period over which designation occurred

ISO believes option 3 is best approach for allocating costs for local, system and flexible RMR

- Option 3 addresses concerns with allocating costs for system and flexible RMR resources to PTOs
- Allocates costs to entities that benefit from RMR designations, i.e., applicable LSEs
- Is consistent with how ISO allocates costs of CPM resources for meeting reliability needs
- Other ISOs and RTOs allocate RMR-like costs to load
- ISO is interested in feedback on options 2 and 3 and proposed use of option 3

4g. Streamline and automate settlement process

Vision

Align RMR implementation to extent possible with ISO tariff and RA/CPM paradigm for bidding, dispatch, penalties/incentives, settlements, and payment to streamline RMR functionality for efficient market and reliability systems operation and maintenance

Contract Initiation and FERC Anti-Toggling Expectation Mechanism to minimize market impact

- RMR utilized for retirement/mothball of required capacity or to procure capacity required to meet Reliability Criteria
- Proposal to eliminate RMR owner right to elect Condition 1
- ISO RMR contract principles
 - Compensation based book value and cost of service and FERC ratemaking principles
 - New major capital maintenance cost recovery for operating year
 - Recovery of unrecovered cost of approved Capital Items
 - Must close within six months of RMR termination
 - At FERC interest rate
 - Paid over 36 months
 - Payback if return to service within 36-month period

RMR treated like RA/CPM in ISO systems

Key elements of Paradigm Shift

- MOO for RMR resources enables use of market and reliability mechanisms to dispatch resources as needed
- RMR represented in CIRA and presented to ISO systems as reliability capacity
- SIBR RA/CPM bidding rules would apply
 - Major maintenance/opportunity cost adders used, as applicable
 - \$0 bids for RUC
- Bid Cost Recovery to ensure variable cost recovery
- Leverage established settlement process and infrastructure

RMR Compensation

Align with RA/CMP simplicity and incentives

- Fixed costs recovery through CPM style monthly payments
- New charge code for RMR Schedule F define fixed costs
- RAAIM in lieu of hourly availability payment incentive
- RMR variable energy and startup cost recovery through Bid Cost Recovery mechanism
- Market revenues above variable costs subject to credit against Monthly Fixed payment amounts.
- Resource retains RAAIM incentive amounts

Dispatch for Reliability

Maximize Efficiency Utilizing Market Optimization

- RMR will be included in pool of reliability capacity with RA and CPM capacity available to meet reliability needs identified either through market optimization, contingency/voltage analysis or other reliability analysis tools
- RMR dispatch will no longer be identified distinctly with respect to other types of dispatches
- RMR resources will be subject to Exceptional Dispatch without additional compensation as needed for dispatch required and not identified by market optimization or power flow analysis

Settlement, Invoicing and Validation

Maximize Use of Existing Capability

- Use ISO Market Settlement System
- Eliminate RMR owner submitted Excel based invoices
- Eliminate RAVE and manual validation of RMR invoice
- RMR market energy payments and monthly option payment allocated to LSEs subject to default credit risk
 - Energy revenues are subject to a credit of any market revenue amounts above RMR unit variable cost to LSEs or Responsible Utility as applicable
 - New charge code to track credit
- Replace RMR payment calendar/dispute process and use market settlement timeline/dispute process

What validation will look like

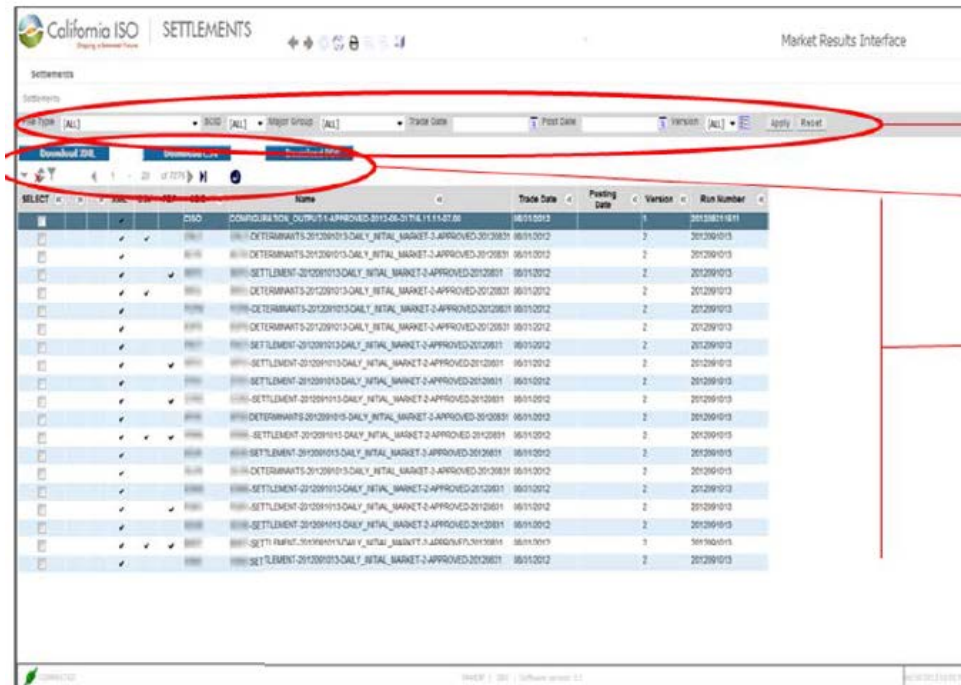
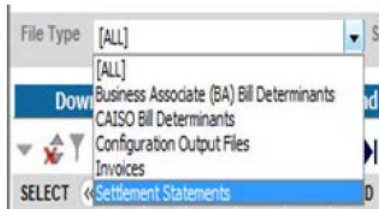
1 Search Parameters

This section contains a set of parameters available for user interaction, to provide an opportunity to limit the output of a report. For example, if a user would like to see the files specific to a trade date, then the specific trade date can be entered in the Trade Date field.

File Type

This parameter is used to narrow down the search based on the file types. The file types available are:

- Business Associate Bill Determinants
- CAISO Bill Determinants
- Configuration Output Files
- Invoices
- Settlements Statements



Search Parameters

Toolbar

Search Results

Information available to validate invoice

MPP Home System Integration Discussions

Applications

-  **AIM** Access and Identity Management
-  **CIDI** Customer Inquiry Dispute and Information
-  **CIRA** Customer Interface for Resource Adequacy
-  **CMRI** Customer Market Results Interface
-  **Master File**
-  **OASIS** Open Access Same-Time Information System
-  **RIMS** Resource Interconnection Management System

Applications below require separate log on

Alerts, Warnings & Emergencies

- [No active notices](#)
- [More...](#)

Market Notices

- 10/22/2018
- [October 2018 Significant Event Capacity Procurement Mechanism Designation Report Posted](#)

Welcome to the California ISO Market Participant Portal,
 the centralized access point for secure applications and business critical information.



Market Operations

[Market Status](#) [Market Event Log](#) [System Operating Messages](#)

Day Ahead Market

Select Trade Date

Bids & Schedules	Inter SC Trades
PUBLISHED	PUBLISHED

Hour Ahead and Real Time Market

Select Trade Date

Hour Ending	Bids & Schedules	Inter SC Trades
15	PUBLISHED	PUBLISHED
16	CLOSE	PUBLISHED
17	OPEN	PRE_CLOSE
18	OPEN	PRE_CLOSE

Meetings and Training Calendar

- Monday, 10/22/2018
-  11:00 AM - 12:00 PM  [Documentation Consolidation for Operating Procedures](#)
 -  2:00 PM - 3:00 PM  [Market Simulation - Fall 2018 Release](#)

What payment calendar will look like



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

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

Timelines are PT (Pacific Time) except as noted

Publish Recalculation Statement T+18M (as T+383B), optional	End of SC Review Period for Incremental Changes T+19M (as T+405B), if applicable	Publish Recalculation Statement T+33M (optional) as T+693B	End of SC Review Period for Incremental Changes T+715B, if applicable	Publish Recalculation Statement T+36M (as T+759B), optional	Publish Weekly Invoice (by bill period)	Weekly Invoice Due by 10:00am for Disbursement at 2:00pm T+4B
06/23/2016	05/23/2016	04/02/2015	03/03/2015	12/26-12/28/2014		
06/24-06/26/2016	05/24/2016	04/03-04/05/2015	03/04/2015	12/29/2014	T+3B Initial: 12/22-12/26/2017, T+33M Recalc: 03/01-03/31/2015	T+3B Initial: 12/18-12/21/2017, T+12B Recalc: 12/04-12/10/2017
06/27/2016	05/25/2016	04/06/2015	03/05/2015	12/30/2014		
06/28/2016	05/26/2016	04/07/2015	03/06-03/08/2015	12/31-01/01/2015, Dec 2014 Monthly		
06/29/2016	05/27-05/30/2016	04/08/2015	03/09/2015	01/02-01/04/2015		
06/30/2016, Jun 2016 Monthly	05/31/2016, May 2016 Monthly	04/09/2015	03/10/2015	01/05/2015		T+3B Initial: 12/22-12/28/2017, T+33M Recalc: 03/01-03/31/2015
07/01-07/04/2016	06/01/2016	04/10-04/12/2015	03/11/2015	01/06/2015	T+3B Initial: 01/01-01/07/2018, T+3B Initial: 12/01-12/31/2017, T+12B Recalc: 12/18-12/21/2017, T+12B Recalc: 12/11-12/17/2017, T+9M Recalc: 03/01-03/31/2017, T+18M Recalc: 06/01-06/30/2016, T+36M Recalc: 12/01-12/31/2014	
07/05/2016	06/02/2016	04/13/2015	03/12/2015	01/07/2015		
07/06/2016	06/03-06/05/2016	04/14/2015	03/13-03/15/2015	01/08/2015		

4h. Allocate flexible RA credits

- Stakeholders and ISO support allocating flexible RA credits from RMR designations
- To qualify for RA flexible credit, an RMR resource must
 - Have an approved Effective Flexible Capacity value that qualifies resource as eligible to provide flexible RA capacity
 - RMR pro forma agreement will specify resource must agree to fulfill RA flexible capacity requirements
- Credits will continue to be allocated as today
- RMR capacity will be taken off the top of the flexible requirement

4i. Lower banking costs

- Current process
 - Requires minimum of two bank accounts for each RMR agreement (more if multi-party)
 - RMR accounts have zero balances at all times since disbursements are made the same day as receipt of payments
- ISO proposes to use ISO's established market clearing account to administer RMR transactions
 - Going forward, all payments from and disbursements to RMR parties will be made from this account
 - RMR funds will still be tracked individually
 - Invoices/payment advices are cleared on specified due dates

There are several advantages of using market clearing bank account

- Reduces costs
 - By using only one bank account instead of multiple accounts (ISO pays fixed fees to maintain each RMR account)
- Minimizes potential bank fraud
 - By using only one account as opposed to multiple accounts
- Reduces administrative burden
 - Each RMR account has to be monitored, reconciled and verified
- Eliminates confusion
 - RMR participants do not have to choose from a list of bank accounts when submitting payments

5. RMR AND CPM DRAFT TARIFF LANGUAGE

RMR/CPM Tariff Revisions Posted on January 23

- Section 43A (CPM)
 - Eliminate CPM Risk of Retirement (43A.2, 43A.2.6, 43A.3.7. 43A.4. 43A.7 43A.9)
 - Recoverable costs above CPM soft offer cap (43A.4.1.1.1)
 - Clarify posting of CPM designation report (43A.6.1)
 - Miscellaneous changes (43A.5.4)

RMR/CPM Tariff Revisions Posted on January 23

- Section 41 (RMR)
 - Retirement/Mothball notification process (41.2.1, 41.2.2)
 - Must Offer Obligation (41.5.1)
 - RAAIM (41.7)
 - RA Crediting (41.8)
 - Cost Allocation (41.9)
 - Other (41.1, 41.3, 41.4, 41.5.2, 41.5.3)
- RMR agreement and other tariff changes targeted for posting on February 15

6. NEXT STEPS

Next Steps

Date	Milestone
Feb 15	Post draft RMR pro forma agreement language and related tariff language
Feb 22	Stakeholder written comments due on draft final proposal
Mar 27-28	Present proposal to Board of Governors

Stakeholders are encouraged to submit written comments by February 22 to initiativecomments@caiso.com; use template available at following link:

http://www.caiso.com/informed/Pages/StakeholderProcesses/Review_ReliabilityMust-Run_CapacityProcurementMechanism.aspx