Reliability Must-Run and Capacity Procurement Mechanism Enhancements Discussion

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The ISO is seeking input from the MSC on the following topics

- Role of Reliability Must-Run Agreements (“RMR”) in ISO market design
- Compensation for RMR resources
  - Including a rate of return in compensation
  - Method for determining a rate of return
  - Paying full cost of service versus going-forward fixed costs
- Whether to have Condition 1 as RMR option
- Bidding rules for RMR resources
- Price for bids above Capacity Procurement Mechanism (“CPM”) Competitive Solicitation Process (“CSP”) soft-offer cap price

The ISO will retain the RMR and CPM procurement mechanisms as they each have specific purposes

- CPM procurement will be used to backstop the RA program
- RMR procurement will be used to address resource retirements
- RMR procurement will be based on full cost of service, as this procurement is mandatory
- CPM procurement is voluntary if a resource has not submitted a bid into the CSP
- If a CSP bid has been submitted and ISO accepts that bid, resource cannot decline the CPM designation

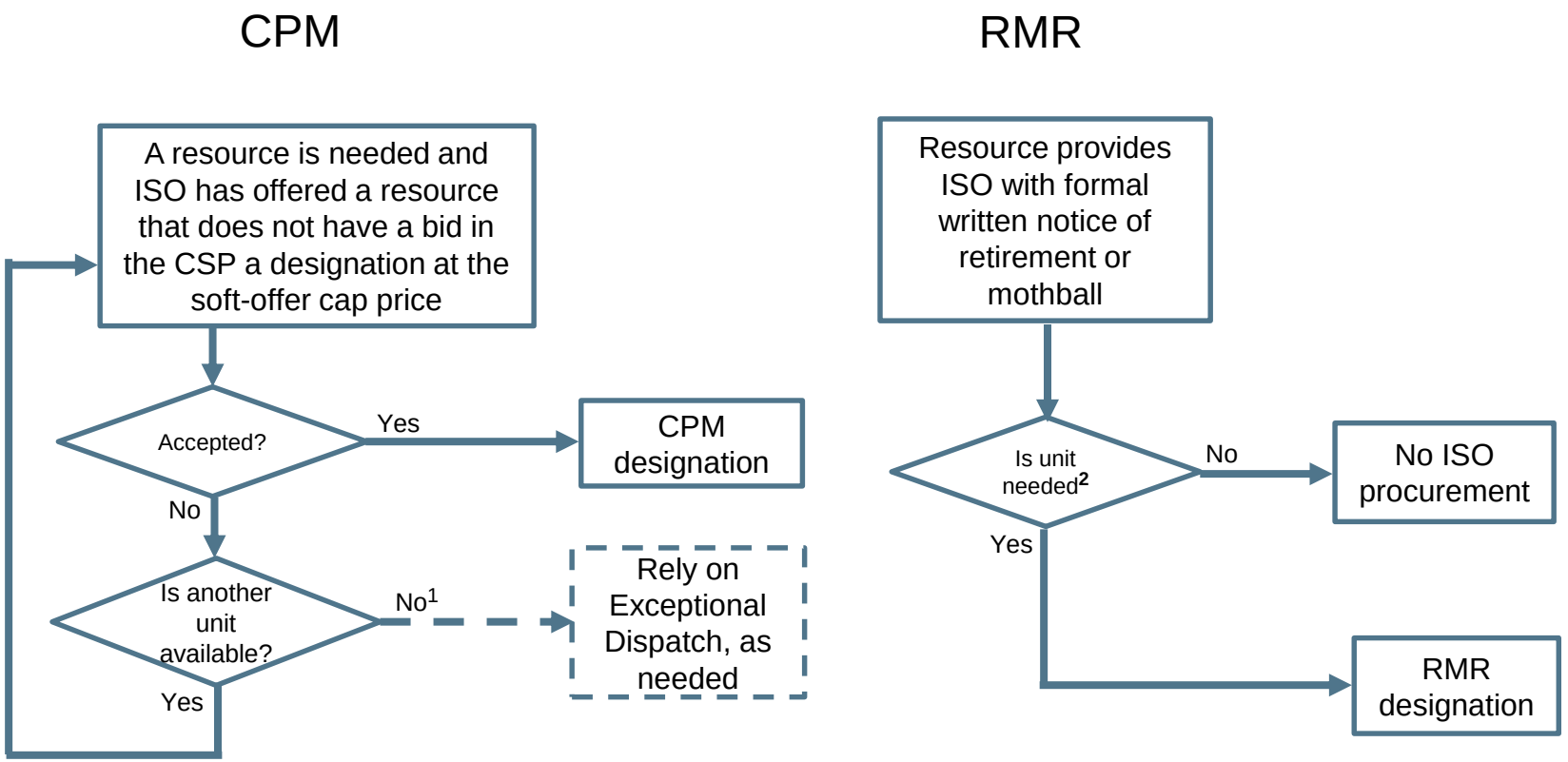
The revised straw proposal considers having both RMR Condition 1 and Condition 2 options

- ISO proposes that the default would be full cost of service agreement where resource would have all of its cost of service paid and must credit back all market revenues earned above its cost of service (Condition 2)
- At ISO's discretion, in limited circumstances, resource may be able to negotiate agreement where resource is not paid its full cost of service and may keep market revenues earned above its cost of service (Condition 1)

Request feedback on whether to retain Condition 1 or simplify and provide only Condition 2

- Design objective is to ensure resources are not incentivized to hold out from RA or CPM procurement for an RMR agreement
  - RMR designed as last resort to extend life of resources slated to retire until a new resource or transmission upgrade is available
  - Therefore, procurement is mandatory and should receive only full cost of service
- Condition 1
  - Provides possibility resource could recover more than full cost of service
  - May provide incentives to select cost recovery method that provides greatest revenue
  - May be useful to help parties reach consensus when negotiating an agreement and avoid lengthy and costly rate case
  - May be circumstances where aligns better with grid needs

RMR versus CPM procurement flow chart



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

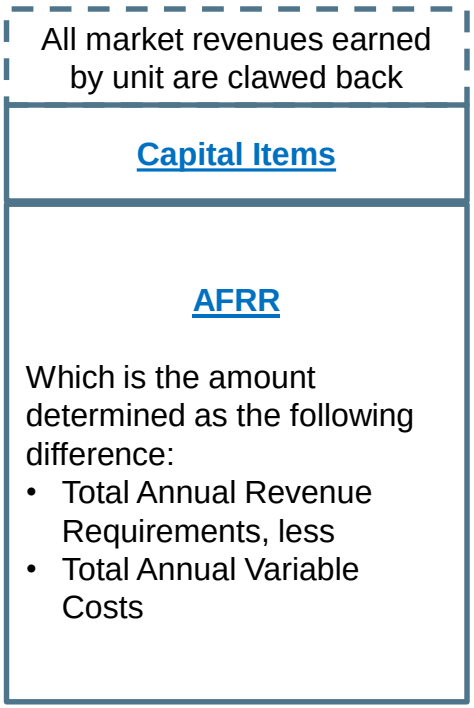
Propose to update the rate of return based on a blend of the rates received by the three CA IOUs

- Proposed rate would replace existing 12.25% rate
- Not proposing additional changes to how rate of return is applied for RMR resources
- Rate may be updated once every four years, similar to schedule for updating CPM soft-offer cap price
- Proposed rate of return will be calculated based on following formula

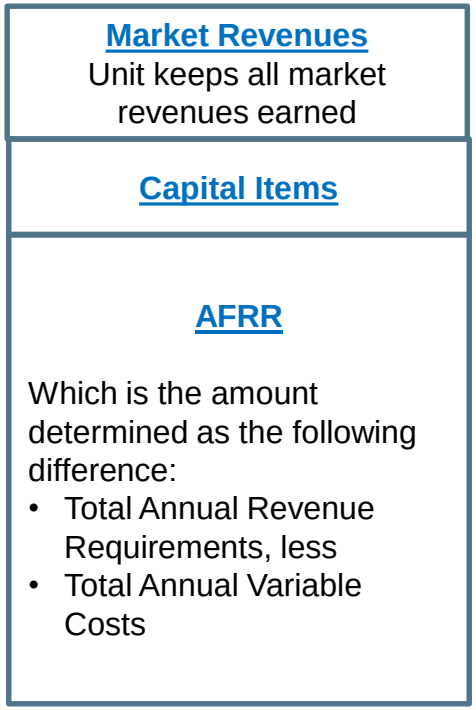
(PG&E rate + SCE rate + SDG&E rate) / 3

RMR Cost of Service Compensation

The ISO is not proposing to change the major components of the RMR compensation structure



Condition 2 RMR Unit – Unit paid 100% of its AFRR



Condition 1 RMR Unit – Unit paid <100% of its AFRR

RMR resources bidding into market will have different bidding requirements depending on their Condition

- Condition 2 resources
  - Paid full cost of service
  - Will submit cost-based bids into energy and Ancillary Services markets
  - All market revenues above variable costs will be clawed back
  - All Residual Unit Commitment (“RUC”) revenues above $0 will be clawed back
  - ISO will insert cost-based bids if bids not inserted by resource
  - May be instructed by ISO to not run
- Condition 1 resources
  - Paid less than full cost of service
  - Will bid into market at market-based bids
  - ISO will insert cost-based bids if bids not submitted by resource
  - May be instructed by ISO to not run

Major Maintenance Adders (“MMAs”), Opportunity Costs, and Bid Cost Recovery (“BCR”) are factored into market optimization for Condition 2 resources

- MMAs and Opportunity Costs, if applicable, will be reflected in bids to ensure true cost of operation is considered in market decisions
  - Actual MMA costs will be compensated as incurred
  - Market revenues from MMAs bid into market will be clawed back to prevent double recovery
  - Market revenues from Opportunity Costs in bids will be clawed back
- Will be eligible for BCR payments when market earnings are insufficient to cover fuel costs

RMR resources will be required to bid into market variable costs, MMAs and Opportunity Costs

Opportunity Costs
Negotiated values that account for lost opportunities from running

Major Maintenance Adders
Negotiated values that approximate historic average maintenance costs

Variable Costs (DEB)
Calculated similar to the DEB with inputs specified in Master File data including:

- Heat rate
- Fuel Costs
- O&M
- GHG Costs
- GMC

- Variable costs are compensated through energy market revenues
- Actual costs of major maintenance are compensated
- Opportunity Costs are not compensated

Propose to change formula for resource that files for a CPM price above soft-offer cap price

- Currently: Can file for cost of service compensation and keep all market revenues earned
  - Some stakeholders are concerned this existing CPM provision provides excessive compensation because market revenues earned above cost of service are not clawed back
- ISO Proposal: Resource can submit bid price above soft-offer cap price based on cost of service compensation set forth in Schedule F of RMR agreement,[1] and the actual price paid will be approved by FERC, and all market revenues earned above that price will be clawed back

[1] Schedule F does not include Capital Items

Price paid for a CPM designation for a resource whose bid price exceeds the soft-offer cap price (#3 below)

Type of Designation	Price used to determine Payment
System monthly System annual Local monthly Local annual Local annual collective deficiency Cumulative flexible monthly Cumulative flexible annual Significant Event Exceptional Dispatch	1. Price bid into CSP – there is a "safe harbor" price at or below the $75.68/kW-year soft-offer cap price 2. If no bid in CSP - ISO may offer resource soft-offer cap price of $75.68/kW-year (and resource can decline designation if it chooses) 3. Resource can submit bid above soft-offer cap price based on cost of service compensation set forth in Schedule F of RMR agreement,[1] and the actual price paid will be approved by FERC, and all market revenues earned above that price will be clawed back

[1] Schedule F does not include Capital Items

A CPM designation for a price above the soft-offer cap price would be for the whole resource

- Resource owner must bid entire resource into CSP
- When considering a CPM designation for such resource ISO would only designate whole resource
- Rule is necessary as it would not be possible to separate out market revenues for a resource that was only partially procured under CPM and paid cost of service
  - Only way clawing back revenues can work is if the ISO designates the entire resource