RDRR Bidding Enhancements

Draft Final Proposal

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1. Executive Summary

The purpose of the Track 2 Draft Final Proposal is to better reflect Reliability Demand Response Resources' (RDRR) operational capabilities in the market. The CAISO continues to propose the enhancements described in the Second Revised Straw Proposal and responds to stakeholder comments. In summary, the CAISO proposes select enhancements to real time bidding for the RDRR by:

- Addressing infeasible RDRR real-time dispatches through a market enhancement, recognizing known RDRR operational capabilities. The CAISO proposes a solution for discrete RDRRs, whereby the CAISO would re-rate the resource's Pmin below the resource's upper economic limit and a formula will be used to represent to the market the resource's minimum load cost. This ensures the resource is not viewed as "free" by the market, which will help ensure feasible dispatches. This automatic adjustment will occur after the day ahead market, and will not require any action from scheduling coordinators.

- Increasing the discrete RDRR registration cap from 50 MW to 100 MW and allowing for exceptions to this cap. Any exception to the cap would require the resource to attest that it cannot be operationally or safely split, that it cannot operate continuously, that it is not an aggregated resource, as well as indicate the source of the load curtailment. This will be reviewed by the CAISO in context of existing market and operational conditions to ensure safety and reliability. The CAISO's previous concerns regarding an imbalance caused by an increase to the RDRR discrete cap are solved with the Pmin re-rate functionality being implemented and will allow for a higher discrete RDRR cap. As a result, this enhancement is contingent on the Pmin re-rate functionality being implemented.

2. Background

On June 24, 2010, in D.10-06-034 the CPUC approved a multi-party settlement in its demand response proceeding (R.07-01-041) that required investor-owned utilities to transition their CPUC-approved retail emergency-triggered demand response programs into a CAISO reliability demand response product.[1] The settlement specified the minimum operating and technical requirements for retail emergency-triggered demand response resources. The CPUC settlement also required these resources be made available for emergency operating procedures. While previously emergency demand response, like RDRR, were triggered under a "Warning" notice it will now be referred to as an "EEA 2". [2]

[1] Details on the CPUC Reliability-Based Demand Response Settlement are available at https://docs.cpuc.ca.gov/publishedDocs/published/Graphics/119817.PDF and https://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/119815.PDF

[2] The CAISO's Operating Procedure 4420 outlines when RDRR can be enabled into the market http://www.caiso.com/Documents/4420.pdf

Consistent with the terms of the CPUC settlement, the CAISO developed the RDRR product. On October 26, 2010, the CAISO Board of Governors authorized the RDRR product. The Board of Governors memorandum approving the RDRR product specifically noted that it would enable the CAISO "to dispatch these emergency-triggered programs when and where they are needed and, appropriately, reflect their value in the [CA]ISO market."[3]

Fast forward ten years to the August 2020 load shedding events, the Final Root Cause Analysis of these events found that RDRRs were manually dispatched out of market by the CAISO system operators versus through the "market" as originally envisioned.[4] As a result, in its 2021 Summer Readiness initiative, the CAISO modified its tariff to dispatch RDRRs in the real-time pre dispatch (RTPD) market run so that RDRRs could be more optimally dispatched through the market provided they have a longer dispatch horizon. Additionally, the CAISO updated its tariff to allow RDRRs to register as 5-, 15-, or 60-minute dispatchable resources to better elect and reflect an RDRR's operating parameters. Resources registered as 15-minute dispatchable are allowed to set the marginal energy price in the fifteen-minute market. Resources registered as 5- minute dispatchable are allowed to set the marginal energy price in RTD. These changes were accomplished by reflecting discrete RDRRs as discrete in the scheduling run, but treating them as continuous in the pricing run. Continuous RDRR's bid curve submitted by the scheduling and pricing runs allows RDRR to set the price. RDRRs registered as 60-minute dispatchable that clears in the hour-ahead scheduling process (HASP) will receive a fifteen-minute market schedule and settle at the corresponding locational marginal price during each fifteen-minute market interval like all other HASP eligible resources.

3. RDRR Bidding Enhancements Draft Final Proposal

3.1 RDRR "Infeasible Dispatch" Issue

The CAISO in its Summer Readiness initiative modified its tariff to dispatch RDRRs in Real Time Pre-Dispatch (RTPD) so they could be optimally dispatched within a longer time horizon to increase the efficiency of the market dispatch. Market dispatch is impacted by the Pmin registration of a RDRR coupled with its minimum load costs. If the Pmin of a RDRR is set at zero, the resource can also be committed as a zero cost resource at Pmin which could result in dispatch instructions that toggle between Pmin to their upper economic limit and back to Pmin multiple times under a single start-up instruction. Any movement to a Pmin of zero may appear as a shut down to the RDRR thus producing an "infeasible" instruction for the resource. From the CAISO's perspective, a resource with zero Pmin is considered to be on-line, even at zero, unless it operates at zero for the entire period. While this infeasible dispatch was possible prior to Summer Readiness, with the move to make RDRR dispatched by the market more often, stakeholders raised concerns that the infeasible dispatch could occur more frequently.

This initiative started by examining minimum load costs as a means of correcting the issue that RDRRs are receiving real time dispatches that may be infeasible, not from a market perspective

[3] The CAISO Memorandum. Decision on the Reliability Demand Response Product. October 26, 2010. http://www.caiso.com/Documents/101101DecisiononReliabilityDemandResponseProduct-Memo.pdf
[4] Final Root Cause Analysis: Mid-August 2020 Extreme Heat Wave, January 13, 2021, available at: http://www.caiso.com/Documents/Final-Root-Cause-Analysis-Mid-August-2020-Extreme-Heat-Wave.pdf

but from the perspective of a resource. The CAISO's hypothesis was that allowing resources to represent their minimum load cost could enable resources that have also represented the operational capabilities of their resource as their Pmin near their Pmax, to receive compensation and appropriate dispatch. However, the CAISO has observed that RDRR bids are not cost based and the retail tariffs underpinning RDRR do not incorporate the concept of minimum load or a Pmin.

This enhancement has pivoted to focus on the infeasible dispatch issue and developing the functionality to recognize RDRRs operational capabilities. The CAISO proposed a solution for discrete RDRRs, whereby the CAISO would re-rate the resource's Pmin below the resource's upper economic limit and a formula will be used to represent to the market the resource's minimum load cost. This is to ensure that the resource is not viewed as "free" by the market, thus preventing a real time infeasible dispatch from occurring.

Stakeholder Feedback

Stakeholder feedback on the Second Revised Straw Proposal fell into three categories: support, requests for cost representation, and implementation timeline feedback.

1. **Support:** CEDMC, PG&E, and SCE generally supported the enhancement.
2. **Requests for cost representation**:

   SCE, DMM, and CLECA all suggested that minimum load costs be included. SCE reiterated their prior comments, recommended that minimum load costs should be 95% of the applicable Soft Energy Bid Cap of $1,000/MWh, and when conditions are satisfied at least 95% of the applicable Hard Energy Bid Cap of $2,000/MWh. SCE believes this approach is consistent with the RDRR settlement agreement, Decision ("D.") 10-06-034, which states "CAISO dispatch of RDRP ("RDRR") will recognize that participating customers have a high "strike price" that is well above the running cost of conventional supply-side resources". RDRRs and their costs are defined by their program tariffs and the settlement agreement.

   DMM suggested that RDRRs should be able to specify minimum load costs as well as an accurate, resource-specific Pmin. DMM acknowledges CAISO's argument that RDRR lacks a minimum load, but contends that the current RDRR pool may not reflect the future of RDRRs which may have a minimum operating level. DMM also agrees that for many scheduling coordinators, RDRR bids are frequently not driven by cost. However, DMM suggests that if scheduling coordinators were to attempt better aligning RDRR bids with actual costs of dispatching the RDRR program, and if CAISO developed a framework to accept such bids, it may support more efficient market outcomes in the day-ahead market and in real-time emergency situations.

3. **Implementation timeline feedback:** SCE urged CAISO to prioritize Track 2 for implementation in early summer 2022. PG&E recommends an updated implementation timeline and would like to be able to count these resources on their supply play for 2023.

Response to Stakeholder Feedback:

Based on consideration of all of these comments, the CAISO proposes to maintain its current approach to automatically re-rate the Pmin and input a default minimum load cost. This would be automatic and compatible with all discrete RDRR bidding options (5, 15, or 60-minute dispatch options). This will enable the market to commit discrete RDRRs like a generator with a non-zero Pmin and recognize that the resource is not "free" from a startup perspective. The CAISO acknowledges SCE, DMM, and CLECA's concern that the approach does not consider minimum load costs. However, based on the RDRR settlement agreement and program design, the CAISO observes RDRR retail tariffs do not have the concept of minimum load and the bids are not cost based. As a result, the CAISO does not plan to include minimum load costs for RDRR. Further, CAISO acknowledges PG&E and SCE's implementation timeline recommendations, and clarifies this enhancement is currently projected to be implemented fall 2022.

Requests for cost representation:

DMM, CLECA, and SCE all recommended the inclusion of minimum load costs for RDRRs. The minimum load cost is the "$/hour" for a resource to operate and provide energy at its minimum load. For a generator, minimum load (Pmin) is the generator's minimum sustained operating level at which it can operate continuously.

However, the CAISO observes the CPUC retail tariffs that participate in CAISO's market as RDRR do not have the concept of minimum load. Rather these resources operate as either fully on or off. The Base Interruptible Program for SCE[5], PG&E[6], and SDG&E[7]-- which participate as RDRR—require resources to reduce load to their designated "Firm Service Level" which is a single operating level. The other programs that participate as RDRR, include two interruptible load programs at SCE. These programs do not have a minimum or maximum operating range, only the quantity of interruptible load. This applies to two of SCE programs:

- Agricultural and Pumping Interruptible (API)[8] specifies that a load control device will interrupt the total load serviced under the customer's OAT.

[5] SCE TOU-BIP Tariff. D. 21-03-056. Advice 4377-E-A. Effective Feb 1, 2021. https://edisonintl.sharepoint.com/teams/Public/TM2/Shared%20Documents/Forms/AllItems.aspx?id=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20Tariff%20Books%2FElectric%2FSchedules%2FGeneral%20Service%20%26%20Industrial%20Rates%2FELECTRIC%5FSCHEDULES%5FTOU%2DBIP%2Epdf&parent=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20Tariff%20Books%2FElectric%2FSchedules%2FGeneral%20Service%20%26%20Industrial%20Rates

[6] PG&E BIP Tariff. D. 21-03-056. Advice 6167-E. Effective May 1, 2021. https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_E-BIP.pdf

[7] SDG&E BIP Tariff. D. 17-12-003. Advice 3176-E. Effective January 22, 2019. https://www.sdge.com/sites/default/files/elec_elec-scheds_bip.pdf

[8] SCE AP-I Tariff. D. 21-03-056. Advice 4476-E. Effective April 22, 2021. https://edisonintl.sharepoint.com/teams/Public/TM2/Shared%20Documents/Forms/AllItems.aspx?id=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20T

- Domestic Summer Discount Plan (SDP)[9] indicates the load control device will disconnect a portion of the customer's air conditioning electrical load.

These tariffs highlight that the underlying programs participating in CAISO's market as RDRR do not have the concept of minimum load.

In addition, RDRR bids are not cost-based, but are a reflection of their program tariffs and the RDRR settlement agreement.[10] The RDRR settlement agreement, Decision ("D.") 10-06-034, clarifies, RDRRs bids are not price responsive but will be economically dispatched once triggered and "CAISO dispatch of RDRP will recognize that participating customers have a high "strike price" that is well above the running cost of conventional supply-side resources". This is also bolstered by SCE's comments, who stated RDRRs and their costs are defined by their program tariffs and the settlement agreement[11]. The Council observed that it would be "highly impractical" to reflect minim load costs on the basis that the customers enrolled in most RDRRs have a wide array of opportunity costs and they can change frequently. [12]

In contrast, DMM suggests the CAISO could see more efficient market outcomes if a new pool of RDRR was designed with minimum load, if scheduling coordinators were to attempt better aligning RDRR bids with actual costs of dispatching the RDRR program, and if CAISO developed a framework to accept such bids. The CAISO agrees in principle; however, these suggestions would redesign RDRRs and move away from the intent of the existing settlement agreement.

Without cost-based bids or a minimum operating level, the CAISO does not plan to pursue representing minimum load costs. The CAISO also notes that it already has an economic model for demand response: the Proxy Demand Resource (PDR). Were the CAISO to redesign RDRRs as cost-based resources, it is likely the RDRR model would overlap entirely with the PDR model.

Implementation Timeline Feedback:

In response to SCE and PG&E's implementation timeline concerns, the CAISO anticipates that the Track 2 enhancements in their current form are feasible to implement by fall 2022. The

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ariff%20Books%2FElectric%2FSchedules%2FAgricultural%20and%20Pumping%20Rates%2FELECTRIC%5FSCHEDULES%5FAP%5F%2D%5FI%5F%2Epdf&parent=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20Tariff%20Books%2FElectric%2FSchedules%2FAgricultural%20and%20Pumping%20Rates

[9] SCE D-SDP Tariff. D. 21-03-056. Advice 4507-E. Effective June 1, 2021. https://edisonintl.sharepoint.com/teams/Public/TM2/Shared%20Documents/Forms/AllItems.aspx?id=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20Tariff%20Books%2FElectric%2FSchedules%2FResidential%20Rates%2FELECTRIC%5FSCHEDULES%5FD%2DSDP%2Epdf&parent=%2Fteams%2FPublic%2FTM2%2FShared%20Documents%2FPublic%2FRegulatory%2FTariff%2DSCE%20Tariff%20Books%2FElectric%2FSchedules%2FResidential%20Rates

[10] Details on the CPUC Reliability-Based Demand Response Settlement are available at https://docs.cpuc.ca.gov/publishedDocs/published/Graphics/119817.PDF and https://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/119815.PDF

[11] SCE RDRR Bidding Enhancements Comments. Issue Paper Straw Proposal. file://homefiles/home/agilbert/profile/Downloads/sce%20rdrrbe%20comments%20straw%20(13).pdf

[12] California Efficiency + Demand management Council Comments. February 15, 2022. https://stakeholdercenter.caiso.com/Comments/AllComments/cbce46b3-765f-4b00-a2fe-fddeaefca673 .

CAISO observes this meets PG&E's request of fall 2022 implementation to enable PG&E to put their demand response resources on resource adequacy (RA) supply plans for RA year 2023. However, this will not meet SCE's request for a summer 2022 implementation timeline. The CAISO's implementation timeline is a function of how developed and supported a given proposal is to kick off internal IT processes to scope the enhancements, competing implementation priorities with other enhancements, regulatory timelines for approval, and time needed for all market participants to test new bidding functionality.

Proposal:

The CAISO is continuing to propose adjusting discrete RDRRs operating range to reflect operational capabilities by re-rating their Pmin just below the RDRRs upper economic limit. This enhancement is intended to prevent an infeasible dispatch (e.g., movement up and down between the upper economic limit of the bid and a 0MW Pmin) of discrete RDRRs from occurring as a result of the resource appearing free as well as limitations in the current discrete dispatch functionality. In this proposed solution, while there would still be movement between the upper economic limit to the re-rated Pmin, the difference would be small enough to be negligible. This fully solves the infeasible dispatch issue but creates an issue where the resource appears to be very cheap (free) for a large number of MW. To solve that issue, the CAISO plans to calculate a minimum load cost adder based on the bid.

The process will use the CAISO's systems and will not require additional action on behalf of the participant:

1. For resources without day ahead schedules, the CAISO will set the minimum operating limit to a value just below the upper economic limit of the bid (i.e., the maximum megawatt limit of the bid), using existing Pmin-rerate functionality
2. The CAISO will add the value of the product of (bid price)*(upper economic limit) to the existing minimum load cost

This proposed solution, to automatically re-rate the Pmin and input a default minimum load cost, would be automatic and compatible with all discrete RDRR bidding options (5, 15, or 60-minute dispatch options). This will enable the market to commit discrete RDRRs like a generator with a non-zero Pmin and recognize that the resource is not "free" from a startup perspective. The market would then publish the Pmin re-rate and minimum load cost to pre-settlement systems for Bid Cost Recovery purposes. Mirroring RDRR's current BCR eligibility, only 5-minute and 15-minue RDRRs will be eligible for BCR.

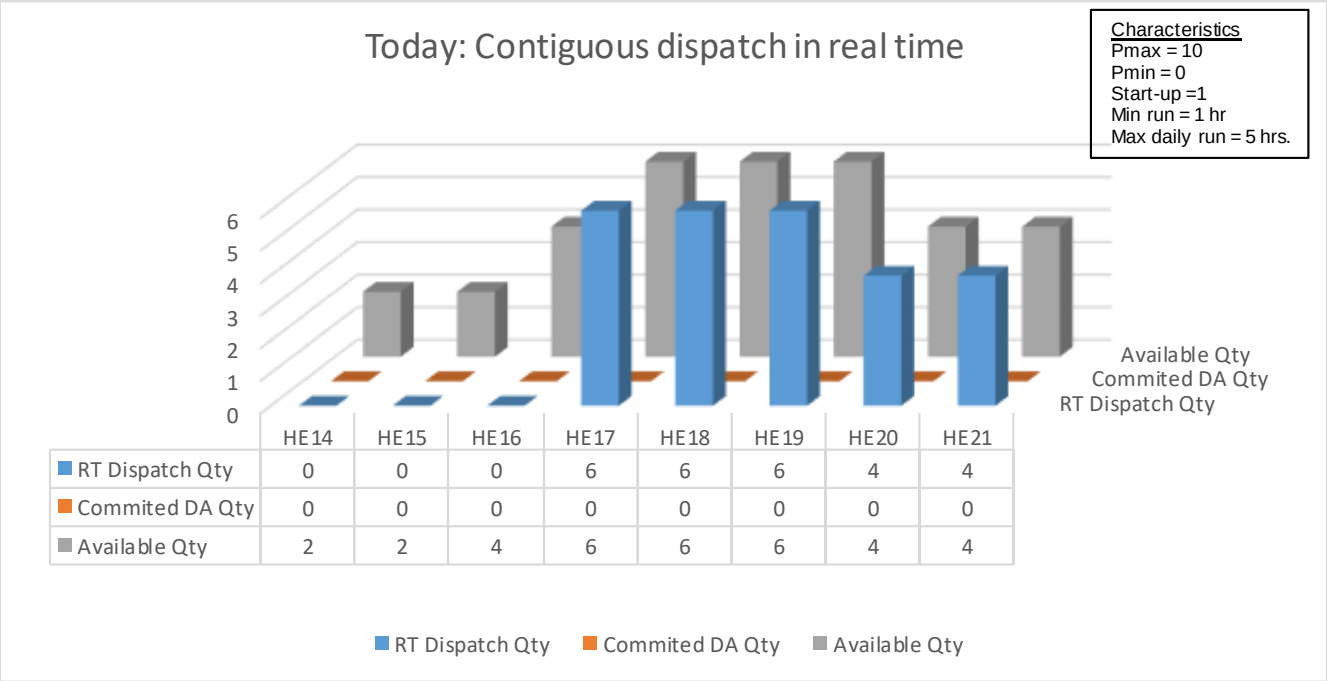
Examples:

Example A: State of the world today

Figure 1 and 2 below illustrate the situation RDRRs face today where in real time they can be dispatched either contiguously or non-contiguously (also referred to as "infeasible" by market participants).

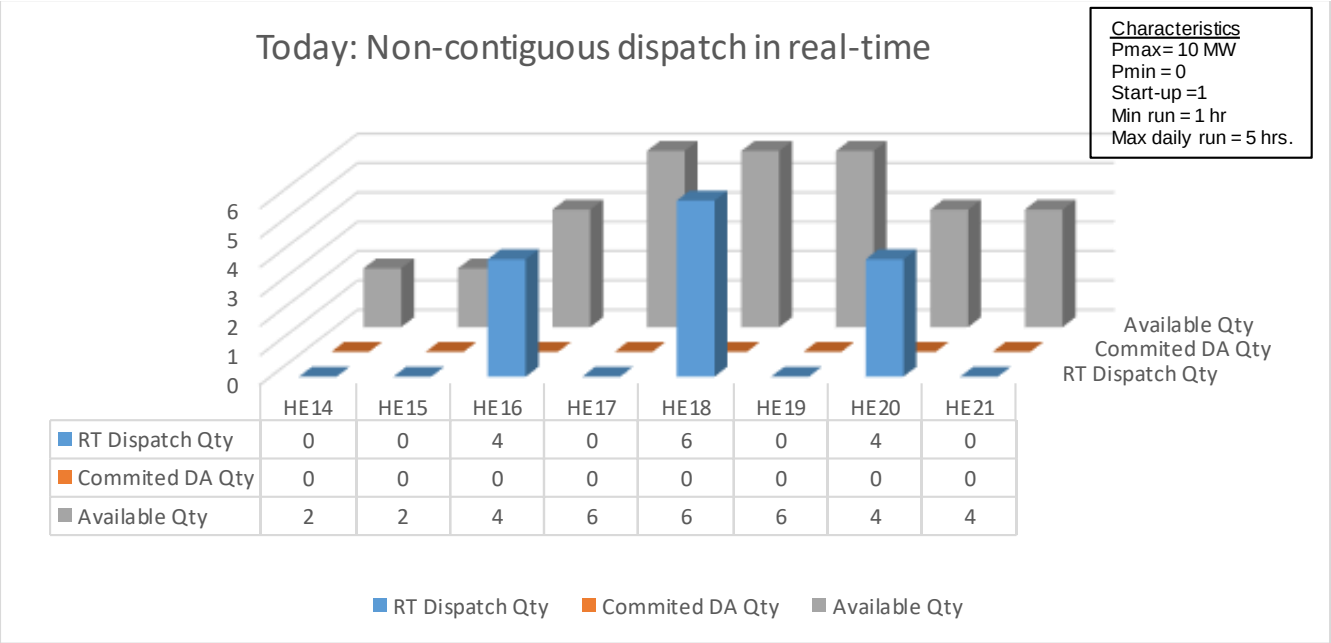
Figure 1 and Figure 2 represent a resource with a Pmax of ten, Pmin of zero, a daily number of start-ups of one, a minimum runtime of one hour, and a maximum daily run time of five hours. Both figures demonstrate how the CAISO's optimization views both scenarios as respecting the max daily run time parameter. In general, a resource with zero Pmin and zero commitment costs will be considered on-line, even at zero, unless at zero for the entire period. In Figure 1 the resource is dispatched at HE 17 and contiguously on for five hours, which respects the max run time parameter. In Figure 2, the resource is dispatched starting in HE 16 and is moved between its upper economic limit and Pmin over the course of five hours and is an example of also respecting the max daily run time parameter.

Figure 1: Contiguous dispatch in the real-time market



	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21
RT Dispatch Qty	0	0	0	6	6	6	4	4
Commited DA Qty	0	0	0	0	0	0	0	0
Available Qty	2	2	4	6	6	6	4	4

Figure 2: Non-contiguous dispatch in the real-time market



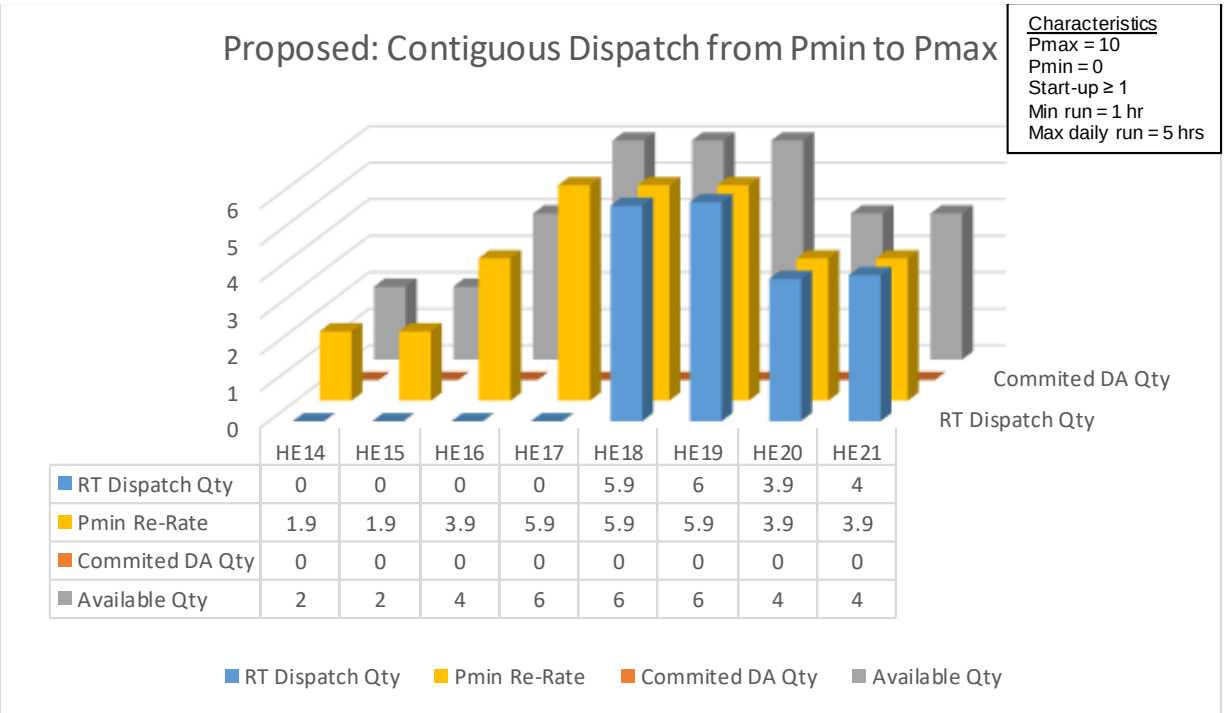
Example B: Proposed solution

This example demonstrates how the CAISO's proposed solution of a Pmin re-rate and value for minimum load cost help resolve the infeasible dispatch issue. In this example the RDRR has a Pmax of ten, Pmin of zero, a daily number of start ups of one, a minimum runtime of one hour, a maximum daily run time of five hours, and a minimum load cost of zero. The resource has submitted real time bids for $950 for all real time intervals. The resource does not have any day ahead awards. As a result, the CAISO will automatically:

- Re-rate the minimum operating level (Pmin, reflected as the yellow bar in Figure 3) to below the upper economic limit (bid, reflected as the grey bar in Figure 3). As a result, the market will now view the re-rated Pmin as the resources Pmin in real time.
- Set the minimum load cost to ($950/MWh) * (5.9 MW) = $5,605/hour. The CAISO will consider this value the resource's commitment costs.

If committed the resource could be dispatched to 5.9 MW (re-rated Pmin) or 6 MW (bid). If we look at a single interval, in HE 18 when the resource is dispatched to 5.9 MW, their minimum operating limit of 5.9 MW and minimum load cost of $5,605/hour will be eligible for Bid Cost Recovery consideration if the resource is short over the course of the day.

Figure 3: Pmin re-rate and value for minimum load cost



	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21
RT Dispatch Qty	0	0	0	0	5.9	6	3.9	4
Pmin Re-Rate	1.9	1.9	3.9	5.9	5.9	5.9	3.9	3.9
Commited DA Qty	0	0	0	0	0	0	0	0
Available Qty	2	2	4	6	6	6	4	4

3.2 RDRR Registration

RDRRs may register as either continuous or discrete, depending on their abilities. Discrete registration indicates the resource has one bid segment and when dispatched will generate to its Pmax. Continuous (non-discrete) registration indicates that a resource can operate anywhere between its Pmin and Pmax, based on the cleared bid quantity. The CAISO currently has a 50 MW cap on discrete RDRR, and it may only participate in the real time market. There is no cap on the size of an RDRR that is registered as continuous. Continuous RDRR may participate economically in the day ahead market. The designation in the CAISO's Masterfile as continuous or discrete may be updated once per RDRR season.[13] It is a product of the RDRR settlement agreement that the CAISO allows RDRR to bid as a discrete resource. In general, blocky discrete resources do not promote efficient market outcomes—discrete bidding is an exception afforded to RDRRs and the constrained output generator (COG) model.

The current discrete RDRR cap exists to mitigate the discrete-to-continuous treatment. As described in the Market Enhancements for Summer 2021, the move towards minimizing exceptional dispatch of RDRRs and increasing the market dispatch included making changes to allow 15-minutue and 5-minute dispatchable discrete RDRR to set market prices. To allow

[13] A season is a six month period (summer and winter). Once selected, the status shall be maintained throughout the season.

discrete resources to set the prices, the CAISO reflects these resources as discrete in the scheduling run, but treats them continuous in the pricing run.[14]

Every resource that uses the discrete option it has to potential to create an imbalance. For example, the market may need to dispatch a resource at 25MW when in reality the resource can be at 50MW. The delta creates an inconsistency in the market which will drive some pricing problems and can also create an imbalance between what the market does and what the actual system sees. When this results in an imbalance (*i.e.*, energy generated does not equal energy consumed), area control error (ACE) could increase or decrease from zero, which can result in frequency deviations. If a discrete-continuous imbalance occurs it has to be absorbed in the CAISO's system through ACE or regulation. Larger impacts would require the CAISO to procure more regulation or take actions outside of the market more frequently.[15]

From a pricing perspective, when a discrete resource sets prices in the pricing run it will most often set a higher price than the price that the final and most expensive continuous resource dispatched in the scheduling run would have set. Coupled with a $0/hr min load cost, any final continuous resources in the bid stack will be dispatched to a point on their bid curve where their bid cost is less than the price set by the discrete resource. Thus the final continuous resource, whose costs are less than the price they could receive from the market have an incentive to deviate from dispatch instruction. The delta creates an inconsistency in the market which will drive some pricing problems and can also create an imbalance between what the market does and what the actual system sees.

Stakeholder Feedback

The CAISO solicited feedback from stakeholders on CAISO's updated proposal to increase the RDRR bid cap from 50 MW to 100 MW. SCE, CLECA, and The Council all supported the proposal. SCE and CLECA both requested additional criteria CAISO would use when reviewing Master File exceptions to the 100 MW cap. DMM cautioned that the increase to the cap and the interaction with the Pmin re-rate may lock CAISO into one approach of reflecting a non-zero minimum load that may not be well suited for all resources. DMM further suggested that if CAISO implemented a more general approach of reflecting RDRR Pmin and minimum load costs that there could be detrimental impacts with increasing the discreteRDRR bid cap.

Response to Stakeholders:

In response to SCE and CLECA's request for clarification on the criteria for registering RDRRs above 100 MW in the Master File, the CAISO clarifies it will require any discrete RDRR seeking

[14] Market Enhancements for Summer 2021 Readiness Final Proposal, California ISO, March 19, 2021, p. 33: http://www.caiso.com/InitiativeDocuments/FinalProposal-MarketEnhancements-Summer2021Readiness.pdf

[15] Such actions could include load conformance, which refers to the process of updating the load forecast to account for observed system conditions.

to register above 100MW to submit an affidavit as a part of the Master File registration process that attests:

- The RDRR resource is located at a single site;
- The RDRR load cannot be safely or operationally split;
- The RDRR does not have the ability to operate continuously based on the source of load providing curtailment; and
- To the type of load or technology providing load curtailment during RDRR events.

This affidavit and any supporting information would be reviewed by the CAISO to determine if there is potential for detrimental market or operational impacts associated with allowing these resources to register above the 100 MW cap. For example, if the load size was large enough to cause material operational impacts when coming back online after the load curtailment period ended, it would cause concern for CAISO to approve a resource. The CAISO proposes that resources would need to apply for these Master File exceptions annually, to ensure that future system conditions do not create market or operational challenges. Additional details may be established during the implementation phase of the initiative.

Proposal:

As stated in the Second Revised Straw Proposal, the CAISO observes that the imbalance issue identified as a challenge with increasing the cap is mitigated if the Pmin re-rate functionality is implemented. This is because the Pmin re-rate changes what the pricing run sees as available and eliminates the imbalance between the pricing run and scheduling run. So for example when previously a resource was hypothetically seen in the pricing run as operating as continuously and dispatched at 5 MW when it was actually 50 MW in size, a 45 MW imbalance could occur. However, with the Pmin re-rate functionality, the pricing run will see the resource as 49.9 MW and as 50MW in the scheduling run producing a possible imbalance of 0.1 MW.

In light of the Pmin re-rate functionality mitigating the discrete to continuous imbalance, the CAISO continues to propose to double the cap by increasing it to 100 MW. Additionally, in light of the mitigating measures produced by the Pmin re-rate functionality, the increase to the discrete cap is conditional on the Pmin re-rate functionality being implemented. The CAISO has restricted it to 100 MW in light of operational challenges with load fluctuations with resources coming back online.

4. Western Energy Imbalance Market (WEIM) Governing Body Role

This initiative proposes changes in the representation of discrete RDRR to the CAISO market. The CAISO staff believes that the WEIM Governing Body has joint authority with the Board of Governors over each of these elements.

The role of the WEIM Governing Body with respect to policy initiatives changed on September 23, 2021, when the Board of Governors adopted revisions to the corporate bylaws and the Charter for WEIM Governance to implement the Governance Review Committee's Part Two Proposal. Under the new rules, the Board and the WEIM Governing Body have joint authority over any proposal to change or establish any CAISO tariff rule(s) applicable to the WEIM Entity balancing authority areas, WEIM Entities, or other market participants within the WEIM Entity balancing authority areas, in their capacity as participants in EIM. This scope excludes from joint authority, without limitation, any proposals to change or establish tariff rule(s) applicable only to the CAISO balancing authority area or to the CAISO-controlled grid. Charter for WEIM Governance § 2.2.1.

The tariff changes to implement the elements of this initiative would be "applicable to EIM Entity balancing authority areas, EIM Entities, or other market participants within EIM Entity balancing authority areas, in their capacity as participants in EIM." WEIM balancing authority areas may use the RDRR model assuming they have approval from their local regulatory authority and meet the requirements of RDRR participation. Accordingly, the proposed changes to the RDRR model fall within the scope of joint authority.

This proposed classification reflects the current state the initiative and could change as the stakeholder process moves ahead. The CAISO did receive comments from PG&E regarding this misalignment with the current BPM language. The CAISO plans to update the RDRR BPM to align with this WEIM governing body role during the implementation phase.

5. Stakeholder Engagement Plan

Date	Track 2 Milestone
3/11/2022	**Publish draft final proposal**
3/16/20222	Stakeholder conference call on draft final proposal
3/25/2022	Stakeholder comments due on draft final proposal
4/12/2022	**Publish final proposal an draft tariff language**
4/18/2022	Stakeholder conference call on final proposal an draft tariff language
4/28/2022	Comments due on final proposal an draft tariff language
5/10/2022	**Present RDRR Bidding Enhancements to WEIM Governing Body**
5/12/2022	**Present RDRR Bidding Enhancements to CAISO Board**

6. Next Steps

In this Draft Final Proposal, the CAISO has tried to capture and describe the open issues stakeholders want resolved and the enhancements stakeholders would like to see made to the CAISO RDRR model. The CAISO will hold a stakeholder call on March 16, 2022 to review the draft final proposal and seek clarity on the issues or enhancements that stakeholders believe were not fully addressed or captured. The CAISO encourages all stakeholders to submit comments on the second revised straw proposal by March 25, 2022.