Extended
Short-Term Unit Commitment

Draft Final Proposal

June 13, 2018

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Extended STUC
Draft Final Proposal

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1. Purpose

The purpose of this initiative is to extend the time horizon of the real-time market's short-term unit commitment (STUC) process. The short-term unit commitment is one of the two resource commitment processes in the real-time market and is currently used to optimize short and medium-start resource commitments. The CAISO proposes to extend its horizon to 18 hours from the current 4.5 hours.

An extended STUC horizon will enable the real-time market to recognize all load peaks including the morning, afternoon, and evening peak. This will allow the real-time market to more efficiently optimize its resource dispatch over the entire day, including accounting for incremental needs between the day-ahead market and the real-time market. The CAISO proposes to implement the extended STUC horizon while also having the day-ahead market issue binding start-up instructions to the same set of resources that it currently does.

The purpose of the STUC modifications is to provide earlier notification to resources that are needed to meet the evening peak, which increases the probability these resources will be available, and better optimize the use of resources with limited starts over the entire day. These changes will increase market efficiency and reliability by better equipping the real-time market to meet system needs.

1.1. Changes to Proposal

This section summarizes the changes to the May 15, 2018 issue/straw proposal. Based on stakeholder feedback, the CAISO changed the following, which are related to the EIM:

- EIM base schedule and bid submission will be voluntary; it will no longer be a requirement.
- EIM transfer limits will be automatically set to 0 MW for the extended STUC horizon (T-4.5 hours to T-18 hours). This will prohibit the commitment of a long-start resource in one EIM balancing area to serve load in another EIM balancing area.

Section 3.4 discusses these changes in greater detail.

1.2. Background

Market Process Overview

The CAISO's real-time market commits resources using the security constrained unit commitment (SCUC). SCUC is the algorithm used for the CAISO's market processes to determine commitments while minimizing costs and respecting physical characteristics and transmission constraints. The two real-time security constrained unit commitment processes are:

Short-Term Unit Commitment (STUC) = The unit commitment procedure runs at approximately 52.5 minutes prior to the applicable trading hour to commit medium-start units within the STUC forward looking time period [currently 4.5 hours]. The STUC produces a unit commitment solution for every 15-minute interval within the STUC forward-looking time periods and issues binding start-up instructions based on resources' start-up times.

Real-Time Unit Commitment (RTUC) = An application of the real-time market that runs every 15 minutes and commits short-start units and medium-start units using the SCUC.

The **security constrained economic dispatch** (SCED) will clear supply against the demand forecast to determine dispatch instructions and financially binding schedules. The two real-time market components that issue dispatch instructions and financially binding schedules using the SCED are:

Fifteen-Minute Market (FMM) = The security constrained economic dispatch used by the CAISO on a 15-minute basis as a part of the RTUC process to determine 15-minute settlements and clear bids for energy and ancillary services.

Real-Time Dispatch (RTD) = The security constrained economic dispatch used by the CAISO on a 5-minute basis to calculate LMPs and determine which ancillary service and imbalance energy resources to dispatch.

Each market run uses information based on commitments from the previous market run. Therefore, the STUC uses binding commitments from the day-ahead market in its optimization. STUC analyzes existing binding commitments, real-time bids, and the current demand forecast in its market re-optimization. If it recognizes the need to change commitments, or it can more economically achieve the necessary solution, it will commit or de-commit resources with a start-up or shut-down time within its horizon. Based on the existing STUC horizon of 4.5 hours, short and medium start resources can be re-optimized and committed or de-committed by STUC.

STUC Overview

The short-term unit commitment (STUC) process is part of the real-time market and uses available resources to optimally meet system needs, committing short and medium-start units to meet the demand forecast.

The existing STUC horizon spans four and a half hours. It uses its security constrained unit commitment optimization to meet forecast demand. This enables the market to recognize real-time system conditions based on bid-in supply to commit or de-commit additional resources if necessary prior to the start of the fifteen-minute market or real-time dispatch.

Based on its current horizon, STUC achieves its re-optimization using "short-start" and "medium-start" resources. This is due to the synchronization time of longer start resources; if a "long-start" or "extremely long-start" resource receives a commitment in the day-ahead market, the STUC will not have adequate time in its horizon to change the commitment of the resource.

> **Short-Start** = A generating unit that has a cycle time less than five hours (start-up time plus minimum run time is less than five hours), has a start-up time less than two hours, and can be fully optimized with respect to this cycle time.
>
> **Medium-Start** = A generating unit that requires between two and five hours to start-up and synchronize to the grid.
>
> **Long-Start** = A generating unit that requires between five and 18 hours to start-up and synchronize to the grid.
>
> **Extremely Long-Start Resource (ELS Resource)** = A generating unit that has a start-up time greater than 18 hours or a system resource that is either: 1) a non-resource specific system resource with contractual limitations that require the energy to be transacted (i.e., committed) prior to the publishing time of the day-ahead market results (1300 hours on the day before the trading day) or 2) a resource-specific system resource that has a start-up time greater than 18 hours.[1]

If a long or extremely long-start resource receives an award in the day-ahead market, either from the integrated forward market (IFM) or the residual unit commitment process (RUC), it is informally referred to as a "RUC Binding" award.[2] This phrase refers to the fact that resource's commitment cannot change

[1] Definitions are located in Appendix A – Master Definition Supplement of the tariff: http://www.caiso.com/rules/Pages/Regulatory/Default.aspx

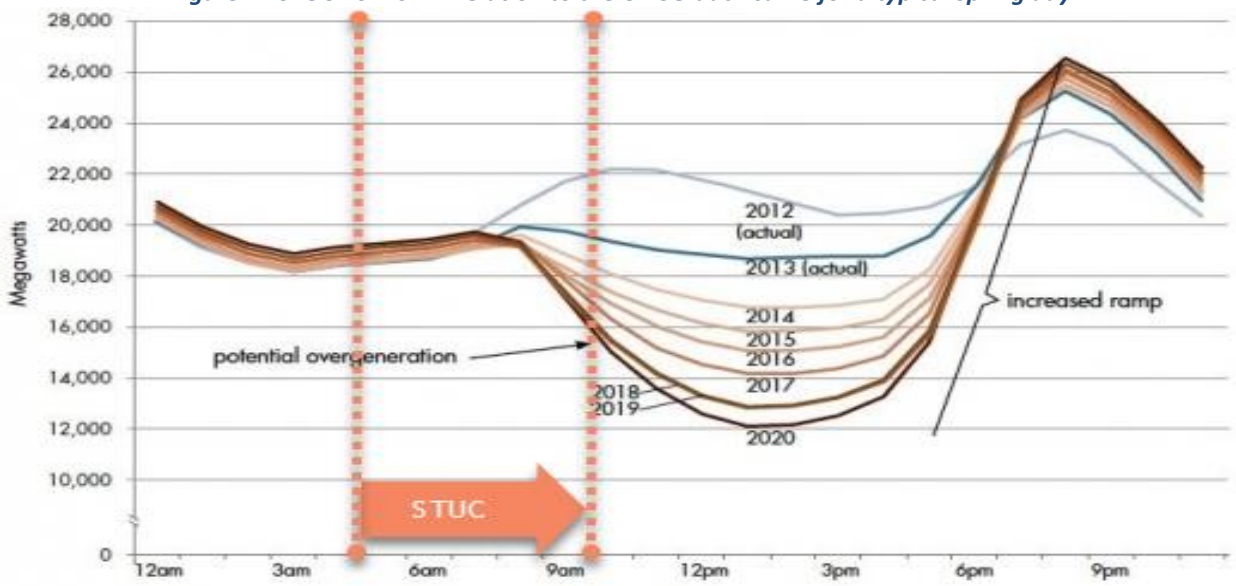
[2] The term "RUC Binding" is jargon used by the CAISO and market participants. It is used in this proposal to refer to long-start resources that receive a day-ahead market commitment; this commitment cannot be changed in any of the real-time market processes.

in the real-time market. RUC Binding awards are helpful for operations planning, engineering studies, and guaranteeing that resources will be online to meet minimum online capacity (MOC) constraints. This proposal will not change the day-ahead market structure or the nature of RUC binding awards. Section 3 explains that the extended STUC horizon will **not** allow STUC to decommit resources that it cannot currently decommit, i.e., the resources that currently receive "RUC Binding" awards. It will only entail extending its time horizon so that it can provide earlier start-up instructions and better optimize its resource commitments over the day.

2. Limitations of the Current STUC Horizon

Currently STUC optimizes over a 4.5 hour time horizon, which is equal to 18 consecutive 15-minute intervals. STUC is unable to view anything beyond the 4.5 hour horizon when it completes its optimization and determines commitments. This limited time horizon can be problematic when STUC sees the morning peak and decides to issue a unit commitment without considering that there might have been a greater need to commit the unit for the evening peak, as demonstrated in Figure 1.

Figure 1: STUC horizon in relation to the CAISO duck curve for a typical spring day



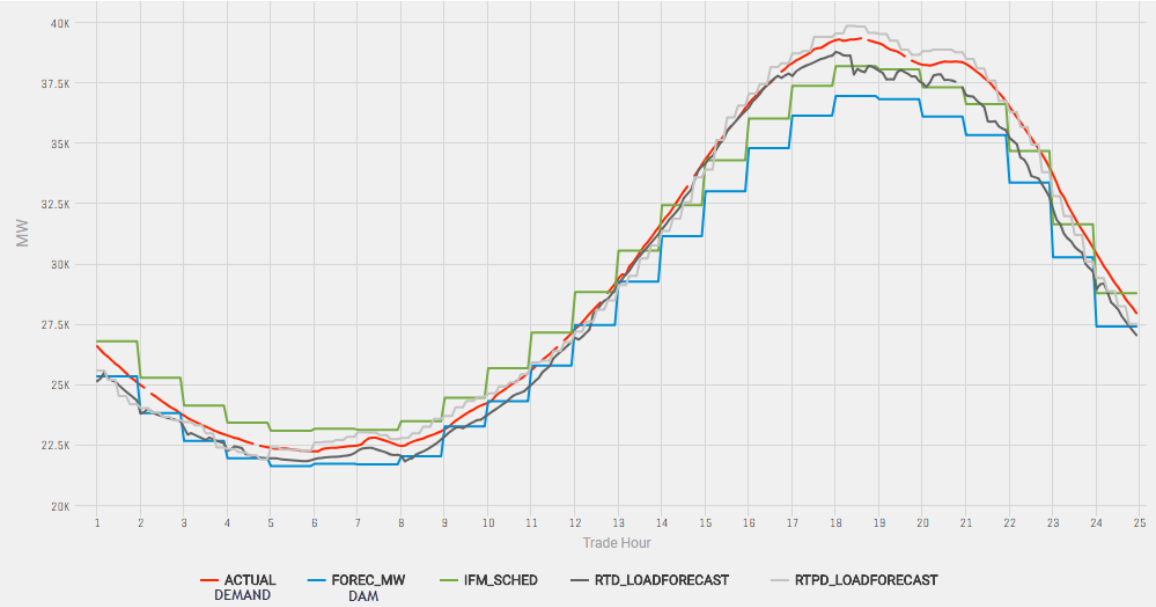
As shown in Figure 1, STUC is not looking forward enough to make informed optimization and commitment decisions based on data beyond a 4.5-hour horizon. STUC may commit a resource for the morning peak when it should save the commitment for the evening peak. Conversely, it may decommit a unit during the middle of the day for economic reasons when in reality the unit cannot be cycled on/offline and should remain online to meet system needs over peak. Both of these scenarios may result in the real-time market committing more expensive units with shorter start-up times and more

flexible ramp rates. These considerations are not considered under the existing 4.5 hour STUC horizon because STUC cannot see far enough in the future to make informed decisions.

The existing STUC process can consider only short and medium-start units in its optimization because of its time horizon. Resources with a start-up and minimum run time greater than 4.5 hours cannot currently be committed by STUC.[3] This creates a limited resource pool to use in the real-time market. For example, imagine the day-ahead market has not procured enough energy/capacity to meet the evening peak. A grid operator may recognize this shortage early in the day and may be concerned there is not enough capacity from the short- and medium-start resources available to meet peak load. In this case, the only option the grid operator may have is to commit a long-start resource through an exceptional dispatch. The operator must make the decision to exceptionally dispatch the resource, or hope the real-time market processes (STUC or RTUC) will commit adequate resources to meet peak needs.

Shown below is data from trade date September 10, 2017. Both the day-ahead market forecast (blue line) and the integrated forward market schedules (green line) are significantly less than the actual demand during the evening peak. The actual demand for HE19 is approximately 1,000 MW greater than the integrated forward market schedules. Even if the real-time market forecasted the shortage, it could only commit short and medium-start units to address the shortage.

Figure 2: Trade Date 9/10/2017
Actual demand in comparison to day-ahead market forecast, IFM schedules, RTD forecast and RTPD forecast



[3] STUC does consider MSG configurations. Therefore, there are resources with start-up and minimum run times greater than 4.5 hours that can be committed by STUC. These rules can be found in *Tariff section 34.6: Short-Term Unit Commitment:* http://www.caiso.com/rules/Pages/Regulatory/Default.aspx and the *BPM for Market Operations section 7.7*: https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Market%20Operations

As shown by the duck curve and the data from September 10, 2017, the existing STUC design is limited by its 4.5 hour window and ability to only commit short and medium-start resources.

3. Extended STUC Proposal

The CAISO proposes to extend the short-term unit commitment horizon. A longer STUC horizon will: 1) provide earlier notification to resources that are needed to meet the evening peak so there is a greater probability these resources will be available, and 2) better optimize the use of resources with limited starts over the entire day. With a longer horizon, STUC will be able to incrementally commit additional long-start resources. This provides the benefit of:

1. Preventing or reducing uneconomic cycling,
2. Responding faster and more efficiently to demand changes, and
3. Reducing the reliance on short-start resources (e.g., peakers) whose daily number of startups may become exhausted prior to a load peak.

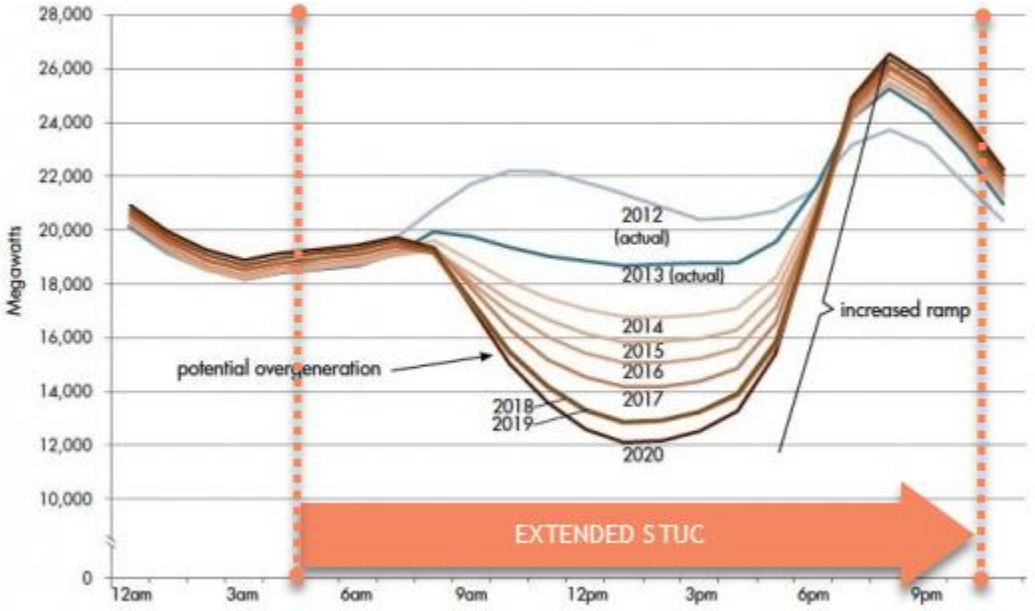
The CAISO proposes the following design changes to the real-time market's short term unit commitment process. The sections below explain each element and its impacts to the real-time market.

1. Extend the STUC time horizon from 4.5 hours to 18 hours
2. Allow the real-time market to commit long-start units while still preserving day-ahead commitments
3. Revise real-time market bid cost recovery rules for long-start units
4. Allow EIM Entities the voluntarily use of the extended STUC for their respective balancing authority area

3.1. Extend the STUC horizon

The CAISO proposes to extend the STUC horizon from the current 4.5 hours to 18 hours. An 18-hour horizon enables STUC to see the majority of the trade date as shown in Figure 3.

Figure 3: The proposed 18-hour STUC horizon will cover both the morning peak, the "belly of the duck", and the evening peak.



The CAISO believes 18 hours is enough data to achieve the purpose of viewing all peaks and meet operational needs. Anything less than 18 hours may not be long enough to view the morning and the evening peak (e.g., a 12-hour STUC horizon would be unable to see a summer day's morning peak at 0700 and evening peak at 1900). Anything more than 18 hours could result in data processing challenges for the CAISO market systems.

STUC will look forward 18 hours unless the day-ahead market results have not yet published. STUC requires commitments from the day-ahead market to accurately complete its re-optimization. In the case that the 18-hour STUC horizon does not have day-ahead market results, it will be truncated. For example, at 1100 before the trade date, STUC would be running for 0500 of the trade date. However, at 1100 the day-ahead market has not published. Therefore, STUC will not begin viewing the operating hour beginning at 0500 until roughly 1300 when the day-ahead market run is complete. This will mean that the STUC horizon is shorter for the first 5 – 7 hours of the trade date based on the time that the day-ahead market has published. It is not anticipated that this will be an issue because the primary objective of STUC is to commit resources before the evening peak.

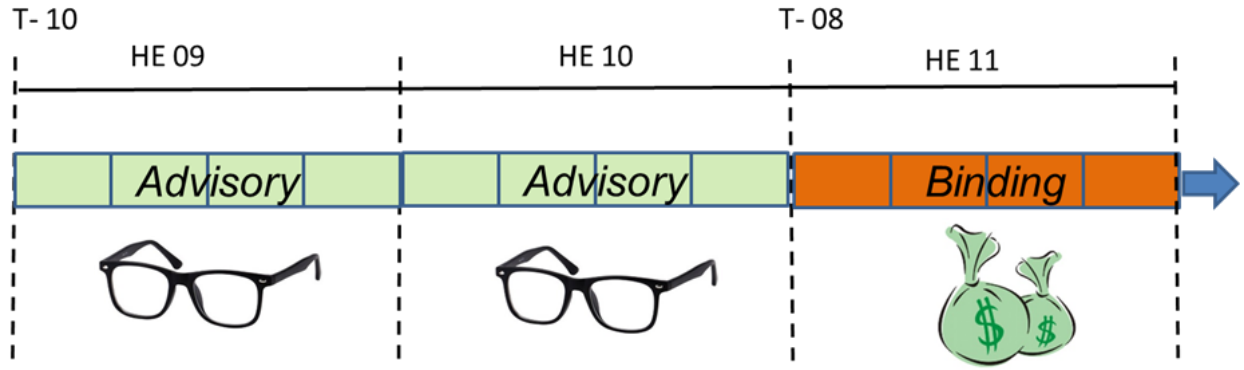
3.2. Commitment of long-start resource in the real-time market

With an extended STUC horizon, the real-time market can commit long-start resources, if necessary. If a long-start resource does not receive a day-ahead market award, it can choose to bid into the real-time market. STUC will receive and preserve the day-ahead market awards like today and use the updated forecast and real-time market bids in its algorithm to determine additional incrementally upward real-time commitments, if necessary.

Similar to the existing STUC design, binding STUC commitments will be sent via the automated dispatch system (ADS), and published on the customer market results interface (CMRI). It is the responsibility of the scheduling coordinator to monitor ADS and CMRI to ensure generators can be brought online in accordance with market commitments.

The STUC commitment of a resource is advisory until the commitment decision can no longer be changed by STUC. For example, if a long-start resource has a start-up time of 8 hours and is committed by STUC 10 hours in advance, then the commitments published after the STUC runs 10 hours out and 9 hours out are considered advisory. They are forward-looking advisory notifications indicating the resource is likely to receive a binding commitment instruction. At T-8, the resource will begin the synchronization process and therefore the commitment decision can no longer be changed; the commitment decision is now considered operationally binding and cannot be reversed.

Figure 4: A start-up instruction is considered advisory until the commitment cannot change based on the start-up time of the generator. In this example, a generator with an 8-hour start-up time receives a commitment at T-10; the commitment is advisory for the first two hours, and binding at T-8 hours when the commitment cannot change.



The grid operator has the ability to block the commitment instruction while the commitment is still advisory, or before the binding commitment instruction is published. By blocking the commitment instruction, the market will recognize that a resource should not be committed; this allows time for the market to later commit another resource, if necessary. For example, assume a long-start generator is bid into extended STUC and receives a commitment instruction; however, grid conditions have changed since the bid was originally submitted and the generator is no longer needed to serve load within the balancing authority area. The grid operator can block the commitment while it is still advisory which will prevent the commitment instruction from publishing. There is no explicit market settlement of a resource whose advisory commitment is blocked.

STUC commitment decisions for long-start resources are transferred to the corresponding RTUC interval. Even if RTUC cannot commit long-start resources, RTUC is able to recognize if the resource is not available. For example, if STUC commits a long-start resource but the generator experiences an outage, RTUC will recognize the outage in its re-optimization and determine that unit can no longer be committed.

RUC Binding Resources

Although the CAISO proposes for STUC to have an 18-hour horizon, the CAISO also proposes that STUC will not decommit resources with a start-up time (SUT) plus a minimum up time (MUT) greater than or equal to 4.5 hours (270 minutes). Day-ahead market awards will remain "binding" for resources with SUT + MUT greater than or equal to 270 minutes.[4] Keeping RUC binding commitments will preserve the nature of forward scheduling which aids in engineering studies and planning. Additionally, it will ensure minimum online capacity (MOC) constraints are met.

3.3. Revise real-time bid-cost recovery rules for long-start resources

Since extending the STUC horizon enables the real-time market to start long-start resources that it cannot start today, the CAISO needs to consider revisions to its bid cost recovery rules. The CAISO proposes to modify certain bid cost recovery rules that allocate start-up costs to either the day-ahead or real-time market depending on the timing of a real-time market start-up relative to a resource's day-ahead schedule.

Bid cost recovery is calculated separately for the day-ahead market and real-time market. Today short and medium-start resources can receive start-up instructions from both the day-ahead and real-time market. Scheduling coordinators bid into the day-ahead market for all 24 hours of a trade date and can resubmit real-time market bids for each hour within the trade day. Therefore, scheduling coordinators for supply potentially submit two sets of supply bids, a supply bid for day-ahead and a supply bid for real-time that both contain energy bids and commitment costs. A market participant's start-up costs used in the bid cost recovery process also depend on which market, day-ahead or real-time, start the resource. For example, if a resource is committed in the day-ahead market, the market uses the resource's start-up costs from its day-ahead bid. If a resource is first committed in the real-time market, the market and associated bid cost recovery settlement uses the resource's start-up costs from their real-time market bid. If a market participant did not receive an integrated forward market or residual unit commitment instruction they can have different start-up bids for any hour in the day-ahead and real-time market.

A short- or medium-start resource can receive a start-up instruction from the real-time market during or before the time period for which it has a day-ahead schedule. In this case, the resource's start-up costs remain in the day-ahead market bid cost recovery calculations. Under extended STUC, long-start resources will be able to receive a start-up instruction in the real-time market. Consequently, the CAISO proposes to modify the bid cost recovery rules so that long-start resources' start-up costs will also

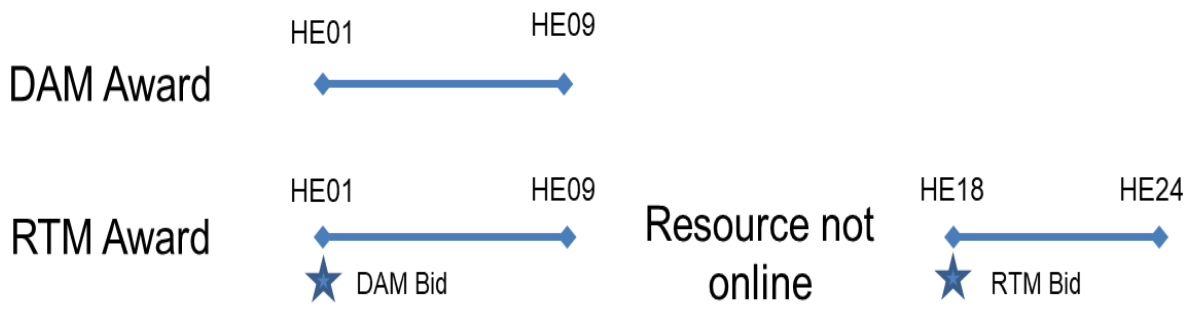
[4] Multi-stage generators (MSGs) that experience an outage and deviate from their day-ahead schedule or RUC schedule will be reconsidered in the STUC process taking into consideration the impacts of the derate or outage on the available MSG configurations. *Tariff section 34.6: Short-Term Unit Commitment:* http://www.caiso.com/rules/Pages/Regulatory/Default.aspx

remain in the day-ahead bid cost recovery calculations if they are started earlier than their day-ahead schedule.[5]

Additionally, the CAISO proposes to extend other existing bid cost recovery rules to long-start units to account for them receiving a start-up instruction in the real-time market after the time period of a day-ahead schedule. As a result, the CAISO proposes modifications to account for a long-start resource's start-up costs depending on whether the day-ahead or the real-time market committed it. This is illustrated in Figure 5.

Figure 5 illustrates an example assuming a long-start resource that has an 8 hour start-up time + minimum up time. The generator receives an award in the day-ahead market for HE01 – HE09. Figure 5 illustrates that in the real-time market, STUC subsequently commits the resource for HE18 – HE24.

Figure 5: Start-up costs associated with a long-start resource that receives a day-ahead market award and is also committed by the real-time market.



In this scenario, under existing market rules for short-start resources, the CAISO will include the resource's start-up costs for the HE18-HE24 in the real-time market bid cost recovery calculations. The CAISO proposes to extend these existing rules to long-start resources now that such a dispatch scenario could occur for long-start resources.

[5] As the extended STUC will not de-commit long-start resources that have day-ahead schedules it will not start long-start resources later than their start-up time for their day-ahead schedule.

3.4. Extended STUC in the EIM

Bid and Base Schedule Submission

Currently, EIM entities are responsible for submitting bids and base schedules 6 hours in advance of the operating hour. This allows the existing 4.5 hour STUC horizon to have accurate information to be used in the real-time market optimization. The CAISO will maintain the existing 6 hour requirement for bid and base schedule submission. Submitting bids and base schedules for more than 6 hours is optional and will enable the EIM balancing authority area to participate in the extended STUC as an individual entity.

The voluntary bid and base schedule submission for the extended STUC horizon will enable each EIM BAA to elect which generators should, or should not, be bid in and be available for commitment by the extended STUC. The EIM Entity can choose not to bid generators into extended STUC if, for example, the entity is participating in bilateral transactions or anticipates uncertainty materializing between the extended STUC horizon and the real-time unit commitment.

If a resource is committed by the extended STUC, the EIM BAA operator will have the opportunity to review the advisory commitment (see Figure 4). If an operator determines the commitment is undesirable, the commitment can be blocked. Blocking will prevent the resource from being committed.

EIM Transfer Capacity

In response to stakeholder comments, the CAISO proposes to automatically set EIM transfer capacity[6] to 0 MW for the extended STUC horizon between T-4.5 hours and T-18 hours. It is necessary to ensure consistency in the market across the EIM footprint; therefore, it is not appropriate to allow EIM transfers between some entities while limiting them in others. For this reason, the 0 MW EIM transfer capacity from T-4.5 to T-18 hours will apply to the entire EIM footprint and cannot be overwritten by the EIM operator.

The intent of this policy is to isolate each individual EIM BAA to ensure that entity is not negatively impacted by a resource commitment in another EIM BAA. Said differently, if a resource is committed by extended STUC, it will be committed specifically to serve load within the respective BAA. By limiting the EIM transfer capacity to 0 MW, a generator cannot be committed in one EIM BAA with the intent to serve load in a different BAA. At T-4.5, the EIM transfer capacity will automatically be reset to the value used in the interchange rights methodology. This will occur on a rolling basis with each publication of STUC and enables the STUC process to function as it does today for all EIM entities across the EIM footprint.

[6] EIM transfer capacity is formally known as energy transfer system resource (ETSR) available transmission capacity (ATC).

3.5. Items Not Impacted by Extended STUC

The CAISO proposes no changes to RAAIM or the extremely-long start process as part of the extended STUC proposal.

Resources Adequacy Must Offer Obligation (MOO) and Resource Adequacy Availability Incentive Mechanism (RAAIM)

Resource adequacy (RA) contracting occurs on a yearly basis. As such, RA contracting for the current calendar year is already complete and may already be underway for the 2019 calendar year. The CAISO does not believe it is appropriate to impose obligations in the middle of an RA year. Additionally, the day-ahead market enhancements (DAME) initiative proposes changes to RA must offer obligations (MOOs) which, if approved, would take effect with the CAISO's fall 2019 release. Therefore, the CAISO is not proposing any modification to the Resource adequacy (RA) adequacy rules, including MOO and bidding requirements, as part of this stakeholder process. As a result, the CAISO does not anticipate any changes to the current RAAIM mechanism.

Extremely Long-Start Commitment Process

Extremely long-start resources are defined as a resource with a start-up time greater than 18 hours. These resources are flagged in the Master File and are the only resources eligible to be committed in the extremely long-start commitment process. The extremely long-start commitment process looks two days ahead of the current day to commit resources based on the resource's initial condition and cooling time.[7]

The extremely long-start commitment process will not be changed as a part of this stakeholder initiative.

[7] Information about the extremely long-start commitment process can be found in Tariff section 31.7: http://www.caiso.com/rules/Pages/Regulatory/Default.aspx

4. EIM Governing Body Role and Stakeholder Engagement Plan

Stakeholder input is critical for developing market design policy. The proposed schedule allows opportunity to for stakeholder involvement and feedback. This initiative is being classified as hybrid non-EIM specific, which will require approval by the EIM Governing Body and CAISO Board of Governors.

4.1. EIM Governing Body Role

For purposes of obtaining approval to file with the Federal Energy Regulatory Commission, staff proposes to classify the Extended STUC initiative as *hybrid non-EIM specific*.

The initiative is hybrid because it proposes changes both to market rules that are EIM specific (changes that would fall within the primary authority of the EIM Governing Body) and also to generally applicable rules of the real-time market (changes that would fall within its advisory role) and these changes are not severable for decisional purposes. The EIM-specific rules that would change involve setting the EIM transfer limits to 0 MW for the extended STUC horizon (T-4.5 to T-18 hours) in order to insulate EIM Entities from uncertainty or inaccuracies in other EIM BAAs for several hours in advance of the operating hour (during the extended STUC horizon). The generally applicable rules of the real-time market that would change concern the general process for unit commitment. Management does not consider the proposed changes to be severable for decisional purposes because they go hand in hand. STUC is a single market run for the entire real-time market – both the CAISO BAA and the EIM. The CAISO is proposing to set EIM transfer limits to zero during the extended STUC horizon to minimize impact of resource commitments from one EIM Entity on another EIM Entity, while at the same time allowing the extended STUC to meet needs for each BAA individually.

Within the hybrid classification, initiatives can be classified as either *hybrid EIM specific*, or *hybrid non-EIM specific*, depending on the primary driver for the initiative. Staff is pursuing this initiative in order to enhance reliability, with a focus on reliability in California in light of the CAISO's summer forecast. While the initiative will have other benefits as well, mainly improving market efficiency and reliability in both the CAISO BAA and EIM BAAs, these are secondary factors. Because the primary driver is reliability over the entire CAISO footprint, with particular attention to California, and not to improve EIM specifically, staff believes the initiative should be classified as hybrid non-EIM specific.[8]

This means that the EIM-specific component of the initiative – setting EIM transfer limits to 0 MW for the extended short-term unit commitment horizon – must be approved by the EIM Governing Body before it goes to the Board for approval. The EIM Governing Body would also have an advisory role on the remainder of the initiative. The entire initiative would then go before the Board, which would consider the initiative on its merits, rather than through its consent agenda.

[8] https://www.westerneim.com/Documents/GuidanceforHandlingPolicyInitiatives-EIMGoverningBody.pdf

Stakeholders are encouraged to submit a response to the EIM classification in their written comments following the stakeholder meeting for the Issue Paper/Straw Proposal, particularly if they have concerns or questions.

4.2. Schedule

In the CAISO's *2018 Summer Loads and Resources Assessment*, CAISO management identified below-average hydroelectricity supply and reduced generation for California's 2018 summer. Unlike previous summer assessments, the CAISO will have a 50-percent probability of declaring a "Stage 2 Emergency" for at least one hour this summer. The last "State 2 Emergency" was declared in 2007.[9]

To better prepare for the upcoming summer and winter months, CAISO's market and operators will need the ability view daily load peaks and economically optimize resources to meet system needs. As such, CAISO management has prioritized this initiative to implement approved policy during the fall 2018 release. The initiative was not formally part of the *2018 Annual Policy Plan,* however the topic was a part of the *Real-time Market Enhancements* found in the *Policy Initiatives Catalog*.

In order to implement the proposed policy design change by fall 2018, this initiative is on an expedited stakeholder schedule. CAISO appreciates stakeholders' participation and understanding of the shortened timeline. Table 1 lists the proposed schedule for the Extended STUC stakeholder process. The CAISO proposes to present its proposal to the EIM Governing Body on July 12, 2018 and the CAISO Board of Governors on July 25-26, 2018.

Table 1: Schedule for the Extended STUC stakeholder process

Item	Date
Post Issue Paper/Straw Proposal	May 15, 2018
Stakeholder Call	May 22, 2018
Stakeholder Comments Due	May 29, 2018
Post Draft Final Proposal	June 13, 2018
Stakeholder Call	June 20, 2018
Stakeholder Comments Due	June 26, 2018
EIM Governing Body Meeting	July 12, 2018
CAISO Board of Governors Meeting	July 25-26, 2018

The CAISO will discuss this Draft Final Proposal during a stakeholder conference call on June 20, 2018. The CAISO requests stakeholders submit written comments in response to the Extended STUC paper and stakeholder call by June 26, 2018 to InitiativeComments@caiso.com.

[9] The 2018 Summer Loads & Resources Assessment can be found at the following link: http://www.caiso.com/Documents/2018SummerLoadsandResourcesAssessment.pdf