November 15, 2018

Response to Stakeholder Comments on Draft Tariff and BPM Language
CCE3 Implementation

Tariff-related comments

Tariff Section	Stakeholder Comment	ISO Response
30.4.1.1.6.1	Placement of the phrase “on an annual basis” creates ambiguity. The Six Cities recommend moving the phrase “on an annual basis” from the fourth line of the section to the third line after the word “demonstrate” to make clear that the phrase applies to the registration and validation process rather than the temporal scope of the use limits.	Agree, the ISO will revise.
30.4.1.1.6.1.1	PG&E requests that CAISO update the effective date of the following language: “Effective November 1, 2021, no contractual limitations will constitute qualifying contractual limitations that satisfy the requirements of this Section.” Three years from the proposed Tariff changes would be April 1, 2022. The resources using this condition should be allowed to use an Opportunity Cost reflecting one year of operations until that time (vs. the resource being modeled to use all of its starts prior to April 1, 2022).	Agree that date needs to be changed.
30.4.1.1.6.1.2	On the twenty-first line of the section, placement of the phrase “on an annual basis” creates ambiguity. The Six Cities recommend moving the phrase “on an annual basis” from the twenty-first line of the section to the twentieth line after	Agree, the ISO will revise.

Tariff Section	Stakeholder Comment	ISO Response
	the word “demonstrate” to make clear that the phrase applies to the registration and validation process rather than the temporal scope of the use limits.	
30.4.1.1.6.2.1	Within the calculation of opportunity cost adders section (p.5), CAISO removed language allowing for opportunity costs to be updated more frequently than a monthly granularity. PG&E feels that this language should remain, given the opportunity costs for some resources could change substantially within a month. Two examples of this are hydro resources and RDRR demand response programs. This lack of updating will be especially concerning when resources are nearing the end of the limitation period. Market participants should have the ability to request a mid-month update.	The ISO has no functionality to update Opportunity Cost Adders mid-month.
40.6.8	CAISO added: “resource that is unable to be continuously operated” to the bid insertion exemptions in section 40.6.8 (e). CAISO should explain how this will be implemented. For example, will CAISO have a field in the Masterfile to document this constraint?	The ISO will consider this change in the November 30 posting which will focus on Section 40 changes.
40.9.2	PG&E disagrees with the modification to the Capacity Exempt from RAAIM exemption which removed the text “including resources subject to”. This exemption should apply to all RMT resources.	The ISO will consider this change in the November 30 posting which will focus on Section 40 changes.

BPM-related comments

BPM & Section	Stakeholder Comment	ISO Response
Market Operations Section 2.1.15	The terms “CAISO” and “ISO” are used inconsistently throughout this section.	Agree, the ISO will use CAISO consistently.
Market Operations Section 2.1.15	PG&E requests the language of the Market Operations BPM be updated to match the Tariff. The appended language of Use-Limited Resource Criterion 3 is: “The resource’s ability to select hours of operation is not dependent on an energy source outside of the resource’s control and the resource can ration the limitation in response to energy price signals.” This language does not match the proposed modifications made to the Tariff language: “The resource’s ability to select hours of operation is not dependent on an energy source outside of the resource’s control being available during such hours but the resource’s usage needs to be rationed.” The language in the Market Operations BPM should be modified so that it is in alignment with the proposed Tariff language. The BPM language should not be more restrictive than the Tariff language.	Agree, the ISO will align the BPM with the Tariff language.
Market Operations Section 2.1.15.2	The BPM language states that the following would be ineligible for ULS: “The resource is not able to operate continuously and consequently does not participate economically in the ISO energy market.” This bullet is an expansion of the Tariff language and should be deleted.	The ISO will revise this section in the November 30 posting to describe what is an eligible use limitation instead of what is ineligible and will make it consistent with the Tariff.
Market Operations Section 2.1.15.2	In the first line of the second bullet, “cannot” should be “can” in order to be consistent with	The ISO will revise this section in the November 30 posting to describe what is an eligible use limitation

	the lead-in reference to use limitations that are ineligible for registration under the criteria in Tariff Section 30.4.1.1.6.1.1.	instead of what is ineligible and will make it consistent with the Tariff.
Market Instruments Attachment B	In the Implied Starts of section B.2.10 Multi Stage Generating Resource – MSG_CONFIG tab (p.27), please expand and define what is meant by 'resolution level' in the following statement: "Implied starts registered in the GRDT should be the same resolution level on which the start limitation value is determined." If the use limitation on number of starts is at the resource level of a MSG resource, not configuration level, what should Scheduling Coordinators reflect in the GRDT for the implied starts between configurations?	The details on MSGs with start limitations is in Market Operations BPM Section 2.1.15.5 and that is the more appropriate section to describe the details since Attachment B is just describing Master File fields.
Market Instruments Attachment B	PG&E requests that CAISO explain the use of the implied starts field. Can CAISO now limit implied starts per day in the market optimization? Is the purpose of this language to align the constraint of implied starts with what is in the MSG_CONFIG tab of the Masterfile?	Implied starts is only for the Opportunity Cost Calculation to account for starts on an MSG and will not be used in any other market optimization. This detail can be added in Market Operations BPM Section 2.1.15.5
Market Instruments Attachment D	CAISO removed the language which stated CAISO's Market Monitoring Unit or an alternative independent entity approves negotiated rate option default energy bids. Considering these calculations are not trivial and have a significant impact on operations, market participants should have the opportunity for an independent party review.	Independent Entity needs to be removed from tariff and BPM as this referred to when Potomac Economic calculated negotiated DEBs and this was per FERC crisis era directive when the ISO's board of governors was not sufficiently independent. The ISO has since taken measure to be sufficiently independent. The Department of Market Monitoring is a part of the CAISO and has the authority to review negotiated rates.
Market Instruments Attachment D	CAISO states, "If a Scheduling Coordinator wants to modify a Negotiated Default Energy Bid on file prior to April 1, 2019, the Scheduling Coordinator can elect to modify or terminate the	There is a considerable amount of work involved in determining a resource's use limitation, translating that limitation and running the opportunity cost calculation. If a resource fits into the standard granularity by having

	Negotiated Default Energy Bid and to leverage the Opportunity Cost procedures for calculating or negotiating Variable Energy Opportunity Costs pursuant to Section 30.4.1.1.6.1.2." Market participants should not have to give up a previously negotiated DEB prior to seeing what the applicable Opportunity Cost will be and how it will work. That is, parties should have ability to maintain the negotiated DEB until seeing what the negotiated Opportunity Cost is, given the opacity of the modeling processes.	an annual, monthly or rolling 12 month limitation, then it is likely to fit into the Opportunity Cost Calculator. The ISO will contact resources with non-standard approved use limitations once the registration process is complete and will work with the market participant to determine if a negotiated opportunity cost is needed. This section is intended to clarify that a resources with a prior negotiated DEB with an opportunity cost methodology cannot also have a calculated opportunity cost under the new Section 30.4.1.1.6.1.2.
Market Instruments Attachment D	PG&E also has a general comment about the use of the term "opportunity cost" in the modified language. This term appears in multiple variations, some of which are used interchangeably and some of which are used to distinguish themselves from other types of opportunity costs. Some examples include: Opportunity cost, Opportunity cost adder, Variable Energy Opportunity Cost, Variable Energy Opportunity Cost adder, Energy opportunity cost, Use-limitations-based opportunity costs, negotiated opportunity cost, Negotiated Opportunity Cost adder(s). In order to avoid confusion, PG&E recommends that CAISO reduce the number of variations of this language to the extent possible and define each unique term in the Tariff.	Agree, the ISO will review the use of these terms and consolidate and clarify the meaning of the different terms.
Market Instruments Attachment D	Page 14 - - The example at the top of the page describes a "resource without a greenhouse gas compliance obligation." However, the verbal description of the calculation methodology includes GHG Cost in the first and second lines (although GHG Cost does not appear to be	Agree, the ISO will eliminate the component from the formula.

	included in the numerical sample calculation.) The Six Cities recommend clarification.	
Market Instruments Attachment D	Page 17 - - The caption for Section D.6.2 includes the words "of Independent Entity." The Six Cities recommend deletion of that reference consistent with deletions of other references to an "Independent Entity."	Agree, the ISO will revise.
Market Instruments Section 8.2.1.3 SIBR Generated Bid	Generated Energy Curve Calculation - - At the bottom of the fourth page, the calculations include a $25 adder for Segment 1 and Segment 2, but there is no description or explanation for that adder in the narrative description for the calculation. The Six Cities recommend explanation or clarification.	The Variable Energy Opportunity Cost Adder is an input to SIBR that comes from upstream systems like the gas price index and O&M adder so this example is showing how the Variable Energy Opportunity Cost Adder as an input is included in the generated energy bid curve.
Market Instruments Attachment N	On page 8, the CAISO's objective function makes the problem unnecessarily complicated. Specifically, it multiplies two decision variables by each other, which makes the problem much more difficult and is unnecessary. PG&E previously provided CAISO the correct formulation in November 2017 (during comments on BRS) and requests it be incorporated into Attachment N.	This is a standard formulation for a unit commitment problem in market optimizations.
Market Instruments Attachment N	In addition, PG&E requests an update to Attachment N to show the full mathematical model.	In unit commitment optimization area, there is a wide range of options for implementation and the vendor that the CAISO has for the Opportunity Cost Calculation will not release the full mathematical model. There is sufficient information in Attachment N on the key principles of the methodology.
Outage Management	PG&E agrees with comments made by Southern California Edison in PRR 1088	The BPM for Outage Management edits will be in the second round of CCE3 posted drafts on November 30.
Outage Management	Additionally, PG&E recommends the Ambient Not Due to Temp Purpose to include a description for Water Management that provides	The BPM for Outage Management edits will be in the second round of CCE3 posted drafts on November 30.

	notification of physical limitation of hydro resources due to lack of water or lack of head.	