

Section number	Party	Comment	ISO Response
7.7.15.2.1	PG&E	There are multiple revisions that change “SLIC” to “outage management system”. Is this actually a result of the Bidding Rules policy? Or is this general tariff clean up resulting from a separate systems change? If the latter, CAISO should explain this in their tariff filing to FERC.	The reference to the Scheduling and Logging system for the CAISO and SLIC in the CAISO tariff are to the technology name of the CAISO’s system for outage management, which the CAISO replaced in 2014 with the new outage management system. When the CAISO made supporting tariff changes, we should have removed those references and moved the requirements in the definition into Section 9. The CAISO is now proposing to move the detail in that defined term into Section 9.3.3 as it is also proposing to specify in the tariff under what conditions it expects resources will rerate their PMin. Therefore, for purposes of this filing, the CAISO is also cleaning up all prior references to SLIC and referring to Section 9 generally or Section 9.3.3. more specifically as appropriate to refer to the CAISO’s rules for outage management and submissions of outages.
11.8.2.1.1	PG&E	Can CAISO explain why this is being removed?	The definition of Minimum Load Energy is already provided generically in Appendix A and we will add the condition regarding MSGs in that definition. This eliminates redundancy and confusion. PG&E asks a number of questions related to the qualification of start-up costs for IFM, RUC and RTM. The CAISO is proposing changes to these sections because the policy change requires changes to the tariff language to conform the language to how start-up costs are actually qualified, which the CAISO does not intend to change under this filing. In the IFM, today the CAISO bases the qualification based on whether the “relevant metered Energy in the applicable Settlement Intervals indicates the

			<p>unit is Off before the time the resource is instructed to be On as specified in its Start Up Instruction and is On in the Settlement Intervals that fall within the CAISO IFM Commitment Period.”</p> <p>Whether the resource is On is based on whether they are at or above their Minimum Load. Today the CAISO looks at the value of the Minimum Load as registered in the Master File. Under this policy change, the CAISO intended for the policy to result in its systems consistently updating the value of Minimum Load to the value reflective of its revised Minimum Load Energy definition. Due to implementation constraints, the CAISO is not able to consistently update its use of the revised Minimum Load Energy. Accordingly, for purposes of determining whether the resource started up for an IFM commitment, the CAISO will continue to follow the same rule. However, the CAISO agrees to add that rule in the tariff to be clear.</p> <p>Please see the explanations to the RUC and RTM start-up cost qualifications below.</p>
11.8.2.1.5	PG&E	<p>There are multiple revisions that involved references to “registered” or “applicable” Minimum Load. Can CAISO please clarify the difference between these two terms, and the appropriate context to use them?</p>	<p>The CAISO agrees to add language that more clearly states when the CAISO means minimum load as registered in the Master File as opposed to as registered in the Master File <i>or</i> as rerated through the outage management system.</p> <p>To summarize the difference of usage of minimum load,</p> <ol style="list-style-type: none"> 1. In SIBR bids, ISO continues to use Minimum Load as registered in the Master file; 2. In IFM/RTM, ISO will use applicable minimum load to increase the total minimum load cost as adjusted after the rerate; 3. In Bid Cost Recovery for minimum load cost, ISO uses the minimum load, as rerated if it is rerated, for

			<p>both the bid cost (minimum load cost) and revenue side (minimum load energy).</p> <ol style="list-style-type: none"> 4. In Bid Cost Recovery for Startup Cost and Transition Cost, ISO will continue to use minimum load as registered in the Master File to check whether the unit has actually started up or transitioned. 5. Whenever ISO compares two MSG configurations to determine which one is higher or lower, ISO continues to use the minimum load as registered in the Master File.
11.8.3.1.1	PG&E	Does this revision actually change what is considered a start up? This seems out of scope for this initiative.	<p>As noted above, the CAISO does not propose to change the way in which RUC Start-up costs are qualified. However, the current tariff specifies that “An actual Start-Up is detected between two consecutive Settlement Intervals when the relevant metered Energy in the applicable Settlement Intervals increases from below the Minimum Load Energy and reaches or exceeds the relevant Minimum Load Energy. The Minimum Load Energy is the product of the relevant Minimum Load and the duration of the Settlement Interval.” The CAISO is modifying the definition of Minimum Load Energy to reflect that MLE will be based on the PMin as rerated if it is re-rated. This is not the case today and therefore use of the Minimum Load Energy in this section to qualify start-up cost is equivalent to using the Minimum Load in the Master file. That will no longer be the case with this change. Therefore, the CAISO must also change this section to be clear that the resource’s startup costs are based on the Minimum Load as registered in the Master File. The RUC language is revised to be consistent with the IFM and RTM.</p> <p>Please see ISO reply to the PGE’s comment in 11.8.2.1.5 for the different rules using registered versus applicable</p>

			minimum load.
11.8.3.1.2	Six Cities	In the second line, the reference should be to § 30.7.10.2.	Accept
11.8.4.1.1	PG&E	Why is this tariff revision needed to implement this policy?	Please see explanation to 118.3.1.1
11.8.4.1.2	Six Cities	In the third line, the reference should be to § 30.7.10.2.	Accept
30.5.1	NRG	<p>30.5 Bidding Rules 30.5.1 General Bidding Rules</p> <p>(j) In order for Multi-Stage Generating Resource to meet any Resource Adequacy must-offer obligations, the responsible Scheduling Coordinator must submit either an Economic Bid or Self-Schedule for at least one MSG Configuration into the Day-Ahead Market and Real-Time Market that is capable of fulfilling that Resource Adequacy obligation, as feasible. The Economic Bid shall cover the entire capacity range between the maximum bid-in Energy MW and the higher of Self-Scheduled Energy MW and the Multi-Stage Generating Resource plant level registered Pmin registered in the Master File.</p> <p>***</p> <p>(p) For a Multi-Stage Generating Resource, the Bid(s) submitted for the resource’s configuration(s) shall collectively cover the entire capacity range between the maximum bid-in Energy MW and the higher of the Self-Scheduled Energy MW and the Multi-Stage Generating Resource plant-level applicable registered Pmin registered in the Master File. This rule</p>	Accept proposed changes
30.7.10.2	PG&E	Can CAISO include this section in the tariff revisions as well?	We do not include tariff sections that we are not amending in a tariff amendment filing.

30.7.10.2	NRG	<p>may be less than or equal to one hundred twenty-five (125) percent of the Proxy Cost value. For a resource that is eligible and has elected to use the Registered Cost methodology pursuant to Section 30.4, any submitted Minimum Load Cost must be equal to the Minimum Load Cost as registered in the Master File.</p> <p><u>30.7.10.2 Adjustments to Minimum Load Costs Due to Increases in Minimum Load</u></p> <p><u>For Generating Units or a Resource-Specific System Resource for which the responsible Scheduling Coordinator has temporarily increased their Minimum Load through the CAISO outage management system as specified in Section 9.3.3, regardless of the election made pursuant to Section 30.4, the CAISO will add to the Minimum Load Costs submitted by the Scheduling Coordinator the cost of the incremental Minimum Load determined as based on the product of the resource's applicable Default Energy Bid and the corresponding MWs between the resource's original Minimum Load as registered in the Master File and the Minimum Load increased pursuant to Section 9.3.3. The adjusted Minimum Load Cost will be used by the</u></p>	Accept
FMM Derate Energy	Six Cities	In the fifth line, there appears to be something missing after "PMax." The phrase "higher of" is used in the line, but there is no reference to a second value.	Agree to clarify
FMM Derate Energy	PG&E	What about upwards ramping to meet a rerated PMin per section 11.5.5?	<p>The condition in 11.5.5 continues to apply as it does today. We propose to add a statement to reflect the rule in 11.5.5 that RIE ramping to meet a re-rated PMin will continue to be included in the Derate Energy energy type.</p> <p>Further clarified this section to respond to PG&E's proposed redline.</p>

		<p>Extra-marginal FMM IIE, exclusive of FMM Minimum Load Energy produced or consumed due to Minimum Load overrates or PMax derates. FMM Derate Energy is, that is produced above the higher of the Day-Ahead Schedule or the registered Minimum Load and below the lower of the overrated Minimum Load and above the FMM Schedule, or consumed below the Day-Ahead Schedule and above the higher of the derated applicable PMax or the FMM Schedule. There could be two FMM Derate Energy slices, one for the Minimum Load overrate, and one for the PMax derate. FMM Derate Energy does not overlap with FMM Minimum Load Energy, FMM Exceptional Dispatch Energy, or FMM Optimal Energy, but it may overlap with Day-Ahead Scheduled Energy and MSS Load Following Energy. FMM Derate Energy is settled as described in Section 11.5.1, and it is not included in BCR as described in Section 11.8.4.</p>	
<p>FMM Minimum Load Energy</p>	<p>PG&E</p>	<p>FMM IIE produced due to the Minimum Load of a Generating Unit that is committed in the RUC or the FMM and does not have a Day-Ahead Schedule, or of an MSG Unit that is committed in the RUC or the FMM to a configuration with a higher Minimum Load value that the configuration associated with the unit's Day-Ahead Schedule, or of a Constrained Output Generator (COG) that is committed in the IFM with a Day-Ahead Schedule below the applicable registered Minimum Load. If the resource is committed in the FMM for Load following by an MSS Operator, the FMM Minimum Load Energy is accounted as MSS Load Following Energy instead. FMM Minimum Load Energy is FMM IIE above the Day-Ahead Schedule (or zero if there is no Day-Ahead Schedule of Energy) and equal to, or below the registered applicable Minimum Load. FMM Minimum Load Energy does not overlap with any other Expected Energy type. FMM Minimum Load Energy is settled as described in Section 11.5.1, and it is included in BCR as described in Section 11.8.4.1.2. FMM IIE that is consumed when a resource that is scheduled in the DAM is shut down in the FMM is accounted as FMM Optimal Energy and not as FMM Minimum Load Energy.</p>	<p>We do not agree to add the specific MSG scenario. The rule is applicable to all resources and is applied to MSG units as well by configuration. It would become unnecessarily detailed to describe in each energy type exactly how the rules are applied to MSGs.</p> <p>We accept the second clarification requested in this comment.</p>

Minimum Load Costs	Six Cities	In the last line, change “maybe as” to “may be.”	Accept
RTD Derate Energy	Six Cities	In the sixth line, there appears to be something missing after “Schedule.” The phrase “lower of” is used in the line, but there is no reference to a second value.	Agree to clarify
RTD Derate Energy	PG&E	<p>Extra-marginal RTD IIE, exclusive of FMM IIE, Standard Ramping Energy, Ramping Energy Deviation, Residual Imbalance Energy, MSS Load Following Energy, and RTD Minimum Load Energy produced or consumed due to Minimum Load overrates or PMax derates. RTD Derate Energy is produced above the higher of the FMM Schedule or the registered Minimum Load, and below the lower of the overrated Minimum Load and the Dispatch Operating Point, or consumed below the lower of the FMM- Schedule or the Dispatch Operating Point, and above the higher of the derated applicable PMax or the Dispatch Operating Point. There could be two RTD Derate Energy slices, one for the Minimum Load overrate, and one for the PMax derate.</p> <p>RTD Derate Energy does not overlap with FMM IIE, Standard Ramping Energy, Ramping Energy Deviation, Residual Imbalance Energy, RTD Minimum Load Energy, RTD Exceptional Dispatch Energy, or RTD Optimal Energy, but it may overlap with Day-Ahead Scheduled Energy and MSS Load Following Energy. RTD Derate Energy is settled as described in Section 11.5.1, and it is not included in BCR as described in Section 11.8.4.</p> <p>How does this correlate with Section 11.5.5? Is PMIN rerate the appropriate term rather than PMAX derate?</p>	Accept

<p>RTD Minimum Load Energy</p>	<p>PG&E</p>	<p>RTD IIE, exclusive of Standard Ramping Energy, Ramping Energy Deviation, and Residual Imbalance Energy, produced due to the Minimum Load of a Generating Unit that is committed in the RUC or the RTM and does not have a Day-Ahead Schedule or FMM Schedule, or of an MSG Unit that is committed in the RTM to a configuration with a higher Minimum Load value that the configuration associated with the higher of the unit's FMM or Day-Ahead Schedules, or a Constrained Output Generator (COG) that is committed in the IFM with a Day-Ahead Schedule below the applicableregistered Minimum Load. If the resource is committed in RTM for Load following by an MSS Operator, the RTD Minimum Load Energy is accounted as MSS Load Following Energy instead. RTD Minimum Load Energy is RTD IIE above the Day-Ahead Schedule (or zero if there is no Day-Ahead Schedule of Energy) and equal to, or below the applicableregistered Minimum Load. RTD Minimum Load Energy does not overlap with any other Expected Energy type. RTD Minimum Load Energy is settled as described in Section 11.5.1, and it is included in BCR as described in Section 11.8.4.1.2. RTD IIE that is consumed when a resource that is scheduled in the DAM is shut down in the RTM is accounted as RTD Optimal Energy and not as RTD Minimum Load Energy.</p>	<p>See response to FMM Minimum Load Energy</p>
<p>Start-Up, On, and Off</p>	<p>Six Cities</p>	<p>In some tariff sections (e.g., §§ 11.8.2.1.2(e) and (f)), the term “On” is used to refer to production relative to Minimum Load. Several of the proposed tariff revisions, however, delete references to Minimum Load in determining whether a resource is On or Off (e.g., §§ 11.8.3.1.1(f) and 11.8.4.1.1(f)). Further, the definition of “Start-up” relies on the defined terms “Off” and “On.” It is both confusing and likely to give rise to disputes to use the same terms to describe different conditions. The Six Cities recommend that the ISO make the definitions and the use of the defined terms consistent throughout the Tariff.</p>	<p>Agree to clarify</p>