



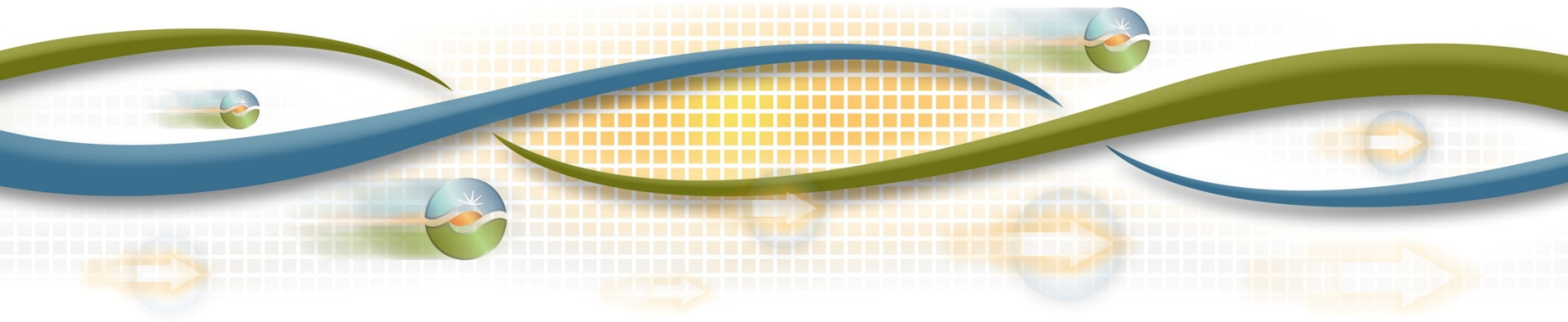
Bid cost recovery and variable energy resource settlements

Draft final proposal discussion

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Changes from straw proposal

- Clarification of “derate energy” analogy
- Modifications to the persistent deviation
- Modifications to the day-ahead metered energy adjustment factor

Derate energy analogy

- ISO is not proposing to settle ramping energy due to a forecast change as “derate energy”
- Analogy was only comparing residual imbalance energy from a derate
- For variable energy resources, the ramping energy crossing the hour boundary will remain residual imbalance energy

Persistent deviation metric

Table 4

Application of the persistent deviation metric for variable energy resources

VER type	Current	Proposed
Economically bidding – responding to forecast only (see RIE in scenario 2b) or simultaneous forecast and LMP change (see RIE in blue triangle in scenario 4a)	Apply PDM to OE and RIE	RIE – remove PDM for portion responding to forecast only (see RIE in scenario 2b) or simultaneous forecast and LMP change (see RIE in blue triangle in scenario 4a) OE – continue to apply
Economically bidding – responding to LMP change only (see RIE in scenario 3a and RIE in green trapezoid in scenario 4a)	Apply PDM to OE and RIE	Continue to apply PDM to OE and RIE responding to LMP change only (see RIE in scenario 3a and RIE in green trapezoid in scenario 4a)
Self-schedule (see RIE in scenario 1)	Apply PDM to OE and RIE	RIE – remove PDM OE – continue to apply

Figure 4

Scenario 2b: Economic bidder and forecast decrease (no LMP change)

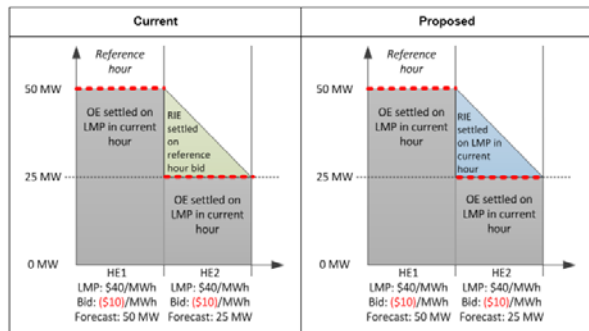


Figure 8

Scenario 4a: Economic bidder and LMP less than bid and forecast decrease

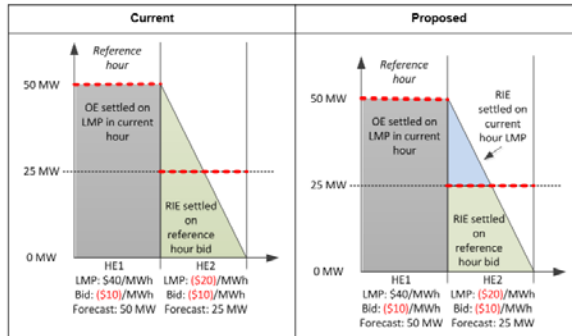
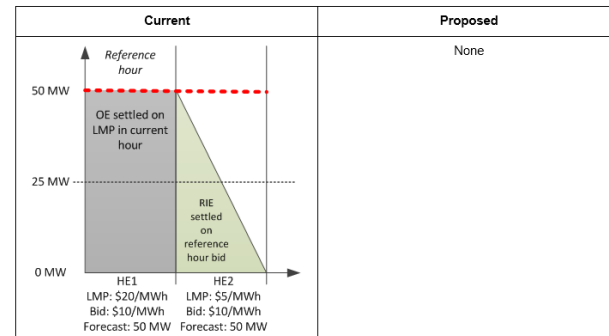


Figure 6

Scenario 3a: Economic bidder and LMP less than bid (no forecast change)



Day-ahead metered energy adjustment factor

[3]	<p>Else (noting from Step 1 that Expected Energy should be \geq DA Minimum Load Energy here, first test to determine if Expected Energy = DA Minimum Load Energy to avoid a divide by zero condition in the next "Else" statement below...)</p> <p>If (<u>min(Expected Energy, DA Scheduled Energy) – DA Minimum Load Energy</u> \leq Zero Toleranceⁱⁱ)</p> <p>Then</p> <p style="padding-left: 40px;">DA MEAF = 1</p>
[4]	<p>Else</p> <p style="padding-left: 40px;">DA MEAF =</p> $\text{Min} \left[1, \text{Max} \left(0, \left(\frac{\text{Metered Energy} - \text{DA Minimum Load Energy} - \text{Regulation Energy}}{\text{min(Expected Energy, DA Scheduled Energy) - DA Minimum Load Energy}} \right) \right) \right]$ <p>End if</p> <p style="padding-left: 40px;">End if</p> <p>End if</p>

Next steps

Date	Event
Thu 4/9/15	Straw proposal posted
Wed 4/15/15	Stakeholder call
Thu 4/30/15	Stakeholder comments due
Fri 5/8/15	Working group session
Wed 5/20/15	Draft final proposal posted
Wed 5/27/15	Stakeholder call
Wed 6/10/15	Stakeholder comments due on draft final proposal
Thu/Fri 7/16-7/17/15	Board of Governors meeting



Please submit comments to initiativecomments@caiso.com