PUGET SOUND ENERGY COMMENTS ENERGY IMBALANCE MARKET OFFER RULES TECHNICAL WORKSHOP (JULY 19, 2018) AUGUST 2, 2018

Puget Sound Energy (PSE) appreciates the opportunity to provide the following comments on the Energy Imbalance Market (EIM) Offer Rules Technical Workshop held by the California Independent System Operator (CAISO) on July 19, 2018.

1. PSE requests that CAISO move forward with enhancements to the existing resource sufficiency tests including improving the accuracy of the resource sufficiency requirement, and implementing a threshold for failing the tests.

PSE appreciates the information and responses that the CAISO provided to stakeholder inquiries about the resources sufficiency test during the workshop. Although CAISO does not intend to move forward with a stakeholder initiative on the resource sufficiency test in the near future, PSE urges CAISO to move forward with enhancements that do not require a stakeholder process to implement. Two such enhancements that were discussed during the workshop include improving the accuracy of the resource flexible ramping requirement, and implementing a threshold for failing the resource sufficiency tests.

- Improving the Accuracy of the Flexible Ramping Requirement
 During the April 30, 2018 technical workshop, PSE and other stakeholders communicated that the
 methodology for calculating uncertainty of renewable resources should be improved when
 determining the flexible ramping requirement in the EIM. PSE appreciates the work that the CAISO
 has done to explore the quantile regression methodology that better accounts for current solar and
 wind conditions in setting the flexible ramping requirement in the proposed flexible ramp product in
 the Day-Ahead Market Enhancements initiative¹, and believes that it makes sense to move forward
 with this effort in the context of the existing resource sufficiency tests in the EIM.
- Threshold for Failing the Flexible Ramp Sufficiency Test (FRST)
 During the discussion on what resources should count towards FRST requirement, it was noted that there are occasions that an EIM entity may fail the FRST by a minimal amount, but likely have adequate resources (such as available balancing capacity) to ensure that the entity isn't leaning on the market. PSE supports the notion that one way to address this issue is to implement a threshold

¹ See slides 49-63 of revised workshop materials for Day Ahead Market Enhancements workshop held on June 19, 2018: http://www.caiso.com/Documents/Agenda-Presentation-Day-AheadMarketEnhancements-Jun19-2018-Updated.pdf

for failing the FRST, and encourages the CAISO to move forward with implementing this enhancement.

2. PSE believes that a fourth default energy bid option should be resource agnostic and apply to other resources that have physical limitations similar to hydro resources.

During the workshop, CAISO noted the possibility that the upcoming stakeholder initiative on EIM mitigation may address both market power mitigation processes and default energy bids (DEB). PSE supports an examination of market power mitigation processes, and believes that any new DEB option, if considered in the initiative, should be resource agnostic and apply to other resources that have physical limitations similar to hydro resources.