

Powerex appreciates the opportunity to submit comments respecting the proposed revisions to the Business Practice Manual (“BPM”) for Market Instruments to implement a default energy bid structure for hydro resources participating in the energy imbalance market (“EIM”). Powerex strongly supports CAISO’s decision to move forward with implementation of a default energy bid option for hydro resources and appreciates the significant time and effort that CAISO has put into working with stakeholders to develop a structure that accommodates the unique facts and circumstances of hydro resources.

Powerex believes that the proposed language generally reflects the framework set out in the draft tariff language that CAISO has submitted to the Federal Energy Regulatory Commission (“FERC”) to implement the local market power (“LMPM”) enhancements. As discussed further below, however, Powerex believes that two targeted revisions to the draft business practice manual are necessary:

- Modify the manner in which CAISO will calculate the weighted blend of prices at multiple additional electric trading hubs for which the applicant has shown long-term transmission rights; and
- Clarify that resources may request that CAISO include Alberta as an electric trading hub for purpose of the Long-Term Geographic Component of a resource’s default energy bid.

I. Treatment of Long-Term Transmission Rights In The Calculation Of The Long-Term Geographic Component Of The DEB

The proposed language added to the BPM to accommodate the default energy bid option for hydro resources states that “[r]esources with less firm transmission rights than resource maximum capacity will only be eligible for a weighted blend of electricity prices between the hub with transmission rights and the default electric hub.” This statement is also supported by example calculations later in the document.

Powerex is concerned that blending each additional geographic hub with the default hub in the specific manner proposed fails to consider a resource’s ability to transact at *multiple* additional electric trading hubs. This is because the proposed blended price at a given geographic hub only reflects two opportunities: the ability to sell at that specific geographic hub and the ability to sell at the default hub. For resources with multiple additional electric hubs, this approach would produce a default energy bid that does not appropriately reflect the opportunity cost of a hydro resource participating in the EIM.

This can be illustrated using a numerical example. Assume a resource with a PMax of 100 MW and two additional geographic hubs:

		Transmission Rights	Weighting Factor	Hub Price	<i>Blended Price for DEB Calc</i>
Default Hub	Mid-C	n/a	n/a	\$10	\$10
Additional Hub 1	NP-15	50 MW	0.5	\$40	\$25
Additional Hub 2	SP-15	25 MW	0.25	\$50	\$20

The table above shows the results of the proposed method to blend each additional electricity trading hub with the default hub to produce two blended hub prices (highlighted in red). For example, the

blended NP-15 price is \$25, which is calculated as 50% NP-15 and 50% Mid-C. These blended prices are then included in the long-term components:

$$\text{Long-Term Component} = 1.1 * \text{MAX} (\$10, \$25, \$20) = 1.1 * \$25 = \text{\$27.50}$$

Powerex does not agree, however, that \$25 (multiplied by 1.1) is indicative of the seller's opportunities to transact at multiple geographic hubs in this example. Based on the above hub prices and transmission rights, the resource would be expected to be able to sell:

- 25% of its output at SP-15 for \$50
- 50% of its output at NP-15 for \$40
- 25% of its output at Mid-C for \$10

The weighted-average electricity trading hub price that reflects these opportunities is therefore:

$$(25\% * \$50 \text{ SP-15}) + (50\% * \$40 \text{ NP-15}) + (25\% * \$10 \text{ Mid-C}) = \text{\$35}$$

Powerex believes that \$35 is the correct weighted-average price that should be included in the long-term component, along with the default hub, as follows:

$$\text{Long-Term Component} = 1.1 * \text{MAX} (\$10, \$35) = \text{\$38.50}$$

Powerex believes that calculating a transmission-weighted average price using all of its accepted hub prices for use in the long-term/geographic component is consistent with CAISO's proposed tariff language, which references the use of a proportional weighted average of the pricing hubs in the long-term component:

*For resources that Scheduling Coordinators demonstrate a quantity of firm transmission rights to a requested electric pricing hub or similarly priced location that is less than the hydro resource's capacity, the CAISO will include the requested electric pricing hub up to the quantity demonstrated transmission rights, **and apply a proportional weighting of the resource's transmission rights to calculate a weighted average of those bilateral electric pricing hub prices** when calculating the value of the long-term/geographic component of the Hydro Default Energy Bid.¹*

In order to ensure consistency with the proposed tariff language, Powerex requests that the draft BPM and technical solution be modified in a manner consistent with the alternative calculation set out above.

II. Inclusion Of Alberta As A Relevant Electric Pricing Hub

CAISO's proposed BPM language references a number of hubs that can be included in the calculation of the default energy bid for a hydro resource, including Mid-Columbia, Palo Verde, NP-15, and SP-15. Notably, however, the proposed language does not reference the Alberta hub. In its filing proposing to revise its tariff to implement the LMPM enhancements, CAISO explained that the "Alberta electric pricing

¹ Cal. Indep. Sys. Operator Corp., CAISO Tariff Amendments to Enhance Local Market Power Mitigation and Reflect Hydroelectric Resource Opportunity Costs in Default Energy Bids, Docket No. ER19-2347-000, Proposed Section 39.7.1.7.2(b) (filed July 2, 2019).

hub will be an eligible electric pricing hub in addition to a resource's default electric pricing hub in the Long-Term/Geographic component."² Powerex respectfully requests that CAISO revise the BPM to clarify that resources will have the opportunity to request the inclusion of the Alberta electric pricing hub in the calculation of the Long-Term/Geographic Component of its default energy bid.

² *Id.*, Transmittal Letter at 37.