

Capacity Auction Enhancements –

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Feedback Provided by:

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Following the October 25 General and Technical sessions on the Capacity Auction Enhancements, the Independent Electricity System Operator (IESO) is seeking feedback from participants on the information presented at those two respective sessions that are outlined in the table below.

The meeting materials from these sessions can be found on the [Capacity Auction Enhancements engagement initiative](#).

Please provide feedback by November 4, 2022 to engagement@ieso.ca.

This feedback will be posted on the Capacity Auction Enhancements engagement webpage **unless otherwise requested by the sender or noted as confidential.**

The IESO will work to consider and incorporate comments as appropriate and post responses on the webpage.

Thank you for your contribution.

Engagement Topic 5.0 – Qualification: HDR Resources (Standby Charge)

Topic	Feedback
<p>Please provide comments on the benefits, risks, pros and cons, and considerations the IESO should be aware of related to the IESO's preferred proposal and other stakeholder and IESO proposals described in Discussion Brief 1.2 - HDR Qualification and Standby Availability Charge</p>	<p>Voltus agrees with AEMA's comments that the latest proposal, relative to prior versions, has benefits including:</p> <ul style="list-style-type: none">- Better alignment of financial incentives with desired behavior- Closer alignment with other UCAP methodologies- Less sensitivity to the standby trigger <p>Voltus believes that the proposed 3x availability penalty is reasonable, and is an improvement from prior proposals.</p> <p>The most troubling risk is the proposal to <i>both</i> reduce in-season capacity payments <i>and</i> de-rate resources into the future based on capacity test performance. This proposal is duplicative. Just one of these two program design changes would create sufficient incentive for participants to nominate HDR participants for conservative, reliable MW volumes that can be counted upon to perform in emergency conditions. Adopting both an enhanced capacity penalty and a de-rate is unduly punitive toward HDR resources.</p> <p>Additionally, the proposal to de-rate resources reflects a misunderstanding of how aggregated resources are formed and function. Aggregated resources comprise many underlying commercial and industrial facilities with curtailable load. The performance of each underlying facility is independent of the performance at others. The mix of resources in an aggregation changes season-to-season and year-to-year.</p> <p>To mimic the scenario in the discussion brief, consider an aggregated resource that is nominated</p>

for 10 MW but performs at 8 MW. The resource is made up of Site A, which performed at 6 MW on a 5 MW nomination and Site B, which performed at 2 MW on a 5 MW nomination. The aggregated resource is assigned an 80% de-rate into the future. Based on its poor performance, Voltus drops Site B from its portfolio. Voltus then signs up two new facilities, Site C and Site D, and subjects them to Voltus-run pre-season testing in which they demonstrate 3 and 4 MW of curtailment respectively. Now, based on performance data, Voltus believes that its resource can perform at 13 MW (6 MW from Site A + 3 MW from Site C + 4 MW from Site D). The resource's UCAP, however, would be de-rated from 13 MW to 10.4 MW based on the historical poor performance of Site B, which is now no longer in the resource at all.

Any de-rating should occur at the facility or utility account level, and should be applied as a kW cap rather than a percent de-rate. Tactically, this would mean that on a go-forward basis Site A could be nominated for up to 6 MW (its test performance) and Site B for only 2 MW. New sites, like C and D, would not have performance history with IESO so would not be subject to enrollment caps or de-rates.

Last, Voltus reiterates its belief that HDR resources are impacted by the current capacity and season definitions. Across North America, HDR resources are generally assessed against their ability to deliver curtailment during peak load conditions within the season. Many portfolios have a high degree of weather sensitivity, which means they are most able to curtail when weather is at seasonal highs or lows. The IESO's focus on tests during the shoulder months, when coupled with the IESO's single baseline approach, has historically impacted the ability for HDR resources to perform. Voltus is concerned that if the IESO schedules the only test week within the shoulder months, this could dramatically impact HDR performance. In order to counter this, Voltus suggests that the IESO create 4

capacity seasons: Spring (April to May), Summer (June to September), Fall (October to November) and Winter (December to March). This would better enable all resources to provide the IESO with capacity values that reflect their ability to perform in each season and the IESO to match those capabilities with capacity needs that vary throughout the year. If the IESO pursues 4 seasons, Voltus recommends changing the testing requirement to only once every 180 days, instead of once per season.

Please provide any other general feedback on [Discussion Brief 1.2 – HDR Qualification and Standby Availability Charge](#)

The Discussion Brief assumes that Capacity payments, penalties, and accreditation are based only on test performance. In a season with an actual dispatch, however, Capacity payments, penalties, and any accreditation impacts should be based on emergency event performance rather than test performance.

The HDR qualification proposal fails to consider the benefit of avoided transmission and distribution losses that behind-the-meter resources provide. Any 1 MWh of load curtailment at a retail electricity facility is worth more than 1 MWh of energy to the transmission system, because there is no risk of line losses in getting the energy to a customer. Wholesale demand response programs across the United States recognize this reality and compensate providers of load curtailment accordingly by adding a so-called “gross up” when converting from ICAP to UCAP. As part of the UCAP process for HDR resources it is important for the IESO to also consider the positive impacts HDR brings.

UCAP Loss Factor Adjustment Examples

(For example, see: p. 3744 Attachment K, Section 8.3: “Metering” in the PJM OATT. “Metered load reductions will be adjusted up to consider transmission and distribution losses as submitted by the Curtailment Service Provider and verified by

	<p>PJM with the electric distribution company.”, Section 4.3.7: Determination of Nominated Values for Load Management in PJM Manual 18: PJM Capacity Market at https://www.pjm.com/-/media/documents/manuals/m18.ashx , Section 4.12.2.1.1: “SCR ICAP” on p. 155 in NYISO’s “Installed Capacity Manual” at https://www.nyiso.com/documents/20142/2923301/icap_mnl.pdf/234db95c-9a91-66fe-7306-2900ef905338, Section 11: Transmission and Distribution Loss Factors in the CPUC “2022 DER Avoided Cost Calculator Documentation” at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-side-management/acc-models-latest-version/2022-acc-documentation-v1a.pdf, 4.2.5.11: UCAP Determination - Full Requirements PPA on p. 54 in MISO BPM 11: Resource Adequacy at https://www.misoenergy.org/legal/business-practice-manuals/)</p>
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Engagement Topic 7.0 – Demand Curve Review

Topic	Feedback
<p>Please provide any feedback related to the approach presented for updating the reference price.</p>	<p>Voltus echoes the AEMA comments that seasonal derates to the reference technology should be applied.</p>
<p>Please provide feedback on additional considerations the IESO should be aware of when determining the maximum auction clearing price.</p>	

Please provide any other general feedback on [Discussion Brief 3.0 - Demand Curve Review](#)

In discussion of the IESO's key objective that the Capacity Auction be able to provide a stable and appropriate investment signal to market participants, Voltus believes that changes to the Capacity auction to increase the maximum (and average) clearing price are required. However, the issue of target clearing volumes must also be addressed as capacity continues to be procured through alternative mechanisms, preventing the Capacity Auction from being the stable long-term investment signal that it is in many markets across North America.

Market Rules

Market Rule Chapter	Sub-section	Design Enhancement (Capacity Qualification/Testing Framework)	Feedback
7 – System Operations and Physical Markets			
11 - Definitions			

Market Manuals

Market Manual	Sub-section	Design Enhancement (Capacity	Feedback

		Qualification/Testing Framework)	Sarah
12 – Capacity Auctions			
5.5 - Physical Markets Settlement Statements			
4.3 - Real-time Scheduling of the Physical Markets			

General Comments/Feedback:

Voltus disagrees with the IESO’s assertion that a week-long outage could have little to no impact on a resource’s ability to perform during an event. Voltus believes that the IESO is thinking about outages too narrowly and not looking at situations where site’s have equipment on outage that prevent them from curtailing, but are still operating.

The following example illustrates a situation where the impact on performance can be very pronounced:

- Resource composed of 4 sites with the following baselines and nominations:
 - Site A: 30 MW Baseline, 30 MW nomination. Site’s generator is on outage and unable to respond to an event that week.
 - Site B: 30 MW Baseline, 15 MW Nomination.
 - Site C: 20 MW Baseline, 10 MW Nomination.
 - Site D: 20 MW Baseline, 5 MW Nomination.
- The day-of loads for each site are higher than their baselines due to weather conditions.
- Loads in the IDA period are as follows:
 - A: 40 MW
 - B: 35 MW
 - C: 30 MW

- D: 25 MW

Resource baseline	100 MW
Adjusted baseline including site with generator on outage:	120 MW*
Resource load at time of activation	130 MW
Resource load after curtailment	100 MW
Resource load reduction from baseline	20 MW
Actual Curtailment	30 MW

*Capped at 1.2

This circumstance becomes likely in the early Summer period and has impacted Voltus' resources before.