



Independent Electricity System Operator (IESO)

RE: Comments on Improving Accessibility of Operating Reserve

To whom it may concern,

GerdaU Long Steel North America, "GerdaU" is pleased to have the opportunity to provide comments to the IESO on improving the Accessibility of Operating Reserve (OR) in the IESO administered markets. With 2 steel mills in Ontario and one in Virginia (PJM), GerdaU has first-hand knowledge of existing market rules regarding the provision of OR. The steel we produce in the Ontario mills is already under extreme pressure from off-shore producers making the revenue stream from the provision of OR a very important tool in managing our energy costs in the Ontario electricity market. The comments below highlight the areas of potential workable solutions. We would be pleased to provide more detailed input as your thinking evolves.

GerdaU understands the importance of the IESO's reliance on both loads and generators in providing a reliable response to operating reserve activations (ORAs). GerdaU has been providing operating reserve since 2005 in Ontario and 2007 in PJM and we take pride in our performance record when called upon to reduce load during an activation event. GerdaU offers the following comments for the IESO's consideration in this stakeholder process.

1. Comparison to Industry Standards - Based on the information provided by the IESO during the conference call on April 10th, it is our understanding that the IESO has been achieving top performance in its response to disturbances on the grid and because of this performance, NPCC is allowing the IESO to carry the least amount of reserve. This is an indication that although there are some issues related to the amount of OR that is accessible, that the IESO is performing very well compared to industry standards
2. Comparison to PEERs - In addition, in our experience with PJM, and looking to the 2018 Synch Reserve Performance Report, included as table 1 below, PJM achieved only 54% response from Tier 1 resources (headroom resources) and 92% response for Tier 2 (scheduled resources) load and generator response. As a first step it would be interesting to understand how the IESO compares to its peers in these categories.
3. After reviewing how the IESO's performance compares to industry and peers, if there continues to be a concern with availability of OR, the following items could be evaluated.
 - a. Generators – if a generator is bidding its headroom into the OR, but then effectively limiting the OR response by operating in compliance but at the top end of its dead-band, then it may be appropriate to limit the dead-band

in which the generator can operate or to limit the OR schedule for the generator to (maximum MW bid – OR MW offered – deadband MW).

- b. Dispatchable Loads – unlike a generator, a dispatchable load that has a process upset in real time and is therefore not available for OR activation, has no way to de-rate in the current hour. The dispatchable load can only pull it's offers for the next hour by removing its bids during the restricted bid window. This may give the appearance that a dispatchable load is "less available", however in practice and by the market rules, a load must inform the IESO control room of its unavailability and the IESO then takes action to compensate. One solution could be to enable for dispatchable loads, the same mechanism that is available to a generator, to issue an outage slip in the current hour.

Table 1

2018 MW	Tier 1			Tier 2 Response					
	Generation Response	Response Percent	DSR Response	Generation		Response Percent	DSR		Response Percent
			Non-Tier 1 Estimate	Response	Assigned		Response	Assigned	
2018 Q1	2,029	37%	73	933	933	100%	341	397	86%
2018 Q2	4,347	64%	103	352	429	82%	302	332	91%
2018 Q3	6,627	56%	462	2,657	2,818	94%	1,419	1,503	94%
Oct	216	90%	30	349	507	69%	83	100	82%
Nov									
Dec									
YTD	13,219	54%	669	4,291	4,687	92%	2,146	2,333	92%

Source: <https://www.pjm.com/-/media/committees-groups/committees/oc/20190305/20190305-item-18-fourth-quarter-synchronized-reserve-performance.ashx>

Thank you for your consideration of our comments. We look forward to further discussions.

Sincerely,

Darren MacDonald
 Director of Energy
 Gerdau Long Steel North America