

## Technical Difficulties in Issuing Demand Response Auction Results

Providing accurate information in a timely fashion is of utmost importance to the IESO. This year, the IESO was delayed in issuing the post auction report due to an IESO reporting display issue. Our investigation revealed that the problem was with the report display function and not with the underlying data (i.e. DRMP Capacity Obligations, Auction Clearing Price) published on our public reports site. Further investigation showed that this reporting issue was caused by a DRAP receiving both physical and virtual capacity obligations within the same zone. This unexpected outcome required coding changes to address how our public reports display this information; however, the calculation engine and data passed to our reporting systems, and the date in the report file was accurate. The display coding changes could have taken days to test and implement. To ensure that timelines in Market Manual 12 were adhered to, the IESO was required to issue the public post auction report on Thursday, December 13 with one set of numbers incorrectly displayed (Table 2 - EnerNOC capacity obligations in the Niagara Zone) while simultaneously pursuing an enduring fix to the aforementioned reporting issue. The directly impacted DRAP was notified about the issue and informed that its private post auction report would reflect the correct data.

On Friday, December 14, IESO deployed the display coding change to address the reporting issue, meaning the report is now displayed correctly. The report was not up-versioned as the data in the XML was unchanged, only the stylesheet used to display the data was updated. The stylesheet is common for all XML files of this type. Further details on the technical issue are provided below.

*Technical Issue:* The IESO reporting website uses both XML and XSL properties in displaying the reports. XML is where the data is held and XSL is the way the report is rendered in the browser (XSL is known as a stylesheet for XML files). The problem fell within the way the XSL code renders the information. It is important to note that the XML and XSL are two different files. On Friday, the XSL code was corrected to fix this rendering problem. Since the data in the XML file was correct and remained unchanged, and the version number is associated with the dataset, the report was not versioned up.

Overall, IESO has a very robust process in place to verify and validate the DR auction results. Every year, the auction results are thoroughly vetted and this year was no different. The issue experienced this year was strictly a reporting issue which has now been addressed.

## **Demand Response Auction Zonal Limit Treatment in Auction Mechanism**

The IESO has received several inquiries from Market Participants around the results of the 2019 Demand Response Auction, specifically regarding offers that are priced lower than the Zonal Clearing Price but did not clear the auction.

The **Total Zonal DR Limit** sets the price in any zone when it is binding based on the zonal pricing mechanism. The zonal pricing mechanism is further explained in Market Manual 12 Section 5.2. The Virtual Zonal DR Limit for each zone is a binding limit. As defined in the Market Manual 12 Section 3.6, Virtual Zonal DR limit is the “maximum amount of demand response capacity from resources not revenue-metered by the IESO that can be procured. This limit will not set the zonal demand response auction clearing price.” In addition, Market Manual 12 Section 5.2 states, “This [DR auction] clearing process will respect all demand response zonal constraints and will determine the demand response auction clearing price for each zone.” As a result, while the virtual zonal DR limit is reached, only lower priced physical DR capacity could still clear the auction in that zone. Therefore, just reaching the Virtual Zonal DR Limit will not set a Zonal Clearing Price that is different from the Ontario-wide Auction Clearing Price. The Zonal Clearing Price would only be different if the **Total Zonal DR Limit** has been reached which did not occur in this case.

In summary, even though there were remaining lower priced offers for virtual DR in the zone or zones of concern, the Virtual Zonal DR Limit prevented clearing these offers as per the auction mechanism.

These limits could be found in Table 4 – “Zonal Constraints” of the Public Pre-Auction Report [here](#). Market Manual 12 could be found [here](#).