

Memorandum

To: Stakeholder Advisory Committee

From: Kim Warren, Vice President, Market and System Operations and COO

Date: August 12, 2016

Subject: Operations Update

As expected, the summer has proven to be hotter and drier than those experienced recently. In fact, to this point, there have been more than 25 days (and counting) with temperatures over 30°C and precipitation levels well below historical averages. Particularly, during the period of August 10 and 11 we saw maximum temperatures of 34.8°C – with a humidex of 40°C – resulting in a peak electricity demand of 23,100 MW. The long period of hot and dry conditions this summer has led to low hydroelectric generation availability throughout the Province and transmission constraints, particularly in the Ottawa area that decreases our ability to import power from our neighbours. In addition, although transmission and generating assets have performed very well through the summer months, the IESO experienced some forced outages to a number of large generating units over the last week, reducing the generation capacity substantially. Also making operations challenging through these periods of hot weather is the fact that many of Ontario's neighbours are facing similar issues and are more limited in their ability to support imports into Ontario at times when some of its units were lost.

In addition to the IESO's regular coordination activities with its neighbours during periods of stressed power system conditions, understanding their capabilities and challenges is even more important. It is crucial that IESO operations know what to expect from others in terms of import capability and how much support they may be looking for from Ontario. As part of IESO control actions during stressed system conditions, the IESO also recalls and/or revokes transmission outages to improve transmission transfer capability. This action provides access to generation or import capability that would otherwise be unavailable.

Given the multiple constraints both internal and external to the Province and to provide a reliable integrated solution that spans many hours, the IESO proactively coordinates with participants to better understand fuel capabilities and resource availability. This effort results in

maximizing resource utilization of energy limited resources during peak periods and having appropriate unit commitments. These activities peaked during the week of August 8. During this period all available Ontario assets were required in service to meet expected Ontario demands. The events reinforced the fact that during peak periods of demand Ontario has adequate but not abundant resources.

Throughout the last week the IESO also benefitted from DR Pilot resources, Capacity Based Demand Response (CBDR) program participants, the PeakSaver program and the Industrial Conservation Initiative customers who reduced consumption during peak periods. In total, approximately 630 MW of demand response was seen on the system from these programs on August 11.

Hotter and dryer than normal conditions are expected to continue for the remainder of the summer and are not expected to be problematic.