### IESO Licence Obligation under Section 6.2 Part (e)

Provide the Board, on or before the end of each calendar year, with the status of actions taken by the Licensee further to all recommendations addressed to the Licensee in any report issued by the Market Surveillance Panel in that year and the preceding four calendar years to the extent that they remain outstanding and, where no action has been taken in relation to a recommendation, the rationale for not taking action. The Licensee's response to recommendations in any report issued by the Market Surveillance Panel within 30 days of the end of the calendar year will be included in the succeeding report.

MSP Report Date	Recommendation	Response for 2019 Update to the OEB
April 29, 2019	<ul> <li>Recommendation 3-1</li> <li>A) The IESO should formalize the process by which it determines when to disable and re-enable the variable forecasting tool, and should communicate that process to market participants to increase transparency.</li> <li>B) When a variable generator is on mandatory dispatch and the forecasting tool is disabled the IESO should set the generator's unconstrained schedule at its forecasted output rather than its maximum offered capacity.</li> </ul>	<ul> <li>Part A <ul> <li>On track and the IESO expects to finalize the formalized process by December 2019.</li> </ul> </li> <li>Part B <ul> <li>The IESO has completed its assessment of solutions that best reflect a variable generator's capability in instances outlined by the Panel.</li> <li>The IESO notified the Panel in August 2019 that its update was delayed due to other market enhancing initiatives prioritized ahead of this one. The IESO will be in a position to present its completed assessment to the Panel in January 2020.</li> </ul> </li> </ul>
March 22, 2018	Recommendation 3-1 The Independent Electricity System Operator should implement rules that allow it to recover Congestion Management Settlement Credit payments made to dispatchable loads when those payments are the result of an operational constraint arising from conditions at the dispatchable load's facility. The IESO should also examine whether the scope of the current provisions that allow it to recover CMSC payments from generators in relation to SEAL-related constraints should be expanded to cover any other operational constraints arising from conditions at the generator's facility.	The issue identified by the MSP is relevant to an ongoing investigation which has slowed the IESO's progress on this matter. The IESO has reviewed the Market Rules and processes related to CMSC payment recoveries and is considering the changes that would be required to recover the CMSC as described by the Panel. The IESO, considering all other priorities, will initiate a market rule amendment to claw-back the unwarranted CMSC. The IESO will continue to update the Panel with its progress. Though not a complete response to the MSPs recommendation, in June 2019, the IESO eliminated a \$4,000 materiality threshold to claw-back unwarranted CMSC payments from dispatchable loads.

MSP Report Date	Recommendation	Response for 2019 Update to the OEB
	Recommendation 4-1 The Independent Electricity System Operator should set the replacement bid price to \$0/MWh, or slightly negative, when it calculates constrained-on Congestion Management Settlement Credit payments for exports bid at negative prices.	No change to the status progress of this update. The IESO is concerned that a higher replacement bid price floor for calculating CMSC, as suggested by this recommendation, may deter traders from submitting export bids below \$0/MWh on any intertie due to the risk of being constrained-on which would impose unnecessary losses on traders and deter trading. This could result in both a reduction in the effectiveness of a valuable system tool during surplus conditions and possibly higher costs to ratepayers. The IESO continues to monitor the materiality of the issue raised by the Panel. The amount of uplift charges related to the recommendation remains low at less than \$70,000 in total from 2016 to November 2019. The IESO does not intend to pursue this recommendation any further at this time.
	<ul> <li>Recommendation 4-2</li> <li>A. The Independent Electricity System Operator's Board of Directors should revise the materiality threshold value such that operating reserve payments are clawed back when a market participant fails to fully respond to its operating reserve activation.</li> <li>B. When a market participant fails to fully respond to an operating reserve activation, the Independent Electricity System Operator should calculate the claw back based on the ratio of the energy not provided in response to the activation relative to the energy required by the activation.</li> </ul>	Parts A and B Please refer to the IESO's response below to Recommendation 3-1 from the May 2017 MSP report.

MSP Report Date	Recommendation	Response for 2019 Update to the OEB
May 8, 2017	Recommendation 3-1 The IESO should take steps to ensure that dispatchable loads are only compensated for the amount of operating reserve they were capable of providing in real-time. More fundamentally, the IESO should explore options for ensuring unavailable OR is not scheduled in the first instance.	The IESO is on track and expects to finalize the recommended solution with stakeholders to address the issue with accessing Operating Reserve (OR) from OR providers by Q1 2020. As part of the improving accessibility of OR stakeholder engagement, the IESO held three engagement sessions in 2019 to present the options to address the OR accessibility issue and the evaluation framework to determine the most viable option. In the most recent engagement, the IESO presented the recommended solution (based on stakeholder feedback) to address the OR accessibility issue and has requested stakeholder feedback by early January 2020. Once the solution is finalized based on stakeholder feedback, the IESO will provide further details on the
	Recommendation 3-2	implementation timeline. For further details on this initiative, please refer to the <u>Improving Accessibility of Operating</u> <u>Reserve</u> stakeholder engagement webpage. The IESO is on track to address this
	The IESO should revise the methodology used to set the intertie failure charge to include congestion rents that an intertie trader avoids	issue through the Energy stream of the Market Renewal Program (MRP) – expected to be delivered in Q1 2023.
	when it fails a scheduled transaction for reasons within its control.	The Panel's recommendation to revise the intertie failure charge seeks to mitigate the impact that failed intertie transactions have on Financial Transmission Rights (FTR) funding. Through the MRP, the IESO will move FTR settlement from real-time to a financially-binding day-ahead market. This solution will address the Panel's concern as it decouples FTR funding (day ahead) from failed intertie transactions (real-time).
		The IESO does not intend to take any additional action at this time.

MSP Report Date	Recommendation	Response for 2019 Update to the OEB
	<ul> <li>Recommendation 4-1</li> <li>A. The IESO should revise the manner in which it allocates disbursements from the Transmission Rights Clearing Account such that disbursements are proportionate to transmission service charges paid over the relevant accrual period.</li> <li>B. The IESO should not disburse any further funds from the Transmission Rights Clearing Account until such time that Recommendation 4-1(A) has been addressed.</li> </ul>	<b>Part A</b> The IESO is presently performing a review of the TRCA disbursement methodology. This review included a report prepared by Brattle that examined the current methodology and alternative methodologies. The report was published on October 17, 2019. Following the publication of the report the IESO held two meetings to discuss the findings of the report with stakeholders. The IESO will continue to engage stakeholders in 2020 on the appropriate methodology and on the timeline for implementing any change to the existing methodology, including timelines associated with the market rule amendment process.
		<b>Part B</b> As part of the IESO's stakeholder engagement referenced in Part A, the IESO is consulting stakeholders on the appropriate date for implementation which includes considerations of suspending further disbursements from the TRCA. For further details on this initiative, please refer to the <u>Market</u> <u>Development Advisory Group</u> webpage.
	Recommendation 4-2 The IESO should reassess the value provided by the capacity procured through its Demand Response auction in light of Ontario's surplus capacity conditions, as well as the stated preference of the government and the IESO (through its Market Renewal initiative) for technology-neutral procurement at least cost.	The IESO continues to be committed to developing and enabling supply resources to compete to provide Capacity – that is, resources that would be available to supply energy – and improve power system reliability. On September 5, 2019, the IESO published Market Rule amendments to transition the Demand Response Auction (DRA) into the Capacity Auction (formerly Transition Capacity Auction). The IESO's Capacity Auction will create a level playing field to support technology-neutral procurements of resources by evolving the DRA to include participation of other resources. The implementation of the first capacity auction is pending the outcome of an Ontario Energy Board's application review of the Amendments, which is expected to conclude in late January, 2020.

MSP Report	Recommendation	Response for 2019 Update to the OEB
Date		
November 17, 2016	<b>Recommendation 2-1</b> Given the number of recent changes in operating reserve market, the Panel recommends that the IESO review whether the real-time operating reserve prices transparently reflect the value of operative reserve as more Control Action Operative Reserve capacity is scheduled, and whether changes to Control Action Operative Reserve offer quantities and prices could enhance the efficiency of the operating reserve market.	The IESO is on track to address Control Action Operating Reserve (CAOR) through the MRP. As part of the MRP, CAOR will be replaced in the market with the introduction of an operating reserve demand curve (ORDC) that aims to better reflect scarcity/violations in settlement ready prices. An ORDC is a more appropriate method to reflect OR prices in the new day-ahead and real-time markets. The MRP Energy stream is expected to go-live by Q1 2023.
	Recommendation 3-1 The Panel recommends that the IESO eliminate from the Real-time Generation Cost Guarantee (RT-GCG) program the guarantee associated with a) incremental operating costs for start-up and ramp to minimum loading point; and (b) incremental maintenance costs for start-up and ramp to minimum loading point.	As discussed with the Panel in 2018, the IESO does not intend to take any additional actions at this time to change the current RT-GCG program design. The Enhanced Real-time Unit Commitment (ERUC) process will be replacing the IESO's current pre- dispatch process and the associated Real-time Generator Cost Guarantee program. In 2019, the IESO published the ERUC high-level design and is currently working with stakeholders in the detailed design. The ERUC process is expected to go live by Q1 2023 as part of the MRP Energy stream.
	<b>Recommendation 3-2</b> The Panel recommends that the IESO modify the RT-GCG program such that the revenues that are used to offset guaranteed costs under the program are expanded to include any net energy and operating reserve revenues earned, as well as all congestion management settlement credit (CMSC) payments received on: (a) output above a generation facility's minimum loading point during its minimum generation block run time (MGBRT), and (b) output generated after the end of the facility's MGBRT.	Please refer to the IESO's response above to Recommendation 3-1 from the MSP Report published on November 17, 2016.

MSP Report	Recommendation	Response for 2019 Update to the OEB
Date		Response for 2019 optime to the OLD
October 8, 2015	<b>Recommendation 2-1</b> The Panel recommends that the IESO assess the methodology used to set the intertie zonal price for a congested intertie when the Net Interchange Scheduling Limit is binding or violated, in order to make the incentives provided by the intertie zonal price better fit the needs of the market.	The IESO is on track to address NISL pricing through the MRP. As part of the MRP, the IESO is better integrating violation pricing, which includes penalty prices for the NISL constraint. Having a penalty price for the NISL constraint allows prices to reflect when NISL is binding or violated. This will then send price signals that incent a market response that is consistent with system needs. The MRP Energy stream is expected to go live by Q1 2023.
	<b>Recommendation 2-2</b> To the extent that the IESO believes the Real-Time Generator Cost Guarantee program continues to be needed, the Panel recommends that the IESO require generators to make more specific cost submissions under that program.	Please refer to the IESO's response above to Recommendation 3-1 from the MSP Report published on November 17, 2016.
February 2015 Market Surveillance Panel Investigation Report	<ul> <li>a) The IESO should review the CMSC payments being made to dispatchable loads since the November/December 2010 amendment to the Market Rules in order to determine whether there are significant amounts that continue to be unwarranted (i.e. paid as a result of market participant actions rather than to compensate for operating profit reductions arising from responding to dispatch instructions caused by grid conditions).</li> <li>b) If necessary, the IESO should make</li> </ul>	Please refer to the IESO's response above to Recommendation 3-1 from the MSP Report published on March 22, 2018.
	further amendments to the Market Rules to eliminate unwarranted CMSC payments to dispatchable loads.	