# Transmission Rights Clearing Account (TRCA) Disbursement Methodology Review

Meeting Notes and Summary Stakeholder Feedback and Responses November 6 and December 4, 2019 Meetings

## Purpose

The IESO hosted meetings with stakeholders on November 6 and December 4, 2019 on the Transmission Rights Market Review, continuing discussions that were started with the Market Development Advisory Group (MDAG) in April and August 2019. The afternoon component of the November 6 MDAG meeting and the December 4 MDAG focused on Phase 1 of the review, i.e. TRCA Disbursement Methodology Review. These meetings were open for broad stakeholder participation. All materials related to the review are available on the <u>MDAG</u> webpage.

This document summarizes the combined meeting notes for the November and December meetings, summarizes the verbal and written feedback received at the meetings and afterwards and it also includes IESO responses. All written feedback that the IESO received is posted on the <u>MDAG webpage</u>.

Note: A separate document available <u>here</u> covers the meeting notes for the balance of the topics covered at the November 6 MDAG (Update: 2020 Work Plan and initial IESO assessment of stakeholder proposals, Technical Panel Review Draft Recommendations, and Market Rules and Market Manuals Framework).

# Meeting Notes: November 6, 2019

## Transmission Rights Market Review – Phase 1 Introduction

Tina Teng, IESO, provided members of the MDAG with background information on intertie congestion, transmission rights, and the Transmission Rights Clearing Account. This included on overview of the IESO's backgrounder, published in October 2019, on intertie trading, intertie congestion pricing, transmission rights, and the Market Surveillance Panel's (MSP) 2017 recommendation which was the key driver for the first phase of the TR Review, the TRCA disbursement methodology review.

There was no additional discussion on the background information.

# Brattle Review – Analysis of the TRCA Surplus Allocation Methodology

Dr. Shaun Ledgerwood, Brattle Group, presented Brattle's approach, analysis, and recommendations from its independent review of the current TRCA surplus disbursement methodology. Brattle recommends to allocate all TRCA surplus funds entirely to internal



Meeting Notes and Summary Stakeholder Feedback November 6 and December 4, 2019 Meetings

Ontario loads because loads are the owners of the transmission system and because returning TRCA surplus funds to exports can subsidize inefficient trading.

A stakeholder asked if there is evidence of the bidding behaviour stated occurring at this time in the Ontario market, i.e. if Market Participants view the surplus as a subsidy and are therefore making trades which they would not have a made without the subsidy.

Dr. Ledgerwood commented that the Brattle report did not study whether the TRCA disbursement to exporters actually changed trading behaviour but noted that the disbursement could subsidize intertie trade.

The MSP representative stated that the MSP did not look for specific cases where this bidding behaviour might be present.

A stakeholder asked if there is data on the scope of the surplus.

The IESO answered, as stated in the IESO's Backgrounder: Transmission Rights Market Review – Phase 1, the TRCA surplus in recent years has been approximately \$170 million/year which is disbursed between load and exporters, roughly 87% and 13%, respectively.

A stakeholder asked if Brattle is making the assumption that the current export transmission service rate (ETS) does not go toward or contribute to the long-term transmission cost of the system.

Dr. Ledgerwood commented that the ETS charge is a transmission service charge that is paid on an hourly basis based on usage which contributes to covering costs on the system; however, it does not cover the long-term costs of the system.

A stakeholder commented that the current ETS rate is not actually reflective of the actual costs. At the last OEB hearing, the ETS rate based on cost allocation principles was significantly lower than the current \$1.85. There is an implicit subsidy that exporters are paying to domestic internal loads in that case. The stakeholder asked how the ETS rate and the surplus disbursement relate.

The Brattle Group answered that it has not done a cost based study of whether \$1.85 is the correct number (too high or too low). As the ETS rate is a transaction charge, a trader should be thinking about their trades in any given hour on a margin, which means including the ETS rate in their decision to trade power.

A stakeholder asked what constitutes a long-term transmission cost versus not.

Meeting Notes and Summary Stakeholder Feedback November 6 and December 4, 2019 Meetings

Based on Brattle's experience in the US TR markets, if traders purchase transmission over a long period of time (a year or longer), they are eligible to receive the benefits such as surplus disbursements.

A stakeholder commented that congestion in the Ontario's market appears because of intertie transactions. If there were no interties, there would be no congestion, no TRs, and no disbursement of surplus. Traders should be included in the discussion on the disbursement of surplus.

A stakeholder asked if the impact of global adjustment (GA) settlements caused by imports and exports has been assessed.

Brattle responded that the impact on global adjustment was not studied as part of Brattle's review.

A stakeholder asked if the IESO is looking into expanding the TR market to include internal zonal prices.

*Through the Market Renewal Program high-level design, the IESO has decided that internal congestion surpluses will be managed through the internal residual allocation model.* 

## TRCA Disbursement Methodology Review and TR Market Review

Jason Kwok, IESO, summarized the IESO's perspective on Brattle's analysis and recommendations presented in their TRCA report. The IESO stated that it is aligned with the Brattle report's recommendation to allocate all TRCA surplus funds entirely to internal Ontario loads. The IESO is considering whether changes to the current methodology should be pursued and implemented by the May 2020 scheduled disbursement. Stakeholder feedback was requested on the TRCA disbursement methodology review, including the Brattle report, to help the IESO move forward on implementing changes to the TRCA disbursement methodology.

A stakeholder asked if there has been analysis done on the MSP recommended methodology, and the potential impacts on trades and exports.

The IESO has performed a qualitative analysis on the impact. The IESO notes difficulty in performing a quantitative analysis because the trader behaviour change is unknown. If the trader accounts for the surplus disbursement in trade decisions it could impact their bids but if they do not then there would be little, if any, impact.

A stakeholder commented that there should be at least a 6-month period before the implementation of the change to the disbursement methodology so that exporters can ensure they know what they are potentially getting, because they do factor this into their offers. A rational exporter would factor an expected TRCA disbursement into their offers. The

Meeting Notes and Summary Stakeholder Feedback November 6 and December 4, 2019 Meetings

stakeholder added that it is not fair or reasonable to implement that without certainty by a certain date.

A stakeholder commented that the change to the methodology should be made on a prospective basis so that market participants know exactly what they are transacting on. The change should not be made retroactively.

A stakeholder asked if a decision has been made on whether the change will be 0% of 2%.

*The IESO responded that it was awaiting this discussion with stakeholders to make the decision on the change.* 

A stakeholder asked if Brattle did further analysis on Option 2, split the surpluses between exporters and internal load, and if the disbursement amount was between 2% and 0%.

Brattle did not do a precise calculation on what the disbursement amount should be. The premise that guided the study Brattle performed was that the current system seems to be over-allocating. What guided Brattle's recommendation of the 100% allocation to loads is that it follows both the principles of efficiency and equity that were defined outside of the project, and also aligns more with what is happening elsewhere. So this is best practices converging with the economics.

Stakeholders requested that the IESO decision should be provided immediately and further notice (at least 6 months) to allow them time to integrate the new disbursement methodology into their process.

A stakeholder asked what the proportion of Transmission Rights (TRs) holders is that are pure speculators (traders that do not flow a single MW) versus physical traders.

The IESO said it would take that question back and respond in the meeting notes. The proportion of TR holders who own monthly TRs and do not trade in the energy market is 50%. For long-term TR holders, the proportion of TR holders who do not trade in the energy market is about 35%. The lookback period for the above analysis is from January 2018 until December 2019.

## TR Market Review – Phase 2

Jason Kwok, IESO, also spoke to the upcoming TR Review detailing that the IESO will launch a stakeholder engagement to make changes to the TR market before or at the same time as MRP changes.

Meeting Notes and Summary Stakeholder Feedback November 6 and December 4, 2019 Meetings

A stakeholder asked whether changes to the TR market resulting from the TR Review could have an effect on the TRCA disbursement methodology resulting in another review on the methodology.

The IESO responded that it is expected that the TRCA disbursement methodology review would determine a decision that would be consistent, compatible and aligned with the current market design and under the renewed market design.

### Meeting Notes: December 4, 2019

Jason Kwok, IESO, presented to stakeholders a review of the Transmission Rights Clearing Account (TRCA), how the IESO currently disburses surplus funds from the TRCA, the Market Surveillance Panel's (MSP) recommendation to review the disbursement of the surplus funds from the TRCA, and the IESO's review of the TRCA disbursement methodology with the help of a technical consultant (Brattle Group). The resulting recommendation from Brattle's report was to allocate 100% of the surplus funds from the TRCA to Ontario loads. The IESO proposed market rule amendments to allocate 100% of the TRCA surplus funds to Ontario loads effective for the May 2020 TRCA disbursement.

The IESO reviewed stakeholder feedback received after the November 6 MDAG meeting, and provided initial responses to stakeholders ahead of the IESO posting a complete document responding to all stakeholder feedback received.

A stakeholder asked how the IESO determined that the TRCA disbursement to exporters was a subsidy. Was there a quantitative assessment of any of the impacts of this change to the disbursement methodology?

The IESO explained that intertie trade should be driven by hourly market economics, which includes transaction costs. The OEB sets the cost for traders to use the system to export, and this is a fixed cost. Funds returned to traders unrelated to market economics can act as a subsidy to trade and potentially incentivize inefficient transactions.

A stakeholder commented that the timing and rationale of the IESO implementation timeline decision was not made clear to stakeholders at the time of issuing the Brattle report. Since the IESO waited over 2 years to act on the MSP report, the representative wondered why the IESO could not wait five more months before implementing the revised disbursement methodology is.

Meeting Notes and Summary Stakeholder Feedback November 6 and December 4, 2019 Meetings

The MSP representative responded that notice to traders about a potential change to the TRCA disbursement methodology was made when the MSP issued the recommendation relating to the TR Market in May of 2017 recommending an immediate suspension of TRCA disbursements pending a change to the methodology. The representative also noted that the IESO signalled the review in April of 2019.

A stakeholder did not agree that an MSP recommendation is a reliable notice that the IESO will adopt a change. In addition, the idea of reducing the allocation amount to exports to 0% from 13% was not part of the MSP Report and only introduced at the November 2019 MDAG meeting as per the Brattle Report.

A stakeholder requested that the IESO take more time to do this review properly, as they do not feel like the IESO has taken the right amount of time. The representative commented that these are the conditions that lead stakeholders to appeal market rules to the OEB.

Another stakeholder agreed with the comments that had been made and that if the IESO does not improve its stakeholder process, more market rule amendment appeals can be anticipated.

A stakeholder asked if the IESO views the MSP report as providing notice for potential changes in general. The stakeholders believe that this would be an enormous market risk for everyone to be aware of.

The IESO responded that its responses to the MSP Reports with regards to their recommendations are a first signal of the IESO's intent (agreement/disagreement); the responses typically outline the timeframe that we will look at it. These responses are posted publicly.

A stakeholder suggested that a roadmap of all of the initiatives the IESO is working on and where they are at would be useful.

The IESO agreed to bring more detail with respect to MSP recommendations to stakeholders. Stakeholders seemed to agree with that idea. IESO agreed and it will be discussed a future MDAG meeting.

A stakeholder commented that changing the fundamental settlement mechanism for an auction after the auction has occurred is not an appropriate method of handling any market product. The IESO could be setting a bad precedent with the timing of the change, especially in light of a capacity auction coming.

A stakeholder asked, what is the definition of a long-term transmission cost? The current single schedule market and day ahead market high level designs (HLD) describe returning congestion

Meeting Notes and Summary Stakeholder Feedback November 6 and December 4, 2019 Meetings

rents to the market participants that pay for the long-term costs of the transmission system. It is suggested that the HLDs are changed to say that all the money goes to consumers to ensure there is consistency.

A stakeholder commented that there is a difficultly understanding why the IESO sees the ETS rate as a rental charge when the OEB determined the ETS rate using a cost-allocation study which takes cost of services, return on capital, new investments, etc., into account. It was suggested that there is a link between the ETS and the long-term cost of the transmission system. Therefore, the ETS is not a rental charge, it is an allocation of long-term costs.

The IESO agrees that the funds collected from the current ETS rate goes towards the costs of the transmission system. However, traders only pay the ETS rate when they are chasing market opportunities and if no market opportunities exist then traders do not pay anything towards the cost of the transmission system. In practice the ETS charge for use of the interties is akin to a toll bridge where shippers of goods pay a fee to use the bridge and so it would not make sense to pay a refund after crossing the bridge.

A stakeholder responded that there are different ways to frame this and this could also apply to loads in terms of getting some excess benefit of consuming energy and why should they get anything back. A comment was made that the toll bridge analogy may not work because if an exporter does not use the tie they do not pay anything, and that also applies to load if they do not consume.

A stakeholder added that the rental charge rationale is inaccurate and that the current ETS is an allocation of long term costs based on volume and the cost allocation studies that outline what the appropriate charge is whether it is used or not.

A stakeholder asked, under the new proposal to refund all TRCA surplus to load, why did the IESO decide to use a volumetric basis to disburse funds since MSP said that method was unfair?

The IESO responded that none of the domestic loads are exposed to the intertie congestion cost so returning funds back on a volumetric basis is an equitable approach. A volumetric-based disbursement is also relatively simple to implement.

A stakeholder stated that through their experience at the OEB hearing where the export transmission service rate was set, the ETS is not a rental charge and is the allocation of longterm cost of the transmission system and so they do not agree with the IESO perspective. The stakeholder suggested that the IESO should delay its decision on the TRCA disbursement

Meeting Notes and Summary Stakeholder Feedback November 6 and December 4, 2019 Meetings

methodology change until the current OEB hearing on Hydro One's transmission service rates concludes.

The IESO clarified that it is not debating the definition of the ETS and how it is calculated. The IESO position is based on how it is applied and since it is applied on a per MW basis it is effectively a toll to use existing infrastructure paid for by Ontario loads – which, in practice, is like a rental or usage charge. If market conditions are not favourable to export in the future, loads are responsible for all the costs of the transmission system.

A stakeholder shared the history of the ETS rate determination. They also stated that if there is not enough export, the ETS rate is likely to be raised to collect more revenue to cover the long-term cost of the transmission system.

A stakeholder asked what the IESO's definition of an efficient export transaction is. What cost should a trader be reflecting in its offers? What is something that would lead to an efficient outcome and what is something that does not lead to an efficient outcome? It seems that the ETS is ignored in the market efficiency considerations.

The IESO explained that in its view an efficient export transaction should be driven by hourly market economics. The ETS charge is part of the transaction costs that a trader must consider when putting on a trade. However, a rebate based on intertie congestion funds collected from other interties or other times of the day can incent inefficient trades that would not have happened but for this subsidy.

A stakeholder agreed that while efficient trade is desirable, exports provide benefits to Ontario as well. In their view, the IESO seems to prioritize market efficiency over lowering costs for consumers. There is a lack of quantitative analysis to prove the IESO's statement that loads are expected to be "slightly better off" under the revised methodology and asked if the IESO has done the analysis or is it more intuitive?

The IESO responded that it believed that load would be slightly better off under the new allocation and that it would share additional information in the impact of the change at the next meeting. The IESO also noted that "subsidized exports" can also increase costs through higher energy prices, increased CMSC payments, and increased unit commitment costs.

# Conclusion and Wrap-Up

The IESO thanked all participants and invited further written feedback from all stakeholders by December 18, 2019.

Meeting Notes and Summary Stakeholder Feedback November 6 and December 4, 2019 Meetings

## Summary Written Stakeholder Feedback

The IESO invited stakeholders to provide feedback on the TRCA Disbursement Methodology Review – Phase 1, and TR Market Review – Phase 2. The IESO received formal written feedback from:

- Customized Energy Solutions
- MAG Energy (2)
- Peak Power
- APPrO (including (1) Hydro-Québec Energy Marketing, Mercuria Commodities Canada Corp., TEC Energy Inc., and (2) the Coalition of Ontario Producers and Exporters)
- TransAlta (2)

Written feedback is posted on the MDAG webpage.

The IESO appreciates the feedback received from stakeholders. The table below includes summary stakeholder feedback organized by themes to manage length and usefulness of this document, as follows:

- 1. Effective date (May 2020)
- 2. Export Transmission Service Charge (ETS)
- 3. Compatibility with Market Renewal
- 4. Comparison with US markets
- 5. Evaluation Framework

| Theme  | Summary of Stakeholder Comments   | IESO Response   |
|--|---|---|
| Effective Date of<br>Changes to<br>TRCA<br>Disbursement<br>Methodology<br>(May 2020) | <ul> <li>Stakeholders expressed concerns over the effective date of May 2020.</li> <li>Market participants made decisions to purchase long-term TRs based on the current rules</li> <li>IESO did not give sufficient notice</li> <li>It is unfair to retroactively apply changes</li> <li>Stakeholders recommended various effective dates from December 2020, May 2021, and December 2021</li> </ul> | At the December 4, 2019 meeting, the IESO proposed to implement the<br>change to the TRCA disbursement methodology for the May 2020<br>disbursement.<br>Since then and, based on stakeholder feedback received, the IESO has<br>decided to delay the implementation of the change to the December 2020<br>disbursement. In making this decision, the IESO is striking an<br>appropriate balance between overall market efficiency and material<br>practical implications for impacted Market Participants.  |
| Export<br>Transmission<br>Service Charge<br>(ETS)                                    | Past TRCA disbursements did not exceed the cost<br>of the ETS charge so it has not been a subsidy. The<br>IESO should maintain status quo but TRCA<br>disbursements to exporters could be limited to the<br>ETS charge rate.  | The TRCA disbursement and the ETS charge are distinct issues and<br>decisions on one should not be based on the other. The ETS is<br>regulatory charge set by the OEB. The TRCA collects and disburses<br>intertie congestion. The IESO believes that if the TRCA disbursement is<br>impacting trading behaviour then it is subsidizing trade. The TRCA<br>disbursement should be allocated in a way that does not result in<br>inefficient trades. The Brattle report concluded that the current<br>methodology can contribute to inefficient exports. |
|  | The current TRCA disbursement seems to correctly<br>serve its purpose, which is to offset transmission<br>service charges for both loads and exporters, as<br>outlined in the Market Rules.   | The IESO agrees that existing Market Rules specify that TRCA funds are to be used to offset transmission service charges. As outlined in the IESO's December 4 <sup>th</sup> presentation, this rule will need to be amended to change the allocation to 100% loads.  |

| Theme                                   | Summary of Stakeholder Comments   | IESO Response  |
|---|---|--|
|   | The ETS rate has a negative impact on the<br>efficiency of exports and the TRCA surplus<br>disbursement partially offsets the ETS rate.<br>IESO should delay its decision to allow for review<br>of ETS proceeding EB-2019-0082 expected in Q2<br>2020. | The IESO continues to believe that allocation of TRCA surplus funds is<br>unrelated to setting the ETS.<br>The ETS is set by the OEB, who determines the fairness of transmission<br>charges through the regulatory process. If stakeholders believe the ETS<br>rate is inappropriate then the those concerns should be addressed in that<br>forum.  |
|   | Exporters do contribute to the long-term costs of<br>transmission facilities. The OEB has directed that<br>rate ETS be set based on a cost-allocation study that<br>ensures exporters pay for the long-term costs of the<br>export facilities.          | The IESO agrees that funds collected through the ETS rate do contributo<br>to the costs of the transmission system.<br>While the setting of the ETS rate does consider the cost of transmission<br>assets it is applied as a usage fee for when traders want to export pow<br>If no market opportunities were available, traders would not transact<br>and not pay any costs of the system. The transmission system was but<br>to serve Ontario loads and they are ultimately responsible for costs. The<br>IESO believes TRCA surplus funds should flow back to loads because<br>they are the owners of the system. |
| Compatibility<br>with Market<br>Renewal | The IESO should describe the disbursement<br>methodology being considered and how each<br>alternative will function in both the existing market<br>and the renewed market.  | The IESO's proposed change to the TRCA methodology is consistent<br>with the residual allocation proposed in the renewed market. The single<br>schedule market high level design document states: "In the absence of<br>internal transmission rights in Ontario, the IESO will return the<br>residuals collected under SSM to Ontario loads, since the residuals are a<br>result of the investments they have made in the transmission system."<br>Allocating 100% of TRCA surplus funds to load will work under both<br>current and future market designs.  |

| Theme                            | Summary of Stakeholder Comments   | IESO Response  |
|----------------------------------|---|--|
| Comparison<br>with US<br>markets | In US financial Transmission rights (FTR) markets,<br>the congestion is mostly a cost for loads. Therefore,<br>loads receive the congestion fund surplus. In<br>Ontario, loads currently do not pay for intertie<br>congestion. Only intertie traders pay the cost of<br>intertie congestion, so using the same logic, traders<br>should receive TRCA payments to offset their<br>congestion costs. | Generally, in US markets with TRs, loads are typically allocated rights to<br>congestion revenues. Loads can then choose to sell these rights and<br>receive payment up-front for the sale of those rights. The IESO disagrees<br>with the position that traders should receive TRCA payments because<br>traders pay the cost of intertie congestion. The congestion rent paid by<br>traders should go to the owners of the transmission system, which is<br>Ontario load.   |
|                                  | In Midcontinent Independent System Operator<br>(MISO), surpluses are disbursed to transmission<br>service customers. If there is a surplus in the FTR<br>market at the end of the year, importers and<br>exporters will receive a share of the surplus since<br>they are transmission customers.  | The IESO has reviewed the MISO Tariff <sup>1</sup> and confirms that exporters<br>and importers in MISO can be eligible to receive a share of the surplus if<br>they are longer-term transmission customers. In MISO, longer-term<br>transmission customers that pre-pay for transmission service regardless<br>of whether or not they are scheduled to use the transmission system can<br>qualify for a share of the surplus. However, hourly users of transmission<br>service in MISO, which are similar to the exporters in Ontario do not<br>receive an allocation of the surplus. |
|                                  | The New York Independent System Operator<br>(NYISO) gives congestion surpluses to<br>transmission owners. Exporters and importers do<br>not directly receive any surplus but transmission<br>owners are obligated to reduce their transmission<br>service charges so exporters will receive lower<br>rates.   | In Ontario, the IESO is responsible for determining the TRCA surplus<br>allocation, but it is not responsible for setting the PTS or ETS charges.<br>The OEB is responsible for setting the ETS rate and discussions on<br>lowering the rate should be held in that forum.   |

<sup>&</sup>lt;sup>1</sup> The MISO tariff is available at: <u>https://www.misoenergy.org/legal/tariff/</u>.

| Theme                   | Summary of Stakeholder Comments  | IESO Response  |
|-------------------------|--|--|
|                         | In ISO-New England (ISO-NE), congestion surplus<br>funds are paid "to the entities who paid<br>Congestion Costs in that calendar year in<br>proportion to the amount of total Congestion Costs<br>paid during the year." If that method was applied<br>in Ontario, it would mean that the entire TRCA<br>account would go back to exporters/importers<br>because all congestion over the Ontario interties is<br>paid by importers or exporters. | The IESO clarifies that the starting point for congestion allocation in ISO-<br>NE is to allocate rights to congestion revenues to loads and entities that<br>pay for transmission upgrades ( <u>Brattle report</u> p.34) and not to<br>importers/exporters. Any surplus is disbursed after load is paid for its<br>right to congestion revenues and TR holders are made whole. By<br>comparison, in Ontario, TR auction revenues do not go directly to loads.<br>If congestion rents collected are less than TR payouts, TR auction<br>revenues are used to cover TR payouts then disbursed to both exporters<br>and loads. |
|                         | The PJM market will disburse surplus congestion charges and auction surplus to FTR holders.  | The document <sup>2</sup> cited by the stakeholder is out of date. PJM now allocates any congestion account excess to ARR holders (loads), not FTR holders.  |
| Evaluation<br>Framework | The efficiency of TRCA disbursements must be<br>considered in the context of all market charges,<br>including ETS. It is important to define efficiency in<br>terms of total Ontario surplus that considers both<br>consumer and producer surplus.   | The IESO believes allocating all TRCA surplus funds to loads improves<br>efficiency. Almost all intertie congestion is collected from the Michigan<br>and New York interties when the ties are heavily congested. If these<br>funds are incenting trades during other times of the day or across other<br>interties that would not have otherwise happened, it will cause<br>inefficiency in the market. Also the amount of the TRCA disbursement is<br>not known to traders at the time a trade decision is made, which causes<br>less transparency on what transaction costs are which can hinder<br>competition.          |
|                         | The IESO should assess fairness in terms of the transmission charges paid by each rate class as well as each rate class' level of service and transmission utilization rates.  | The OEB assesses the fairness of transmission charges through a regulatory process which involves the OEB, Hydro One and applicable stakeholders.  |

<sup>&</sup>lt;sup>2</sup> Excerpt from: <u>https://www.pjm.com/-/media/committees-groups/committees/mic/20170623-special/20170623-item-04a-ftrmps-congestion-surplus.ashx</u>

| Theme | Summary of Stakeholder Comments   | IESO Response  |
|-------|---|--|
|       | The IESO should perform quantitative analysis to<br>determine whether the proposed change improves<br>export efficiency and impacts participants. | The IESO will share more information with stakeholders at the January 2020 MDAG meeting. |