



FEBRUARY 4, 2020

Update on the Transmission Rights Clearing Account Review

IESO Technical Panel

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Purpose

- To provide an update to the Technical Panel on the Transmission Rights Clearing Account (TRCA) Review and address Panel questions from the November 2019 TP meeting
- Technical Panel review of proposed market rule amendments to change allocation of TRCA surplus funds planned for March

Agenda

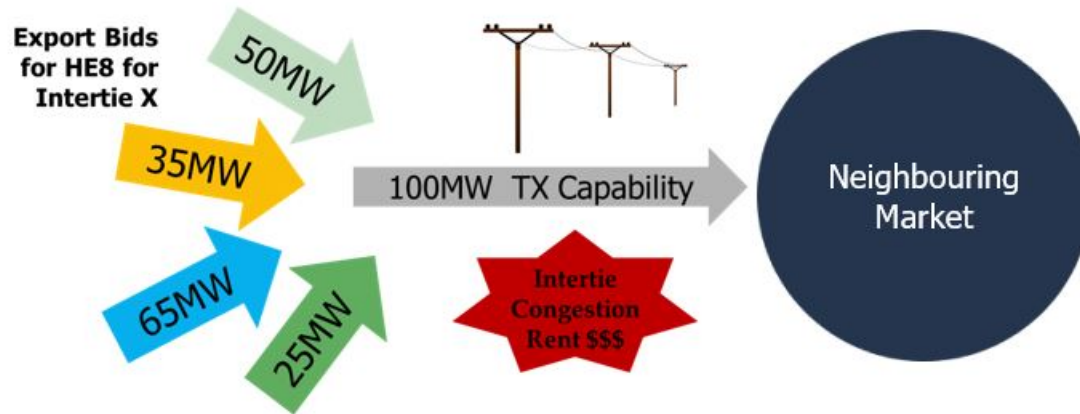
1. Background and Recap
2. Impact Analysis
3. Decision and Estimated Implementation Timeline



Background and Recap

Intertie Congestion

- Traders pursuing market opportunities compete based on price to access the capacity-limited interties

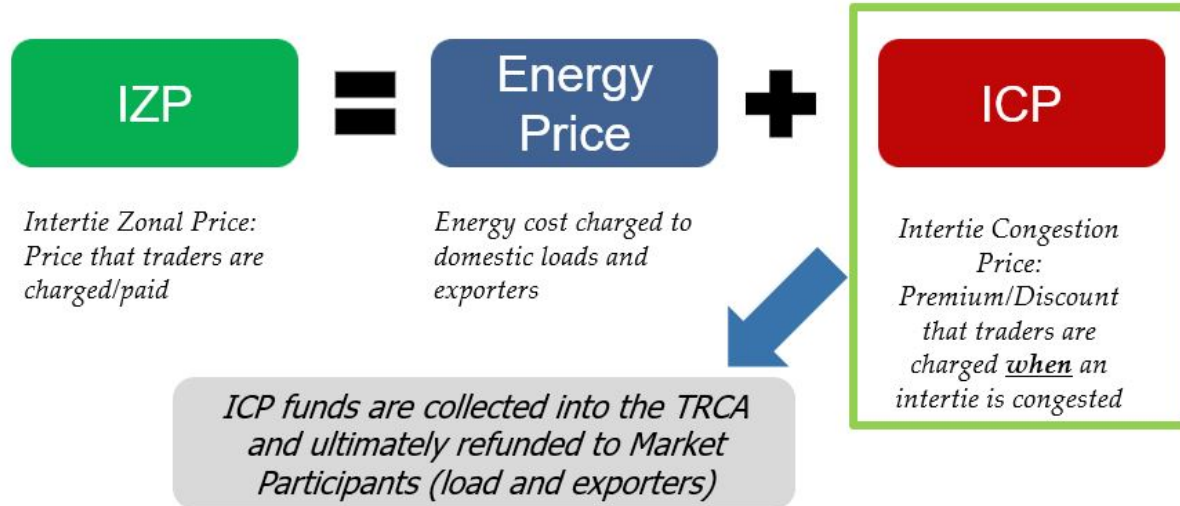


Intertie Congestion (continued)

- When there is more demand for access from traders than an intertie's capability, the IESO decides who gets to flow based on which traders are willing to pay the most
 - The extra premium/discount paid by traders relative to the Ontario price is **Intertie Congestion Rent**
- Intertie congestion is set on an hourly and intertie path-specific basis

Intertie Congestion Pricing

- The price traders are charged/paid for their transactions is the Intertie Zonal Price (IZP) which can be different than the price charged to domestic loads when there is intertie congestion



TR Clearing Account

Intertie Congestion Rent	Transmission Rights Auction Revenue	Transmission Rights Payouts	TRCA Surplus Funds
<i>Premium or discount traders pay relative to the Ontario price (the ICP). This “rent” is collected and added to the TRCA account.</i>	<i>Some traders buy transmission rights (TRs) to protect themselves against intertie congestion price risk.</i>	<i>The payouts owed to traders who have purchased TRs to hedge against intertie congestion price risk</i>	<i>TRCA balance above \$20 million is disbursed to market participants on semi-annual basis.</i>

Intertie Congestion Rent + Transmission Rights Auction Revenue –
Transmission Rights Payouts = TRCA Surplus Funds

TR Clearing Account (continued)

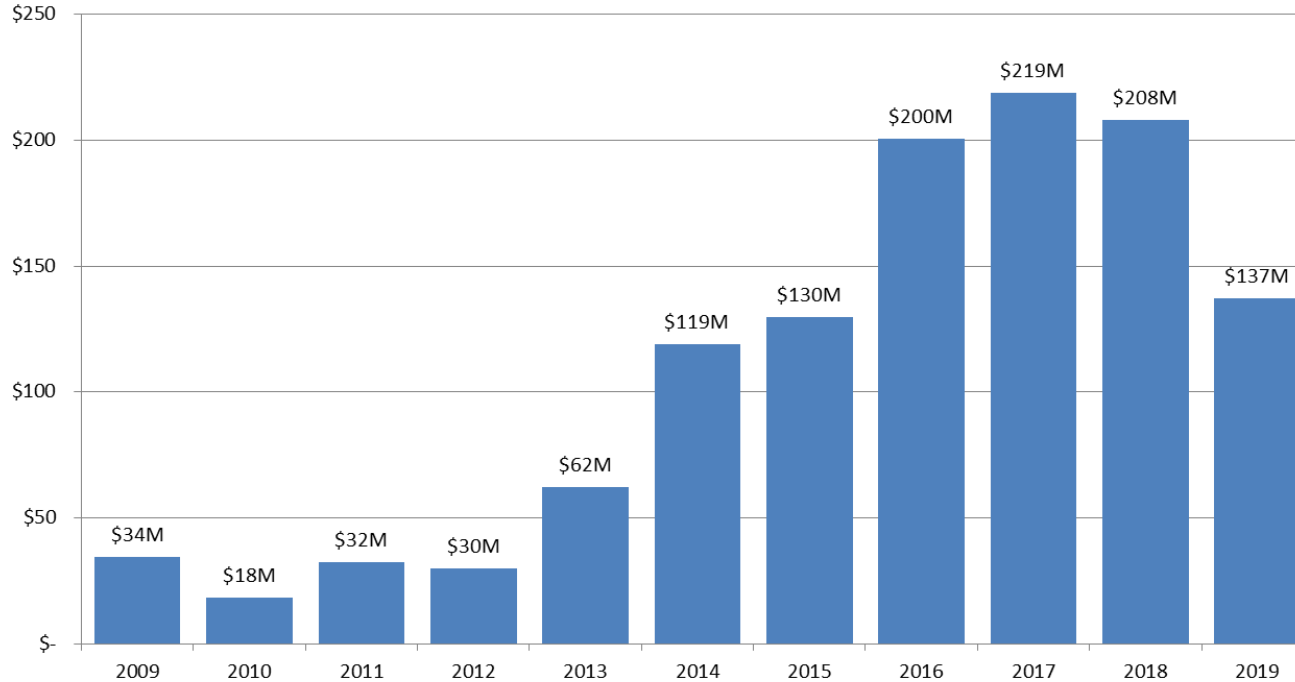
- Currently TRCA surplus funds are disbursed semi-annually to load and exporters based on demand shares from the prior 6-month period
- The TRCA Disbursement Methodology Review has been studying whether this methodology should change

Source of TRCA Surplus

- Intertie congestion rent has significantly increased over the last 10 years (\$34 million in 2009 to up to \$219 million in 2017). A primary driver for the increase is the significant investments Ontario made into low marginal cost resources at a much faster rate than its neighbours, which has made Ontario's energy prices generally cheaper relative to its US neighbours
- Responding to market opportunities to export, a trader must often outbid other traders for access to the capacity-limited interties, which has resulted in significantly higher amounts of congestion rent collected in recent years

Source of TRCA Surplus (2)

Intertie Congestion Rent (in millions)

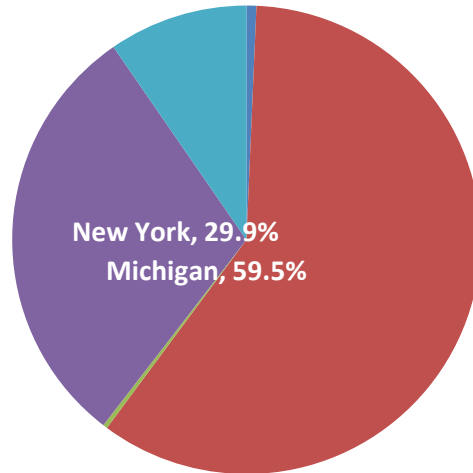


Source of TRCA Surplus (3)

- Congestion rent funds the TRCA surplus
- Vast majority (90-95%) of all the intertie congestion rent is collected from exports on Michigan and New York interfaces

Source of TRCA Surplus (4)

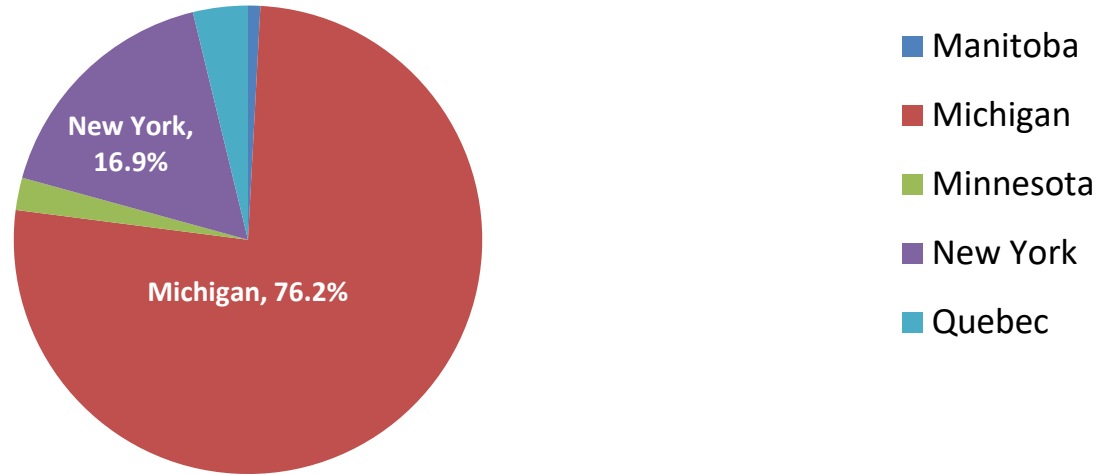
2018 Congestion Rent By Tie



- Manitoba
- Michigan
- Minnesota
- New York
- Quebec

Source of TRCA Surplus (5)

2019 Congestion Rent By Tie



Recap – IESO Response to MSP

- In May 2017, the Market Surveillance Panel (MSP) issued a recommendation to the IESO to (1) immediately suspend TRCA surplus disbursements and (2) change the disbursement methodology to allocate more funds to Ontario loads
- The IESO initiated a fulsome review of the methodology
 - The Brattle Group was engaged to deliver a [public report](#) which was published in October 2019
 - The report recommends allocating 100% of the surplus funds to Ontario loads on the basis of efficiency and equity

Recap – IESO Response to MSP (continued)

- In addition to the Report, the IESO also published presentation materials to provide transparency to all market participants of an upcoming change to the methodology

Recap – Stakeholder Engagement

- In early November 2019, Brattle presented their report to stakeholders and the IESO sought stakeholder feedback on the proposed approach to allocate 100% of TRCA surplus funds to load and aim for an implementation by May 2020
- The IESO also delivered an educational presentation on TRCA at the November 2019 TP meeting to introduce this topic to the Technical Panel

Recap – Stakeholder Engagement (continued)

- In December 2019, the IESO held a second meeting with stakeholders to discuss their feedback and perspectives, particularly on potential markets impacts
- In January, the IESO engaged with stakeholders to:
 1. Respond to stakeholder feedback
 2. Present additional analysis, as requested by stakeholders
 3. Announce that the IESO is changing the effective date by 6 months in order to balance market efficiency with the expected market impact



Stakeholder Perspectives and Feedback

Stakeholder Feedback - Summary

- Feedback on the proposed change covered the following themes:
 1. IESO should consider the potential impacts to the market and market participants
 2. Exports should receive some share of the surplus as they contribute to system costs
 3. Current methodology offsets the ETS rate which is a potential market inefficiency
 4. Additional analysis on market impacts should be provided

Stakeholder Feedback – Impact on Market

- The IESO received two distinct forms of feedback regarding the originally proposed effective date of May 2020:
 - The MSP reiterated its position that the IESO should immediately suspend the disbursements
 - Other stakeholders felt that the effective date should be pushed out to fully account for the settlement period of active TRs, which would minimize market impacts. Suggested effective dates ranged from November 2020 to November 2021

Stakeholder Feedback – Impact on Market (continued)

- The IESO has acknowledged both positions and understands the potential market impact that this change can have.
- As such, the IESO has revised its proposal to be effective November 2020

Stakeholder Feedback – Contribution to Costs

- Some exporters noted that through the ETS rate they contribute to the costs of the transmission system and on this basis, they should be entitled to some of the surplus funds
- The IESO acknowledges the ETS rate is for short-term use of the inertia portion of the transmission system, with no payment made for use of internal transmission resources. If exporters chose not to export a single MW of power over time, they would pay no ETS charges
- However, as discussed in the Brattle Report, Ontario loads pay for the transmission system and the costs of the inertias, irrespective of their use, through regulated rates

Stakeholder Feedback – Contribution to Costs (2)

- This key distinction is why Ontario ratepayers are the rightful recipients of any surplus that might accrue
 - This is also consistent with decisions in the Market Renewal Program that allocates all residuals arising due to congestion to internal loads only
- Stakeholders highlighted that if exporters are not entitled to receive a surplus, they should not have to contribute to any deficit
 - The IESO is in general agreement with that view

Stakeholder Feedback – Market Inefficiency

- Some stakeholders also commented that charging the ETS rate (currently set at \$1.85/MWh) on exports is a source of market inefficiency and the current TRCA disbursement provides an offset by reducing the cost of trading
- The IESO agrees that transaction costs can be seen as inefficient and can have a material impact on trading opportunities

Stakeholder Feedback – Market Inefficiency (continued)

- However, the IESO emphasized that the ETS and TRCA disbursements are not dependent nor joint. The OEB is responsible for setting the ETS rate as part of its cost-based ratemaking framework.
- The IESO also outlined that a key consideration for its decision is that the current TRCA methodology could incent inefficient trades or act as a subsidy, which could increase costs for Ontario ratepayers

Stakeholder Feedback – Market Impact

- Some stakeholders and Technical Panel members have asked the IESO to provide more detail on the impact of a TRCA disbursement methodology change to better understand how a change will impact them and the broader market
- The IESO has shared its impact analysis with stakeholders at the January MDAG meeting and will go through the analysis with TP members (see next section)



Impact Analysis

Impact of Change to TRCA Methodology

- At the November 2019 TP meeting, TP members echoed stakeholder feedback to provide more information on the impact of a change to the TRCA disbursement methodology
- The IESO advised that this analysis is difficult to perform because of the difficulty modelling how the TRCA disbursement could impact trading behaviour

Impact of Change to TRCA Methodology (continued)

- The IESO asked stakeholders if and how trading behaviour would change. Stakeholders provided little feedback.
 - One stakeholder stated that trading behaviour would not change but the disbursement is nice to have
 - Other traders indicated that it could have an impact on trading behaviour

Impact Analysis – Two Scenarios

Considering the feedback received, the IESO has analyzed the impact based on two possibilities:

Scenario 1:

The removal of TRCA disbursements from exporters does not impact trading behaviour.

Scenario 2:

The removal of TRCA disbursements will impact exporters' trading behaviour.

Impact Analysis

Scenario 1 – No Impact on Trading Behaviour

- Under Scenario 1, if the semi-annual TRCA surplus disbursement does not impact trading behaviour then there should be no impact to the market

Impact Analysis

Scenario 2 – Will Impact Trading Behaviour (1)

- Scenario 2 considers the case where the TRCA disbursement could have an impact on trader bidding behaviour
- To analyze this scenario, the IESO performed a simulation to see what would happen if all export bids were reduced by \$1/MWh, in 2018 holding everything else constant
 - This is based on the historical TRCA disbursement in recent years having averaged ~\$1/MWh

Impact Analysis

Scenario 2 – Will Impact Trading Behaviour (2)

- The results of the IESO's simulation show that if all export bids were reduced by \$1/MWh, less than 1% of exports that were scheduled in 2018 would not have been scheduled

Impact Analysis

Scenario 2 – Will Impact Trading Behaviour (3)

- The analysis indicates most of the time, the impact is minimal for exporters
 - During these times, average ICP is around \$15-20/MWh (based on 2018 and 2019 data), because the interties are usually heavily congested
 - Instances when the $ICP < \$1$ are infrequent (~2-3% of the time when congested)

Impact Analysis

Scenario 2 – Will Impact Trading Behaviour (4)

- If export bids are lowered by \$1:
 - The ICPs paid by traders will likely be reduced by \$1
 - Traders would pay \$1/MWh less in congestion rent for the same schedules, essentially buying the same power for less money
 - In exchange, traders would not need to count on uncertain TRCA reimbursements that are paid months in the future. Market transparency should improve.

Impact Analysis

Scenario 2 – Will Impact Trading Behaviour (5)

- During times when the intertie is not congested (~40% of exports occurred during times of non-congestion), the IESO simulation shows a small decrease in exports scheduled
- Fewer than 1% of all exports from 2018 would not have been scheduled if export bid prices were reduced by \$1/MWh
- It should be noted that while exports are beneficial in general, it is possible that export transactions can also increase costs such as increased Congestion Management Settlement Credit (CMSC) payments or increased unit commitment costs

Summary of Impacts

- There is little evidence that the change to the TRCA disbursement methodology will have a material impact on intertie trade
 - The IESO and the Brattle report acknowledge there could be a market adjustment in response to a change in methodology
- The extent of any impact would likely impact less than 1% of exports based on current trading conditions

Summary of Impacts (continued)

- The new disbursement methodology is expected to improve efficiency, certainty and transparency
 - As noted in previous slides, almost all (90-95%) intertie congestion rent come from the Michigan and New York interties when the ties are very congested (averaging \$15-20/MWh). Using these funds to incent trades during other times of the day or other interties causes inefficiency in the market
 - Since the value of the disbursement is unknown at the time of trade, removing it means export transaction costs are more certain and transparent for all exporters leading to greater market efficiency



TRCA Disbursement Decision

Decision on Methodology (1)

Allocate TRCA surplus funds to internal loads only, on a volumetric basis

Summary of Rationale:

- Exporters use the transmission system to pursue commercial opportunities
 - Exporters contribute to the costs of the transmission system through the ETS which is applied as an hourly usage fee
 - If exporters stopped trading (*from lack of profitable export opportunities*) they would not pay any ETS charges and not be responsible for any transmission costs

Decision on Methodology (2)

Summary of Rationale (continued):

- Ontario loads pay the long-term costs of the transmission system and interties through regulated rates
 - The IESO's proposed methodology will ensure loads are the sole recipients of the surplus funds

Revised Decision on Timing

Changes to the TRCA disbursement methodology will become effective and be applied to the November 2020 TRCA disbursement

- The IESO originally proposed an effective date of May 2020 for the TRCA rule amendment
- The IESO has considered stakeholder feedback and decided to delay the effective date of the disbursement methodology change from May 2020 to the November 2020 disbursement

Revised Decision on Timing (continued)

Changes to the TRCA disbursement methodology will become effective and be applied to the November 2020 TRCA disbursement

- This decision balances stakeholder perspectives:
 - The Market Surveillance Panel has advocated for an immediate suspension of TRCA funds immediately and a change to the methodology since 2017
 - Market Participants require more time to assess and incorporate any changes to their business

Estimated Rule Amendment Timeline

- The change to the TRCA disbursement methodology will require changes to Chapter 8 and 9
- At the March TP meeting, the IESO will provide TP with redlined Market Rule amendments and ask TP to post for stakeholder comment

Estimated Rule Amendment Timeline (continued)

IESO's Rule Amendment Target Dates

Feb 4, 2020:	Mar 3, 2020:	Q2 2020:	Q2 2020:	Nov 2020:
Update to Technical Panel (TP)	Ask TP for a "Vote to Post" TRCA MR amendments for stakeholder comment	Ask TP for a "Vote to Recommend" TRCA MR amendments to the IESO Board	IESO Board to vote on TRCA MR amendments	TRCA MR amendments goes into effect for December 2020 disbursement (for period June to November 2020, inclusive)



Appendix

Balance of TRCA Components

(\$ in Millions)	2016	2017	2018	2019	Total
TR Auction Revenue	134.9	152.6	155.7	136.2	579.4
Intertie Congestion Rent	200.5	218.9	207.9	137.0	764.3
Interest accrued on TRCA balance	0.6	1.4	2.4	2.7	7.1
TR Payments	(208.5)	(206.4)	(172.5)	(135.4)	(722.8)
TRCA Disbursement	(113.0)	(173.1)	(187.7)	(148.9)	(622.7)

TRCA Disbursements by Participant Type

Participant Type	Description	16 May	16 Nov	17 May	17 Nov	18 May	18 Nov	19 May	19 Nov
Overall (Exporters + Load)	Total Disbursement in Millions	\$45	\$68	\$89	\$84	\$100	\$87	\$76	\$72
Overall (Exporters + Load)	Disbursement per MW Load	\$0.58	\$0.87	\$1.18	\$1.15	\$1.30	\$1.13	\$1.00	\$0.96
Exporters	Total \$ (in millions)	\$7	\$9	\$12	\$10	\$13	\$10	\$9	\$9
Exporters	% of Disbursement	15%	14%	14%	12%	13%	11%	13%	13%
Load	Total \$ (in millions)	\$38	\$59	\$77	\$74	\$87	\$77	\$67	\$63
Load	% of Disbursement	85%	86%	86%	88%	87%	89%	87%	87%