

The purpose of this paper is to provide an overview and to seek stakeholder feedback on the IESO's proposed analysis relating to the Transmission Rights (TR) Market confidence level changes and associated stabilization algorithm implemented in 2004. The analysis outlined below is intended to determine if the current design has achieved the intended benefits of:

- Increased import/export competition
- Increased energy trade, specifically imports
- Increased participation/ownership in the TR market

The rationale for the confidence level change implemented in 2004 was that an increase in TR quantities would lead to the ability for more participants to hedge their trades, which in turn would result in more bids and offers, and increased competition. More competition would result in increased imports and lower prices to Ontario consumers. In addition, at the time the changes were made Ontario sometimes relied upon imports for reliability of supply, so an increase in the number of TRs sold was also expected to increase power system reliability. It was also anticipated that the new process would allow for increased participation and competition in the TR market itself, with more TR quantities being available for ownership. Further information can be found in the [Phase 1 Discussion Paper](#) posted on the SE-110 web page.

If the analysis determines that the intended benefits have not been materially achieved, the IESO will review and develop recommendations for improvements and efficiencies.

### **Increased Import/Export Competition**

When the confidence level changes were implemented in 2004, it was expected that an increase in the number of TRs available would lead to increased import competition which, given the supply and demand situation at the time, was seen to be a benefit to reliability.

While it is difficult to demonstrate the impact on market clearing price from increased imports/exports alone, due to additional variables such as changes in demand, generation, underlying fuel costs, global adjustment and uplifts; it is possible to examine offer/bid quantities, unconstrained schedules, and intertie congestion to show if the MWs available for trade activity on the interties has increased or decreased. A review of offer/bid quantities provides an indication of potential trade activity while excluding the limitations of internal constraints and congestion on the interties. A review of the unconstrained schedules excludes limitations due to internal constraints. However, the analysis results would be limited due to intertie capability, outages, loopflow and demand in neighbouring markets.

An increase in import/export competition could be shown by an increase in the number of participants registered as importers/exporters; however this can only be attributed to the availability of more TRs if the importers/exporters are also registered as TR market participants or have access to TRs through private bilateral contracts.

The IESO proposes the following analysis:

- Annual offer/bid quantities
  - Total offers/bids as an aggregate of all paths
  - Total offers/bids as an aggregate of paths subject to the stabilization algorithm
- Annual imports and exports in the 1 hour ahead pre-dispatch unconstrained schedule
  - Total imports and exports scheduled as an aggregate of all paths
  - Total imports and exports scheduled as an aggregate of paths subject to the stabilization algorithm
- Number of participants registered as importers/exporters
  - the number of registered importers/exporters that are also registered as participants in the TR market
- Percentage of hours with import/export congestion in the unconstrained sequence by path

### **Increased Energy Trade**

The analysis is intended to determine whether there has been an increase in energy trade since the confidence level changes implemented in 2004. At the time the confidence level changes were implemented the IESO sometimes relied on imports for reliability, so the expected increase in energy trade was specifically related to imports. Since that time Ontario has become a net exporter, so the analysis will review both imports and exports.

The IESO intends to review historical scheduled transaction data to determine if there has been an increase in energy trade. The real-time dispatch constrained schedule will be used to show transactions which actually flowed. It should be noted that the results are also directly impacted by the variables of demand and price in both Ontario and the neighbouring jurisdictions. We do not intend to attempt to analyze what portion of the change can be attributed to TRs alone.

In order to determine the effect TR ownership may have had on energy trade, the IESO is proposing to compare total actual imports/exports with those that are “hedged” by participants owning TRs. The actual imports/exports will be determined using the real-time dispatch constrained schedule. The analysis will look at both April and August in order to compare activity during both a shoulder season and a high demand season. This analysis could have limitations due to the fact that there may be contractual agreements between TR holders and market participants who are trading the energy that the IESO is not aware of, and would therefore not be captured.

The IESO proposes the following analysis:

- Annual imports and exports in the real-time dispatch constrained schedule
  - Total imports and exports as an aggregate of all paths
  - Total imports and exports as an aggregate of paths subject to the stabilization algorithm

- A comparison based on data from April and August of each year from 2003-2012 to look at how many MWs are actually being hedged on each path. This analysis will compare the following for each path in order to determine whether the imports or exports were “hedged” by TR ownership:
  - the real-time dispatch constrained schedule for each participant, representing the trade which could be “hedged”
  - the number of TRs held by each participant

### **Increased Participation/Ownership in the TR Market**

In order to determine if the increase in TRs has resulted in an increase in participation and ownership in the TR market we will review the number of participants registered in the TR market each year, the number participating in the TR auctions and the number of participants that actually own TRs. The analysis will also determine the total quantity of TRs owned. A review of TR market share on each intertie, i.e. the number of participants and the percentage of TRs owned by the participant, may demonstrate the extent to which the confidence level changes contribute to the rate of participation and ownership in the TR market, and whether continuing to increase TR quantities could have an effect on encouraging more participation.

A review of the rate of return for rights holders based on TR auction market clearing price and the intertie congestion price may demonstrate whether there is adequate competition in the TR market. The limitation of this analysis is that it will reflect the rate of return to TR holders who are financial participants only, as those participants who trade will have additional costs. The capturing of those costs would be extremely intensive as we would need to capture hedged trades by participant for each hour of congestion and would need to understand the revenue that they received for each.

The IESO proposes the following analysis:

- Number of participants registered in the TR Market at year end each year
  - Number of TR market participants that are actively bidding in TR auctions each year.
  - Number of TR market participants that own TRs each year.
- Total annual quantity of TRs owned
- Market share on the intertie – number of TR holders and the quantity owned on each path
- Rate of return for TR holders on a speculative investment basis only

### **Feedback**

Please consider the following questions when providing your feedback on this analysis.

- Is the proposed analysis appropriate/sufficient to determine whether the current confidence level design (outlined in the first paragraph) has achieved the intended benefits?
- Is there anything else that should be considered part of this analysis?

Feedback can be provided to [stakeholder.engagement@ieso.ca](mailto:stakeholder.engagement@ieso.ca) by May 23, 2013. The IESO will post responses to feedback and prepare a final plan for analysis. At that time, the IESO may need to adjust the stakeholder plan schedule to allow adequate time for any additional analysis required.