

Transmission rights (TRs) are financial instruments that are periodically auctioned by the IESO. Market participants can purchase TRs to hedge against intertie congestion costs in the spot market, or as speculative investments.

Holders of TRs are entitled to a revenue stream based on the number of rights they hold and the spot market price differences between Ontario and external zones. The TR market pays the price difference for the number of TRs owned by TR holders, regardless of the physical energy traded or the congestion rents collected.

Transmission rights do not provide the holder with a guarantee for the physical transmission of energy. Therefore, they do not affect the scheduling of transactions in the real-time market.

## Auctions

Transmission rights are made available to market participants through auction. Two types of auctions are held – long and short term:

- Long-term auctions are held quarterly. In a long-term auction, TR holders can purchase 12 month TRs, representing approximately 25% of the long-term capability in the following quarter and, if available, one month TRs for each month in the following quarter.
- Short-term auctions are held monthly. One month TRs are sold for the following month.

The IESO calculates the number of TRs available for auction based on the forecast capability of each intertie, reduced by a 'confidence level' (see page 2).

For example, on a multi-circuit intertie path, the TRs for sale would equal the transfer capability of that intertie with one line out of service. For long-term rights, this has not changed since market opening. For short-term rights, however, the confidence level factor has changed for some ties.

## Board Authorities

With respect to the TR market, the IESO Board has authority under the market rules to:

- At their discretion, disburse surplus funds when they accrue in the TR clearing account. Funds are disbursed to market participants based on their previous month's AQEW (the quantity of energy withdrawn at all revenue wholesale meters and intertie metering points). (Ch. 8 § 4.18.2, Ch.9 § 4.7)

- Establish the reserve threshold for the TR clearing account. (Ch. 8, § 4.18.3).
- Establish the ‘confidence level’ to reflect the degree to which the congestion rents collected by the IESO in a given period will be sufficient to cover the IESO’s payment obligations to TR holders (Ch. 8, § 4.7.1).

## Confidence Level

### Background

In May 2003, the Board decided not to distribute the surplus in the TR clearing account. At the time, the account balance was close to \$11 million. As an alternative, the Board asked IESO management to consider the implication of using the TR surplus, above a set threshold, to allow an increase in the volume of TRs offered. The intention was to increase the TRs sold – to maximize trade in the TR market and reduce the surplus.

In July 2003, following IESO stakeholder engagement, IESO management recommended:

- The Board establish a TR clearing account reserve threshold of \$10 million (approximately three times the greatest monthly settlement shortfall experienced in the first year of market operation).
- Maintain the confidence level at the current value for long-term rights.
- For short-term TRs:
  - Increase the volume of rights for monthly auctions in steps of 4%, at three-month intervals, until the monthly settlement becomes negative.
  - If the account balance drops below the \$10 million reserve threshold, reduce the monthly volume of TRs in 4% steps at three-month intervals until the reserve level is restored.

This, in effect, changes the confidence level applied to short-term rights.

The Board approved these recommendations and they came into effect in March 2004, for April 2004 auctions. Nine of the fifteen paths<sup>1</sup> are subject to an increase/decrease in TRs each quarter.

Since April 2004, the amount of rights sold on certain ties has increased up to 44%. Two of the ties (Michigan to Ontario (MICH-ON) and New York to Ontario (NY-ON)) will be at 100% of their total transfer capability in the next year.

The IESO will continue to increase or decrease the number of TRs for sale based on the above formula, with a reserve threshold of \$20 million<sup>2</sup>. The IESO is currently evaluating this strategy, and will provide the Board with a further recommendation.

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<sup>1</sup> On some interties, there are 2 paths, e.g., ON-NY and NY-ON

<sup>2</sup> At its January meeting, the IESO Board approved the increase of the reserve threshold as it reflects the maximum three month shortfall seen to date.

## TR Clearing Account

### Background

$$\text{TR Clearing Account} = \text{Auction Revenues} + \text{Interest} + \text{Congestion Rents} \\ - \text{TR payouts}$$

Transmission rights payouts are funded (in large part) by the congestion rents that occur when there is a difference between the Ontario zonal price (MCP) and an external zonal price. These rents are the surplus remaining with the IESO when:

- The price importers are paid is less than the price the consumers pay, or conversely,
- When the price exporters pay is greater than the price generators are paid.

For example, during export congestion where the intertie zone is \$60 and the Ontario zone is \$40, the exporter is paying \$20 more than loads in Ontario. The reverse is true during times of import congestion. A TR payment is paid to a TR holder for that path – it is equal to the price difference between Ontario and the intertie zone. In this example, the TR payout would equal the \$20 congestion rent collected from the export.

If the TR payouts are less than the congestion rents collected, the surplus together with the auction revenues are credited to the TR clearing account. If the TR payouts are greater than the congestion rents, the deficiency is made up from the TR clearing account, largely through auction revenues.

In months where a significant number of paths have TR payouts greater than congestion rents, there is the potential for a dramatic and rapid decrease in the TR clearing account. If the amount payable to TR holders exceeds all funds available in the TR clearing account; the shortfall is temporarily funded by the consumers, in proportion to their AQEW.

### Account History

Before the confidence level changes the congestion rents were, with few exceptions, greater than the TR payments the IESO had to make.

With the continued decrease in the confidence level, the congestion rents no longer cover the IESO's TR payment obligations. As the calculation above shows, any shortfalls in congestion rents are made up by the auction revenues. Since market opening, the IESO has used \$47 million in auction revenues and interest to fund the TR payouts. Most of this shortfall (\$42 million) has been since the reduction in the confidence factor began in April 2004.

Although the last 24 months have had a rent shortfall, the clearing account balance has continued to increase an average of \$3 million a month (including \$300,000 a month in interest). This increase is due to the increased auction revenues, higher volumes and, on some paths, higher market clearing prices (MCPs).

<b>Account History</b>		
	May 2002 – Dec 2006 (56 months)	April 2004 – Dec 2006 (35 months)
<b>Total Auction Revenues (1)</b>	\$135 906 000	\$ 100 232 945
<b>Forfeited TR Market Deposit (2)</b>	\$ 552 000	\$ 416 000
<b>Subtotal TR Auction Revenues (3)</b>	\$136 458 000	\$ 100 648 945
<b>Total Congestion Rents (4)</b>	\$ 214 152 000	\$ 99 569 000
<b>Total TR Payments (5)</b>	\$ 261 326 000	\$ 141 648 000
<b>Total Shortfall in Rents (6)</b>	(\$ 47 174 000)	(\$ 42 078 000)
<b>Interest on Account (7)</b>	\$ 7 056 000	\$ 6 072 000
<b>Account Balance (3+6+7)</b>	\$ 96 340 000	\$ 64 642 945

(TR Account activity on a monthly granularity is included at the end of this document.)

The import/export participation chart below shows that the auction revenues collected have been fairly evenly split on import and export paths over the life of the market.

<b>Import – Export Participation</b>				
	Long Term	Short Term	Total	% of Total
<b>Import Ties</b>	\$ 68 454 750	\$ 12 080 250	\$ 80 535 000	59%
<b>Export Ties</b>	\$ 44 492 175	\$ 11 472 825	\$ 55 965 000	41%

### Current Direction

The IESO will disburse \$4.75 million dollars per month for 12 consecutive months under charge type 102. This will begin in conjunction with implementing the three times ramp rate, which the IESO Board approved January 17, 2007. Future surplus funds that accumulate in this account will also be used to offset customer costs, at the discretion of the IESO Board.

The IESO “Monthly Market Report” will now include the TR clearing account balance, the reserve threshold and the deferred auction revenue amounts.

### Additional Information

For additional information, please refer to the following links on the IESO website:

Transmission Rights and Transfer Capabilities

[www.ieso.ca/imoweb/pubs/tr/Transmission\\_Rights\\_sw\\_r15.pdf](http://www.ieso.ca/imoweb/pubs/tr/Transmission_Rights_sw_r15.pdf)

Market Manual 4.4 Transmission Rights Auction

[http://www.ieso.ca/imoweb/pubs/marketOps/mo\\_TransmissionRights.pdf](http://www.ieso.ca/imoweb/pubs/marketOps/mo_TransmissionRights.pdf)

Transmission Rights – An Introductory Course

<http://www.ieso.ca/imoweb/marketplaceTraining/transmissionintro.asp>

Rebates Backgrounder

<http://www.ieso.ca/imoweb/pubs/settlements/rebate-backgrounder-20070119.pdf>

