

# Transmission Rights Market

Market Pricing Working Group

August 19, 2008



# Why the MPWG?



- An information item for the MPWG
- To increase transparency of the review and soliciting broader feedback on the scope of the review

# Transmission Rights Market



- Background
- Confidence Level
- IESO Board Authorities
- TR Clearing Account
- Account Activity and Surplus Discussion
- Questions to be Asked in TR Review

# What are Transmission Rights?

- Transmission Rights:
  - Are financial instruments, periodically auctioned by the IESO
  - Purchased by market participants to hedge against inertia congestion costs in the spot market or as a speculative investment
  - Transmission rights are available for certain inertia paths; import or export, between Ontario and our external zones.
  - Holders of TRs are entitled to a revenue stream based on the number of rights they hold multiplied by the price difference between the zones of their TRs
  - Design Choices:
    - The IESO TR market pays out in full to holders of TRs, regardless of the physical energy traded
    - Option, not an obligation
- Transmission Rights *do not*:
  - guarantee the physical transmission of energy or directly affect the scheduling of transactions in the real time market

# Transmission Rights Availability



- The IESO calculates the number of TRs available for the Long Term Rights Auction based on the forecasted capability of each intertie reduced by a 'confidence level'
- The 'confidence level' was designed to ensure that the TR market is simultaneously feasible (rents collected, under most circumstances, be sufficient to cover any payment obligations). It reflects physical factors such as:
  - ambient conditions, planned and contingent outages and system security
- Considering the confidence level, on multi-circuit paths the number of long term TRs and base short term TRs for sale would be equal to the transfer capability of the intertie with one line out of service
- For the monthly short term auctions, the confidence level is modified potentially adding TRs in 4% increments of the long term base, up to the transfer capability limit according to the Board formula

# Short Term TR Level (Ch.8 Rule 4.7.1 & 4.18.3)



- Effective March 2004, following IESO stakeholder engagement, in an effort to maximize trade and increase trading liquidity the Board agreed to use the TR balance above a set threshold, to allow an increase in the volume of Short Term TRs sold via the following algorithm
  - Reserve Threshold = \$10 million (now \$20M)

Acct Balance	Net TR Revenues for last 3 months	Monthly TR volume
> Threshold	Positive	Increase by 4%
> Threshold	Negative	Stay the same
< Threshold	Positive	Stay the same
< Threshold	Negative	Decrease by 4%

maximum # of TRs = physical capability of intertie

minimum # of TRs = physical capability with one line out of service (the base amount)

# Short Term TR Level cont'd



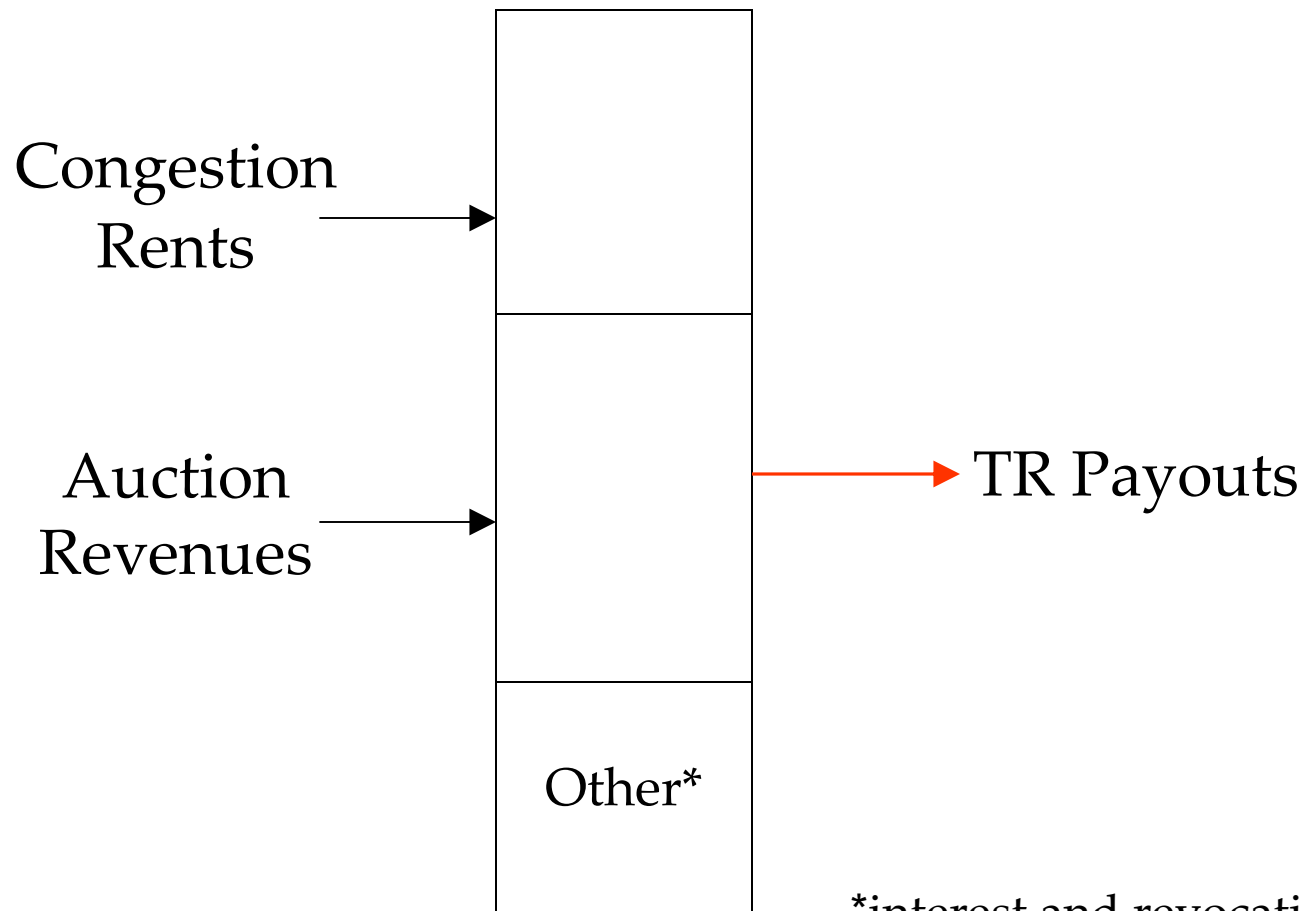
- The algorithm, in effect, changes the confidence level for short-term (monthly) rights
- Nine of the fifteen paths are subject to a potential increase/decrease in TRs in each quarter
- Since April 2004, the amount of rights sold on those nine ties has been increased 15 times by 4% of their base

## Board Authorities (under the market rules)

- Disburse surplus funds from the TR Clearing Account to market participants based on their previous month's AQEW, at their discretion. (Ch. 8 - 4.18.2)
- 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 will be sufficient to cover the TR payouts. (Ch. 8 – 4.7.1)

# TR Clearing Account

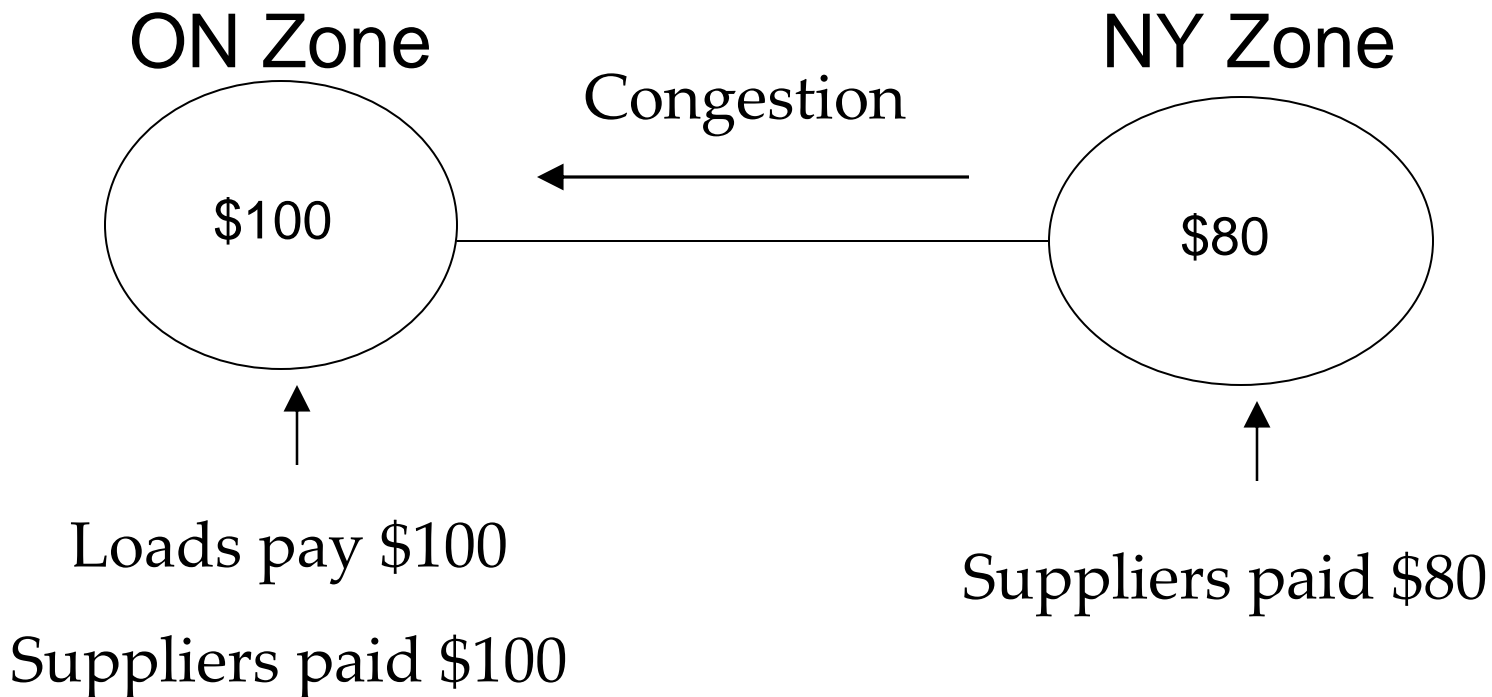
$$\text{Account Balance} = \text{Auction Revenues} + \text{Interest} + \text{Congestion Rents} - \text{TR Payouts}$$



\*interest and revocation

# Congestion Rents and TR Payouts

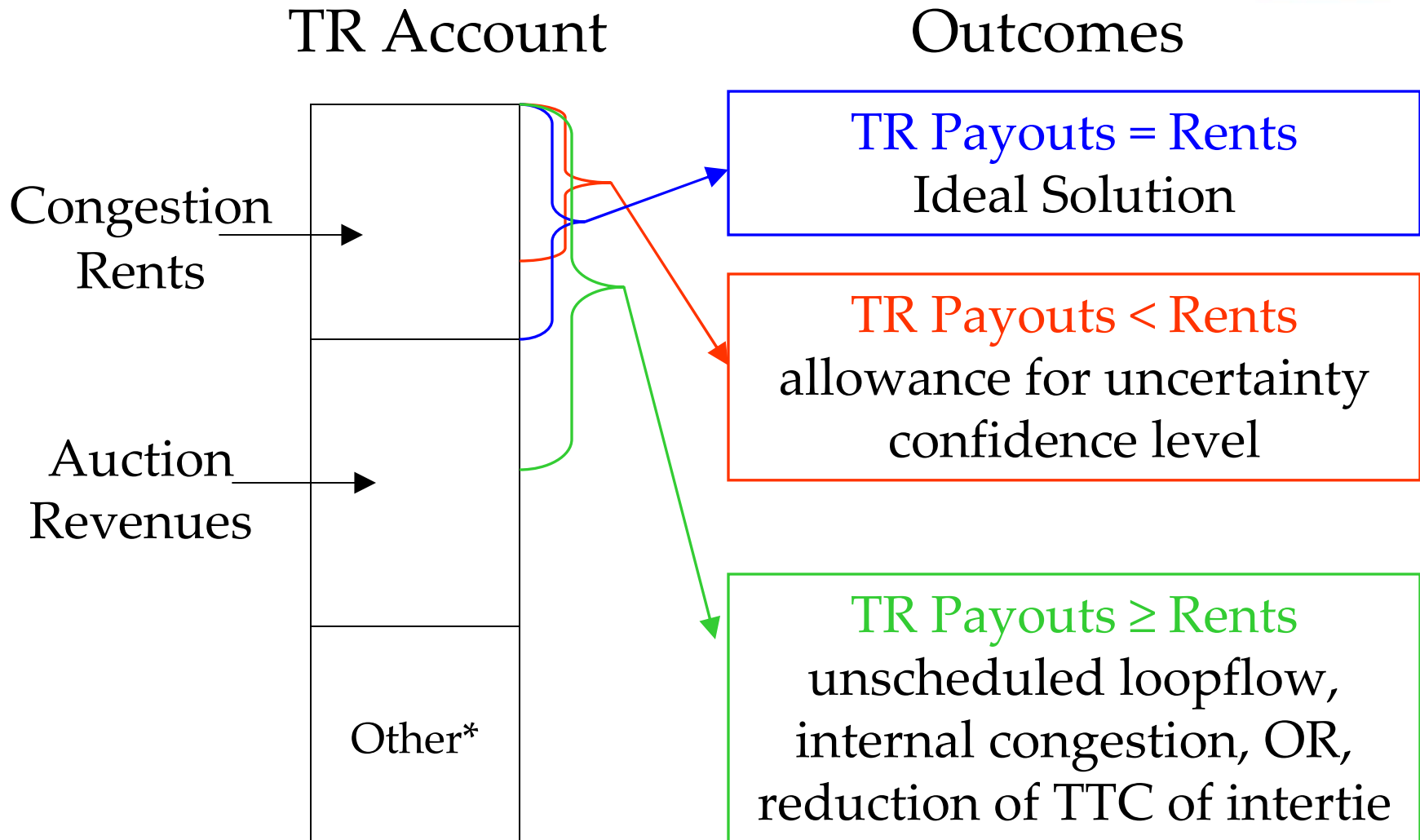
Intertie congestion can cause traders to be paid less or charged more for energy than Ontario resources



$$\text{Congestion Rents} = \$\Delta * \text{Net Import}$$

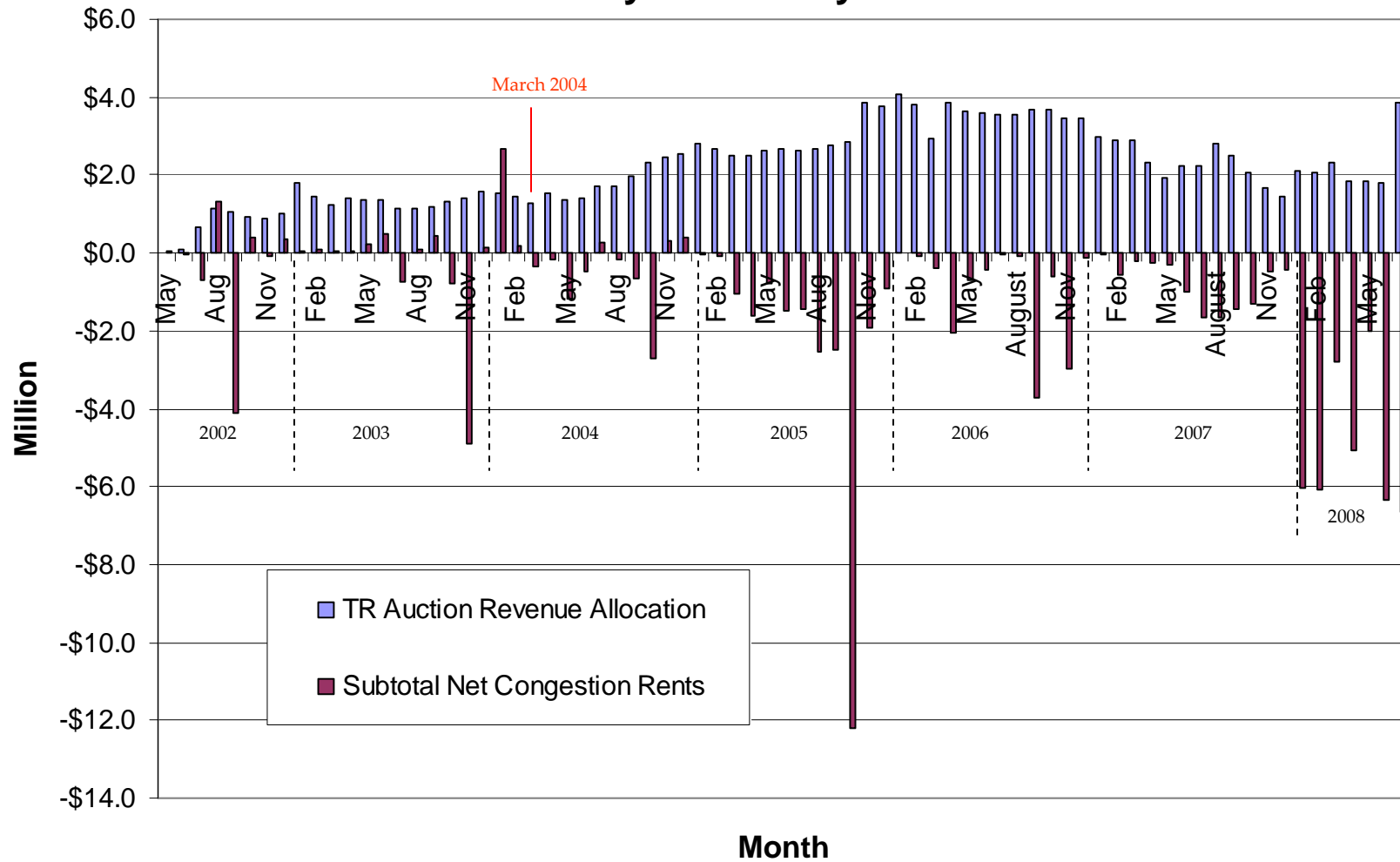
$$\text{TR Payout to owners of NY-ON TRs} = \$ \Delta \times \text{TR MW}$$

# TR Clearing Account Outcomes



\*interest and revocation

## TR Account Activity May 2002 - July 2008



# Account History

- Prior to the 'confidence level' changes, in April 2004 the congestion rents were, with few exceptions, greater than the TR payouts
- For the past 36 months the TR Payouts have been greater than congestion rents
- Congestion rent shortfalls have resulted in ~\$77 million in auction revenues and interest being used to fund the TR payouts
- Most of these revenues (\$72 million) have been used since the changes in the 'confidence level'

# Account History cont'd

- Despite shortfalls in congestion rents, the account balance continued to increase an average of \$3 million a month (including \$300,000 in interest) up to the end of 2007. Since then, the account has been decreasing an average of \$3 million a month
  - The earlier increases were a result, in part, of increased auction revenues due to:
    - Higher TR volumes
    - Higher TR Auction market clearing prices (MCP)
  - The recent decreases are a result of a variety of factors including the additional rights, long term outages, loop flow and increasing frequency of congestion
- Beginning in April 2007 and ending in January 2008, the IESO disbursed \$4.75M per month. Future surplus funds will also be used to offset customer costs at the discretion of the IESO Board
- At this time, the reserve threshold was increased from \$10M to \$20M

# Account History cont'd



Account History (June 2002 – May 2008)	
(1) TR Auction Revenues	\$ 170 854 000*
(2) Total Congestion Rents	\$ 269 665 000
(3) Total TR Payments	\$ 346 839 000
(4) Total Shortfall in Rents (2-3)	(\$ 77 174 000)
(5) Total Interest	\$ 10 762 000
<b>Account Balance (1+4+5)</b>	<b>\$ 36 280 000**</b>

\*includes \$14,918,000 of deferred auction revenues from long term auctions

\*\*includes \$57M payout

# Questions to be Asked in TR Review



- Is the intent of the Board methodology being met?
- Is this approach still appropriate (is one line out of service still appropriate)?
- Is the TR market efficient (high Rate of Returns)?
- Other design considerations?
- Should we consider other terms of rights?

MPWG Feedback on the Scope?