

**PUBLIC**



**PROCEDURE**

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## **Market Manual 4: Market Operations**

# **Part 4.4: Transmission Rights Auction**

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**Issue 24.1-MRP**

## Document Change History

Issue	Reason for Issue	Date
For <del>history</del> changes prior to 2008, refer to version 14.0 and prior. For changes prior to 2017, refer to version 19.0 and prior.		
<del>For history prior to 2015, refer to version 19.0 and prior.</del>		
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24.1	Updated to reflect changes as part of the Settlements Batch	December 1, 2022

## Related Documents

Document ID	Document Title
MAN-4	Transmission Reliability Margin Implementation Document

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## Table of Changes

<b>Reference (Paragraph and Section)</b>	<b>Description of Change</b>
3.1	Improving awareness of system operating conditions with updates on the use of publishing advisory notice; change of the term 'market advisory' to 'advisory notice'.

# Market ~~Manuals~~ Manual Conventions

~~The~~ The standard conventions followed for *market manuals* ~~consolidate the~~ are as follows:

- The word 'shall' denotes a mandatory requirement;
- References to *market procedures* ~~rule sections~~ and associated forms, standards, and policies that define certain elements relating to the operation of the *IESO-administered markets*. Market procedures provide more detailed descriptions of the requirements for various activities than is specified ~~sub-sections may be appreciated~~ in ~~the~~ accordance with the following representative format: '**MR Ch.1 ss.1.1-1.2**' (i.e. *market rules*. Where there is a discrepancy between the requirements in a document within a, Chapter 1, sections 1.1 to 1.2);
- References to *market manual* and ~~these~~ sections and sub-sections may be appreciated in accordance with the following representative format: '**MM 1.5 ss.1.1-1.2**' (i.e. *market rules*, ~~the~~ *manual* 1.5, sections 1.1 to 1.2);
- Internal references to sections and sub-sections within this manual take the representative format: 'sections 1.1 – 1.2';
- Terms and acronyms used in this *market rules* shall prevail. Standards and policies ~~manual in its~~ appended to, or referenced in, these procedures provide a supporting framework. ~~documents that are italicized have the meanings ascribed thereto in~~ **MR Ch.11**;

The "Market Operations Manual" is Series 4 of the *market manuals*, where this document forms "Part 4.4: Transmission Rights Auction".

- ~~—End of Section—~~ All user interface labels and options that appear on the IESO gateway and tools are formatted with the bold font style; and
- Data fields are identified in all capitals.

– End of Section –

# 1. Introduction

## 1.1. ~~1.1~~ Purpose

This document provides registered *Transmission Rights (TR) participants* with the information necessary for the:

- ~~Posting~~posting of a *TR market deposit* for the *TR market*, and
- ~~Submitting~~submitting of *TR bids* in the *TR market*.

It also describes the operation of the *TR market*, the *TR auctions* and the publication of the results of the *TR auction* by the *IESO*.

## 1.2. ~~1.2~~ Scope

This *market manual* is intended to provide a summary of the steps and interfaces between *market participants* and the *IESO* for submitting *TR bids*. The procedures described in this *market manual* reflect the requirements set out in the *market rules* and applicable *IESO* policies and standards.

The *settlement* of payments relating to purchases in the *TR auction* is addressed in ~~Market Manual 5.7: Financial Markets Settlement Statements~~MM 5.8: Settlement Invoicing.

The *settlement* of payments due to *TR holders* is addressed in ~~Market Manual MM 5.5: Physical Markets Settlement Statements Amounts Associated with the IESO-Administered Markets~~.

## 1.3. ~~1.3~~ Roles and Responsibilities

Responsibility for submitting *TR bids* for *transmission rights* and operating the *TR market* is shared among: registered *TR participants* and the *IESO*.

### 1.3.1. Registered TR Participants

Registered *TR participants*, ~~who~~ are responsible for:

- ~~Submitting~~submitting market deposits;
- ~~Viewing~~viewing the schedule of upcoming *TR auctions*;
- ~~Submitting~~submitting *TR bids* in the appropriate timeframe;
- ~~Correcting~~correcting invalid *TR bids* and resubmitting as required;
- ~~Viewing~~viewing the *TR auction* results; and



- ~~Following~~following *IESO* published notifications and contingency procedures for *TR auctions*.

### 1.3.2. IESO

The *IESO*, ~~which~~ is responsible for:

- ~~Determining~~determining the number of *TRs* available for each *TR auction*;
- ~~Providing~~providing information on upcoming *TR auctions*;
- ~~Publishing~~publishing pre-auction information;
- ~~Publishing~~publishing notices when required and conducting *TR auctions* using contingency procedure;
- ~~Receiving~~receiving and processing *TR bids* from registered *TR participants*;
- ~~Determining~~determining the results of *TR auctions*;
- ~~Providing~~providing information on *TR auction* results; and
- ~~Publishing~~publishing the results of the *TR auctions*.

## 1.4. ~~1.4~~ — Contact Information

Changes to this ~~public~~ *market manual* are managed via the [IESO Change Management process](#). Stakeholders are encouraged to participate in the evolution of this *market manual* via this process.

To contact the *IESO*, you can email *IESO* Customer Relations at [customer.relations@ieso.ca](mailto:customer.relations@ieso.ca) ~~or use~~ or use telephone or mail. Telephone numbers and the mailing address can be found on the *IESO* website (telephone or mail <http://www.IESO.ca/corporate-IESO/contact->). *IESO* Customer Relations staff will respond as soon as possible.

As part of the participant authorization and registration process, *applicants* are able to identify a range of contacts within their organization that address specific areas of market operations. For the *Transmission Rights auction*, this contact will most likely be the *market participant's* Financial Transmission Rights Market Contact Type as indicated in Online IESO. If a *market participant* has not identified a specific contact, the *IESO* will seek to contact the Applicant Representative established in Online IESO during the participant authorization process. The *IESO* will seek to contact these individuals for activities within this manual, unless alternative arrangements have been established between the *IESO* and the *market participant*.

Standard forms that participants must complete for this procedure are listed in ~~Appendix A~~Appendix A. These forms can be downloaded from [Market Rules and Manuals](#) page of the *IESO* website. These forms, as well as the accompanying supporting documentation are emailed to *IESO* Operations Integration at

[market.registration@ieso.ca](mailto:market.registration@ieso.ca), with **Transmission Rights Auction** stated in the Subject line.

**– End of Section –**

## 2. Transmission Rights Overview

*Transmission Rights* (TRs) are financial instruments that entitle the holder to a settlement amount based on locational differences in TR settlement the external congestion component of day-ahead market intertie congestion prices between the IESO control area and an intertie zone. Market participants that trade energy across an intertie may only use TRs to hedge against zonal price differences between day-ahead market external congestion costs resulting from binding import and export transmission limits at an intertie zone. TRs cannot be used to hedge intertie congestion prices in the IESO control area and real-time market, nor any other component of intertie congestion prices in the particular intertie zone day-ahead market.

Appendix G contains a summary of some of the characteristics of the TR market, including a list of possible TR withdrawal and injection zones.

### 2.1. The TR Market

(MR Ch.8 ss.3.2.2, 3.4.1, 3.8.2 and 3.12.1)

In order to participate in any round of a TR auction, you must be an authorized participant in the IESO-administered markets and have signed a Participation Agreement with the IESO prior to the date TR auction round is to be conducted<sup>1</sup>. Also, a TR market deposit must be paid to the IESO no less than five (5) business days prior to the date the TR auction round is to be conducted (MR Ch.8, S.4 ss.3.8.2 of the market rules).

The IESO conducts separate auctions for short-term and long-term TRs (see Section 3). TR Bids submitted to the TR auction are subject to the bidding limits established as a function of the TR market deposit described in Section 2.3. TRs are auctioned and traded in increments of 1 megawatt (MW) (MR Ch.8, S.4 s.3.2.2 of the market rules). They convey to the holder i.e. TR participant<sup>2</sup> who acquired TRs, the right to a settlement amount equal to the greater of zero and the number of TRs multiplied by the external congestion component of the intertie congestion price difference between the TR settlement price at the withdrawal TR for a particular intertie zone and in the TR settlement price at the injection TR zone day-ahead market<sup>3</sup> (MR Ch.8, S.4 s.3.4.1 of the

<sup>1</sup> The conducting of a TR auction or auction round occurs over several days. Therefore, the conducting of a TR auction or auction round commences when the TR bid submission window opens.

<sup>2</sup> TR participant is a market participant who is authorized to participate in the TR market.

<sup>3</sup> Difference must be a positive. TR settlement is always positive and TR participants must hold the TRs in the same direction as the congestion.

~~market rules~~). The total amount of *short-term TRs* and *long-term TRs* reflects a level of *intertie* flows that is expected to be physically possible in each direction under expected system conditions during the period for which the *TRs* are valid. This quantity of *TRs* is auctioned in a competitive process.

Refer to the *TR Pre-Auction Reports* published on the *IESO* website at least 30 days in advance of each *TR auction*. This public information provides historical ~~pricing relative to TR zones, historical zonal interfaced day-ahead~~ *intertie energy locational marginal price and the external congestion component for each TR zone historical day-ahead market intertie schedules*, forecast available transfer capability, total *TR offered*, and other related information that may be used by *TR participants* in determining their appropriate bidding strategy. ~~See Appendix B~~ Refer to Appendix B for the information that is published (as per ~~MR Ch.8, S.4 s.3.12.1~~ of the ~~market rules~~).

## ~~2.2~~ — IESO Determination of TRs for Auction

### 2.2. Day-Ahead Market Input

To ensure that the ~~day-ahead market external congestion rents~~ *rent* collected by the *IESO* ~~are~~ is balanced against the *IESO's* *TR* payment obligations for each path, a confidence level is established on a per path basis. This is achieved by introducing a financial upper limit for the number of *TRs* offered in any month for each path. The financial upper limit is adjusted from one month to the next based on the most current reported balance between the congestion rents and *TR* payouts on a per path basis and the applicable dead-band for the path.

The following subsections describe the base quantity, financial upper limit, and the dead-band.

#### ~~2.1.1~~ 2.2.1. Determining TR Base Quantity

The *TR* base quantity is the maximum number of cumulative rights on a path available for *long-term auctions*. The base quantity of each path is determined as the minimum of the summer and winter ~~Available Transfer Capabilities~~ *available transfer capabilities* (ATCs) with all elements in-service, derated for any expected long-term operational constraints on the path, and then dividing by a factor of 4 and rounded to the nearest multiplier of 4.

The base quantities will be reviewed and updated as necessary. The base quantity calculated for each path will be provided in the Long-Term Pre-Auction reports.

#### ~~2.1.2~~ 2.2.2. Determining Financial Upper Limit

The financial upper limit for each path for each month determines the maximum number of *TRs* (combined long-term and short-term) that can be offered in the *long-term* and *short-term auctions* conducted for that month. It is calculated based

on the net cumulative balance between the day-ahead market external congestion rents/rent collected and *TR* payouts on a per-path basis<sup>4</sup>. The financial upper limit is adjusted to target cumulative per path-based balance of zero (i.e., cumulative congestion rents collected on a specific path are sufficient to cover the cumulative *TR* payment obligations for the same path). Path-based adjustments to the financial upper limit are made only when the cumulative difference between congestion rents and *TR* payments exceeds a specified dead-band for each path.

Monthly and cumulative path-based day-ahead market external congestion rents/rent collected and *TR* payments are tracked in the historical *TR* Monthly Financial Report and are published on a monthly basis. This report also specifies the dead-band for each path. Details of this report are provided in Appendix C. Please note that the cumulative congestion rents and cumulative *TR* payment are reset as deemed necessary by the *IESO* and are highlighted in the applicable monthly financial report.

The financial upper limit for the upcoming month is equal to the minimum of the latest available summer and winter ATCs with all elements in-service, and the financial upper limit for the current month, which is adjusted based on the following algorithm:

**Table 2-1: Financial Upper Limit Algorithm**

Transmission Rights Clearing Account (TRCA)	Cumulative Difference between Congestion Rents Collected and TR Payments (by each TR path)	Impact on Monthly TRs (by TR path)
N/A	Between the upper and lower limits of the dead-band	No change
TRCA balance is <b>greater</b> than the TRCA threshold*	Exceeds upper limit of the dead-band (Congestion rent is <b>greater</b> than <i>TR</i> payout)	<b>Increase</b> financial upper limit by 4%
TRCA balance is <b>less than or equal to</b> the TRCA threshold*	Exceeds upper limit of the dead-band (Congestion rent is <b>greater</b> than <i>TR</i> payout)	No change**
N/A	Less than lower limit of the dead-band (Congestion rent is <b>less</b> than <i>TR</i> payout)	<b>Decrease</b> financial upper limit by 4%

<sup>4</sup> From March 2017 until MRP commencement date, the *IESO* ~~started calculating~~ has calculated the financial upper limit based on net cumulative balance between the congestion rents collected and *TR* payouts on a per path basis in the real-time market. Post MRP, the financial upper limit will be calculated in the same way except in the day-ahead market.

Transmission Rights Clearing Account (TRCA)	Cumulative Difference between Congestion Rents Collected and TR Payments (by each TR path)	Impact on Monthly TRs (by TR path)
<p>* The Transmission Rights Clearing Account (TRCA) threshold is currently \$20M</p> <p>** Transmission Rights (TR) offered will not be increased when TRCA balance is below threshold</p>		

### 2.1.3.2.2.3. Dead-band

The objective of dead-band is to limit the number of manual interventions and to allow time for any adjustments to impact the financial balance before further adjustments are made. The dead-band can vary for each path and can be modified when a given path is not achieving a balance between congestion rents and TR payments. For example, if adjustments are being made based on cumulative rents and TR payments ending in October, the adjustment based on that data will appear in the next pre-auction report which is published in November for TRs valid in January. Therefore, each adjustment could take three months to influence the TR payments. As a path approaches financial balance, a dead-band could minimize the number of adjustments required.

### 2.1.4.2.2.4. Determining Maximum TR Offered for Long-term Auctions

The number of TRs offered on each path at a *long-term auction* is limited to the lowest of the following:

- 25% of the established TR base quantity~~<sub>*i*</sub>~~
- ~~The~~the financial upper limit~~<sub>*i*</sub>~~
- ~~Expected~~expected ATC with consideration for *outages* (single/multiple, internal/external, planned/foreseeable or concurrent/consecutive) that have an impact for more than 30 days~~<sub>*i*</sub>~~ or
- ~~Expected~~expected ATC with consideration for non-*tieline* or operational constraints (for example, a constraint on an internal/external interface that imposes a limit on import/export).

**Note:** The actual number of TRs available for *bidding* may further be reduced in order to ~~ensure the TR base quantity and the financial upper limit are not exceeded when accounting account~~ for the TRs sold in previous three applicable *long-term auctions*.

### 2.1.5.2.2.5. Determining Maximum TR Offered for Short-term Auctions

The number of TRs offered on each path at a *short-term auction* is limited to the lowest of the:

- ~~The~~ financial upper limit;<sup>7</sup>
- ~~Expected~~~~expected~~ ATC with consideration for *outages* (single/multiple, internal/\_external, planned/\_foreseeable or concurrent/consecutive) that have an impact for more than 2.5 days;<sup>7</sup> ~~or~~
- ~~Expected~~~~expected~~ ATC with consideration for non-*tieline* or operational constraints (for example, a constraint on an internal/external interface that imposes a limit on import/export).

**Note:** The actual number of *TRs* available for *bidding* may further be reduced in order to account for the *TRs* sold in the previous four applicable *long-term auctions*.

### ~~2.2.2.3.~~ ~~2.3~~—TR Market Deposits for TR Auctions

~~(MR Ch.8 ss.3.8.3.1, 3.8.3.2, 3.14.1, 3.14.3, 3.14.4, 3.14.5.1, 3.14.5.2, 3.20.4.1 and 3.20.4.2)~~

*TR market deposits* are submitted in one (or a combination of both) of the following forms:

- Irrevocable commercial Letter of Credit (as set out in ~~Appendix F)~~Appendix F) provided by an *IESO*–approved bank (~~MR Ch.8, S.4 s.3.8.2A3.1 of the market rules~~);<sup>7</sup> or
- Cash deposits made with the *IESO* by the *TR participant*, or on the *TR participant's* behalf (~~MR Ch.8, S.4 s.3.8.2A3.2 of the market rules~~).

*TR market deposits* made in cash may be submitted by *electronic funds transfer* to an *IESO* designated account detailed in Appendix F. *TR market deposits* provided in the form of a Letter of Credit must be submitted to the *IESO* in original hard copy form. The *bidding limit* for a *TR auction* is normally set at 10 times the amount of the *TR market deposit* provided by the *TR participant* (~~MR Ch.8, S.4 s.3.14.1 of the market rules~~).

For *TR participants* who have previously defaulted on payment for *TRs* awarded, the *IESO* may set the *bidding limit* at less than 10 times the level of the *TR market deposit* the *TR participant* has posted (~~MR Ch.8, S.4 s.3.20.4.2.2 of the market rules~~). The *IESO* may also require the *TR market deposit* to be paid in cash before the participant is permitted to participate in the round of the auction (~~MR Ch.8, S.4 s.3.20.24.1 of the market rules~~).

The *IESO* verifies *TR market deposits* for participation in the *TR market* by:

- Reviewing the amount and type of *TR market deposit*;<sup>7</sup>
- Verifying that it meets the submission timing requirements;<sup>7</sup> and
- Ensuring applicants are authorized *market participants*.

*TR participants* can view their current *bidding limit* in the Customer Data Management System (CDMS) via *IESO Gateway* at the end of the *business day* prior to the commencement of an auction Round. For information on the CDMS tool, contact the *IESO Customer Relations* as detailed in [Section 1.4: Contact Information](#).

After determining which *TR participants* were awarded *TR rights* in a *TR auction*, the *IESO* applies any cash element of a *TR market deposit* against the purchase amount owing by the successful *TR bidder* and *invoice* the *TR bidder* for any outstanding amount where the *TR market deposit* was not sufficient (~~**MR Ch.8, S.4 s.3.14.3** of the market rules~~). Where the cash element of a *TR market deposit* exceeds the amount owed by the *TR bidder*, the *IESO* (as per ~~**MR Ch.8, S.4 s.3.14.4** of the market rules~~) will either:

- ~~Include~~**include** the excess as a credit on the financial market invoice only if the *TR bidder* has previously asked the *IESO* to do this at the time they submitted their *TR market deposit*; or
- ~~Retain~~**retain** the excess as part of the *TR bidder's TR market deposit* for subsequent *TR auctions*.

When the *IESO* has received full payment of an *invoice* relating to a *TR auction*, where the *TR market deposit* comprises a commercial Letter of Credit, the *IESO* will either:

- ~~Return~~**return** the Letter of Credit only if the *TR bidder* had previously requested (~~**MR Ch.8, S.4 s.3.14.5.1** of the market rules~~); or
- ~~Retain~~**retain** the Letter of Credit as part of the *TR bidder's TR market deposit* for subsequent *TR auctions* (~~**MR Ch.8, S.4 s.3.14.5.2** of the market rules~~).

To ensure appropriate *bidding limits* are derived through each auction, *TR participants* who submit a *TR market deposit* in the form of a cash deposit should note that their *TR market deposit* will be reduced by the full amount of the *TRs* awarded upon completion of each *short-term auction* and for each *long-term auction*, until such time as the *invoices* are issued and paid in full (~~**MR Ch.8, S.4 s.3.20.1** of the market rules~~). *TR participants* who submit a *TR market deposit* in the form of a commercial Letter of Credit should note that their *TR market deposit* will be reduced by 10% of the value of the *TRs* awarded upon completion of each *short-term auction* and for each *long-term auction*, until such time as the *invoices* are issued and paid in full. (~~**MR Ch.8, S.4 s.3.20.1** of the market rules~~).

The automatic application of the cash deposits to offset any amounts owing to the *IESO*, and temporary deduction of awards against a Letter of Credit creates the risk that a *TR participant* will not be able to participate in any subsequent auctions occurring within the next five (5) *business days*. Therefore, *TR participants* may wish to submit a *TR market deposit* that is sufficient to cover any *TRs* that may be



awarded, as a result of their bid strategy in all rounds of concurrent *TR auctions* that occur within five (5) *business days*.

CDMS will not accept *TR market deposits* of less than \$1.00. Therefore, when updating *bidding limits/TR market deposits* for successful awards which are not to the nearest dollar, the *IESO* rounds the value of *TRs* awarded down to the nearest dollar prior to subtracting award value from the *TR participant's TR market deposit*. The result of this rounding process will be displayed in the CDMS and *TR Trade Limit*.

### ~~2.3.2.4.~~ ~~2.4~~ TR Bid Data Requirements

~~(MR Ch.8 ss.3.13.1 and 3.14.2)~~

*TRs bids* are submitted during a *TR auction* via the *Transmission Rights Auction* system, which is accessed through the *IESO Gateway*~~gateway~~. A *TR bid* must include the following information (~~MR Ch.8, S.4 s.3.13.1 of the market rules~~):

- ~~Name~~name of the *TR bidder*;
- ~~Injection~~injection *TR zone* and the withdrawal *TR zone* for each *transmission right* that the *TR bidder* is *bidding to purchase*;
- ~~Number~~number of *transmission rights* that the *TR bidder* is *bidding to purchase*;
- ~~Period~~period of validity of each *transmission right* that the *TR bidder* is *bidding to purchase*;
- ~~Maximum~~maximum price, in dollars per megawatt (\$/MW), that the *TR bidder* is willing to pay for each *transmission right* that the *TR bidder* is *bidding to purchase*, which price must be a positive amount; and
- (~~In~~in the case of a *long-term auction* referred to in Section 3) ~~Months~~months of the year for which the *transmission rights* that the *TR bidder* is *bidding to purchase* must be valid.

The *IESO* will refuse a *TR bid* when accepting it would result in the aggregate value of all *TRs* awarded to the *TR bidder* exceeding the *TR bidder's bidding limit* (~~MR Ch.8, S.4 s.3.14.2 of the market rules~~).



Further information on the *IESO Transmission Rights Auction* system is available in the [Transmission Rights Auction System - A Participant's Guide](#)<sup>5</sup>.

<sup>5</sup> The *TR Auction* system also provides a detailed online help functionality.

## ~~2.4.2.5.~~ ~~2.5~~ Procedural Steps for TR Market Deposits

**Table ~~2-1+2-2~~: Procedural Steps for TR Market Deposits**

Step	Completed by	Action
1	Market Participant	<p>Submit <i>TR market deposit</i> at least five (5) <i>business days</i> prior to the opening of the <i>TR bid</i> submission window.</p> <p>Complete and submit <a href="#">IMO FORM 1361: TR Auction Information</a> indicating the submission of, or update to, the <i>TR market deposit</i> necessary to bid. The form may be submitted by email or mail. Cash payments can be made by electronic funds transfer. Letters of Credit can be sent by courier or mail.</p> <p>Indicate whether you want the <i>IESO</i> to credit any excess <i>TR market deposit</i> on completion of the <i>TR auction</i>. The <i>IESO</i> will carry forward any excess <i>TR market deposit</i> towards the next <i>TR auction</i> if you do not request a credit.</p> <p>In most cases, the <i>bidding limit</i> of the <i>TR participant</i> in the <i>TR auction</i> will be 10 times the amount of the <i>TR market deposit</i> provided.</p>
2	IESO	<p>Confirm that the <i>TR market deposit</i> was received within five (5) <i>business days</i> prior to the opening of the <i>TR bid</i> submission window and that the <i>market participant</i> is authorized to participate in the <i>Transmission Rights market</i> by having signed a <i>participation agreement</i> (<del>see Section 2.1</del>)-refer to <a href="#">section 2.1</a>).</p>
3A	IESO	<p>The <i>IESO</i> to determine if the <i>market participant</i> is required to post a <i>TR market deposit</i> in the form of cash and/or operate with a reduced <i>bidding limit</i> based on previous default(s) on <i>Transmission Rights</i> payments.</p> <p>Where this is a requirement, the <i>IESO</i> confirms whether the <i>market participant</i> has complied with this requirement.</p>
3B	IESO	<p>If the <i>IESO</i> has determined that the <i>market participant</i> is required to post their <i>TR market deposit</i> in cash, and the <i>market participant</i> has NOT done so, then the <i>IESO</i> will set the <i>TR participant's bidding limit</i> to zero so that the <i>TR participant</i> is not authorized to participate in the auction as requested.</p>
4	IESO	<p>If the <i>IESO</i> has determined that the <i>TR participant</i> has had no previous <i>event of default</i>, or if the <i>market participant</i> has submitted their <i>TR market deposit</i> in cash, the <i>IESO</i> will update the <i>TR participant's bidding limit</i> for <i>TR auctions</i> in CDMS.</p> <p>For <i>TR participants</i> who have NOT previously caused an <i>event of default</i>, the <i>bidding limit</i> will be set at 10 times the amount of <i>TR market deposit</i> that has been posted with the <i>IESO</i>.</p>

Step	Completed by 	Action
		For <i>TR participants</i> who have previously defaulted on a <i>Transmission Rights</i> payment, the <i>IESO</i> may set the <i>bidding limit</i> to a reduced multiple of the amount of <i>TR market deposit</i> posted.
5	<i>IESO</i>	<p>After the <i>TR auction</i>, the <i>IESO</i> determines the amount of excess <i>TR market deposit</i>, if any.</p> <p>Once amounts owed by the <i>TR participant</i> for <i>TRs</i> are accounted for, in the case of cash <i>TR market deposits</i>;  or</p> <p>Once invoices relating to the <i>TR auction</i> have been paid by the <i>TR participant</i>, in the case of <i>TR market deposits</i> submitted by Letter of Credit, the <i>IESO</i> credits any excess <i>TR market deposit</i> to the <i>TR participant</i> if they requested to have any excess credited when they submitted their <i>TR market deposit</i>.</p> <p>If the <i>TR participant</i> did NOT request a credit, the <i>IESO</i> will include the excess in its assessment of the participant's <i>TR market deposit</i> for future <i>TR auctions</i>.</p>

– End of Section –

### 3. Auctions of Short-Term and Long-Term TRs

(MR Ch.8 ss.3.10.1, 3.10.2, 3.11.1, 3.11.2, 3.11.5 and 3.11.9)

The *IESO* conducts separate auctions for *long-term TRs* and *short-term TRs*.

A *short-term TR auction* is held between the 1<sup>st</sup> and 15<sup>th</sup> day of each month to sell *TRs* valid for the immediately following one-month period (~~MR Ch.8, S.4 s.3.10.1 of the market rules~~). Each of these *short-term TR auctions* consists of a single round (~~MR Ch.8, S.4 s.3.10.2 of the market rules~~).

*Long-term auctions* are held at least 30 days, but not more than 90 days, prior to the beginning of each quarter for which *long-term TRs* are being auctioned. (~~MR Ch.8, S.4 s.3.11.1 of the market rules~~). Each *long-term TR auction* will offer *TRs* that are valid for a period of one year, beginning on the first day of the quarter (~~MR Ch.8, S.4 s.3.11.2 of the market rules~~).

*TR auction* schedule for the future auctions is available on the *IESO's* [Market Calendars](#) webpage.

Each *long-term TR auction* consists of multiple rounds. The *IESO* determines the number of auction rounds. Experience in operating the *long-term auctions* reveals that two auction rounds are ideal to achieve a balance between:

- ~~Providing~~*providing* *TR participants* with opportunities for price discovery~~i~~ and
- ~~Minimizing~~*minimizing* the burden on *TR participants* and the *IESO* in conducting varying numbers of rounds.

Each auction round is independent of all other rounds. *TR market clearing prices* are determined independently for each round, with the award of *TRs* based on the *market clearing price* for that round (~~MR Ch.8, S.4 s.3.11.5 of the market rules~~). The portion of the available transmission capability allocated to each round increases in subsequent rounds, with the portion allocated to the final round being at least three times that allocated to the first round (~~MR Ch.8, S.4 s.3.11.10 of the market rules~~<sup>9</sup>). Given the two-round configuration of a *long-term auction*, 25% of the *TRs* are allocated to the first round, and all remaining *TRs* are auctioned in the second round.

The *IESO* makes any unsold *long-term transmission rights* available for the applicable monthly *short-term auction*.

Each *TR auction* has a unique name that reflects the time associated with the *TRs* being auctioned (~~MR Ch.8, S.4 s.3.11.2 of the market rules~~). The naming convention is TYPE\_YYYYMMDD,

Where:

- TYPE represents the Auction Type, and
- YYYYMMDD defines the first day where rights will be available for congestion payments.

Auction Types:

- ST – for *short-term auctions*
- LT – for *long-term auctions*

Examples of naming conventions:

- ST\_20200101 represents a *short-term auction* offering *TR* for a one-month period beginning on January 1, 2020
- LT\_20200101 represents a *long-term TR auction* offering *TR* for a one-year period beginning on January 1, 2020

### 3.1. ~~3.1~~ Submission of TR Bids

~~(MR Ch.8 ss.3.1.6, 3.1.6.1 – 3.1.6.3, 3.1.7, 3.1.8, 3.13.1.5, 3.13.4, 3.13.8 and 3.14.2)~~

*TR bidders* may submit *TR bids* through the *TR auction* system while the *TR bid* submission window is open. The *TR bid* submission window is normally open from 09:00 EST<sup>6</sup>, two (2) *business days* prior to the *TR auction* and closes no later than 17:00 EST, one *business day* prior to the *TR auction* (~~MR Ch.8, S.4 s.3.13.5 of the market rules~~<sup>4</sup>). The *TR auction* system validates all *TR bids* that are submitted and will reject a *TR bid* where the:

- ~~Datedate~~/time of the *TR bid* submission is outside the *TR bid* submission window (~~MR Ch.8, S.4 s.3.13.5 of the market rules~~);<sup>4</sup>
- ~~TR Bidbid~~ would increase the aggregate of all *TR bids* submitted for that *TR auction* to value that exceeds the *TR bidder's bidding limit* (~~MR Ch.8, S.4 s.3.14.2 of the market rules~~);<sup>5</sup>
- ~~Priceprice~~ submitted is zero or negative (~~MR Ch.8, S.4 s.3.13.1.5 of the market rules~~);<sup>6</sup> or

<sup>6</sup> The *Transmission Rights Auction* system always operates on Eastern Standard Time (EST).

- *TR bid's* MW quantity exceeds the total amount of *TRs* available in that round of the *TR auction*.

The *TR auction* system notifies the *TR bidder* whether their *TR bid* has been accepted or rejected (with explanation of rejection) in real-time (~~MR Ch.8, S.4 s.3.13.9 of the market rules~~<sup>8</sup>). *TR bidders* can also review the status of their accepted *TR bids* during the *TR auction* via the *TR auction* system. Refer to [Transmission Rights Auction System - A Participant's Guide](#) for more information on the *TR auction* system.

Changes can be made to both the *TR bid* quantity and the *TR bid* price at any time before the *TR bid* submission window has closed by submitting the required changes through the *TR auction* system, which overwrites previous submissions. In addition, *TR bidders* can delete a *TR bid* at any time before the *TR bid* submission window has closed through the *TR auction* system.

If for any reason a *TR bid* cannot be submitted or accepted during an active *TR auction* round, and provided that all conditions and requirements for *TR bid* data submission are met, then contact *IESO* Customer Relations as per [Section section 1.4](#).

In the event of a real-time contingency that prevents receipt of *TR bids* that significantly delays the start or running of the *TR auction*, the *IESO* will first issue an advisory notice via the *IESO* website that explains the cause of the delay (if known) and the expected duration. Subsequently, the *IESO* may, for reasons of a failure in the *TR bidder's* or the *IESO's* software, hardware, or communication systems associated with a *TR auction* (as per ~~MR Ch.8, S.4 s.3.1.6 of the market rules~~):

- ~~Conduct~~<sup>conduct</sup> a *TR auction* using contingency procedures, including but not limited to those detailed in [Appendix H \(Appendix H \(MR Ch.8, S.4 s.3.1.6.1 of the market rules\)\)](#);
- ~~Conduct~~<sup>conduct</sup> a *TR auction* and related activities along timelines other than those specified in the *market rules* (~~MR Ch.8, S.4 s.3.1.6.2 of the market rules~~); or
- ~~In~~<sup>in</sup> the event that the *IESO* cannot conduct an effective *TR auction* in a commercially reasonable manner using contingency procedures and/or modified timelines, cancel all or part of a *TR auction* (~~MR Ch.8, S.4 s.3.1.6.3 of the market rules~~).

The *IESO* will notify all *TR participants* who are affected as soon as practicable of any *TR auction* cancellation, and/or contingency procedures, revised timelines and revised activity schedules that the *IESO* intends to implement (the *IESO* must notify all *TR participants* before taking any of these steps) (~~MR Ch.8, S.4 s.3.1.7 of the market rules~~). *TR participants* who wish to participate in a *TR auction* that is being

conducted under contingency procedures and/or revised timelines, shall comply with any applicable contingency procedure, revised activity schedules, or revised timelines specified by the *IESO* (~~MR Ch.8, S.4 s.3.1.8 of the market rules~~).

## 3.2. Determination and Publication of TR Auction Results

(~~MR Ch.8 ss.3.15.1 and 3.16.1~~)

Following the period for accepting *TR bids* during the *TR bid* submission window of a given round of a *TR auction*, the *IESO* determines the *TR* quantities to be awarded and *TR market clearing price* for each transmission path for that round<sup>7</sup> (~~MR Ch.8, S.4 s.3.15.1 of the market rules~~).

By the end of the next *business day* following a *TR auction* round (and prior to the opening of the *TR bid* submission window for a subsequent round), the *IESO* makes *TR participant*-specific reports available to each *TR participant* who has purchased *TRs* in the auction round, which details their purchases (~~MR Ch.8, S.4 s.3.16.1 of the market rules~~). This report is available through the *IESO Gateway*~~gateway~~. The *IESO* also publishes a summary of the *TR auction* results on the *IESO* website. (SeeRefer to [Appendix E](#) for the information to be provided in the *TR participant*-specific report and public report.)

## 3.3. ~~3.3~~ Procedural Steps for the TR Auction

**Table ~~3-1+3-1~~: Procedural Steps for the TR Auction**

Step	Completed by <del>---</del>	Action
1	<i>IESO</i>	At least 30 days prior to each <i>TR auction</i> , the <i>IESO</i> determines and publishes the pre-auction publication data ( <del>see Appendix B</del> refer to <a href="#">Appendix B</a> ) on the <i>IESO</i> website to provide information on the upcoming <i>TR auction</i> .
2	<i>IESO</i>	Prior to each <i>TR auction</i> , the <i>IESO</i> makes information on the upcoming <i>TR auction</i> available that <i>TR participants</i> can access through the <i>IESO Gateway</i> <del>gateway</del> .  Refer to <a href="#">Transmission Rights Auction System - A Participant's Guide</a> for an overview of the <i>TR auction</i> system.

<sup>7</sup> It should be noted that under certain tie breaking conditions not all *TRs* available can be allocated without violating the feasibility requirement due to rounding of results. These unallocated *TRs* may be available for future auctions.

Step	Completed by	Action
3	<i>TR Participant</i>	Access and view pre-auction publication data and <i>TR auction</i> information available on the <i>IESO</i> website and <i>IESO Gateway</i> .
4	<i>TR Participant</i>	Submit <i>TR bids</i> for the <i>TR auction</i> via the <i>IESO Gateway</i> . The <i>TR bid</i> submission window opens at 09:00 EST, two (2) <i>business days</i> before the <i>TR auction</i> , and closes no later than 17:00 EST, one <i>business day</i> before the <i>TR auction</i> .
5A	<i>IESO</i>	Receive, time stamp, and validate <i>TR bids</i> . Issue acceptance confirmation for <i>TR bids</i> that are <b>accepted</b> . <i>TR bids</i> are <b>rejected</b> if the: Date/time of the <i>TR bid</i> submission is outside the <i>TR bid</i> submission window, <i>TR bid</i> would increase the aggregate of all <i>TR bids</i> the <i>TR participant</i> has submitted for that auction to a value that exceeds their <i>bidding limit</i> , Price submitted is zero or a negative, or <i>TR bid's</i> MW quantity exceeds the total amount of <i>TRs</i> available in that round of the auction.
5B	<i>IESO</i>	For any rejected <i>TR bids</i> , notify the <i>TR participant</i> that their submission was invalid and include the reason(s) for rejecting.
5C	<i>TR Participant</i>	Correct and resubmit <i>TR bid</i> , if desired (within the <i>TR bid</i> submission window).
5D	<i>IESO</i>	Repeat step 5A.
6	<i>IESO</i>	On the specified <i>TR auction day</i> , run the <i>TR auction</i> and determine <i>TR market clearing prices</i> and winning <i>TR bids</i> .
7	<i>IESO</i>	By the end of the next <i>business day</i> , and prior to the opening of the <i>TR bid</i> submission window for submitting <i>TR bids</i> in any subsequent <i>TR auction</i> round. Issue a <b>TR Participant Bid Notification Report</b> for each <i>TR participant</i> who was awarded <i>TRs</i> in the <i>TR auction</i> . This report details each purchase and is available at <i>IESO</i> Reports. Refer to the Transmission Rights Auction System – A Participant's Guide for further information. <i>Publish</i> the overall results of the auction round through the <b>Post Auction TR Market Clearing Price Report</b> on the <i>IESO</i> website. <a href="#">See Refer to Appendix E</a> for the information contained in the reports.



**– End of Section –**

## 4. Settlement of Awards

The invoicing process for the application of outstanding amounts following the application of the cash *TR market deposit* against the amount owed to the *IESO*, or the full amount owing where the *TR market deposit* was in the form of a Letter of Credit, will be detailed in the financial markets *settlement statement*. See [Market Manual 5.7: Financial Markets Settlement Statements and Market Manual 5.8: Financial Market Settlements](#) Refer to [MM 5.8: Settlement Invoicing](#) for more information on this process.

Payment for all *TRs* must be made in full prior to us assigning any *TRs* to the *TR bidder*. Refer to [Market Manual MM 5.9: Settlement Payment Methods and Schedule](#) for more information on the process of paying *invoices*.

### 4.1. ~~4.1~~ — Default in Payment

[\(MR Ch.8 ss.3.20.1 and 3.20.1.2\)](#)

When a successful *TR bidder* fails to remit to the *IESO* on the applicable *payment date* all payment due for all *transmission rights* awarded during all rounds of a *TR auction*, no *transmission rights* will be issued ([MR Ch.8, S.4 s.3.20.1](#) of the *market rules*). In addition, the *TR bidder* will forfeit the lesser of the:

- *TR market deposit* ([MR Ch.8, S.4 s.3.20.1.2.1](#) of the *market rules*), or
- Portion of its *TR market deposit* that is equal to 10% of the value of all *TRs* awarded to the *TR bidder* during the applicable *TR auction* ([MR Ch.8, S.4 s.3.20.1.2.2](#) of the *market rules*).

If a *TR bidder* defaults on a payment, the *IESO* may impose reductions of the *TR market deposit* multiplier for the setting of *TR bid* limits for the *TR bidder's* future *TR auctions* as follows:

- 1<sup>st</sup> default – *TR bid* limit multiplier lowered from 10 to 8 times
- 2<sup>nd</sup> default – *TR bid* limit multiplier lowered from 8 to 5 times
- 3<sup>rd</sup> default – *TR bid* limit multiplier lowered from 5 to 1 time

Restoration of the multiplier will occur in reverse order of the reduction imposed after each subsequent *TR auction* in which the *TR bidder* pays for the *TRs* on time.

### 4.2. ~~4.2~~ — Payments to TR Holders

[\(MR Ch.8 s.3.4.2\)](#)

Payments to *TR holders* will occur through the *physical markets settlement statement* process detailed in Market Manual 5.5: Physical Markets Settlement Statements. **Settlement Amounts Associated with the IESO-Administered Markets.** A planned or *forced outage* to an *interconnection* may reduce the *transmission transfer capability* between a withdrawal *TR zone* and an injection *TR zone*, determined for the *day-ahead market*, to zero (~~MR Ch.8, S.4 s.3.4.2 of the *market rules*~~). In such circumstances, the amount payable to the *TR holder* of a *TR* associated with such *TR zones* will be ~~set to zero from the first hour after the hour in which the *outage* occurred (Ch.8, S.4.4.2.1 of the *market rules*). It will remain at zero through to, and including, the hour in which the *outage* is resolved and the *transmission transfer capability* returns to an amount greater than zero, after which payments will resume to the *TR holder* (Ch.8, S.4.4.2.2 of the *market rules*)~~ zero.

*TR holders* do not receive a credit relating to the purchase cost of a *TR* for the period during which the *outage* has occurred (~~MR Ch.8, S.4 s.3.4.2 of the *market rules*~~).

#### 4.2.1. Day-Ahead Market Failure

(MR Ch.8 s.3.4.3)

Following the determination of a *day-ahead market* failure or if the *day-ahead market* is suspended, the amount owing by the *IESO* in respect of a *transmission right* that is valid for a *settlement hour* during the time when the *day-ahead market* has failed or suspended will be zero (MR Ch.8 s.3.4.3).

– End of Section –

## Appendix A: Forms

This appendix contains a list of forms associated with the procedure for *transmission rights auctions*, which are available on the [IESO's website](#). The forms included are as follows:

**~~Table A-1:~~ Table A-1: Forms Associated with Transmission Rights Auctions**

Form Number	Form Name
<a href="#">IMO FORM 1361</a>	TR Auction Information
<a href="#">IMO FORM 1374</a>	Notice of Revocation of Transmission Rights
<a href="#">FORM-84</a>	Application for Recognition of the Assignment of Transmission Rights
<a href="#">FORM-85</a>	Agreement to Recognize the Assignment of Settlement Amounts Under a Transmission Right

– End of ~~Section~~ **Appendix** –

## Appendix B: Pre-auction Publication

~~(MR Ch.7 s.4.B.1)~~

~~(MR Ch.8 ss.3.7.2 and 3.12.1.1 – 3.12.1.5)~~

The *IESO publishes* the following information reports at least 30 days prior to each *TR auction as part of the TR Pre-Auction Report published on the IESO website (Ch.8, S.4.12.1 of the market rules)*:

- ~~Hourly prices determined on the basis of the last projected market price for energy published for that hour pursuant to (Section 5.5.1 of Chapter 7 of the market rules) for each TR zone<sup>1</sup> during the preceding twelve months (**MR Ch.8, S.4.12.1.1 of the market rules**);~~

~~The TR market clearing price for each transmission right sold during any TR auctions conducted in the preceding eighteen months (Ch.8, S.4 **s.3.12.1.2** of the market rules);~~

- ~~Actual and scheduled hourly flows<sup>2</sup> over each interconnection during the preceding twelve months (Ch.8, S.4.12.1.3 of the market rules);~~
- ~~The hourly transmission transfer capability of each interconnection<sup>3</sup> during the preceding twelve months (Ch.8, S.4.12.1.4 of the market rules); and~~
- ~~Identification of any transmission transfer capability limits, parallel flow assumptions and other applicable constraints that may limit the number of transmission rights that can be awarded in the TR auction, the operating assumptions established in respect of the TR auction pursuant to (Section 4.7.2 of Chapter 8 of the market rules) (Ch.8, S.4.12.1.5 of the market rules) and forecasted amount of TRs available.~~

- DAM Hourly Intertie Energy Price Report (**MR Ch.7 s.4.B.1**) (**MR Ch.8 s.3.12.1.1**);
- TR Hourly Zonal Price Report (**MR Ch.8 s.3.12.1.1**);
- TRA Pre-Auction MCP Report (**MR Ch.8 s.3.12.1.2**);
- DAM Monthly Historical Interface Flows, Schedules, Transmission Transfer Capability (**MR Ch.8 s.3.12.1.3**) (**MR Ch.8 s.3.12.1.4**);

<sup>1</sup>~~Zonal Prices determined by the last run of the pre-dispatch unconstrained schedule.~~

<sup>2</sup>~~The average of scheduled market transactions and average flow in MW during a given hour over each intertie zone.~~

<sup>3</sup>~~The maximum import and maximum export scheduling limit used for the last run of the pre-dispatch schedule.~~

- Pre-Auction Report for Long Term Transmission Rights (MR Ch.8 s.3.7.2) (MR Ch.8 s.3.12.1.5);
- Pre-Auction Report for Short Term Transmission Rights (MR Ch.8 s.3.7.2) (MR Ch.8 s.3.12.1.5);

**– End of ~~Section~~ Appendix –**

## Appendix C: TR Monthly Financial Report

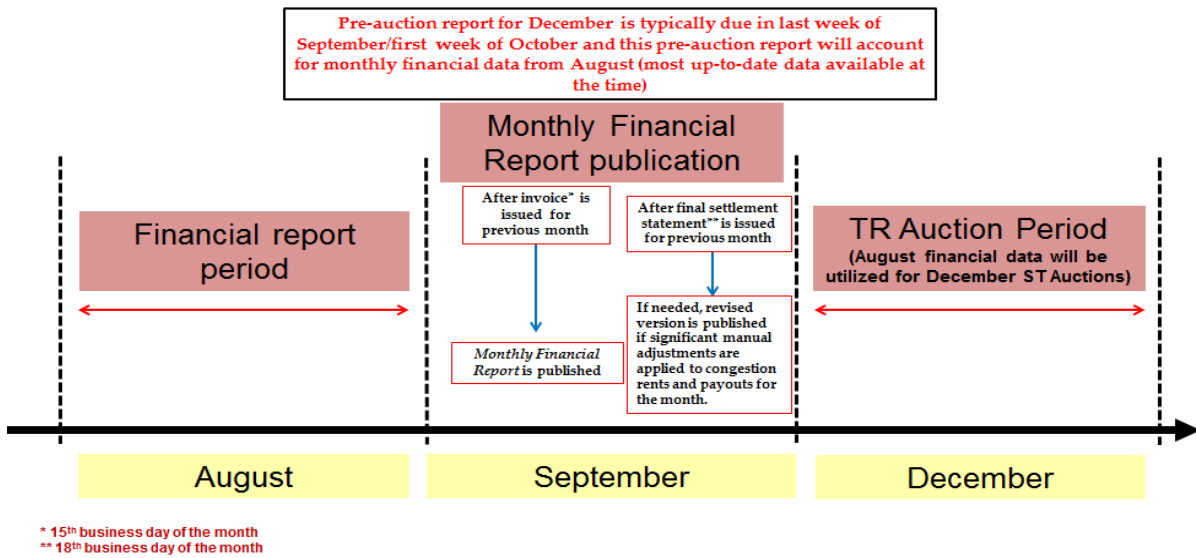
Every month the *IESO publishes* the financial report, which summarizes the following quantities for the previous month:

**Table C-1: TR Monthly Financial Report Quantities**

Quantity	Definition
Monthly Congestion Rents	The amount collected by the <i>IESO</i> on the <i>interties</i> <del>when congested</del> due to a price difference <u>resulting from external congestion</u> between the <del>Intertie Zone Price</del> <u>locational marginal price</u> and <del>Ontario Market Clearing Price</del> <u>the intertie border price at a particular intertie zone in the day-ahead market.</u>
Monthly TR Payouts	The payments made to <i>TR holders</i> .
Manual Adjustment	The adjustments made manually to <u>external</u> congestion rents or <i>TR</i> payouts amounts.
Cumulative Congestion Rents	Sum of <u>day-ahead market external congestion rents</u> <del>rent</del> <u>collected</u> starting from MM YYYY <sub>1</sub> .
Cumulative TR Payouts	Sum of <i>TR</i> payouts starting from MM YYYY <sub>1</sub> .
Cumulative Manual Adjustment	Sum of manual adjustments starting from MM YYYY <sub>1</sub> .
Cumulative Net Balance	Sum of cumulative <u>day-ahead market external congestion rents</u> <del>rent</del> <u>collected</u> and cumulative manual adjustment minus cumulative <i>TR</i> payouts <sub>1</sub> .
Dead-band	A range for the cumulative difference between <u>day-ahead market external congestion rents</u> <del>rent</del> and <i>TR</i> payments per path for which no adjustments to the financial upper limit will be necessary.

\* 15<sup>th</sup> business day of the month  
\*\* 18<sup>th</sup> business day of the month

Figure C-1:



**Figure C-1: Timeline – Monthly Financial Report**

Please note that the pre-auction report for the December auction will be published in the last week of September and may not account for the *settlement* manual adjustments applied to the cumulative rents and *TR* payments for the period ending in August. Therefore, any significant manual adjustment will be reported as the revised monthly financial report for the applicable month and will be accounted for in the final calculation of *TRs* offered (before the *TR bid* submission window).

The monthly financial report will be published after release of the financial *invoice*, as per the *Physical Market Settlement Schedule and Payments Calendar (SSPC)* for the current year, which can be found on the [Market Calendars page](#) of the *IESO* website. A revised version of the monthly financial report will be released only when the significant manual adjustments are applied to the day-ahead market external congestion rents/rent collected or payouts for the applicable period in the financial *settlement statement* (released as per the *SSPC*).

– End of Section **Appendix** –



## Appendix D: TR Path Information

The following section explains how the forecast *transmission transfer capabilities* presented in pre-auction reports are obtained.

### D.1. ~~D.1~~—Determining Transmission Transfer Capability

The forecast *transmission transfer capability* in the *TR* pre-auction reports reflects the anticipated ~~Total Transfer Capability~~ *total transfer capability* (TTC) of an *intertie* with consideration to constraints and *outages* which may not be considered during ~~pre-dispatch~~ *day-ahead* scheduling on the *interties*.

The following are considered when determining the forecast *transmission transfer capability*:

- ~~Operating~~ *operating* practices;<sub>7i</sub>
- ~~Thermal~~ *thermal* ratings;<sub>7i</sub>
- ~~Stability~~ *stability* and voltage limits;<sub>7i</sub> and
- ~~Anticipated~~ *anticipated* operating conditions including internal or external constraints and limitations such as foreseeable *outages*.

The combined short-term and long-term TRs offered on any path must not be greater than the path's minimum summer and winter ~~Available Transfer Capability~~ *(ATC)ATCs* at any time.

– End of ~~Section~~ **Appendix** –

## Appendix E: TR Auction Results

~~(MR Ch.8 ss.3.16.1.1 – 3.16.1.4 and 3.16.3.1 – 3.16.3.4)~~

Following the *TR auction*, the *Transmission Rights auction* system provides the following two types of reports for the auction round by the end of the next *business day* after the auction has completed:

- Auction Results Bidder Notification Report (via Participant Reporting) for each *TR participant* ~~that details the following information relating to the auction:~~**(MR Ch.8 s.3.16.1).**
  - ~~Number of *transmission rights* awarded to the *TR bidder* during that round (Ch.8, S.4.16.1.1 of the *market rules*),~~
  - ~~*TR market clearing price* of each *transmission right* awarded to the *TR bidder* during that round (Ch.8, S.4.16.1.2 of the *market rules*),~~
  - ~~Injection *TR zone* and the withdrawal *TR zone* in respect of each *transmission right* awarded to the *TR bidder* during that round (Ch.8, S.4.16.1.3 of the *market rules*), and~~
  - ~~Period for which each *transmission right* awarded to the *TR bidder* during that round is valid (Ch.8, S.4.16.4 of the *market rules*).~~
- ~~A post-auction *TR Market Clearing Price Report* available to the public that aggregates the following information relating to the auction:~~
  - ~~*TR market clearing price* for each *transmission right* sold during that round (Ch.8, S.4.16.3.1 of the *market rules*),~~
  - ~~Number of *transmission rights* sold during that round (Ch.8, S.4.16.3.2 of the *market rules*),~~
  - ~~Injection *TR zone* and withdrawal *TR zone* for each *transmission right* sold during that round (Ch.8, S.4.16.3.3 of the *market rules*), and~~
  - ~~Period of validity of each *transmission right* sold during that round (Ch.8, S.4.16.3.4 of the *market rules*).~~

~~).~~ Refer to [Transmission Rights Auction System - A Participant's Guide](#) for more information on these reports.

– End of ~~Section~~**Appendix** –

## Appendix F: TR Market ~~Deposit~~ Deposits

~~F.1~~ (MR Ch.8 s.3.8.4)

### F.1. Cash Deposits

Cash deposits for the purpose of establishing all or part of a *TR market deposit* should be paid into the *IESO Transmission Rights* account.

### F.2. ~~F.2~~ Letter of Credit

Where a Letter of Credit is to be submitted as all or part of a *TR market deposit*, it must be in a form that is acceptable to the *IESO* (as set out in ~~MR Ch.8, S.4 s.3.8.2B of the market rules~~4).

– End of ~~Section~~ Appendix –

## Appendix G: Summary of Transmission Rights

**Table F-1+G-1: Summary of Transmission Rights**

Item	Description
Nature of <i>TR</i>	A contractual right to receive a <i>settlement amount</i> based on the <del>difference between energy prices</del> <u>external congestion component of the <i>intertie congestion price</i></u> at different withdrawal and injection locations from and into the Ontario market and the adjacent <i>control area</i> <del>in the day-ahead market.</del>
Issuer	<i>Independent Electricity System Operator (IESO)</i>
Notional amount	1 MW per hour
Withdrawal and injection zones	Each <i>Transmission Right (TR)</i> will specify a withdrawal and injection zone, one of which will be the Ontario zone. The other zone will be one of: New York Michigan Minnesota Manitoba Quebec ( )
TR Payout Process	The payout for any <i>settlement hour</i> will be <del><math>\text{Max} [0, Q_{TR} \times (P_w - P_i)]</math>.</del> <del>a. <math>Q_{TR}</math> is the number of TRs owned by a TR participant on a specific path</del> <del>b. <math>P_w</math> is the IESO-determined TR settlement price (as outlined in Cdn \$/MWh) for the withdrawal zone</del> <del>c. <math>P_i</math> is the IESO-determined TR settlement price (in Cdn \$/MWh) for the injection zone.</del> <u>MR Ch8. ss3.8.1.</u> For all amounts payable with respect to <i>TRs</i> in any calendar month, <i>TR holders</i> will receive <i>TR payments</i> through the physical <i>settlement</i> invoicing and payment process.
Determination of $P_w$ and $P_i$	<del>The TR settlement price for each price zone will be the final prices used in the settlement process. In Ontario, the TR settlement price will be the Ontario energy market price, or EMP (uniform prices inside Ontario). For each external price zone, the TR settlement price will be the Ontario EMP plus the <i>intertie congestion price</i>. [This is the</del>

Item	Description
	<p><del>Ontario EMP minus the EMP at the relevant metering point, and the EMP at the relevant metering point is ICP plus Ontario EMP.] The <i>intertie congestion price</i> is the price difference between the Ontario EMP and the external zone price as determined in the projected hourly market schedule.</del></p> <p><del>The TR settlement price for each <i>intertie zone</i> will be the external congestion price in the <i>day-ahead market</i>.</del></p> <p><del>In the event of a <i>day-ahead market</i> suspension, the TR settlement for each <i>intertie zone</i> will be zero (as set out in MR Ch.8 ss.3.4.3).</del></p> <p><del>For information about administrative pricing details are found in Market Manual 4.5: Market Suspension and Resumption, the <i>day-ahead market</i>, refer to MM 4.6: Market Remediation.</del></p>
Term	<p>TRs will be available for one-calendar-month and one-calendar-year period. Each TR will cover all hours in the periods. The IESO will not make TRs available for specific hours within a period (such as peak or off-peak hours).</p>
Position Restrictions	<p>Position restrictions will not be imposed, but the TR participant is subject to market surveillance.</p>
TR Market Clearing Price Per Path	<p>The price as determined by competitive auctions to be held monthly and quarterly. Purchase price for TRs per direction is payable in full after the conclusion of an auction round through the financial settlement invoicing and payment process.</p>
Ownership restrictions	<p>Participation in the TR auctions is restricted to entities authorized as TR participants by having signed a participation agreement with the IESO before the auction (<del>see Section</del><a href="#">refer to section 2.1</a>).</p> <p>Bidding limits for each auction must be established five (5) business days before the TR bid submission window opens. Bidding limits are set at 10 times each TR participant's TR market deposits posted for that round of the TR auction, unless the IESO determines otherwise.</p> <p>The TR participant chooses the TR market deposit amount.</p>
Re-sale	<p>The following TR market feature is not currently available:</p> <p>TR holders may offer their TRs for re-sale into subsequent TR auctions.</p>
Assignment	<p>TR holders may assign their TR to another registered TR participant subject to IESO verification. Refer to <a href="#">FORM-84: Application for Recognition of the Assignment of Transmission Rights</a> and <a href="#">FORM-85:</a></p>

Item	Description
	<p data-bbox="560 262 1396 331"><a href="#">Agreement to Recognize the Assignment of Settlement Amounts Under a Transmission Right.</a></p> <p data-bbox="560 346 1356 382">This is in line with <del>EMR Ch.8, S.4, s.3.9</del> of the <del>market rules</del>.</p>

– End of ~~Section~~ **Appendix** –

# Appendix H: TRA Contingency Procedures

## H.1. ~~H.1~~ Triggering Events

~~(MR Ch.8 ss.3.1.6.1 – 3.1.6.3)~~

This Appendix contains information on the *IESO* contingency procedures for operating the ~~Transmission Rights~~*transmission rights* market in the event that the *Transmission Rights Auction System*, accessed through the *IESO Gateway*~~gateway~~, is unavailable during an active *TR Auction*. The *IESO* may:

- ~~Conduct~~conduct a *TR auction* using these contingency procedures, including but not limited to those detailed in this Appendix (~~MR Ch.8, S.4 s.3.1.6.1 of the market rules~~);
- ~~Conduct~~conduct a *TR auction* and related activities along timelines other than those specified in the *market rules* (~~MR Ch.8, S.4 s.3.1.6.2 of the market rules~~); or
- ~~In~~in the event that the *IESO* cannot conduct an effective *TR auction* in a commercially reasonable manner using contingency procedures and/or modified timelines cancel all or part of a *TR auction* (~~MR Ch.8, S.4 s.3.1.6.3 of the market rules~~).

Any of the following events may require ~~us~~the IESO to implement contingency procedures:

- Failure in any of the components of the participant network or participant workstation including:
  - ~~Hardware;~~
  - Software, hardware;
  - software; or
  - ~~Communications~~communications components.
- Failure in any of the *IESO's TR* and associated systems including:
  - ~~Hardware;~~
  - Software, hardware;
  - software; or
  - ~~Communications;~~
  - H.2 communications.

## H.2. TRA Process for Contingency Operation

(MR Ch.8 ss.3.1.7 and 3.1.8)

When a failure of a component of the *TR* hardware, software, or communications system has occurred, the *IESO* will declare that the *TR auction* has experienced a contingency through a public advisory process. Prior to taking any action, the *IESO* shall notify all *TR participants* who are affected as soon as practicable of any *TR auction* cancellation, and/or contingency procedures, revised timelines and revised activity schedules which may be implemented (~~MR Ch.8, S.4 s.3.1.7 of the market rules~~). *TR participants* who wish to participate in a *TR auction* being conducted under contingency procedures and/or revised timelines shall comply with any applicable contingency procedure, revised activity schedules, or revised timelines specified by the *IESO* (~~MR Ch.8, S.4 s.3.1.8 of the market rules~~). Depending upon the type of contingency (component failure or a fall-back to an alternate server), a *TR participant* may be requested to:

- ~~Holdhold~~ all *bids* and *offers*;
- ~~Submitsubmit~~ *bids* through an alternative method; or
- ~~Reviewreview~~ and resubmit *bids* and *offers*.

The *market rules* state that the *IESO* shall not accept *TR bids/offers* outside a specified timeframe. There is no specific duration within the specified timeframe for which the *TR bid/offer* submission window must be open. While the *IESO* intends to accept *TR bids/offers* during the entire *TR bid* submission window, there may be instances where significant tool failure will not allow this.

## H.3. ~~H.3~~ — Overriding Concerns/Principles for Contingency

*TR participants* are responsible for risk assessment and preparation for contingencies on their side. This includes providing alternative communications pathways, Business Recovery Procedures (BRP) centres, etc.

As a general principle, the *IESO* applies the following criteria in assessing if a *TR Auction* should be considered to be valid:

- the *TR* system must be capable of accepting *TR bids/offers* within the two (2) *business days* prescribed by the *market rules* (from Day One 09:00 to Day Two 17:00) for:
  - ~~Aa~~ minimum of eight business hours; and
  - ~~The~~ the last two hours of the prescribed *TR bid* submission window.

**– End of Appendix –**



## List of Acronyms

<b>Acronym</b>	<b>Term</b>
<u>ATC</u>	<i>available transfer capability</i>
<u>CDMS</u>	<u>Customer Data Management System</u>
<u>DAM</u>	<i>day-ahead market</i>
<u>LMP</u>	<i>locational marginal price</i>
<u>MW</u>	<u>megawatt</u>
<u>TR</u>	<i>transmission right</i>
<u>TRCA</u>	<u>transmission rights clearing account</u>
<u>TTC</u>	<i>total transfer capability</i>

– End of Section –

## References

Document ID <u>&amp; Link</u>	Document Title
<a href="#">MDP_RUL_0002_08</a>	Market Rules Chapter 8: Physical Bilateral Contracts and Financial Markets
<del>MDP_PRO_0030</del> <a href="#">MDP_PRO_0030</a>	Market Manual 4.5: Market Suspension and Resumption
<del>MDP_PRO_0033</del> TBD	<del>Market Manual 5.5: Physical Markets Settlement Statement</del> <del>Market Manual 5.5: Settlement Amounts Associated with the IESO-Administered Markets</del>
<del>MDP_PRO_0046</del>	<del>Market Manual 5.7: Financial Markets Settlement Statement</del>
<a href="#">MDP_PRO_0047</a>	Market Manual 5.8: <del>Financial Market</del> Settlement Invoicing
<a href="#">MDP_PRO_0036</a>	Market Manual 5.9: Settlement Payment Methods and Schedule
<a href="#">IMO_MAN_0024</a>	Market Manual 6: Participant Technical Reference Manual
N/A	Schedule to the <u>Bank Act</u> , S.C. 1991, C.46
<a href="#">IMO_GDE_0004</a>	Transmission Rights Auction System Participant's Guide

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