# Market Rules

# Chapter 8 Physical Bilateral Contracts and Financial Markets



Public Issue Date: May 1, 2023

Library Record No. MDP\_RUL\_0002\_08

Document Name Market Rules for the Ontario Electricity Market

IssueIssue 17.0Reason for IssueBaseline 49.1Effective DateMay 1, 2023

#### **Document Change History**

Issue/Draft	Reason for Issue	Date
Issue 1.0	Baseline 8.0	September 25, 2002
Issue 2.0 Baseline 10.0 September 10		September 10, 2003
Issue 3.0		
Issue 4.0	Baseline 15.1	June 7, 2006
Issue 5.0	Baseline 16.1	December 6, 2006
Issue 6.0	Baseline 19.1	June 4, 2008
Issue 7.0	Baseline 20.0	September 10, 2008
Issue 8.0	Baseline 24.0	September 8, 2010
Issue 9.0	Baseline 27.1	June 6, 2012
Issue 10.0	0.0 Baseline 28.0 September 12, 2012	
Issue 11.0	Baseline 29.1	June 5, 2013
Issue 12.0	Baseline 33.1	June 3, 2015
Issue 13.0	Baseline 35.1	June 1, 2016
Issue 14.0	Baseline 45.0	February 26, 2021
Issue 15.0	Baseline 45.1	June 2, 2021
Issue 16.0	Baseline 46.1	December 1, 2021
Issue 17.0	Issued in advance of BL 49.1	May 1, 2023

#### **Related Documents**

Library Record No.	<b>Document Title</b>	Version
MDP_RUL_0002	Market Rules for the Ontario Electricity Market	83.0

#### **Document Control**

#### **Authorities**

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#### **Distribution List**

Name	Organization



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## 1. Introductory Rules

#### 1.1 Purpose and Application

- 1.1.1 This Chapter sets forth the rules governing:
  - 1.1.1.1 the submission of physical bilateral contract data by market participants and the use of such physical bilateral contract data by the *IESO*; and
  - 1.1.1.2 [Intentionally left blank section deleted]
  - 1.1.1.3 the sale and administration of transmission rights or TRs by the IESO.
- 1.1.2 The rules in this Chapter apply to:
  - 1.1.2.1 the *IESO*; and
  - 1.1.2.2 any *market participant* submitting *physical bilateral contract data* to the *IESO*, or holding, buying or selling *transmission rights* or *TRs*.

# 2. Physical Bilateral Contract Data and Quantities

#### 2.1 Overview

- 2.1.1 Any *market participant* (or any other person) may, subject to *applicable laws* and regulations, enter into, administer and settle *physical bilateral contracts* with another *market participant* (or any other person). Provided that such *physical bilateral contracts* are matters strictly between the parties and are not in any way to affect the operation of the *real-time markets* or the *physical markets* to be administered by the *IESO* pursuant to Chapter 7, such *physical bilateral contracts*:
  - 2.1.1.1 may but need not be reported to the *IESO* for operational, *settlement* or any other purposes; and
  - 2.1.1.2 are not subject in any way to these *market rules*.



- 2.1.2 Any *selling market participant* selling under a *physical bilateral contract* to a *buying market participant* may submit *physical bilateral contract data* to the *IESO* complying with the requirements of this section 2, and the *IESO* shall:
  - 2.1.2.1 use such *physical bilateral contract data* and, if necessary, operational data to determine the *physical bilateral contract quantities* of *energy* sold by the *selling market participant* to the *buying market participant* in each hour at the location designated in the *physical bilateral contract data*;
  - 2.1.2.2 determine, in respect of each of the *selling market participant* and the *buying market participant*, the value of the *physical bilateral contract quantity* referred to in section 2.1.2.1 for each applicable *metering interval* or *settlement hour*, as the case may be, based:
    - a. in the case of the buying market participant, on the hourly Ontario energy price, when the location specified pursuant to section 2.2.1 relates to a non-dispatchable load, a self-scheduling generation facility, a self-scheduling electricity storage facility, a transitional scheduling generator or an intermittent generator;
    - b. in the case of the *selling market participant*, on the 5-minute *energy market* price, when the location specified pursuant to section 2.2.1 relates to a *non-dispatchable load*, a *self-scheduling generation facility*, a *self-scheduling electricity storage facility*, a *transitional scheduling generator* or an *intermittent generator*;
    - c. in the case of each of the *buying market participant* and the *selling market participant*, on the 5-minute *energy market* price, when the location specified pursuant to section 2.2.1 relates to a *generation facility* or *electricity storage facility*, other than one referred to in section 2.1.2.2(a) or a *dispatchable load facility*; or
    - d. in the case of each of the *buying market participant* and the *selling market participant*, on the 5-minute *energy market* price, at the *intertie metering point* specified pursuant to section 2.2.1, when such location is an *intertie metering point*;

and apply such value in determining the *selling market participant's* and the *buying market participant's* respective net *energy market settlement* credit for the applicable *metering interval* or *settlement hour*, as the case may be, pursuant to section 3.3 of Chapter 9; and

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- 2.1.2.4 [Intentionally left blank]

- 2.1.2.5 [Intentionally left blank]
- 2.1.2.6 in the *settlement process* for each hour, allocate some or all of the various components of *hourly uplift* assessed on the *physical bilateral contract quantity* between the *buying market participant* and the *selling market participant* as specified in the *physical bilateral contract data*.
- 2.1.3 The *IESO* shall not, in any of its system operation, *physical market* operation or market *settlement processes*, accept, acknowledge, record or use any data with respect to any contracts to which it is not itself a party, except as specified in this section 2.

#### 2.2 The Content of Bilateral Contract Data

- 2.2.1 Any selling market participant may submit to the IESO physical bilateral contract data defining physical bilateral contract quantities of energy that it is selling to a specified buying market participant in specified hours and at any location, so long as it is either:
  - 2.2.1.1 a specified *delivery point* associated with an *RWM*; or
  - 2.2.1.2 a specified *intertie metering point*.
- 2.2.2 A *selling market participant* may specify in its *physical bilateral contract data* that it will be responsible for some or all of the components of hourly uplift that the *buying market participant* would otherwise pay on the *physical bilateral contract quantities*.
- 2.2.3 A selling market participant may identify in its physical bilateral contract data a specific primary RWM or intertie metering point as the seller's location from which it is notionally transporting the physical bilateral contract quantity, it being understood that the seller's location shall have no effect on the valuation referred to in section 2.1.2, on operations described in Chapter 7 or on final settlement amounts as determined in accordance with Chapter 9.

#### 2.3 The Form of Bilateral Contract Data

2.3.1 Subject to section 2.3.2, a *selling market participant* shall submit *physical bilateral contract data* in a form that has been approved by the *IESO*. Such *IESO* approved forms shall include, but are not limited to, data files containing either of the following:



- 2.3.1.1 indication that the quantity of *energy* that the *selling market* participant is selling to a designated buying market participant in each hour, is 100% of the applicable market participant's metering data at the location designated in the physical bilateral contract data pursuant to section 2.2.1, provided that:
  - a. such location is one referred to in section 2.2.1.1; and
  - b. either the *selling market participant* or the *buying market participant* is the *metered market participant* in respect of the *RWM* or *RWMs* associated with such location; or
- 2.3.1.2 [Intentionally left blank]
- 2.3.1.3 the quantity of *energy*, in MWh, that the *selling market participant* is selling to the *buying market participant* in each hour at the location designated in the *physical bilateral contract data* pursuant to section 2.2.1.
- 2.3.2 A *selling market participant* shall submit *physical bilateral contract data* in only one of the two formats described in section 2.3.1.1 or section 2.3.1.3 pertaining to a particular location and a particular *buying market participant* for any *settlement hour* or combination of *settlement hours* within a single *trading day*.
- 2.3.3 A *selling market participant* shall only submit a single set of *physical bilateral contract data* pertaining to a particular location and a particular *buying market participant*, for any given *settlement hour* within a single *trading day* such that the most recent set of *physical bilateral contract data* submitted is the prevailing set used by the *IESO* in the *settlement process*.

# 2.4 Submitting and Revising Physical Bilateral Contract Data

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- 2.4.10A [Intentionally left blank]
- 2.4.11 A selling market participant submitting initial or revised physical bilateral contract data relating to a specified dispatch day for settlement purposes must do so:
  - 2.4.11.1 no earlier than seven days prior to that *dispatch day*, using forms and procedures specified by the *IESO*;
  - 2.4.11.2 on the same schedule and using the same *electronic information* system used for the submission of *dispatch data* for that *dispatch day* as described in section 3.2.1 of Chapter 7 or, if the *electronic information system* is not available, by such other means as may be specified by the *IESO* pursuant to section 3.2.2.3 of Chapter 7; and
  - 2.4.11.3 within six *business days* after that *dispatch day*, using forms and procedures specified by the *IESO*.
- 2.4.11A A *selling market participant* submitting *physical bilateral contract data* that will not change from *trading week* to *trading week*, may, in the same form but in place of its *physical bilateral contract data* described in section 2.3, submit standing *physical bilateral contract data* which conforms to the same data submission requirements specified in section 2.4.11. Such standing *physical bilateral contract data* shall:
  - 2.4.11A.1 define the *physical bilateral contract data* for each *dispatch hour* of each *dispatch day*;
  - 2.4.11A.2 come into effect at the beginning of the second *dispatch day* after such *physical bilateral contract data* is submitted to the *IESO* by the *selling market participant*;



- 2.4.11A.3 remain in effect until the expiration date specified in the standing *physical bilateral contract data* unless earlier withdrawn or earlier revised by the *selling market participant*; and
- 2.4.11A.4 for the purposes of *settlement*, shall constitute the only *physical* bilateral contract between the *selling market participant* and the buying market participant at the particular location specified so long as such standing *physical bilateral contract data* is in effect or until such standing *physical bilateral contract data* is superseded pursuant to section 2.4.11B.
- 2.4.11B Where a *selling market participant* submits *physical bilateral contract data* pursuant to section 2.4.11A or section 2.3 pertaining to the same *buying market participant* at the same location specified in *physical bilateral contract data* previously submitted pursuant to section 2.4.11A or section 2.3, such *physical bilateral contract data* shall supersede any previously submitted *physical bilateral contract data* pertaining to the same *buying market participant* at the same location.
- 2.4.12 If the *IESO* issues a notice of intent to suspend or a suspension order to a selling market participant, section 6.3.4 of Chapter 3 shall apply and the *IESO* shall notify any buying market participant who is counterparty to any of selling market participant's physical bilateral contracts registered with the *IESO* of the *IESO*'s actions.
- 2.4.13 If the *IESO* issues a notice of intent to suspend or a suspension order to a buying market participant, section 6.3.4 of Chapter 3 shall apply and the *IESO* shall notify any selling market participant who is a counterparty to any of the buying market participant's physical bilateral contracts registered with the *IESO* of the *IESO*'s actions.

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## 4. The Transmission Rights Market

#### 4.1 Purpose, Interpretation, and Transition

- 4.1.1 This section 4 sets forth:
  - 4.1.1.1 the manner in which the *IESO* shall operate the *TR market* established for the purchase and sale of *transmission rights* associated solely with transactions between the *IESO control area* and an adjoining *TR zone*;
  - 4.1.1.2 the procedures pursuant to which persons may apply to the *IESO* for authorization to participate in the *TR market*;
  - 4.1.1.3 the terms and conditions under which *transmission rights* may be assigned by *TR holders*;
  - 4.1.1.4 the manner in which the *IESO* will conduct *TR auctions* for the purchase and sale of *transmission rights* associated with injections and withdrawals between specified *TR zones*; and
  - 4.1.1.5 the manner in which the *IESO* will determine *TR market clearing prices*.
- 4.1.2 A reference in this section 4 and in Appendices 8.1 and 8.2 to a *transmission right* shall, in the case of *long-term transmission rights* offered, sold or assigned by a *TR holder*, be deemed to include a reference to the right to the *settlement amounts* relating to one or more periods of one month under that *long-term transmission right*.
- 4.1.3 If the *IESO* cannot, by reason of software inadequacies, administer the verification process for the assignment of the right to *settlement amounts* under a *transmission right* referred to in section 4.9.2, the *IESO* shall *publish* a notice to that effect no later than thirty days prior to the date of the first *TR auction* that it will conduct pursuant to this section 4. Until such time as the *IESO publishes* a



notice to the effect that the software inadequacies have been rectified, sections 4.9.2 to 4.9.5 shall not apply and the *IESO* shall *settle* all amounts relating to the *transmission right* with the *TR participant* that purchased the *transmission right* in a *TR auction*.

- 4.1.4 If the *IESO* cannot, by reason of software inadequacies, administer the sale in a *TR auction* of *transmission rights* by *TR holders*, the *IESO* shall *publish* a notice to that effect no less than thirty days prior to the date of the first *TR auction* conducted by the *IESO* pursuant to this section 4. In such a case, no *TR holder* shall, notwithstanding any other provision of this section 4, be permitted by the *IESO* to sell a *transmission right* in a *TR auction* until the time referred to in section 4.1.5.
- 4.1.5 Where the software inadequacies referred to in section 4.1.4 have been rectified, the *IESO* shall *publish* a notice to that effect no less than thirty days prior to the date on which the first *TR auction* at which a *TR holder* will be permitted to sell a *transmission right* will be conducted by the *IESO*.
- 4.1.6 The *IESO* may, for reasons of a failure in *TR participant* or *IESO* software, hardware or communication systems associated with a *TR auction*:
  - 4.1.6.1 conduct a *TR auction* using contingency procedures, including but not limited to the contingency procedures defined in the applicable *market manual*;
  - 4.1.6.2 conduct a *TR auction* and related activities along timelines other than those specified within this section 4; or
  - 4.1.6.3 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*.
- 4.1.7 The *IESO* shall, as soon as practicable and prior to taking any action pursuant to section 4.1.6, notify all *TR participants* of any *TR auction* cancellation, and/or any contingency procedures, revised timelines and revised activity schedules which the *IESO* intend to implement.
- 4.1.8 *TR participants* shall comply with any applicable contingency procedures, revised activity schedules or revised timelines specified by the *IESO* under sections 4.1.6 and 4.1.7.

# 4.2 Denomination and Validity of Transmission Rights and TR Zones

- 4.2.1 Each *transmission right* shall be associated with a specified injection *TR zone* and a specified withdrawal *TR zone*, one of which shall be the *IESO control area* and the other of which shall be a *TR zone* other than the *IESO control area*.
- 4.2.2 Each *transmission right* shall be denominated in terms of 1 MW.
- 4.2.3 The period of validity of a *transmission right* shall be measured from the first hour in respect of which a *settlement amount* is to be paid to the *TR holder* under that *transmission right* to the last hour in respect of which a *settlement amount* is to be paid to the *TR holder* under that *transmission right*.

#### 4.3 TR Holders

4.3.1 Subject to section 4.9.1, the *TR participant* that has purchased a *transmission* right in a *TR auction* shall be recognized by the *IESO* as the *TR holder* in respect of that *transmission right* as of the date on which the *IESO* receives payment for that *transmission right* from that *TR participant*.

#### 4.4 Payments to TR Holders Under Transmission Rights

- 4.4.1 Subject to section 4.4.2, the amount owing by the *IESO* in respect of a *transmission right* that is valid for a given hour shall be calculated for each applicable *TR holder* by multiplying the amount referred to in section 4.4.1.1 with the amount referred to in section 4.4.1.2:
  - 4.4.1.1 the greater of (i) zero and (ii) the *TR settlement price* at the withdrawal *TR zone* minus the *TR settlement price* at the injection *TR zone*; and
  - 4.4.1.2 the number of *transmission rights* associated with such *TR zones* that are held by that *TR holder*.
- 4.4.2 Where the *transmission transfer capability* between a withdrawal *TR zone* and an injection *TR zone* has been reduced to zero by reason of the *outage* of the relevant *interconnection*, the amount owing by the *IESO* in respect of a *transmission right* associated with such *TR zones* that is valid for an hour during which such *transmission transfer capability* has been reduced to zero shall be calculated for each applicable *TR holder* as follows:



- for the hour in which the reduction in *transmission transfer capability* first occurs, the amount owing shall be calculated in accordance with section 4.4.1; and
- 4.4.2.2 for each subsequent hour during which the reduction in *transmission* transfer capability subsists, including the hour in which the transmission transfer capability returns to an amount greater than zero, the amount owing shall be zero.
- 4.4.3 [Intentionally left blank]

#### 4.5 Allocation of Transmission Rights

- 4.5.1 The *IESO* shall determine the number of *transmission rights* awarded to each *TR bidder* and sold by each *TR offeror* in a given round of a *TR auction* using the objective function described in Appendix 8.1. Such number shall be between zero and the number of *transmission rights* that the *TR bidder* bid to purchase or the *TR offeror* offered to sell in that round.
- 4.5.2 The objective function described in Appendix 8.1 shall have as its mathematical objective the maximization of the benefit, measured in dollars, of the aggregate willingness of successful *TR bidders* to pay for *transmission rights* that they have been awarded in a given round of a *TR auction*, net of the amounts that successful *TR offerors* were willing to accept for those *transmission rights*.

#### 4.5.3 Where:

- 4.5.3.1 two or more *TR bidders* submitted *TR bids* with the same maximum price for *transmission rights* relating to the same injection *TR zone* and withdrawal *TR zone*; and
- 4.5.3.2 not all of the *transmission rights* bid to be purchased in those *TR bids* can be awarded,

the number of *transmission rights* awarded to each such *TR bidder* shall be determined by allocating a share of the maximum available number of *transmission rights* to each such *TR bidder* in proportion to the number of *transmission rights* that each such *TR bidder* bid to purchase in such *TR bid.* 

#### 4.5.4 Where:

- 4.5.4.1 two or more *TR offerors* submitted *TR offers* with the same minimum price for *transmission rights* relating to the same injection *TR zone* and withdrawal *TR zone*; and
- 4.5.4.2 not all of the *transmission rights* offered to be sold in those *TR offers* can be sold,

the number of *transmission rights* sold by each such *TR offeror* shall be determined by allocating a share of the maximum number of *transmission rights* that can be sold to each such *TR offeror* in proportion to the number of *transmission rights* that each such *TR offeror* offered to sell in such *TR offer*.

#### 4.5.5 Where:

- 4.5.5.1 two or more *TR bidders* submitted *TR bids* relating to different injection *TR zones* and withdrawal *TR zones* such that the *TR bids* may be optimally awarded in more than one way;
- 4.5.5.2 the injection *TR zones* and withdrawal *TR zones* referred to in section 4.5.5.1, are linked by a common limiting constraint or constraints; and
- 4.5.5.3 not all of the *transmission rights* bid to be purchased in those *TR bids* can be awarded,

the number of *transmission rights* awarded to each such *TR bidder* shall be determined by allocating a share of the maximum value of *transmission rights* to each such *TR bidder* in proportion to the value of *transmission rights* that each such *TR bidder* bid to purchase in each injection *TR zone* and withdrawal *TR zone* referred to in section 4.5.5.1.

#### 4.5.6 Where:

- 4.5.6.1 two or more *TR offerors* submitted *TR offers* relating to different injection *TR zones* and withdrawal *TR zones* such that the *TR offers* may be optimally sold in more than one way;
- 4.5.6.2 the injection *TR zones* and withdrawal *TR zones* referred to in section 4.5.6.1, are linked by a common limiting constraint or constraints; and
- 4.5.6.3 not all of the *transmission rights* offered to be sold in those *TR offers* can be sold,

the number of *transmission rights* sold by each such *TR offeror* shall be determined by allocating a share of the maximum value of *transmission rights* to



each such *TR offeror* in proportion to the value of *transmission rights* that each such *TR offeror* offered to sell in each injection *TR zone* and withdrawal *TR zone* referred to in section 4.5.6.1.

#### 4.6 Simultaneous Feasibility

- 4.6.1 The *IESO* shall conduct a simultaneous feasibility test during each *TR auction* to ensure that the congestion rents collected by the *IESO* as described in section 4.18.1.1 shall, under most circumstances, be sufficient to cover any payment obligations owing by the *IESO* to *TR holders* under section 4.4.1 in respect of all *transmission rights* outstanding and all *transmission rights* to be offered during the *TR auction*.
- 4.6.2 For the purposes of the simultaneous feasibility test referred to in section 4.6.1, the *IESO* shall assume that each *transmission right* represents:
  - 4.6.2.1 one MW of power injected at the injection *TR zone* associated with each *transmission right*; and
  - 4.6.2.2 one MW of power withdrawn at the withdrawal *TR zone* associated with each *transmission right*.
- 4.6.3 The *IESO* shall, in conducting each simultaneous feasibility test referred to in section 4.6.1, use a forecast of available *transmission transfer capability* determined on the basis of the operating assumptions described in section 4.7.3.
- 4.6.4 A set of *transmission rights* shall pass the simultaneous feasibility test referred to in section 4.6.1 if all injections and withdrawals associated with such set of *transmission rights*, and every combination of subsets of such injections and withdrawals, could, if they represented power actually injected or withdrawn as described in section 4.6.2, be accommodated without causing the amount of power that passes over an *interconnection* between the *IESO control area* and an adjoining *TR zone* to exceed any limit applying to that *interconnection*.

#### 4.7 Determination of Transmission Transfer Capabilities

4.7.1 The *IESO Board* shall establish a confidence level reflecting the degree to which the congestion rents collected by the *IESO* in a given period described in section 4.18.1.1 will be sufficient to cover the *IESO*'s payment obligations to *TR holders* under section 4.4.1 for that period.

- 4.7.2 The *IESO* shall, in accordance with section 4.7.3, establish operating assumptions for the purposes of forecasting the *transmission transfer capability* to be used during each *TR auction*. Such *transmission transfer capability* forecasts shall be used to limit the number of *transmission rights* awarded in each auction for the purpose of achieving the confidence level established under section 4.7.1.
- 4.7.3 The *IESO* shall establish the operating assumptions referred to in section 4.7.2 in accordance with the following:
  - 4.7.3.1 transmission line ratings shall be calculated on a seasonal basis based on *good utility practice*, shall be the same ratings as those used by the *IESO* in its real-time operations and may differ when the *IESO-controlled grid* is undergoing a *contingency event* relative to the ratings that would apply when the *IESO-controlled grid* is in a *normal operating state*;
  - 4.7.3.2 the *facilities*, *interties* and conditions that are monitored by the *IESO* for *security* reasons in its real-time operations shall be emulated;
  - 4.7.3.3 transmission lines, facilities and interties within the IESO control area shall be assumed to be in service except where a prolonged planned outage of a transmission line or facility is scheduled for the time during which transmission rights that are to be sold at the TR auction will be valid or where the IESO believes that a prolonged forced outage of a transmission line or facility is likely to occur for the time during which transmission rights that are to be sold at the TR auction will be valid;
  - 4.7.3.4 phase angle regulators within the *IESO control area* and on *interconnections* between the *IESO control area* and adjoining *control areas* shall be assumed to be operating in a manner consistent with normal operations, having regard to the joint control of such *interconnections*, during the *TR auction*;
  - 4.7.3.5 the transmission limits of the *IESO-controlled grid* shall be adjusted to reflect an estimate of the transmission reliability margin observed by the *IESO* in its real-time operations;
  - 4.7.3.6 the ability of *control area operators* in *control areas* that are not included in the contract path of an *energy* transaction to curtail that transaction in accordance with applicable *reliability standards* shall be taken into account when estimating the amount of power that can be *reliably* transferred between the *IESO control area* and each adjoining *control area*;



- 4.7.3.7 parallel flows that result from events outside the *IESO control area* shall be taken into account when estimating the amount of power that can be *reliably* transferred between the *IESO control area* and each adjoining *control area*;
- 4.7.3.8 estimates of *transmission transfer capability* may be conservative but shall not be reduced below a level sufficient to define all *transmission rights* that have been awarded in previous *TR auctions* and that remain valid as at the date of the *TR auction*; and
- 4.7.3.9 the operating assumptions shall otherwise be permitted to vary depending on the length of time between the date of a given *TR* auction and the period of validity of the *transmission rights* to be offered in that *TR auction*.

# 4.8 Participation in TR Markets and Rules Applicable to TR Participants

- 4.8.1 No person may participate in the *TR market* nor be a *TR holder* unless that person has been authorized by the *IESO* as a *TR participant* in accordance with section 3 of Chapter 2 and this section 4.8.
- 4.8.2 No *TR participant* may be a *TR bidder* in a round of a *TR auction* unless the *TR participant* has, no less than five *business days* prior to the date on which the round of the *TR auction* is to be conducted, provided to the *IESO* a *TR market deposit*, in one or both of the forms set forth in section 4.8.2A, for the purpose of establishing that person's *bidding limit* in accordance with sections 4.14.1 or 4.20.2.2.
- 4.8.2A A TR market deposit shall be in one or both of the following forms:
  - 4.8.2A.1 an irrevocable commercial letter of credit provided by a bank named in a Schedule to the *Bank Act*, (Canada) S.C. 1991, c. 46; or
  - 4.8.2A.2 a cash deposit made with the *IESO* by or on behalf of the *TR* participant.
- 4.8.2B Where all or part of a *TR market deposit* is in the form of a standby letter of credit, the following provisions shall apply:
  - 4.8.2B.1 the letter of credit shall provide that it is issued subject to either The Uniform Customs and Practice for Documentary Credits, 1993

- Revision, ICE Publication No. 500 or The International Standby Practices 1998;
- 4.8.2B.2 the *IESO* shall be named as beneficiary in the letter of credit, the letter of credit shall be irrevocable and partial draws on the letter of credit shall not be prohibited;
- 4.8.2B.3 the only condition on the ability of the *IESO* to draw on the letter of credit shall be the delivery of a certificate of an officer of the *IESO* that a specified amount is owing by the *TR bidder* to the *IESO* and that, in accordance with the provisions of the *market rules*, the *IESO* is entitled to payment of that specified amount as of the date of delivery of the certificate;
- 4.8.2B.4 the letter of credit shall either provide for automatic renewal (unless the issuing bank advises the *IESO* at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one (1) year. Where the *IESO* is advised that a letter of credit is not to be renewed or the term of the letter of credit is to expire, the *TR bidder* shall arrange for and deliver additional *TR market deposits* if the *TR bidder* intends to continue to participate in the *TR market*. If such additional *TR market deposits* are not received by the *IESO* ten (10) *business days* before the expiry of a letter of credit, the *IESO* shall be entitled as of that time to payment of the full face amount of the letter of credit which amount, once drawn by the *IESO*, shall be treated as a *TR market deposit* in the form of cash; and
- 4.8.2B.5 by including a letter of credit as part of a *TR market deposit*, the *TR bidder* represents and warrants to the *IESO* that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the *TR bidder*.
- 4.8.3 [Intentionally left blank]
- 4.8.4 Notwithstanding any other provision of these *market rules*, a person that applies for authorization to participate in the *TR market* and that has not applied for authorization to participate, or is not participating in, any other *IESO-administered market* shall not be required to comply with any requirements for authorization other than those set forth in sections 4.8.1 to 4.8.3.
- 4.8.5 The following provisions of these *market rules* shall not apply to a person that is authorized by the *IESO* to participate only in the *TR market*:



- 4.8.5.1 [Intentionally left blank]
- 4.8.5.2 Chapters 4, 5, 6 and 7;
- 4.8.5.3 Chapter 8 other than this section 4; and
- 4.8.5.4 Chapter 10.

#### 4.9 Assignment of Transmission Rights

- 4.9.1 A TR holder may assign to another TR participant its right to the settlement amounts under a transmission right, provided that such assignment shall only be recognized by the IESO, for settlement purposes, in accordance with section 4.9.5.
- 4.9.2 A *TR holder* that wishes the *IESO* to recognize, for *settlement* purposes, an assignment of its right to the *settlement amounts* under a *transmission right* shall apply to the *IESO* for recognition of the assignment in such form as shall be established by the *IESO*. The *IESO* shall verify whether the assignee is a *TR participant* and shall advise the assigning *TR holder* within two *business days* of the date of receipt of the application as to the results of such verification.
- 4.9.3 The *IESO* shall for *settlement purposes* recognize, in accordance with section 4.9.5, an assignment of the right to the *settlement amounts* under a *transmission right* unless the assignee is not a *TR participant*.
- 4.9.4 Where the *IESO* determines in accordance with section 4.9.3 that it shall not recognize, for *settlement* purposes, an assignment of the right to the *settlement* amounts under a *transmission right*, the *IESO* shall advise the assigning *TR* holder of the reasons for such determination.
- 4.9.5 Where the *IESO* recognizes, for *settlement* purposes, an assignment of the right to all *settlement amounts* under a *transmission right* in accordance with section 4.9.3, the assignee shall be deemed to be the *TR holder* in respect of the *settlement amounts* under that *transmission right* with effect from the *billing period* immediately following the date on which the *IESO* advises the assigning *TR holder* of the results of the *IESO*'s verification pursuant to section 4.9.2 until such time as:
  - 4.9.5.1 the transmission right has been sold in a TR auction; or
  - 4.9.5.2 the right to the *settlement amounts* under the *transmission right* has been assigned to another *TR participant* and the *IESO* has recognized

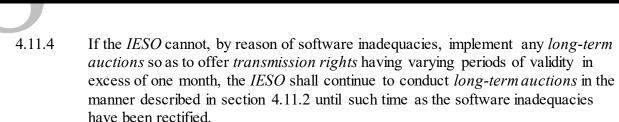
such assignment for *settlement* purposes in accordance with sections 4.9.2, and 4.9.3 and 4.9.5.

#### 4.10 Short-Term Auctions

- 4.10.1 The *IESO* shall conduct a *short-term auction* between the 1<sup>st</sup> and 15<sup>th</sup> day of each month in which *transmission rights* valid for the following month shall be available.
- 4.10.2 Each *short-term auction* shall consist of only one round and shall offer *short-term transmission rights* valid for the immediately following month.
- 4.10.3 The first *short-term auction* conducted by the *IESO* shall constitute the *short-term auction* for the month immediately following the month during which the *market commencement date* occurred.

#### 4.11 Long-Term Auctions

- 4.11.1 The first *long-term transmission rights* shall commence one month following the availability of the first *short-term transmission rights*. Following the initial *long-term auction*, the *IESO* shall thereafter conduct a *long-term auction* at least thirty days but not more than ninety days prior to the beginning of each subsequent quarter.
- 4.11.2 Each *long-term auction* conducted by the *IESO*;
  - 4.11.2.1 shall offer *transmission rights* that are valid for a period of one year, commencing on the first day of the quarter immediately succeeding the quarter in which the *long-term auction* occurs; and
  - 4.11.2.2 Any residual *transmission rights* from a *long-term auction* shall, subject to section 4.7, be offered as *short-term transmission rights* in the manner described in section 4.10.
- 4.11.3 Subject to section 4.11.4, *long-term auctions* conducted by the *IESO* shall offer *transmission rights* having varying periods of validity of one month or more. The periods of validity of the *transmission rights* awarded during such auctions shall be determined on the basis of a simultaneous consideration of the *TR bids* and the *TR offers* submitted in respect of such *long-term auctions* for all possible combinations of months.



- 4.11.5 Each *long-term auction* referred to in section 4.11.2 and 4.11.3 shall consist of multiple rounds. In each case:
  - 4.11.5.1 the number of rounds shall be determined by the *IESO* on the basis of the *IESO*'s assessment of the appropriate balance between providing *TR participants* with opportunities for price discovery and the administrative burden on the *IESO* and *TR participants* of conducting varying numbers of rounds;
  - 4.11.5.2 each round shall be conducted independently of all others;
  - 4.11.5.3 TR market clearing prices shall be determined for each round; and
  - 4.11.5.4 *transmission rights* shall be awarded in each round on the basis of the *TR market clearing prices* determined for that round.
- 4.11.6 [Intentionally left blank]
- 4.11.7 The *IESO* shall, for each of the first three *long-term auctions* that it conducts, apportion the available *transmission transfer capability* forecasted in accordance with the operating assumptions established in respect of each such *long-term auction* pursuant to section 4.7.2, adjusted to account for all outstanding *transmission rights*, among *transmission rights* having a period of validity of one month and *transmission rights* having a period of validity of one year in such manner as the *IESO* determines appropriate.
- 4.11.8 Subject to section 4.11.9, in the fourth and all subsequent *long-term auctions* conducted by the *IESO*, the *IESO* shall use all available *transmission transfer* capability forecasted in accordance with the operating assumptions established in respect of each such *long-term auction* pursuant to section 4.7.2, adjusted to account for all outstanding *transmission rights*, to define *transmission rights* having varying periods of validity over the course of the year commencing on the first day of the quarter immediately succeeding the quarter in which the *long-term* auction occurs.
- 4.11.9 If the *IESO* cannot, by reason of software inadequacies, implement the fourth and any subsequent *long-term auction* so as to offer *transmission rights* having varying periods of validity of one month or more, the *IESO* shall continue to use

- the methodology set forth in section 4.11.7 until such time as such software inadequacies are rectified.
- 4.11.10 For each *long-term auction* that is conducted in multiple rounds in accordance with section 4.11.5, the *transmission transfer capability* that is used to define the *transmission rights* in accordance with sections 4.11.7 and 4.11.8 shall be allocated within each of the rounds as follows:
  - 4.11.10.1 the portion of *transmission transfer capability* allocated to each round shall increase with each successive round; and
  - 4.11.10.2 the portion of *transmission transfer capability* allocated to the final round shall be at least three times the portion of *transmission transfer capability* allocated to the first round.

#### 4.12 Pre-auction Publication

- 4.12.1 The *IESO* shall *publish*, at least thirty days prior to each *TR auction*:
  - 4.12.1.1 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 for each *TR zone* during the preceding twelve months or, in the case of a *TR auction* conducted less than twelve months following the *market commencement date*, since the *market commencement date*;
  - 4.12.1.2 the *TR market clearing price* for each *transmission right* sold during any *TR auctions* conducted in the preceding eighteen months or, in the case of a *TR auction* conducted less than eighteen months following the *market commencement date*, since the *market commencement date*;
  - 4.12.1.3 actual and scheduled hourly flows over each *interconnection* during the preceding twelve months or, in the case of a *TR auction* conducted less than twelve months following the *market commencement date*, since the *market commencement date*;
  - 4.12.1.4 the hourly transmission transfer capability of each interconnection during the preceding twelve months or, in the case of a TR auction conducted less than twelve months following the market commencement date, since the market commencement date or from such earlier period as such information may be available provided that such information need not cover a period in excess of twelve months; and

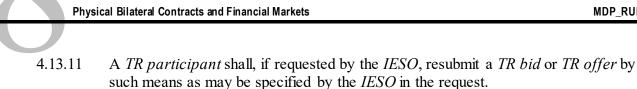


- 4.12.1.5 identification of any *transmission transfer capability* limits, parallel flow assumptions and other applicable constraints that may limit the number of *transmission rights* that can be awarded in the *TR auction*, and the operating assumptions established in respect of the *TR auction* pursuant to section 4.7.2.
- 4.12.1.6 [Intentionally left blank]

#### 4.13 TR Bids and TR Offers

- 4.13.1 A TR bid for the purchase of a transmission right in a TR auction shall indicate:
  - 4.13.1.1 the name of the TR bidder;
  - 4.13.1.2 the injection *TR zone* and the withdrawal *TR zone* for each *transmission right* that the *TR bidder* is bidding to purchase;
  - 4.13.1.3 the number of *transmission rights* that the *TR bidder* is bidding to purchase;
  - 4.13.1.4 the period of validity of each *transmission right* that the *TR bidder* is bidding to purchase;
  - 4.13.1.5 the maximum price, in \$/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
  - 4.13.1.6 in the case of a *long-term auction* referred to in section 4.11.3, the months of the year for which the *transmission rights* that the *TR bidder* is bidding to purchase must be valid.
- 4.13.2 A TR offer for the sale of a transmission right in a TR auction shall indicate:
  - 4.13.2.1 the name of the *TR offeror*;
  - 4.13.2.2 the injection *TR zone* and the withdrawal *TR zone* for each *transmission right* that the *TR offeror* is *offering* to sell;
  - 4.13.2.3 the number of transmission rights that the TR offeror is offering to sell;
  - 4.13.2.4 the period of validity of each *transmission right* that the *TR offeror* is offering to sell; and

- 4.13.2.5 the minimum price, in \$/MW, that the *TR offeror* is willing to accept for each *transmission right* that the *TR offeror* is offering to sell, which price must be a positive amount.
- 4.13.3 No *TR offeror* may offer to sell, in a given round of a *TR auction*, any transmission rights awarded to that *TR offeror* in a preceding round of the same *TR auction*.
- 4.13.4 [Intentionally left blank]
- 4.13.5 *TR bids* and *TR offers* shall be submitted to the *IESO* no earlier than 09:00 EST on the date that is two *business days* prior to the date on which a round of a *TR auction* is to be conducted and no later than 17:00 EST on the day before the date on which the round of the *TR auction* is to be conducted.
- 4.13.6 The *IESO* shall not accept a *TR offer* in respect of the sale of a *transmission right* unless the *TR offeror* is the *TR holder* of record of that *transmission right* for the entire period during which that *transmission right* is valid.
- 4.13.7 *TR bids* and *TR offers* shall be submitted to the *IESO* using the *electronic* information system and the communication protocol described in the applicable market manual.
- 4.13.8 The *IESO* shall:
  - 4.13.8.1 stamp each *TR bid* and *TR offer* with the time that it was received by the *IESO*;
  - 4.13.8.2 confirm receipt of each *TR bid* and *TR offer* within the time specified in the applicable *market manual* using the communication protocol referred to in section 4.13.7; and
  - 4.13.8.3 *publish* and notify *TR participants* of alternative means of submitting and confirming receipt of *TR bids* and *TR offers* when the communication protocol referred to in section 4.13.7 is unavailable.
- 4.13.9 The *IESO* shall reject any *TR bid* or *TR offer* that does not comply with the rules set forth in this section 4.13 and shall provide the *TR participant* submitting a rejected *TR bid* or *TR offer* of the reasons for such rejection.
- 4.13.10 A *TR participant* that does not receive from the *IESO* confirmation of receipt of a *TR bid* or a *TR offer* in accordance with section 4.13.8.2 shall immediately contact the *IESO* by telephone, facsimile or other means specified in the applicable *market manual* seeking confirmation of receipt.



#### 4.14 Bidding Limits

- 4.14.1 Subject to section 4.20.2.2, the *IESO* shall establish, for each *TR participant* that intends to be a *TR bidder* in a *TR auction*, a *bidding limit* equal to ten times the amount or value of the *TR market deposit* provided to the *IESO* by that *TR participant* pursuant to section 4.8.2.
- 4.14.2 The *IESO* shall refuse to accept a *TR bid* from a *TR bidder* where, if the *TR bid* were accepted, the aggregate value of all *transmission rights* awarded to the *TR bidder* in a given *TR auction* would exceed the *TR bidder's bidding limit*.
- 4.14.3 Where a *TR bidder* has been awarded a *transmission right* in a *TR auction* and the *TR market deposit* provided by the *TR bidder* pursuant to section 4.14.1 consists in whole or in part of a cash deposit, the *IESO* shall apply the cash deposit to offset any amounts owing to the *IESO* by that *TR bidder* under section 4.17.1 for the purchase of the *transmission right*.
- 4.14.4 Where the amount of a cash deposit provided by a *TR participant* as a *TR market deposit* pursuant to section 4.14.1 exceeds the amount owing to the *IESO* by that *TR participant* under section 4.17.1 for the purchase of *transmission rights* in respect of a given *TR auction*, the *IESO* shall, if so requested by the *TR participant* at the time at which the cash deposit was so provided, include such excess as a credit on the *invoice* submitted to the *TR participant* for that *TR auction*. Where the *TR participant* has not so requested that such a credit be effected, the excess shall be held by the *IESO* and shall form part of that *TR participant* in which the *TR participant* wishes to participate.
- 4.14.5 Where a *TR participant* has provided to the *IESO* a *TR market deposit*, in a form other than a cash deposit, pursuant to section 4.14.1 in respect of a given *TR auction*, the *IESO* shall, upon receipt of payment in full by the *TR participant* of the net amount of any *invoice* submitted to the *TR participant* for that *TR auction* and subject to the terms of the *TR market deposit*:
  - 4.14.5.1 if so requested by the *TR participant* at the time at which the *TR market deposit* was so provided, return the *TR market deposit* to the *TR participant*; or
  - 4.14.5.2 if the *TR participant* did not make the request referred to in section 4.14.5.1, hold the *TR market deposit*, which *TR market deposit*

shall form part of that *TR participant's TR market deposit* for purposes of a subsequent *TR auction* in which the *TR participant* wishes to participate.

#### 4.15 TR Market Clearing Prices

- 4.15.1 The *IESO* shall determine a *TR market clearing price* for each *transmission right* in each round of a *TR auction* in accordance with section 4.15.2, independent of the calculation of the *TR market clearing prices* for *transmission rights* in other rounds of the same *TR auction*.
- 4.15.2 The TR market clearing price for a given transmission right in a given round of a TR auction shall:
  - 4.15.2.1 be equal to the value of any *transmission rights* that would not be awarded to *TR bidders* in that round if the total number of *transmission rights* made available during that round were to decrease by one;
  - 4.15.2.2 be less than or equal to the maximum price specified in each *TR bid* submitted for the purchase of that *transmission right* if a *TR bidder* was awarded the *transmission right* as a result of that *TR bid*; and
  - 4.15.2.3 be greater than or equal to the minimum price specified in each *TR* offer submitted for the sale of that *transmission right* if a *TR offeror* was awarded the *transmission right* as a result of that *TR offer*.

#### 4.16 Post-Auction Notification and Publication

- 4.16.1 The *IESO* shall, as soon as practicable and no later than the end of the next business day following the conclusion of a round of a *TR auction*, and in any event prior to the time at which *TR bids* and *TR offers* may be submitted in respect of the next round of the *TR auction*, notify each *TR bidder* of the following:
  - 4.16.1.1 the number of *transmission rights* awarded to the *TR bidder* during that round;
  - 4.16.1.2 the *TR market clearing price* of each *transmission right* awarded to the *TR bidder* during that round;
  - 4.16.1.3 the injection *TR zone* and the withdrawal *TR zone* in respect of each *transmission right* awarded to the *TR bidder* during that round; and



- 4.16.1.4 the period for which each *transmission right* awarded to the *TR bidder* during that round is valid.
- 4.16.2 The *IESO* shall, as soon as practicable and no later than the end of the next business day following the conclusion of a round of a *TR auction*, and in any event prior to the time at which *TR bids* and *TR offers* may be submitted in respect of the next round of the *TR auction*, notify each *TR offeror* of *transmission rights* of the following:
  - 4.16.2.1 the number of *transmission rights* sold by the *TR offeror* during that round;
  - 4.16.2.2 the *TR market clearing price* of each *transmission right* sold by the *TR offeror* during that round;
  - 4.16.2.3 the injection *TR zone* and the withdrawal *TR zone* in respect of each *transmission right* sold by the *TR offeror* during that round; and
  - 4.16.2.4 the period for which each *transmission right* sold by the *TR offeror* during that round was valid.
- 4.16.3 The *IESO* shall, as soon as practicable and no later than the end of the next business day following the conclusion of a round of a *TR auction*, and in any event prior to the time at which *TR bids* and *TR offers* may be submitted in respect of the next round of the *TR auction*, *publish* the following:
  - 4.16.3.1 the *TR market clearing price* for each *transmission right* sold during that round;
  - 4.16.3.2 the number of transmission rights sold during that round;
  - 4.16.3.3 the injection *TR zone* and withdrawal *TR zone* for each *transmission* right sold during that round; and
  - 4.16.3.4 the period of validity of each *transmission right* sold during that round.

#### 4.17 Payment for Purchase/Sale of Transmission Rights

4.17.1 The amount payable to the *IESO* by a successful *TR bidder* in respect of transmission rights awarded to that successful *TR bidder* in a given round of a *TR auction* shall be the aggregate of the *TR market clearing price* of each transmission right awarded to that successful *TR bidder* in that round.

4.17.2 The amount payable by the *IESO* to a successful *TR offeror* in respect of transmission rights sold in a given round of a *TR auction* shall be the aggregate of the *TR market clearing price* of each transmission right sold by that successful *TR seller* in that round.

#### 4.18 TR Clearing Account

- 4.18.1 The *IESO* shall establish and maintain a *TR clearing account* and shall:
  - 4.18.1.1 credit to the *TR clearing account*, in respect of each *settlement hour*, the net congestion rents calculated in accordance with section 3.6.2 of Chapter 9;
  - 4.18.1.1A credit to the *TR clearing account* the amounts referred to in sections 4.20.1A and 4.20.1B;
  - 4.18.1.2 subject to section 4.19.5, credit to the *TR clearing account* the net revenues received from the sale of *transmission rights* in a *TR auction* in accordance with section 4.19.4;
  - 4.18.1.3 debit from the *TR clearing account* any amounts required to be paid to *TR holders* pursuant to section 4.4.1;
  - 4.18.1.4 debit from the *TR clearing account* any amounts required to be paid to successful *TR offerors* pursuant to section 4.19.6;
  - 4.18.1.5 debit from the *TR clearing account* any amounts authorized to be debited and used to offset *transmission services charges* in accordance with section 4.18.2; and
  - 4.18.1.6 credit to the *TR clearing account* any *transmission rights settlement* credits adjusted under section 6.6.10A.2 of Chapter 3.
- 4.18.2 Subject to section 4.18.3, the *IESO Board* may, at such times as it determines appropriate, authorize the debit of funds from the *TR clearing account* in accordance with section 3.6.3 of Chapter 9 for the purpose of using those funds to offset *transmission services charges*.
- 4.18.3 The *IESO Board* shall establish a reserve threshold for the *TR clearing account*.



#### 4.19 Settlement

- 4.19.1 All amounts payable to *TR holders* under *transmission rights* in accordance with section 4.4.1 shall be *settled* by the *IESO* in accordance with section 6 of Chapter 9.
- 4.19.2 Payments required to be made by the *IESO* to *TR holders* in accordance with section 4.4.1 shall be funded by means of debits from the *TR clearing account*. Where the aggregate amount payable to *TR holders* in a given *billing period* under section 4.4.1 exceeds all funds available in the *TR clearing account*, the shortfall shall be funded by the borrowing of short-term funds in accordance with section 6.16.5 of Chapter 9.
- 4.19.3 Where the aggregate amount payable to *TR holders* in a given *billing period* under section 4.4.1 is less than the congestion rents collected during that *billing period* as described in section 4.18.1.1, the excess shall be used first, to repay any short-term funds borrowed by the *IESO* on account of a shortfall referred to in sections 4.19.2 and 4.19.6, second, subject to section 4.19.5A, to reimburse *market participants* for funds recovered by the *IESO* under Chapter 9, section 6.16.6.2, on a prorated basis according to, and in an amount that does not exceed, the amount so recovered, third, to replenish the reserve threshold specified in section 4.18.3, and the balance shall remain in the *TR clearing account*.
- 4.19.4 All amounts payable to or by the *IESO* on account of the purchase or sale of *transmission rights* in accordance with sections 4.17.1 and 4.17.2 in respect of all rounds of a given *TR auction* shall be settled by the *IESO* in accordance with section 6 of Chapter 9.
- 4.19.5 Where, in respect of a given *TR auction*, the aggregate amount received by the *IESO* in respect of the purchase of *transmission rights* exceeds the aggregate amount payable by the *IESO* in respect of the sale of *transmission rights* in that *TR auction*, the excess shall be used first to repay any short-term funds borrowed by the *IESO* on account of a shortfall referred to in sections 4.19.2 and 4.19.6, second, subject to section 4.19.5A, to reimburse *market participants* for funds recovered by the *IESO* under Chapter 9, section 6.16.6.2, on a prorated basis according to, and in an amount that does not exceed, the amount so recovered, third, to replenish the reserve threshold specified in section 4.18.3, and the balance shall remain in the *TR clearing account*.
- 4.19.5A In the event that the *IESO* cannot, after taking all reasonable steps to do so, locate *market participants* from which funds were recovered by the *IESO* under Chapter 9, section 6.14.5.2, any amount that would otherwise be distributed to

such *market participants* under sections 4.19.3 and 4.19.5 shall remain in the *TR* clearing account.

4.19.6 Where, in respect of a given *TR auction*, the aggregate amount received by the *IESO* in respect of the purchase of *transmission rights* is less than the aggregate amount payable by the *IESO* in respect of the sale of *transmission rights* in that *TR auction*, the shortfall shall be funded first by use of all funds from the *TR clearing account* and then, by the borrowing of short-term funds in accordance with section 6.16.5 of Chapter 9.

#### 4.20 Default in Payment

- 4.20.1 Where a successful *TR bidder* fails to remit to the *IESO* any payment due on account of a *transmission right* awarded to that *TR bidder* during a *TR auction* on the applicable *market participant payment date*:
  - 4.20.1.1 the transmission right shall not be issued to the TR bidder; and
  - 4.20.1.2 the *TR bidder* shall forfeit:
    - a. its TR market deposit; or
    - b. that portion of its *TR market deposit* that is equal to 10% of the value of all *transmission rights* awarded to the *TR bidder* during the applicable *TR auction*,

whichever is the lesser.

- 4.20.1A Where section 4.20.1.2 applies and the *TR market deposit* is in the form of a cash deposit, the *IESO* may draw upon the cash deposit and credit the *TR clearing account* with the amount of the penalty or may invoice the *market participant* for the amount of the penalty, as the case may be, and may remit to the *TR bidder* the difference, if any, between such amount and the amount of the *TR market deposit*.
- 4.20.1B Where section 4.20.1.2 applies and the *TR market deposit* is in the form of an irrevocable letter of credit, the *IESO* may claim and realize upon the letter of credit in respect of the amount referred to in section 4.20.1.2(a) or 4.20.1.2(b), as the case may be, and shall credit to the *TR clearing account* the proceeds of such realization.
- 4.20.2 Where a successful *TR bidder* has defaulted in payment of any amount due on account of a *transmission right* awarded to that *TR bidder* during a given *TR auction*, the *IESO* may impose one or both of the following conditions on the participation by that *TR bidder* in a subsequent *TR auction*:



- 4.20.2.1 require the *TR bidder* to provide a *TR market deposit* in the form of a cash deposit only; or
- 4.20.2.2 establish the *TR bidder's bidding limit* for that *TR auction* as an amount that is less than ten times the amount or value of the *TR market deposit* provided by that *TR bidder* in respect of that *TR auction*.