

## Final Alignment Supplementary: Incremental Amendments

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| Incremental Amendments from Provisionally Approved version  |   |
| <b>Title:</b>   | Chapter 0.8 and Appendices – Physical Bilateral Contracts and Financial Markets |
| <b>Current Market Rules Baseline:</b>   |   |
| This document shows only excerpts from sections that have been revised since the Technical Panel provisionally recommended/IESO Board provisionally approved version with tracked changes. For the full version of this and other chapters, refer to the market rule amendment proposal documents (MR-00481-R00-R12). |   |

# **A.1 Chapter Scope and Operation**

A.1.1 This Chapter is part of the *renewed market rules*, which pertain to:

A.1.1.1 the period prior to a *market transition* insofar as the provisions are relevant and applicable to the rights and obligations of the *IESO* and *market participants* relating to preparation for operation in the *IESO administered markets* following commencement of *market transition*; and

A.1.1.2 the period following commencement of *market transition* in respect of all the rights and obligations of the *IESO* and *market participants*.

A.1.2 All references herein to chapters or provisions of the *market rules* will be interpreted as, and deemed to be references to chapters and provisions of the *renewed market rules*.

A.1.3 Upon commencement of the *market transition*, the *legacy market rules* will be immediately revoked and only the *renewed market rules* will remain in force.

A.1.4 For certainty, the revocation of the *legacy market rules* upon commencement of *market transition* does not:

A.1.4.1 affect the previous operation of any *market rule* or *market manual* in effect before the *market transition*;

A.1.4.2 affect any right, privilege, obligation or liability that came into existence under the *market rules* or *market manuals* in effect prior to the *market transition*;

A.1.4.3 affect any breach, non-compliance, offense or violation committed under or relating to the *market rules* or *market manuals* in effect prior to the *market transition*, or any sanction or penalty incurred in connection with such breach, non-compliance, offense or violation

A.1.4.4 affect an investigation, proceeding or remedy in respect of,

(a) a right, privilege, obligation or liability described in subsection A.1.4.2, or

(b) a sanction or penalty described in subsection A.1.4.3.

A.1.5. An investigation, proceeding or remedy described in subsection A.1.4.3 may be commenced, continued or enforced, and any sanction or penalty may be imposed, as if the *legacy market rules* had not been revoked.

## 2. Physical Bilateral Contract Data and Quantities

### 2.0 Market Transition

2.0.1 Following a *market transition* this section 2 and the relevant provisions of MR. Ch.9 applicable to *physical bilateral contracts* shall not apply to the extent that they apply to *physical bilateral contracts* and the *IESO* shall not administer and settle *physical bilateral contracts*. Such inapplicability shall continue until such time as the *IESO* resolves the relevant software inadequacies and *publishes* notice that such software inadequacies are resolved and the *IESO* is capable of administering and settling *physical bilateral contracts*.

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### 2.3 The Form of Physical 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 *settlement 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 a specified *delivery point* associated with a *registered wholesale meter*, and
- b. either the *selling market participant* or the *buying market participant* is the *metered market participant* in respect of the *registered wholesale meter(s)* associated with such location; or

2.3.1.2 the quantity of *energy*, in MWh and up to 1 decimal place, that the *selling market participant* is selling to the *buying market participant* in each *settlement hour* at the location designated in the *physical bilateral contract data* pursuant to section 2.2.1.

## 3. The Transmission Rights Market

### 3.1 Purpose, Interpretation, and Transition

3.1.1 This section 3 sets forth:

- 3.1.1.1 the manner in which the *IESO* shall operate the *TR market* established for the purchase of *transmission rights* associated solely with transactions between the *IESO control area* and an adjoining *TR zone*;
- 3.1.1.2 the procedures pursuant to which persons may apply to the *IESO* for authorization to participate in the *TR market*;
- 3.1.1.3 the terms and conditions under which *transmission rights* may be assigned by *TR holders*;
- 3.1.1.4 the manner in which the *IESO* will conduct *TR auctions* for the purchase of *transmission rights* associated with injections and withdrawals between specified *TR zones*; and
- 3.1.1.5 the manner in which the *IESO* will determine *TR market clearing prices*.

3.1.2 A reference in this section 3 and in ~~Appendices~~Appendix 8.1-and-8.2 to a *transmission right* shall, in the case of *long-term transmission rights*- 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*.

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### 3.4 Payments to TR Holders Under Transmission Rights

3.4.1 Subject to section 3.4.2, the amount owing by the *IESO* in respect of a *transmission right* that is valid for a given *settlement hour* shall be calculated for each applicable *TR holder* in accordance with MR Ch.9 s.3.8.1~~÷~~.

3.4.2 Notwithstanding MR Ch.9 s.3.8.1, where the *transmission transfer capability* between a withdrawal *TR zone* and an injection *TR zone*, determined for the *day-ahead market*, 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 a *settlement hour* during which such *transmission transfer capability* has been reduced to zero shall be zero~~÷~~.

3.4.3 Notwithstanding MR Ch.9 s.3.8.1, where the *IESO* suspends the *day-ahead market* pursuant to MR Ch.7 s.13, 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* is suspended shall be zero.

## 3.5 Awarding of Transmission Rights

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3.5.3 ~~[Intentionally left blank—section deleted]~~

3.5.4 ~~[Intentionally left blank—section deleted]~~

3.5.5 ~~[Intentionally left blank—section deleted]~~

3.5.6 ~~[Intentionally left blank—section deleted]~~

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

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3.8.4 Where all or part of a *TR market deposit* is in the form of a standby letter of credit, the following provisions shall apply:

3.8.4.1 the letter of credit shall provide that it is issued subject to either The Uniform Customs and Practice for Documentary Credits, ~~1993~~2007 Revision, ~~ICEICC~~ Publication No. ~~500~~600 or The International Standby Practices 1998;

3.8.4.2 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;

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## 3.11 Long-Term Auctions

3.11.1 The *IESO* shall conduct a *long-term auction* at least thirty days but not more than ninety days prior to the beginning of each quarter.

3.11.2 Each *long-term auction* conducted by the *IESO*:

3.11.2.1 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

3.11.2.2 Any residual *transmission rights* from a *long-term auction* shall, subject to section 3.7, be offered as *short-term transmission rights* in the manner described in section 3.10.

- 3.11.3 [Intentionally left blank – section deleted]
- 3.11.4 [Intentionally left blank – section deleted]
- 3.11.5 Each *long-term auction* referred to in section 3.11.2 shall consist of multiple rounds. In each case:
- 3.11.5.1 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;
  - 3.11.5.2 each round shall be conducted independently of all others;
  - 3.11.5.3 *TR market clearing prices* shall be determined for each round; and
  - 3.11.5.4 *transmission rights* shall be awarded in each round on the basis of the *TR market clearing prices* determined for that round.
- 3.11.6.7—For each *long-term auction* that is conducted in multiple rounds in accordance with section 3.11.5, the *transmission transfer capability* that is used to define the *transmission rights* ~~in accordance with sections 3.11.76~~ shall be allocated within each of the rounds as follows:
- 3.11.76.1 the portion of *transmission transfer capability* allocated to each round shall increase with each successive round; and
  - 3.11.76.2 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.

## 3.12 Pre-auction Publication

- 3.12.1 The *IESO* shall *publish*, at least thirty days prior to each *TR auction*:
- 3.12.1.1 the  $DAM\_PEC_h^i$ , as defined in MR Ch.9 App.9.2, and the *day-ahead market locational marginal price of energy* for each *TR zone* for each *settlement hour* of the preceding twelve months or, in the case of a *TR auction* conducted less than twelve months following the ~~MRP commencement dates~~ since the MRP commencement market transition completion date, since the market transition completion date;
  - 3.12.1.2 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 MRP commencement~~ the market transition completion date, since the MRP commencement the market transition completion date;

- 3.12.1.3 *energy* scheduled for injection or withdrawal in the *day-ahead market* over each *interconnection* during the preceding twelve months or, in the case of a *TR auction* conducted less than twelve months following the ~~MRP commencement date~~ since the ~~MRP commencement~~ *market transition completion date* since the *market transition completion date*;
- 3.12.1.4 the hourly *transmission transfer capability* used in the *DAM calculation engine* of each *interconnection* during the preceding twelve months or, in the case of a *TR auction* conducted less than twelve months following the ~~MRP commencement~~ *market transition completion date*, since the ~~MRP commencement~~ *market transition completion date*; and
- 3.12.1.5 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 3.7.2.

### 3.15 TR Market Clearing Prices

- 3.15.1 The *IESO* shall determine a *TR market clearing price* for each *transmission right* in each round of a *TR auction* in accordance with section 3.15.2, independent of the calculation of the *TR market clearing prices* for *transmission rights* in other rounds of the same *TR auction*.
- 3.15.2 The *TR market clearing price* for a given *transmission right* in a given round of a *TR auction* shall be equal to the lowest *bid* price of all *TR laminations* that were awarded *transmission rights*, as determined by Appendix 8.1.

3.15.2.1 ~~[Intentionally left blank—section deleted]~~

3.15.2.2 ~~[Intentionally left blank—section deleted]~~

3.15.2.3 ~~[Intentionally left blank—section deleted]~~

### 3.17 Payment for Purchase of Transmission Rights

- 3.17.1 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.

3.17.2 ~~[Intentionally left blank—section deleted]~~

## 3.18 TR Clearing Account

3.18.1 The *IESO* shall establish and maintain a *TR clearing account* and shall:

3.18.1.1 credit to the *TR clearing account*, in respect of each *settlement hour*, the amount calculated in accordance with MR Ch.9 s.3.8.2;

3.18.1.2 credit to the *TR clearing account* the amounts referred to in sections 3.20.2 and 3.20.3;

3.18.1.3 subject to section 3.19.5, credit to the *TR clearing account* the net revenues received from the sale of *transmission rights* in a *TR auction* in accordance with section 3.19.4;

3.18.1.4 debit from the *TR clearing account* any amounts required to be paid to *TR holders* pursuant to section 3.19.2; and

~~3.18.1.5 debit from the *TR clearing account* any amounts required to be paid to successful *TR offerors* pursuant to section 3.19.7; and~~

3.18.1.65 debit from the *TR clearing account* any amounts authorized to be debited and used to offset *transmission services charges* in accordance with section 3.18.2;

## 3.19 Settlement

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3.19.5 In respect of a given *TR auction*, the aggregate amount received by the *IESO* in respect of the purchase of *transmission rights* shall be used first to repay any short-term funds borrowed by the *IESO* on account of a shortfall referred to in sections 3.19.2, second, subject to section 3.19.6, to reimburse *market participants* for funds recovered by the *IESO* under ~~MR Ch.9 s.6.16.6.2, 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 3.18.3, and the balance shall remain in the *TR clearing account*.

3.19.6 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 MR Ch.9 s.6.16.6.2, any amount that would otherwise be distributed to such *market participants* under sections 3.19.3 and 3.19.5 shall remain in the *TR clearing account*.



# **Chapter 8**

## **Physical Bilateral Contracts and Financial Markets - Appendices**

## Appendix 8.1 – Mathematical Formulation of the TR Objective Function

- 1.1 This Appendix describes the objective function and additional processes used to determine the number of *transmission rights* to be awarded to each *TR bidder*, as described in [section 4.5.1 of Chapter 8-MR Ch.8 s. 3.5.1](#), and the *TR market clearing price* in a given round of a *TR auction*.
- 1.2 The objective function, outlined in section 1.3, describes the maximization of the benefit of awarded *TR laminations* net of any unawarded *transmission rights* as determined in accordance with section 1.4(e), if applicable. *Transmission rights* are awarded in quantities to *TR bidders* ranging from zero up to the maximum quantity of their *TR lamination*. The total amount of *transmission rights* awarded to all *TR bidders* in a round of a *TR auction* will not exceed the total number of *transmission rights* available in such round of the *TR auction*. *Transmission rights* will be awarded optimally from highest price to lowest price of the *TR laminations* received for the relevant round of the *TR auction* unless and until such time as there are multiple *TR laminations* that share the same price and cannot all be fully awarded based on the available *transmission rights*, which shall be resolved in accordance with section 1.4. If there are insufficient *transmission rights* available to award the entire quantity of a *TR lamination* and section 1.4 does not apply, such *TR bidder* shall be awarded the remainder of the *transmission rights* available.
- 1.3 The objective for each injection *TR zone* and withdrawal *TR zone* for each round of a given *TR auction* is to maximize the following function:

$$Z = \sum_i p_i * q_i$$

where:

- (a) 'Z' is the benefit as described in [MR Ch.8 s.3.5.2 section 3.5.2 of Chapter 8](#) for the relevant round of the *TR auction*;
- (b) 'i' is an index into the set of all *TR laminations* received for the relevant round of the *TR auction*;

- (c) ' $p_i$ ' is the price of *TR lamination 'i'*, submitted in accordance with MR Ch.8 s. 3.13.1.3~~section 4.13.1.3 of Chapter 8~~;
- (d) ' $q_i$ ' is the quantity of awarded *transmission rights* associated with *TR lamination 'i'*, submitted in accordance with section MR Ch.8 s. 3.13.1.4~~4.13.1.4 of Chapter 8~~, where the quantity of awarded *transmission rights* is determined as follows, as applicable:
  - (i) the sum of all  $q_i$  is less than or equal to the fixed amount of *transmission rights* available for such round of a *TR auction* that is determined in accordance with MR Ch.8 ss.3.6, 3.7, and 3.11.10~~sections 4.6, 4.7, and 4.11.10 of Chapter 8~~, if applicable;
  - (ii) where *TR lamination 'i'* is the highest price *TR lamination* for such *TR bidder* and has an associated price is equal to or greater than the *TR market clearing price* for such round of the *TR auction*, the entire quantity of the *TR lamination* or a portion thereof as determined in accordance with section 1.4, or, where section 1.4 does not apply, the portion that will result in all available *transmission rights* being awarded;
  - (iii) for *TR laminations 'i'* with a price that is equal to or greater than the *TR market clearing price* for such round of the *TR auction*, other than the one referred to in (ii) for the same *TR bidder*, the quantity that is incremental to the *TR bidder's* previous *TR lamination*, as ranked from highest to lowest price, or a portion thereof as determined in accordance with section 1.4, or, where section 1.4 does not apply, the portion that will result in all available *transmission rights* being awarded; and
  - (iv) for *TR laminations 'i'* with a price that is less than the *TR market clearing price* for such round of the *TR auction*, such quantity shall be zero.