



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

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| Identification No.: | MR-00393 | | |
| Subject: | Settlements | | |
| Title: | Limiting Payments to Exports during Negative Prices | | |
| Nature of Proposal: | <input checked="" type="checkbox"/> Alteration | <input type="checkbox"/> Deletion | <input checked="" type="checkbox"/> Addition |
| Chapter: | 9 | Appendix: | |
| Sections: | 3.3.2, 3.5.2, 3.5.6F (new) | | |
| Sub-sections proposed for amending: | 3.3.2.1, 3.8A.3.3 | | |

PART 2 – PROPOSAL HISTORY

| Version | Reason for Issuing | Version Date |
|--------------------------------------|--|-------------------|
| 1.0 | Draft for Technical Panel Review | July 10, 2012 |
| 2.0 | Publish for Stakeholder Review and Comment | July 25, 2012 |
| 3.0 | Submitted for Technical Panel Vote | August 14, 2012 |
| 4.0 | Submitted for IESO Board Approval | August 27, 2012 |
| 5.0 | Approved by the IESO Board | September 7, 2012 |
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| Approved Amendment Publication Date: | September 7, 2012 | |
| Approved Amendment Effective Date: | October 1, 2012 | |

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

This amendment would limit the settlement price for export transactions whenever the energy market price in the applicable intertie zone is negative and the intertie is not import congested, which would be represented by a negative intertie congestion price.

Background

Refer to MR-00393-Q00.

Discussion

Chapter 9, section 3.3.2.1 specifies how energy market transactions are settled for boundary entities (and dispatchable loads). It is proposed to amend section 3.3.2.1 to specify that the current treatment applies specifically to import and linked wheel transactions. A new section 3.3.2.1A is proposed such that the net energy settlement credit for an export transaction is based on the greater of the energy market price in that zone or a settlement floor price, as defined in the applicable market manual.

The intent being that an export transaction withdraws at a net \$0/MWh after payment of uplifts and fees, whenever the energy market price in the applicable intertie zone is negative and the intertie is not import congested. The need for settlement floor price other than MMCP will be terminated when MR-00381-R03: Floor Prices for Variable and Nuclear Generation (<http://www.ieso.ca/imoweb/pubs/mr2012/MR-00381-R03.pdf>) comes into effect.

Consistent with the proposed limit on the settlement price for export transactions, it is also proposed to limit congestion management settlement credits (CMSC) associated with export transactions whenever the energy market price in the associated intertie zone is negative and not import congested.

In December 2010, a market rule amendment (MR-00370) was implemented to limit constrained-on CMSC payments for exporters (or dispatchable loads) with negative bids by enabling the IESO to use a replacement bid for the purpose of calculating CMSC – refer to Chapter 9, section 3.5.6A. The replacement bid prices are set by the IESO and reviewed from time to time, rather than being hardcoded into the market rules, to allow for a more expedited change process should conditions warrant a different replacement bid price.

Changing the replacement bid to the established settlement floor price would ensure that constrained-on CMSC payments that can arise when ZCP is negative would be consistent with the settlement floor price for the export transactions described above.

A provision similar to section 3.5.6A is required to limit constrained-off CMSC payments for exporters when the energy market price in the applicable intertie zone is negative and the intertie is not import congested – refer to new section 3.5.6F. Whenever energy market price in the applicable intertie zone

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

is negative and the bid price is greater than the applicable energy market price, it is proposed that for the purpose of calculating CMSC, the IESO would use a replacement bid price such that the constrained-off CMSC payments would be consistent with the settlement floor price.

An additional note in Section 3.8 is required to exclude those transactions whose export is settled at the floor price from the IOG offset process.

PART 4 – PROPOSED AMENDMENT

3.1 Hourly Settlement Variables and Data

3.1.3 The IESO shall determine *energy market* prices and quantities as provided in Chapter 7 and shall provide the following variables and data from the *energy market*, determined in accordance with section 3.1.4A, directly to the *settlement process*:

| | | |
|-------------|---|--|
| $X_h^{m,t}$ | ≡ | <u>a settlement floor price for energy applicable to intertie metering point ‘m’ metering interval ‘t’ in settlement hour ‘h’, as set in the applicable market manual. The need for a settlement floor price other than MMCP shall remain in effect only until floor prices for energy offers from registered market participants that are variable generators or nuclear generators go into effect.</u> |
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3.3 Hourly Settlement Amounts in the Real-Time Energy Market

3.3.1 The hourly net *energy market settlement credit* for *market participant ‘k’* in *settlement hour ‘h’* (“NEMSC_{k,h}”) shall be determined by the appropriate equations set forth in section 3.3.2 and where applicable, in accordance with section 2.1.2 of Chapter 8.

3.3.2 For *market participant ‘k’*, NEMSC_{k,h} shall be the sum, over all *metering intervals ‘t’* in *settlement hour ‘h’* and all RWMs and *intertie metering points*, of the *settlement amounts* determined for each *metering interval* and RWMs or *intertie metering point*, as follows:

3.3.2.1 in respect of a *dispatchable facility* or an intertie metering point associated with:

- an injecting boundary entity;
- a withdrawing boundary entity where the associated *intertie congestion price is less than zero* ;or,
- a withdrawing boundary entity conducting -a wheeling through transaction that is linked as per Chapter 7 section 3.5.8.2:

$$\text{NEMSC}_{k,h} = \sum_{t,m} (\text{EMP}_h^{m,t} \times ((\text{AQEI}_{k,h}^{m,t} - \text{AQEW}_{k,h}^{m,t}) + \sum_{s,b} (\text{BCQ}_{s,k,h}^{m,t} - \text{BCQ}_{k,b,h}^{m,t})))$$

where:

t = all metering intervals in settlement hour ‘h’

m = all RWMs relating to a dispatchable facility and all intertie metering points associated with: i) any injecting boundary entities; ii) any withdrawing boundary entities where the associated *intertie congestion price is less than zero* ;and, iii) any withdrawing boundary entity conducting a wheeling through transaction that is linked as per Chapter 7 section 3.5.8.2

s = all selling market participants

b= all buying market participants

and

3.3.2.1A in respect of an *intertie metering point* associated with a withdrawing boundary entity where that *intertie congestion price is less than zero*:

$$\text{NEMSC}_{k,h} = \sum_{t,m} ((\text{MAX} (\underline{x}_h^{m,t}, \text{EMP}_h^{m,t})) \times \text{AQEW}_{k,h}^{m,t})$$

where:

t = all metering intervals in settlement hour ‘h’

m = all intertie metering points where the *intertie congestion price is greater than zero*

and

3.3.2.2 in respect of a non-dispatchable load facility, a self-scheduling generation facility, a transitional scheduling generator or intermittent generator.

$$\text{NEMSC}_{k,h} = \text{HOEP}_h \times \sum_{t,m} (\text{AQEI}_{k,h}^{m,t} - \text{AQEW}_{k,h}^{m,t} + \sum_s \text{BCQ}_{s,k,h}^{m,t}) - \sum_{n,b,t} (\text{EMP}_h^{n,t} \times \text{BCQ}_{k,b,h}^{n,t})$$

where:

m = all *RWMs* relating to a *non-dispatchable load facility*, a *self-scheduling generation facility*, a *transitional scheduling generator* or *intermittent generator*

n = all *RWMs* and *inertie metering points*

s = all *selling market participants*

b= all *buying market participants*

t = all *metering intervals* in *settlement hour 'h'*

3.3.3 [Intentionally left blank]

3.5 Hourly Settlement Amounts for Congestion Management

3.5.2 Subject to sections 3.5.1A, 3.5.1D, 3.5.6, 3.5.6A, 3.5.6B, 3.5.6C, 3.5.6D, [3.5.6F](#) and 3.5.9 and subject to Appendix 7.6 of Chapter 7, the hourly congestion management *settlement credit* for market participant 'k' for *settlement hour 'h'* ("CMSC_{k,h}") shall be determined by the following equation:

3.5.6A The *IESO* may adjust, in the matrices specified in section 3.5.2 and for the purposes of determining the applicable congestion management *settlement credit* payments, any *bid price* that:

3.5.6A.1 is associated with a *dispatchable load facility* or is associated with a withdrawing *boundary entity*;

3.5.6A.2 is less than the prices determined by the *IESO* in accordance with the applicable *market manual*; and

3.5.6A.3 is less than the *energy market price* in the applicable Ontario or *inertie zone* for the applicable *dispatch interval*;

to the lesser of the prices determined by the *IESO* in accordance with the applicable *market manual* and the *energy market price* in the applicable Ontario or *inertie zone*.

3.5.6F Where the *energy market price* for the applicable *dispatch interval* is less than zero, the *IESO* may adjust, in the matrices specified in section 3.5.2 and for the purposes of determining the applicable congestion management *settlement credit payments*, any *bid price* that:

3.5.6F.1 is associated with a withdrawing *boundary entity* at an *intertie* that is not import congested; and

3.5.6F.2 is greater than the *energy market price* in the applicable *intertie zone* for the applicable *dispatch interval*;

to the prices determined by the *IESO* in accordance with the applicable *market manual*.

3.8A Hourly Settlement Amounts for Intertie Offer Guarantees

Intertie Offer Guarantee Settlement

3.8A.3 The cumulative *intertie offer guarantee settlement* credits payable to a *market participant* for any and all applicable *settlement hours* in the *real-time market* for an *energy billing period* shall be adjusted by the *IESO* in accordance with section 3.8A.4 to nullify such credits where:

3.8A.3.1 that *market participant* has submitted one or more *energy offers* and one or more *energy bids* as contemplated by section 3.5.8.1 of Chapter 7 for the same *dispatch interval*; or

3.8A.3.2 the *market assessment unit* has determined that the *market participant* has an agreement or arrangement to share the *intertie offer guarantee settlement* credit with one or more other *market participants* and they have submitted one or more *energy offers* and one or more *energy bids* as contemplated by section 3.5.8.1 of Chapter 7 for the same *dispatch interval*; or

3.8A.3.3 the *market participant* has one or more import transactions in the *schedule of record* at an *intertie metering point* and where:

the same import transaction is subsequently scheduled in the corresponding *metering interval* of the corresponding *settlement hour* in the *real-time market*; and

the *market participant* submits one or more *schedule of record* and/or real-time *energy bids* as contemplated by section 3.5.8.1 of Chapter 7 for the same *dispatch interval*;

and, at least one of such *energy offers* and one of such *energy bids* is scheduled-
and, where the export transaction of such *energy bid* is settled at the *energy market price at the intertie metering point and not a settlement floor price as set out in section 3.3.2.1A*.

For certainty, any *market participant* shall have recourse to the dispute resolution provisions of section 2 of Chapter 3 if it believes that the *market assessment unit* did not have reasonable grounds for making the determination that the *market participant* had any such agreement or arrangement with another *market participant* as described in section 3.8A.3.2.

PART 5 – IESO BOARD DECISION RATIONALE

This amendment enables the IESO to limit the settlement price for export transactions whenever the energy market price in the applicable intertie zone is negative and the intertie is not import congested.