

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

It is proposed that market participants who are offering to inject energy over an intertie into a designated chronically congested area, as defined in the applicable market manual, shall not be eligible for constrained off congestion management settlement credits (CMSC) where the import transaction is constrained off in the last pre-dispatch run prior to the dispatch hour. At present the chronically congested areas will be defined as those areas designated as constrained off watch zones (COWZ).

The IESO is proposing this amendment as we do not believe that CMSC payments to imports offering into a chronically congested area are consistent with the original intent of constrained off CMSC payments to generators and importers.

Background

Refer to MR-00395-Q00.

Discussion

Designated Chronically Congested Areas

The IESO believes that CMSC payments for constrained off imports into oversupplied areas are not consistent with the original intent of constrained off CMSC payments to generators and imports, as outlined in the amendment submission MR-00395-Q00.

The new term *designated chronically congested area* will initially be defined as those areas that are designated as COWZ (for injections). Under the market rules, the IESO has the authority to designate areas of the province as COWZ to identify those regions in the province which are oversupplied.

Proposed market manual wording: The term *designated chronically congested area* is currently defined as an area that is a *designated constrained off watch zone* for injections.

In future, the IESO may revise the designation to which this term may apply if it identifies additional areas for which the constrained off CMSC to imports is no longer consistent with the intent of these payments.

Proposed Amendment

It is proposed to amend the market rules to:

- add new section 3.5.10 into section 3.5 of Chapter 9 such that market participants importing into designated chronically congested areas shall not be eligible for CMSC payments for import transactions which are constrained off in the last pre-dispatch schedule prior to the dispatch hour, notwithstanding any other provision in the market rules; and
- revise section 3.5.2 of Chapter 9 such that the CMSC calculation is subject to the new section 3.5.10; and

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- add new section 4.8.2.15 into section 4.8 of Chapter 9 such that the IESO shall redistribute CMSC recovered under new section 3.5.10; and
- add new definition of designated chronically congested area into Chapter 11.

As a matter of clean-up, it is proposed to:

- delete the title above section 3.5.8 of Chapter 9, since this title is relevant only to section 3.5.8 and not the existing section 3.5.9 and new section 3.5.10 which follow; and
- delete the word ‘and’ from section 4.8.2.13 of Chapter 9; and
- add the word ‘and’ into section 4.8.2.14 of Chapter 9.

PART 4 – PROPOSED AMENDMENT**Chapter 9****3.5 Hourly Settlement Amounts for Congestion Management**

3.5.1 The *dispatch instructions* provided by the IESO to *market participant ‘k’* will sometimes instruct *k* to deviate from its *market schedule* in ways that, based on *market participant ‘k’s offers and bids*, imply a change to *market participant ‘k’s* net operating profits relative to the operating profits implied by *market participant ‘k’s market schedule*. When this occurs and *market participant ‘k’* responds to the IESO’s *dispatch instructions*, *market participant ‘k’* shall, subject to Appendix 7.6 of Chapter 7, receive as compensation a *settlement* credit equal to the change in implied operating profits resulting from such response, calculated in accordance with section 3.5.2. If *market participant ‘k’* does not fully or accurately respond to its *dispatch instructions* from the IESO, the compensation paid to *market participant ‘k’* shall be altered as set forth in this section 3.5, or as otherwise specified by the IESO.

3.5.1A A *registered market participant* for a *registered facility* that is a *dispatchable load* is not entitled to a congestion management settlement credit determined in accordance with section 3.5.2 where that *registered facility’s DQSW* is less than the corresponding *MQSW* at that location for the same *metering interval* as the result of that *registered facility’s* own equipment or operational limitations, if:

3.5.1A.1 that *registered facility* does not fully or accurately respond to its *dispatch instructions*; or

3.5.1A.2 the ramping capability of that *registered facility*, as represented by the ramp rate set out in the *offers* or *bids*, is below the threshold for the *IESO* to modify *dispatch instructions* and thereby prevents changes to the *dispatch*;

and then the *IESO* may withhold or recover such congestion management settlement credits and shall redistribute any recovered payments in accordance with section 4.8.2 of Chapter 9.

3.5.1B A *market participant* shall not be *invoiced* congestion management settlement credits for an export transaction if that transaction attracted the congestion management settlement credits under the following conditions:

3.5.1B.1 the net *interchange schedule* limit is binding in the *market schedule* on an economic export transaction in pre-dispatch, and subsequently, in accordance with section 6.1.3 of Chapter 7, the *IESO* increases the quantity of that transaction in the *real-time schedule*; or

3.5.1B.2 the net *interchange schedule* limit is binding in the *market schedule* on an uneconomic export transaction in pre-dispatch, and subsequently, in accordance with section 6.1.3 of Chapter 7, the *IESO* decreases the quantity of that transaction in the *real-time schedule*.

The amount of congestion management settlement credits referred to in this section is limited to the portion of the transaction that is modified by the *IESO*.

3.5.1C [Intentionally left blank – section deleted]

3.5.1D A *registered market participant* for a *registered facility* that is a *dispatchable load* shall not be entitled to a congestion management *settlement* credit determined in accordance with section 3.5.2 for *settlement hour* ‘h’ where:

3.5.1D.1 the *price-quantity pairs* contained in the *energy bid* associated with that *registered facility* for *settlement hour* ‘h’ are not identical to the *price-quantity pairs* in the *energy bid* associated with the same *registered facility* for the applicable preceding *settlement hour* or following *settlement hour*;

3.5.1D.2 the change in *energy bid* as referred to in section 3.5.1D.1 results in a change in the quantity scheduled in the *market schedule* for that *registered facility* as described in the applicable *market manual*;

3.5.1D.3 the change in *energy bid* as referred to in section 3.5.1D.1 results in the ramping of the that *registered facility* as described in the applicable *market manual*; and

3.5.1D.4 that *registered facility*’s DQSW is less than the corresponding MQSW at that location for any *metering interval* falling within *settlement hour* ‘h’.

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, ~~and~~ 3.5.9 ~~and~~ 3.5.10 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:

Let 'BE' be a matrix of n price-quantity pairs offered by market participant 'k' to supply energy during settlement hour 'h'

Let 'BR_r' be a matrix of n price-quantity pairs offered by market participant 'k' to supply class r operating reserve during settlement hour 'h'

Let 'BL' be a matrix of n price-quantity pairs bid by market participant 'k' to withdraw energy by a dispatchable load during settlement hour 'h'

Let OP(P,Q,B) be a profit function of Price (P), Quantity (Q) and an n x 2 matrix (B) of offered price-quantity pairs:

$$OP(P, Q, B) = P \cdot Q - \sum_{i=1}^{s^*} P_i \cdot (Q_i - Q_{i-1}) - (Q - Q_{s^*}) \cdot P_{s^*+1}$$

Where:

s* is the highest indexed row of B such that $Q_{s^*} \leq Q \leq Q_n$ and where, $Q_0=0$

B is matrix BE, BR_r, or BL (see above)

Using the terms below, let CMSC be expressed as follows:

$$CMSC_{k,h} = OPE_{k,h} + OPR_{k,h} + OPL_{k,h}$$

Where:

OPE_{k,h} represents that component of the congestion management settlement credit for market participant 'k' during settlement hour 'h' attributable to a constraint on energy production subject to section 3.5.1 and is calculated as follows:

$$OPE_{k,h} = \sum_{m,t} \left[\begin{array}{l} OP(EMP_h^{m,t}, MQSI_{k,h}^{m,t}, BE) - \\ \text{MAX} \left(OP(EMP_h^{m,t}, DQSI_{k,h}^{m,t}, BE), OP(EMP_h^{m,t}, AQEI_{k,h}^{m,t}, BE) \right) \end{array} \right]$$

Where:

$$\text{MAX}[X,Y] = \text{Maximum of X or Y}$$

During any metering interval 't' within settlement hour 'h' in which the mathematical sign of $DQSI_{k,h}^{m,t} - MQSI_{k,h}^{m,t}$ is not equal to the mathematical sign of $AQEI_{k,h}^{m,t} - MQSI_{k,h}^{m,t}$, the component of OPE_{k,h} at location m, determined in accordance with section 3.1.4A, or intertie metering point 'm' for that metering interval 't' shall equal zero.

OPR_{k,h} represents that component of the congestion management settlement credit for market participant 'k' during settlement hour 'h' attributable to a constraint on the provision of operating reserve subject to section 3.5.1 and is calculated as follows:

$$OPR_{k,h} = \sum_{m,t,r} \left[\begin{array}{l} OP(\text{PROR}_{r,h}^{m,t}, \text{SQROR}_{r,k,h}^{m,t}, \text{BR}_r) - \\ \text{MAX} \left(OP(\text{PROR}_{r,h}^{m,t}, \text{DQSR}_{r,k,h}^{m,t}, \text{BR}_r), OP(\text{PROR}_{r,h}^{m,t}, \text{AQOR}_{r,k,h}^{m,t}, \text{BR}_r) \right) \end{array} \right]$$

During any *metering interval* 't' within *settlement hour* 'h' in which the mathematical sign of $DQSR_{r,k,h}^{m,t} - SQROR_{r,k,h}^{m,t}$ is not equal to the mathematical sign of $AQOR_{r,k,h}^{m,t} - SQROR_{r,k,h}^{m,t}$, the component of $OPR_{k,h}$ at location m, determined in accordance with section 3.1.4A, or *intertie metering point* 'm' for that *metering interval* 't' shall equal zero.

$OPL_{k,h}$ represents that component of the *congestion management settlement credit* for market participant 'k' during *settlement hour* 'h' attributable to a constraint on the withdrawal of energy by a *dispatchable load* subject to section 3.5.1. $OPL_{k,h}$ utilizes the negative of each output from each component Operating Profit (OP) function so as to correct for negative revenue streams (owing to withdrawals of energy).

$OPL_{k,h}$ is calculated as follows:

$$OPL_{k,h} = \sum_{m,t} \left[-1 \times OP(EMP_h^{m,t}, MQSW_{k,h}^{m,t}, BL) - \right. \\ \left. \text{MAX} \left(1 \times OP(EMP_h^{m,t}, DQSW_{k,h}^{m,t}, BL), -1 \times OP(EMP_h^{m,t}, AQEW_{k,h}^{m,t}, BL) \right) \right]$$

During any *metering interval* 't' within *settlement hour* 'h' in which the mathematical sign of $DQSW_{k,h}^{m,t} - MQSW_{k,h}^{m,t}$ is not equal to the mathematical sign of $AQEW_{k,h}^{m,t} - MQSW_{k,h}^{m,t}$, the component of $OPL_{k,h}$ at location m, determined in accordance with section 3.1.4A, or *intertie metering point* 'm' for that *metering interval* 't' shall equal zero.

3.5.3 [Intentionally left blank]

3.5.4 Subject to section 5.3.4 of Chapter 5, during instances where $CMSC_{k,h}$ is calculated at an *intertie metering point* at which a *market participant* is conducting an import or export transaction for a *physical service* that is subject to a *constrained off event* that is reflected in *dispatch instructions* issued by the *IESO* as a result of a request initiated by an entity other than the *IESO*, the *IESO* shall not calculate any portion of $CMSC_{k,h}$ pertaining to the affected transaction for those *metering intervals* within *settlement hour* 'h' in which such conditions exist, and for greater certainty, during any *metering interval* in which:

3.5.4.1 $MQSIk, hm, t$ is not equal to $DQSIk, hm, t$ as a result of such a constrained off event;

3.5.4.2 $MQSWk, hm, t$ is not equal to $DQSWk, hm, t$ as a result of such a constrained off event; or

3.5.4.3 $SQRORr, k, hm, t$ is not equal to $DQSRr, k, hm, t$ as a result of such a constrained off event;

and irrespective of whether or not a *constrained on event* or a *constrained off event* was affecting the transaction in any preceding *metering interval*.

3.5.5 A $DQSI$, $DQSW$ or $DQSR$, quantity as the case may be, that departs from its corresponding *market schedule* quantity due to the circumstances described in section 3.5.4 shall be denoted as such within the supporting data provided to the affected *market participant* as part of the content of *settlement statements* described in sections 6.5.3.1 and 6.5.3.2.

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

3.5.6.1 is associated with a *generation facility* or is associated with an injecting *boundary entity*; and

3.5.6.2 is less than a specified lower limit where such limit is the lesser of 0.00 \$/MWh and the *energy market price* for the applicable *dispatch interval*;

to that lower limit.

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 *intertie 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 *intertie zone*.

3.5.6B A *registered market participant* for a *registered facility* that is a *dispatchable generation facility*, who:

- increases the *offer price* associated with the *generation facility minimum loading point* for its *minimum generation block run-time* so that under Chapter 7 section 5.7.1.4 the *registered market participant* for the *generation facility* is no longer eligible for the applicable guarantee; and
- has received a manual constraint from the *IESO* for the *generation facility* under Chapter 7 section 6.3A.2 or 6.3A.4;

subject to section 3.5.6E, is not entitled to any inappropriate congestion management *settlement* credit, determined in accordance with section 3.5.2, associated with that *offer price* increase for *settlement hour* ‘h’, where *settlement hour* ‘h’ falls within the *generation facility minimum generation block run-time*. The *IESO* may recover such congestion management *settlement* credit in accordance with section 3.5.6E.

3.5.6C A *registered market participant* for a *registered facility* that is a *dispatchable generation facility*, who, for *settlement hour* ‘h’:

- is unable to comply with a *dispatch instruction* under section 7.5.3 of Chapter 7, to prevent endangering the safety of any person, equipment damage, or violation of any *applicable law*; and/or
- requests that the *IESO* apply a constraint to the *dispatchable generation facility* to prevent endangering the safety of any person, equipment damage, or violation of any *applicable law*, excluding constraints applied under Chapter 7 sections 6.3A.2 or 6.3A.4;

subject to section 3.5.6E, is not entitled to any inappropriate congestion management *settlement* credit, determined in accordance with section 3.5.2, resulting from the above actions for *settlement hour* ‘h’. The *IESO* may recover such congestion management *settlement* credit in accordance with section 3.5.6E.

3.5.6D A registered market participant for a registered facility that is a *dispatchable generation facility* and is fuelled by a related *generation facility*, who, for *settlement hour* ‘h’:

- has received a constraint from the *IESO* for the *dispatchable generation facility* as per the applicable *market manual*; and
- submits or has submitted an *offer price* for that *dispatchable generation facility* for *settlement hour* ‘h’ greater than a specified limit defined in the applicable *market manual*;

subject to section 3.5.6E, is not entitled to any inappropriate congestion management *settlement* credit, determined in accordance with section 3.5.2, associated with that *offer price* for *settlement hour* ‘h’. The *IESO* may recover such congestion management *settlement* credit in accordance with section 3.5.6E.

3.5.6E The *IESO* may recover congestion management *settlement* credits in accordance with sections 3.5.6B, 3.5.6C and 3.5.6D. In this situation, the *IESO* shall:

- notify the *market participant* of its intent to recover that congestion management *settlement* credit; and
- notify the *market participant* of the time, which shall not be less than five *business days* from the date of receipt of the notice, within which the *market participant* may make written representations in response to the *IESO*’s intent.

On receiving a response from the *market participant* within the specified time period, or upon expiry of the specified time period within which no response is received from the *market participant*, the *IESO* shall either:

- determine the amount of the congestion management *settlement* credit to recover and notify the *market participant* accordingly; or
- gather further information as the *IESO* determines appropriate to determine the amount of the congestion management *settlement* credit to recover and notify the *market participant* accordingly of the determination.

The *IESO* shall redistribute any payments that are recovered in accordance with section 4.8.2.

3.5.7 [Intentionally left blank – section deleted]

3.5.7A A *registered market participant* for a *constrained on generation facility* is not entitled to a congestion management *settlement* credits determined in accordance with section 3.5.2 for that *facility* up to *minimum loading point* if the congestion management *settlement* credit is earned as a result of constraints applied under Chapter 7, section 5.8.5 for hours in the day after the *dispatch day*. In this case, the *IESO* may withhold or recover such congestion management *settlement* credits and shall redistribute any recovered payments in accordance with section 4.8.2 of Chapter 9.

~~Linked Wheeling Through Transactions Not Eligible for CMSC Payment~~

3.5.8 Notwithstanding any other provision in the *market rules*, a *market participant* shall not be eligible for any congestion management *settlement* credit payments for a wheeling through transaction where the *market participant* effects the transaction by linking an *energy offer* and *energy bid* under section 3.5.8.2 of Chapter 7.

3.5.9 The *IESO* may limit, withhold or recover any congestion management *settlement* credits that result from the acceptance by the *IESO* of the replacement *energy* referred to in section 3.3.4C of Chapter 7 and shall redistribute any recovered payments in accordance with section 4.8.2. Any applicable congestion management *settlement* credits for replacement *energy* accepted by the *IESO* shall be limited as set out in the applicable *market manual* to an *IESO* estimate of what would have been received by the original *facility* had it not experienced the *forced outage*.

3.5.10 A market participant shall not be entitled to any congestion management settlement credits determined in accordance with section 3.5.2 and attributable to a constrained off event associated with an energy offer from a boundary entity for an injection into a designated chronically congested area, where the constrained off event appears in the pre-dispatch schedule identified in section 6.1.3 of Chapter 7. In this case, the IESO may withhold or recover such congestion management settlement credits and shall redistribute any recovered payments in accordance with section 4.8.2.

Chapter 9

4.8 Additional Non-Hourly Settlement Amounts

4.8.1 The *IESO* shall, at the end of each *energy market billing period*, recover from *market participants*, on a pro-rata basis across all allocated quantities of *energy* withdrawn at all *RWMs* and *intertie metering points* during all *metering intervals* and *settlement hours* within that *energy market billing period*, the following amounts:

- 4.8.1.1 any compensation paid in that *energy market billing period* by the *IESO* pursuant to section 5.3.4 of Chapter 4;
 - 4.8.1.2 any compensation paid in that *energy market billing period* by the *IESO* pursuant to section 5.3.4 of Chapter 5;
 - 4.8.1.3 any out-of-pocket expenses paid in that *energy market billing period* by the *IESO* pursuant to section 6.7.4 of Chapter 5;
 - 4.8.1.4 any compensation paid in that *energy market billing period* by the *IESO* pursuant to section 8.4A.9 of Chapter 7;
 - 4.8.1.5 any costs incurred in that *energy market billing period* by the *IESO* to acquire *emergency energy* pursuant to section 2.3.3A of Chapter 5;
 - 4.8.1.6 any reimbursement paid in that *energy market billing period* by the *IESO* pursuant to section 2.1A.12.2(a);
 - 4.8.1.7 any funds borrowed by the *IESO* and any associated interest costs incurred by the *IESO* in the preceding *energy market billing period* pursuant to section 6.14.5.2;
 - 4.8.1.8 [Intentionally left blank – section deleted]
 - 4.8.1.9 any compensation paid in that *energy market billing period* by the *IESO* pursuant to section 4.7B.3;
 - 4.8.1.10 any compensation paid in that *energy market billing period* by the *IESO* pursuant to section 4.7C;
 - 4.8.1.11 any compensation paid in that *energy market billing period* by the *IESO* pursuant to section 8.2.6 of Chapter 5;
 - 4.8.1.12 any compensation paid in that *energy market billing period* by the *IESO* under section 4.7D;
 - 4.8.1.13 any compensation paid in that *energy market billing period* by the *IESO* under section 4.7E; and
 - 4.8.1.14 [Intentionally left blank – section deleted]
 - 4.8.1.15 [Intentionally left blank – section deleted]
 - 4.8.1.16 any compensation paid in that *energy market billing period* by the *IESO* under section 4.7G.
- 4.8.2 The *IESO* shall, at the end of each *energy market billing period*, distribute to *market participants*, on a pro-rata basis across all allocated quantities of *energy* withdrawn at all *RWMs* and *inertie metering points* during all *metering intervals*

and *settlement hours* within that *energy market billing period*, the following amounts:

- 4.8.2.1 any compensation received by the *IESO* for the provision of *emergency energy* pursuant to section 4.4A.1 of Chapter 5;
- 4.8.2.2 any compensation received by the *IESO* as a result of a local market power investigation as set out in sections 1.7.1 and 1.7.2 of Appendix 7.6;
- 4.8.2.3 [Intentionally left blank – section deleted]
- 4.8.2.4 [Intentionally left blank – section deleted]
- 4.8.2.5 any payments recovered by the *IESO* in accordance with sections 3.5.1A and 3.5.6E;
- 4.8.2.6 any adjustments made by the *IESO* in accordance with section 3.5.7;
- 4.8.2.7 [Intentionally left blank – section deleted]
- 4.8.2.8 any proceeds from the day-ahead import failure charge that are not distributed as a component of *hourly uplift* under section 3.9.4;
- 4.8.2.9 any proceeds from the real-time import failure charge or the real-time export failure charge that in accordance with section 3.9.5 are not distributed as a component of *hourly uplift*;
- 4.8.2.10 any proceeds from the recovery of congestion management *settlement* credits or other *settlement amounts* in accordance with section 6.6.10A.2 of Chapter 3, excluding any payments recovered under section 4.18.1.6 of Chapter 8;
- 4.8.2.11 any recovery of day-ahead *intertie offer* guarantee payments pursuant to section 3.3A.13 of Chapter 7;
- 4.8.2.12 [Intentionally left blank – section deleted]
- 4.8.2.13 any recovery of payments made by the *IESO* under section 3.5.9; ~~and~~
- 4.8.2.14 any proceeds from the day-ahead *generator* withdrawal charge under section 3.8F; ~~and~~
- 4.8.2.15 any recovery of payments made by the *IESO* under section 3.5.10.

Chapter 11

*A designated chronically congested area means an area within Ontario as set out in the applicable market manual, including connected *inertie zones*, that is determined to be oversupplied.*

PART 5 – IESO BOARD DECISION RATIONALE

Insert Text Here