Market Rule Amendment Submission

This form is used to request an amendment to, or clarification of, the *Market Rules*. Please complete the first four parts of this form and submit the completed form by email or fax to the following:

> Email Address: Rule.Amendments@ieso.ca
> Fax No.: (416) 506-2847 Attention: Market Rules Group
> **Subject: Market Rule Amendment Submission**

All information submitted in this process will be used by the *IESO* solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its licence. All submitted information will be assigned the *confidentiality classification* of "Public" upon receipt. You should be aware that the *IESO* will *publish* this *amendment submission* if the *Technical Panel* determines it warrants consideration and may invite public comment.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the *Market Rules*.

PART 1 – SUBMITTER'S INFORMATION

Please enter contact information in full.

Name: IESO Staff

(if applicable) *Market Participant* / *Metering Service Provider* No.[1]: N/A

Market Participant Class: N/A

Telephone: 905-855-4128   Fax: 905-855-6371

E-mail Address: Rule.Amendments@ieso.ca

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Congestion Management Settlement Credits (CMSC)

Title: Limiting Constrained-On CMSC Payments for Exporters and Dispatchable Loads

Nature of Request (please indicate with x)

☒ Alteration   ☐ Deletion   ☒ Addition   ☒ Clarification

Chapter: 9   Appendix: _____   Sections: 3.5.2, 3.5.6A(new)

Sub-sections proposed for amending/clarifying: _____

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[1] This number is a maximum of 12 characters and does not include any spaces or underscore.

PART 3 – DESCRIPTION OF THE ISSUE

Provide a brief description of the issue and reason for the proposed amendment. If possible, provide a qualitative and quantitative assessment of the impacts of the issue on you and the *IESO-administered markets.* Include the Chapter and Section number of the relevant *market rules*.

Summary

It is proposed that when an exporter or a dispatchable load is eligible for a constrained on CMSC payment and has a bid with negative prices, the price(s) used for the CMSC payment calculation would be the lesser of $0/MWh and the applicable energy market price.

Background

In its Monitoring Report on the IESO-Administered Electricity Markets issued in January 2010, the Market Surveillance Panel (MSP) noted that the uniform price system provides market participants with opportunities to obtain excessive CMSC payments from the marketplace through strategic bidding practices, resulting in higher uplift costs for Ontario consumers[1].

More specifically, the MSP identified a significant increase in constrained on payments to exporters, especially in the Northwest and recommended that, for the purposes of calculating constrained on CMSC for exporters and dispatchable loads, the IESO should use a replacement bid (such as $0/MWh).

The Northwest has a large amount of generation compared to internal demand and limited transmission connections with the rest of Ontario as well as limited import/export capability at the Minnesota and Manitoba interties. Annual Energy demand in the region has decreased by approximately 22% in 2009 compared to 2008 (5.60 to 4.38 TWh). This significant drop in demand combined with transmission limitations is frequently resulting in low or negative shadow prices in the Northwest[2]. These negative prices provide the opportunity for exporters/dispatchable loads to bid strategically to earn significant constrained on payments.

For example, assume the pre-dispatch price (and HOEP) are both $30/MW and that the marginal generator (or importer) in the Northwest sets the nodal or pre-dispatch shadow price with an offer of -$1,900/MWh. An export that bids at -$1,899/MWh will be constrained on since the dispatch algorithm maximizes the gain from trade. In this example, constraining on the export represents a lower cost solution (by $1) relative to constraining off the generator. The result is a $1,929/MWh constrained on CMSC payment to the exporter.

Historical Constrained on Payments to Exporters

The IESO estimates that over the period from May 2002 to October 2009, CMSC payments to constrained on exporters totalled $37 million (approximately $25 million since January 2008).

The MSP noted that had CMSC payments to exporters been calculated on the basis of a replacement

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[1] Market Surveillance Panel Monitoring Report on the IESO-Administered Electricity Markets for the period from May 2009 to Oct 2009 (refer to section 3.1).

[2] The Pineportage shadow price (representative of the Northwest) was negative 20% of the time in 2008, compared to 47% of the time in 2009.

PART 1 – SUBMITTER'S INFORMATION

bid of $0/MWh when exporters bid negative prices, the total savings to Ontario consumers would have been $3.5 million during the period November 2006 to October 2009.

Although all the constrained on payments cited above relate only to exports, dispatchable loads with negative bids can also receive constrained on CMSC payments in the circumstances described above. Since January 2010, dispatchable loads with negative bids have earned constrained on CMSC payments of approximately $50K.

In the absence of any limits on export/dispatchable load bid prices, the frequency and magnitude of constrained on payments may continue to grow considerably due to the decline in load and persistent transmission limitations in the Northwest.[3]

The MSP also noted that using a $0/MW replacement bid price for constrained on CMSC payments to exporters/dispatchable load would create more consistent treatment with generators and imports that receive constrained off CMSC payments. In July 2003, an urgent rule amendment (MR-00239) was introduced to limit constrained off CMSC payments for generators/imports with negative offer prices. The offer price used to calculate constrained off CMSC payments to generators/imports is the lesser of 0 $/MWh and the energy market price.

Analysis - Potential Impact on Efficient Exports

It's possible that calculating constrained on CMSC payments for exports using a replacement bid equal to the lesser of $0 or MCP could present an obstacle to efficient export opportunities. An efficient export occurs when power flows from the low cost area (the Northwest area) to higher cost external markets (e.g. MISO). During surplus conditions with negative prices, negative bids may still be efficient. For example, if the MISO hub price at Minnesota is -$10/MWh, a 1 MW export with an associated nodal price of -$12/MWh that flows from Ontario to Minnesota would be an efficient export (ignoring any additional costs to export which would factor into the trader's decision of whether to transact).

For a constrained on situation using the above prices and a HOEP of $0, a 1MW export bid in at -$11 would receive $11 of CMSC. The exporter would then receive a profit of $1 ($11 in CMSC minus $10 payment to MISO).

With a replacement bid price of $0 to calculate CMSC, the exporter would receive $0 in CMSC and pay $10 to MISO for the transaction. The exporter then loses $10 for the transaction, and thus would not have the incentive to bid in such situations, potentially removing incentives for efficient exports.

In order to estimate the likelihood that the amendment proposal could limit efficient exports, the IESO conducted the following analysis:

- Using the nodal price at Pine Portage to represent the cost of an export to Minnesota, an opportunity for efficient exports was deemed to exist whenever the Pine Portage nodal price was more negative than the Minnesota hub price from MISO. In 2009, there were a total of 187 hours (i.e. 2.1% of a total 8,760 hours in a year) when the Pine Portage nodal price was less than zero and also more negative than the Minnesota hub price.

- Of those 187 hours, 119 export transactions were constrained on. For those transactions, approximately $114K of CMSC was paid. Had the constrained on CMSC payments been

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[3] Constrained on payments increased significantly in November 2009 ($761,000), compared to an average of $224,000 per month for the first 10 months of 2009.

PART 1 – SUBMITTER'S INFORMATION

> based on the lesser of $0 or MCP, approximately $54K in CMSC would have been paid (i.e. a reduction of $60K).

Based on this analysis, it does not appear that reducing the magnitude of these specific CMSC payments via this amendment proposal would unduly undermine market efficiency.

PART 4 – PROPOSAL (BY SUBMITTER)

Provide your proposed amendment. If possible, provide suggested wording of proposed amendment.

Amend the market rules in Chapter 9, section 3.5 to specify that for the purposes of calculating CMSC, the IESO shall adjust any bid price associated with an exporter or dispatchable load facility to the lesser of $0/MWh and the energy market price. The qualification on the adjustment (i.e. using the energy market price) is necessary to avoid charging the market participant an inappropriate negative CMSC payment that would result if the applicable energy market price is less than $0.00 MWh and the participant's bid prices were adjusted to $0.00 MWh.

Chapter 9

3.5 Hourly Settlement Amounts for Congestion Management

3.5.2   Subject to sections 3.5.6, 3.5.6A, 3.5.7 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:

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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* shall adjust, in the matrices specified in section 3.5.2 and for the purposes of determining the applicable constrained on congestion management *settlement* credit

PART 4 – PROPOSAL (BY SUBMITTER)

payments, any *bid* price that:

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

3.5.6A.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.

PART 5 – FOR IESO USE ONLY

Technical Panel Decision on Rule *Amendment Submission:* <u>Warrants consideration</u>

MR Number: <u>MR-00370</u>

Date Submitted to *Technical Panel*: <u>May 4, 2010</u>

Accepted by *Technical Panel* as: (please indicate with x)   Date:

☒ General   ☐ Urgent   ☐ Minor   <u>May 11, 2010</u>

Criteria for Acceptance: <u>The submission identifies ways to reduce participant costs. The proposed amendment would reduce the amount of CMSC passed on to electricity consumers with little to no impact on market efficiencies.</u>

Priority: <u>High</u>

Criteria for Assigning Priority: <u>Pervasiveness of the problem: In the absence of any limits on export/dispatchable load bid prices, the frequency and magnitude of constrained on payments may continue to grow considerably due to the decline in load and persistent transmission limitations, particularly in the Northwest.</u>

Not Accepted (please indicate with x): ☐

Clarification/Interpretation Required (please indicate with x): ☐

Technical Panel Minutes Reference: <u>IESOTP 237-1</u>

Technical Panel Comments: _____