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: Silverhill Ltd.

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

Market Participant Class: Wholesaler

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E-mail Address: gradan@aquilon.ca

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Request for the Implementation of Economic Dispatch of Linked Wheels

Title: Economic Dispatch of Linked Wheels

Nature of Request (please indicate with x)

☒ Alteration ☐ Deletion ☐ Addition ☐ Clarification

Chapter: 7 Appendix: _____ Sections: 3.5.8

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

PART 1 – SUBMITTER'S INFORMATION

Sub-sections proposed for amending/clarifying: 3.5.8.1 and 3.5.8.2

Market Manual 4: Market Operations Part 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets (Wheeling Through Interchange Schedules)

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*.

Currently, the IESO administered markets do not allow for the economic dispatch of linked wheels. Market Participants are forced to bid the export portion of a linked wheel at +MMCP and offer the import portion of a linked wheel at –MMCP exposing the market participant to $4000/MWh of financial risk. Some wheel through transactions must be submitted with a single NERC etag number thus eliminating the option of submitting the transaction as an implied wheel.

The current IESO software algorithm evaluates the export bid and import offer of a linked wheel independently.

There are several significant and detrimental issues with this current Market Rule/Market Manual instruction:

1. The current requirement to submit MMCP bids and offers for linked wheels, places linked wheel throughs at a higher priority to the imports and offers of other Market Participants that are not required to submit MMCP bids and offers. Linked Wheels, which have a net zero energy balance in the IESO, should not take priority over other imports and exports, especially in the case of emergency shortages when a linked wheel through is forced to take priority over required imports resulting in particularly adverse reliability implications. Therefore, we deem such inequity a market rule flaw that also compromises reliability.
2. Linked Wheel transactions are forced to flow in the direction of potential significant transmission congestion further contributing to congestion needlessly. The proposed economic dispatch of linked wheels in this submission will reduce congestion and thus improve market efficiency and reliability
3. The financial risk to Market Participants as a result of submitting MMCP bids and offers for linked wheels is unreasonable and unfair. For example, a 100MW wheel through that is subjected to $4000/MW of congestion through Ontario equates to $400,000 of congestion payments per hour.

PART 4 – PROPOSAL (BY SUBMITTER)

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

It is proposed that there be an economic dispatch of linked wheels. This can be accomplished by one of many ways by changing the current software algorithm implemented by the IESO. One suggestion would be to replace the following current formatting convention:

- For import: WI_SourceCA….SinkCA
- For export: WX_SourceCA…SinkCA

and requirement to submit a –MMCP offer for imports and +MMCP bid for exports with a single "congestion" bid for a linked wheel. The NYISO has implemented such a bidding mechanism for "linked" wheel through transactions. For example, the market participant would submit a congestion bid curve that would represent the amounts in $/MW that the market participant would be willing to pay for congestion, with corresponding volumes, to wheel through Ontario. Such a process would simultaneously remove both the import and export portions of the linked wheel through transaction when the congestion bid was not economic.

The current formatting convention could be replaced with:

LW_SourceCA…SinkCA where the acronym "LW" represents "Linked Wheel".

The following represents the proposed wording for "Wheeling Through Interchange Schedules" in Market Manual 4: Market Operations Part 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets:

Wheeling Through Interchange Schedules

In case of implied wheeling through *interchange schedules*, *market participants* having *boundary entities* must submit:

an interchange *offer* (for the import into the Ontario market); and

an interchange *bid* (for the export out of the Ontario market).

Normally, implied wheeling *interchange schedules* will be handled as two separate *interchange schedules*, the same as any import and export. In this case, the *dispatch data* for the interchange *offer* must be accompanied by the unique *NERC* e-Tag ID for the import, where Ontario would be designated in the *NERC* e-Tag as the sink *control area*. The *dispatch data* for the interchange *bid* must be accompanied by a separate *NERC* e-Tag ID for the export, where Ontario would be designated in the *NERC* e-Tag as the source *control area*. This implies that, when the *IESO-controlled grid* is generation deficient, the export may not be scheduled or may be manually curtailed as a means to balance the load and generation within Ontario. *Market participants* may consider that scheduling of the import portion of the wheeling through *interchange schedule* while curtailing the export portion as an inappropriate redirection of *energy* from its intended customer, but still an acceptable risk for the potential savings/profits offered by the spot market.

Risk-adverse *market participants* however, have the option to protect their wheeling through *interchange schedule* by:

bidding the export portion at *+MMCP;*

PART 4 – PROPOSAL (BY SUBMITTER)

offering the import portion at –*MMCP*; ~~and.~~

~~as an additional protective measure, they can also submit the same *NERC* e-Tag ID with the *dispatch data* for both the import *offer* and the export *bid* to indicate that the two *interchange schedules* are linked and part of the same wheeling through *interchange schedule*.~~

The *IESO* will consider that an import and an export are linked *interchange schedules* of the same wheeling through *interchange schedule* if ~~the export is bid at +*MMCP*, the import is offered at –*MMCP* and~~ the associated *NERC* e-Tag IDs submitted by *market participants* along with their *dispatch data* have been edited to follow this formatting convention:

~~For import: **WI_SourceCA…SinkCA**~~

~~For export: **WX_SourceCA…SinkCA**~~

LW_SourceCA...SinkCA

where:

"SourceCA…SinkCA" is the unique *NERC* e-Tag ID obtained from the *NERC* Tagging system for the wheeling *interchange schedule*. For wheeling through *interchange schedules* treated in this manner, Ontario would not be listed as a source CA or as the sink CA in the *NERC* e-Tag ID, but would be included in the *NERC* e-Tag as part of the transmission path;

~~WI is a delimiter indicating that the *interchange schedule* is the import leg of a wheel. The delimiter is added by the *market participant* to the *NERC* e-Tag ID submitted to the *IESO* as *dispatch data* for the import; and~~

~~WX is a delimiter indicating that the *interchange schedule* is the export leg of a wheel. The delimiter is added by the *market participant* to the *NERC* e-Tag ID submitted to the *IESO* as *dispatch data* for the export.~~

LW is a delimiter indicating that the interchange schedule is a "linked wheel". The delimiter is added by the market participant to the NERC e-Tag ID submitted to the IESO as dispatch data for the linked wheel.

Appendix G shows a tagging example (Example 1) of a linked wheel through transaction.

Notes regarding linked wheel through *interchange schedules*:

~~To receive this treatment, the *market participant* must *offer* the import at –*MMCP* and *bid* the export at +*MMCP*.~~

The *IESO*'s scheduling algorithm ~~does not consider the separate submissions of *dispatch data* for the import leg *offer* and the export leg *bid*~~ considers the bids of the linked wheel through *interchange schedule* to ~~be linked~~ represent bids that the Market Participant is willing to pay for congestion. Therefore, ~~the scheduling algorithm may prepare schedules for these two *interchange schedules* with different quantities. It is the *market participant*'s responsibility to revise the common *NERC* e-Tag to the lowest quantity of the import/export *interchange schedules*.~~ when a linked wheel congestion bid is not economic, the entire linked wheel transaction will be curtailed.

~~By doing so,~~ M*arket participants* ~~indicate that they~~ are willing to have a linked wheel transaction ~~both *interchange schedules*~~ curtailed ~~at the same time~~ when the *IESO-controlled grid* is generation deficient (Ch.7, S. 3.5.8 of the *market rules*).

PART 4 – PROPOSAL (BY SUBMITTER)

However, for a linked wheel through *interchange schedule* involving the Hydro Quebec Transenergie (HQT) *control area*, the *NERC* e-Tag must identify HQT as being the SOURCE, the SINK or intermediate *control area*; otherwise, the *IESO* will deny the *NERC* e-Tag.

Appendix G has a tagging example (Example 2) of a linked wheel through transaction involving Hydro Quebec Transenergie *control area*.

Validation

Bids and *offer*s to import or export *energy* will be validated by the *IESO* to ensure that:

bids and *offers* are submitted in accordance with the intentions declared during the *boundary entity* registration process (or any subsequent updates);

the *market participant* has the necessary licenses and authorizations;

the *NERC* e-Tag source/sink corresponds with the *boundary entity* resource, as set out in Appendix F;

the *NERC* e-Tag is consistent with the tie point identified in the *dispatch data* submission;

the *NERC* e-Tag IDs submitted for linked wheeling through *interchange schedules* are correctly formatted

the *market participant* has navigated intermediary markets successfully as well as the Ontario markets; and

there are no external or internal transmission constraints or other mitigating limitations.

The *IESO* expects to undertake this validation between 1 and 2 hours out prior to the *dispatch hour* but will seek to undertake validation on a best effort basis prior to the start of the two-hour window. This may prevent a *market participant* from resubmitting their *bid* or *offer*, depending on the nature of the change that is required to address the validation failure[19]. The results of all validation will be provided to *market participant* in the form of a revised *pre-dispatch schedule*. However, the *IESO* will also seek to notify *market participant*s directly of validation failures on a best effort basis.

The manual nature of much of this validation process means that it is important that all *bids* and *offer*s to import or export *energy*, or import *operating reserve*, conform to the relationships set out in Appendix F. In addition, *market participant*s should ensure that they have the appropriate *NERC* e-Tags within the required timeframe.

As per the Electricity Act, 1998, these rule amendments meet the urgent rule amendment criteria of avoiding, reducing the risk of or mitigating the effects of an adverse effect of a market rule. These urgent rule amendments also **satisfy the IESO's statutory objective to establish and operate the IESO administered markets so as to promote the purpose of the Act, which purposes include:**

[19] For instance the, *NERC* reliability standard INT-001 for *interchange schedules* requires that *NERC* e-Tags be submitted at least 20 minutes prior to the start of the *interchange schedule* for *interchange schedules* that are less than or equal to 1 hour in duration. However, to ensure effective *interchange schedule* coordination between *control areas* and minimize the number of failed *interchange schedules, the IESO* has adopted a more stringent requirement of 30-minutes.

PART 4 – PROPOSAL (BY SUBMITTER)

- **protecting the interests of consumers with respect to prices,** in this particular case, lowering congestion **and the adequacy, reliability and quality of electricity service**.
- **facilitating the maintenance of a financially viable electric industry**.

PART 5 – FOR IESO USE ONLY

Technical Panel Decision on Rule *Amendment Submission:* Warrants Consideration

MR Number: MR-00338

Date Submitted to *Technical Panel*: October 11, 2007

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

☒ General ☐ Urgent ☐ Minor November 6, 2007

Criteria for Acceptance: It identifies ways to reduce participant costs. The amendment proposes to modify the process by which market participants bid and offer linked wheel transactions. This change will reduce the risk to the market participant, potentially reducing their costs.

Priority: Medium

Criteria for Assigning Priority:

1. Pervasiveness: the changes suggested by the amendment submission would directly benefit a small number of participants: traders who do linked wheels or traders who would like to do linked wheels. Linked wheels can impact other market participants and overall market efficiencies; however it is unclear whether the net impacts are positive or negative. In addition, the IESO has no reliability concerns with the existing treatment of linked wheels.
2. Alternative Solutions: the IESO and the Inter-jurisdictional Trading Standing Committee is investigating whether there is a mutually acceptable interim solution that would further mitigate market participant's risks. The IESO has indicated that any interim solution is not likely to be as suggested by this submission (the IESO may be willing to move on the –MMCP but not on the +MMCP). Furthermore, there are existing market mechanisms, albeit imperfect, that mitigate to some extent participant's congestion price risk, for example transmission rights and implied wheels.

Not Accepted (please indicate with x): ☐

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

Technical Panel Minutes Reference: IESOTP 208-1

Technical Panel Comments: The Technical Panel requested that the IESO report back on the possibility of shortening the proposed timeline (Q2 2008) of bringing more information to the Technical Panel regarding implementation of the proposed changes.