

Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

Identification No.:	MR-00461-R05
Subject:	Market Renewal Program – Market and System Operations
Title:	Market Renewal Program – Market and System Operations
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration <input checked="" type="checkbox"/> Deletion <input checked="" type="checkbox"/> Addition
Chapter:	Chapter 11
Appendix:	
Sections:	
Sub-sections proposed for amending:	
Current Market Rules Baseline:	

Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review	July 14, 2023
2.0	Draft following Stakeholder Review Period	March 13, 2024
3.0	Draft for Technical Panel Review	March 26, 2024
4.0	Publish for Stakeholder Review and Comment	April 11, 2024
<u>5.0</u>	<u>Submitted for Technical Panel Provisional Vote</u>	<u>May 7, 2024</u>

Approved Amendment Publication Date:

Approved Amendment Effective Date:

Part 3 - Explanation for Proposed Amendment

Provide a brief description that includes some or all of the following points:

- 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

The IESO proposes to amend various Chapter 11 definitions in the market rules to support the Market Renewal Program (MRP) Market and System Operations batch of market rule packages (MR-00454-R00, MR-00454-R01, MR-00454-R02, MR-00454-R03). In addition, this proposal also includes further amendments to defined terms that were previously provisionally approved in prior batches.

Further information on MRP can be found on the IESO's [Market Renewal webpage](#).

Background

Please refer to MRP background in [MR-00450-R00](#).

Discussion

The accompanying "[Summary of Market and System Operations](#)" readers guide provides a summary of the market rule amendments to Chapter 7 of the market rules.

The following amendments to Chapter 11 market rule definitions are proposed to accompany the market and systems operation batch of MRP market rule amendments:

New:

- availability declaration envelope;
- commitment cost parameters;
- day-ahead market expiration;
- day-ahead market restricted window;
- day-ahead market submission window;
- electrical island;
- energy limited resource;
- forecast quantity;
- lead time;
- main island;
- market operations;
- maximum number of starts per day reference level;
- minimum generation block down-time reference level;
- minimum generation block run-time reference level;
- minimum loading point reference level;
- pre-dispatch process;
- ramp up energy to minimum loading point;

- real-time market restricted window;
- real-time market unrestricted window;
- reserve loading point;
- standing dispatch data;
- steam turbine percentage share;
- variable generation forecast quantity; and
- variable generation resource;

Amended (includes those defined terms introduced as part of prior batches and amended under MSO):

- bid;
- billing period;
- binding pre-dispatch advisory schedule;
- cascade group;
- day-ahead operational commitment;
- day-ahead operational schedule;
- demand response bid price threshold;
- demand response energy bid;
- dispatch centre;
- dispatch data;
- dispatch scheduling error;
- dispatchable load;
- elapsed time to dispatch;
- extended pre-dispatch operational commitment
- generation station service;
- IESO-controlled grid model;
- intertie border price or IBP;
- intertie congestion price or ICP
- linked wheeling through transaction;
- maximum daily energy limit;
- maximum daily trading limit;
- minimum daily energy limit;
- minimum shut-down time;
- non-committed resource;
- non-dispatchable generation resource
- non-dispatchable load
- obligation period;
- offer;
- one-day advance approval;
- quick start resource;
- real-time market mandatory window;
- reference bus;
- release notification;
- [settlement floor price](#)
- speed no-load offer;

- stand-alone pre-dispatch operational commitment;
- start-up time;
- start indication value
- time lag;
- variable generator; and
- virtual transaction.

Deleted:

- capability factor;
- combined guaranteed costs;
- dispatch algorithm;
- schedule of record;
- start volume;
- unconstrained IESO-controlled grid model; and
- wear and tear.

Supplemental information on specific sections in Chapter 7 which explicitly cross-reference to the “applicable market manual” is provided below:

demand response bid price threshold specifies, in accordance with the applicable market manual, that there is a price which a demand response energy bid must exceed in the real-time market. Market Manual 4.1: Submitting Dispatch Data [s.2.4.1] in the Physical Markets identifies the applicable threshold for demand response energy bids.

Definitions

In the market rules:

availability declaration envelope means the most recent maximum quantity of *energy* included in a *bid* or *offer* submitted in the *day-ahead market* under MR Ch.7 s.3.1.11, as issued by the *IESO* under MR Ch.7 s.4.8.1;

bid means a statement of the quantities and prices of a commodity that a buyer is willing to purchase in the *day-ahead market*, the *real-time market* or the *procurement markets* and includes *dispatch data* parameters that are submitted in accordance with MR Ch.7 s.3;

billing period means, in respect of the purchase or sale of *TRs* in a round of a *TR auction*, a period of a *trading week*, in respect of the *day-ahead market*, the *real-time market*, and the *settlement* of amounts owing to *TR holders* under MR Ch.9 s.3.8.1, a period of a calendar month;

binding pre-dispatch advisory schedule means those *dispatch hours* of the *pre-dispatch schedule* for a *GOG-eligible resource* (i) that are the initial set of contiguous *dispatch hours* greater than or equal to its *minimum loading point* excluding the hours scheduled for the *ramp up energy to minimum loading point*, and (ii) that are the basis for a *start-up notice* for a *stand-alone pre-dispatch operational commitment* or *advanced pre-dispatch operational commitment*;

cascade group means one or more *forebays* in a river system;

commitment cost parameters means *start-up offer*, *speed-no-load offer*, and the portion of an *energy offer* up to and including the *minimum loading point*;

day-ahead market expiration means the earliest time at which the *IESO publishes* or issues *day-ahead market* results in accordance with MR Ch.7 ss.4.7.2 and 4.8.1 or when the *IESO* declares a *day-ahead market* failure in accordance with MR Ch.7 s.4.3.2;

day-ahead market restricted window means the period of time commencing at 10:00 EPT on the day prior to the relevant *dispatch day* until *day-ahead market expiration*;

day-ahead market submission window means the period of time commencing at 06:00 EPT and ending at 10:00 EPT on the day prior to the relevant *dispatch day*;

day-ahead operational commitment means a minimum scheduling constraint established by the *IESO* to a *GOG-eligible resource's* *minimum loading point* based on the *day-ahead schedule* to respect the *resource's* *minimum generation block run-time* during the hours specified by the *IESO* pursuant to MR Ch.7 s.4.8.2.2;

day-ahead operational schedule means the hours in a *GOG-eligible resource's* *day-ahead*

schedule that are greater than or equal to the *minimum loading point* excluding the hours scheduled for the *ramp up energy to minimum loading point*;

demand response bid price threshold means the price which a *demand response energy bid* shall exceed in the *real-time market* in accordance with the applicable *market manual*;

demand response energy bid means a *bid* in the *day-ahead market*, and a *bid* in the *real-time market* that is greater than the *demand response bid price threshold* and less than the *MMCP*, by a *capacity market participant* entered for either a *capacity dispatchable load resource* or an *hourly demand response resource* to fulfill a *capacity obligation* availability requirement;

dispatch centre means, in respect of a *facility* or group of *facilities*, an *attended location* at which employees have the authority and capability to *dispatch* the *facilities* based on the *dispatch instructions* received from the *IESO*;

dispatch data means the *offers, bids, self-schedules* or forecasts of *intermittent generation* required to be submitted to the *IESO* in accordance with Chapter 7 and used by the *IESO* to determine *day-ahead market* schedules, physical operations and *physical market prices*;

dispatch scheduling error means an error made by the *IESO* in the (i) *day-ahead market*; or (ii) *real-time dispatch process* that is identified after the results of the *day-ahead market* or *real-time dispatch process*, as the case may be, have been *published* or issued, in circumstances where these *market rules, market manuals* or any standard, policy or procedure established by the *IESO* pursuant to these *market rules* do not admit of any deviation or departure from the *day-ahead market* or *real-time dispatch process*;

dispatchable load means a *load resource* which is subject to *dispatch* by the *IESO* and whose level is selected or set based on the price of *energy* in the *day-ahead market* or *real-time market*, and, for greater certainty, excludes *hourly demand response resources*;

elapsed time to dispatch means the minimum amount of time, in minutes, between the time at which a startup sequence is initiated for a *generation resource* and the time at which it becomes *dispatchable* by reaching its *minimum loading point*, as registered by a *market participant* in accordance with MR Ch.7 s.2.2.6K;

electrical island has the meaning provided in the *NPCC Glossary of Terms* as may be amended from time to time;

energy limited resource means a *dispatchable generation resource* or *dispatchable electricity storage resource* with a *maximum daily energy limit* for the applicable *dispatch day*;

extended pre-dispatch operational commitment means a minimum scheduling constraint extension established by the *IESO* to a *GOG-eligible resource's minimum loading point* for a duration of one hour immediately following an existing *day-ahead operational commitment, stand-alone pre-dispatch operational commitment* or a previously *extended pre-dispatch operational commitment*, based on a *pre-dispatch schedule*, during the hours specified by the *IESO* pursuant to MR Ch.7 s.5.8.2.2;

forecast quantity means a forecast to replace the *IESO's* centralized forecast specific to the *day-ahead market*.

generation station service means *station service* associated with a *generation facility* that is comprised of one or more *generation units* each of which is associated with a *resource*, including a *resource* that is aggregated in accordance with MR Ch.7 s.2.3;

IESO-controlled grid model means the model capable of being used by the relevant calculation engine and described in MR Ch.7 s.3A.1.3 ;

intertie border price or *IBP* means, in respect of an *intertie zone*, the *locational marginal price* of *energy* or *operating reserve* minus the *intertie congestion price*, determined in the *real-time market* or *day-ahead market* in accordance with the provisions of MR Ch.7 or the *administrative price*, where applicable.

intertie congestion price or (*ICP*) means in respect of an *intertie zone*, the portion of the *locational marginal price* that consists of the cumulative congestion costs resulting from the binding import or export transmission limits that affect transactions scheduled at such an *intertie zone*, including any net interchange scheduling limit congestion costs, as determined in the *real-time market* or *day-ahead market* in accordance with the provisions of MR Ch.7 or the *administrative price*, where applicable ;

lead time reference level means a *reference level* for a *resource's lead time*;

linked wheeling through transaction means a set of import and export *energy* transactions scheduled in the *day-ahead market* or the *real-time market* for *boundary entity resources*, that have been linked by the relevant *market participant* pursuant to MR Ch.7 s.3.5.19.2;

main island means, in the event of a network split, the island with the largest number of *IESO-controlled grid buses*;

market operations means the operation of all or part of the *IESO-administered markets*;

maximum daily energy limit means (i) for a *dispatchable generation resource* that is a *non-quick start resource* and is not a nuclear *generation resource*, a maximum quantity of *energy* in MWh that may be scheduled for a *resource* within a *dispatch day* at or above its *minimum loading point* excluding the hours scheduled for the *ramp up energy to minimum loading point* or (ii) for any other *resource*, a maximum quantity of *energy* in MWh that may be scheduled for a *resource* within a *dispatch day*;

maximum daily trading limit means the maximum quantity a *virtual trader* may *bid* or *offer* in a given *trading day*, and is the absolute value in MWh submitted by a *virtual trader* in accordance with MR Ch.2 s.5C.1, used by the *IESO* to calculate a *virtual trader's minimum trading limit*, *default protection amount*, and the *bid/offer* quantity limit for *dispatch data* submissions in accordance with MR Ch.7 s.3.10.1.3;

maximum number of starts per day reference level means a *reference level* for a *resource's maximum numbers of starts per day*;

minimum daily energy limit means the minimum amount of *energy* in MWh that must be scheduled within a *dispatch day* for a hydroelectric *generation resource*;

minimum generation block down-time reference level means a *reference level* for a *resource's minimum generation block down-time*;

minimum generation block run-time reference level means a *reference level* for a *resource's minimum generation block run-time*;

minimum loading point reference level means a *reference level* for a *resource's minimum loading point*;

minimum shut-down time means the minimum time in hours between shutdown and start-up of a *generation resource*. This is measured from the time of de-synchronization from the *IESO-controlled grid* to the time of re-synchronization on start-up;

non-committed resource means the *resource* for a *facility* that is neither - in whole or in part - rate-regulated, contracted to the *IESO*, contracted to the *OEFC*, or obligated as a resource backed capacity export to another jurisdiction during the entire duration of a given *obligation period*;

non-dispatchable generation resource means a *generation resource* within the *IESO control area* that is a *self-scheduling generation resource* or *intermittent generation resource*;

non-dispatchable load means a *load resource*, within the *IESO control area*, that is not *dispatchable* and whose level is not selected or set by the *IESO* based on the price of *energy* in the *day-ahead market* or *real-time market*;

obligation period means the period of time for which a *capacity market participant* is required to fulfill its *capacity obligation* through the *energy market*;

offer means a statement of the quantities and prices of a commodity that a seller is willing to provide in the *day-ahead market*, *real-time market*, the *procurement markets* or the *capacity auction* and includes *dispatch data* parameters that are submitted in accordance with MR Ch.7 s.3;

one-day advance approval means *IESO* approval of a *planned outage* of equipment no later than 8:00 EST on the *business day* prior to the scheduled start date of the *planned outage*;

pre-dispatch process means the process described in MR Ch.7 s.5, used to establish *pre-dispatch schedules* and prices in the *real-time market*;

quick start resource means a *generation resource* or an *electricity storage resource* whose electrical *energy* output can be provided to the *IESO-controlled grid* within 5 minutes of the *IESO's* request and is provided by equipment not synchronized to the *IESO-controlled grid* when the request to start providing *energy* is made;

ramp up energy to minimum loading point means the amount of *energy*, in MWh, a *generation*

resource is expected to inject in each hour from the time of synchronization to the time it reaches its *minimum loading point*, as described in MR Ch.7 s.3.5.33;

real-time market mandatory window means the period of time on a *dispatch day* that begins following the *real-time market unrestricted window* and that ends 10 minutes before the *dispatch hour*, or in the case of a *boundary entity resource*, that ends an hour and 10 minutes before the *dispatch hour*;

real-time market restricted window means the period of time that begins upon *day-ahead market expiration* and that ends upon the completion of the *dispatch day*;

real-time market unrestricted window means the period of time that begins upon *day-ahead market expiration* and that ends two hours prior to the *dispatch hour*;

reference bus means the bus designated by the *IESO* in accordance with MR Ch.7 App.7.5 s.5.2, MR Ch.7 App.7.5A s.5.2 or MR Ch.7 App 7.6 s.5.2 for the purpose of determining the components of *locational marginal price*; *release notification* means in respect of a *variable generator* that is a *registered market participant*, a notification issued by the *IESO* providing that *energy* may be supplied from the *variable generation resource* to the *IESO-controlled grid* as ambient fuel conditions allow until a *dispatch instruction* is sent;

reserve loading point means the minimum level of *energy* output in MWs required for a *generation resource* or an injecting *electricity storage resource* to provide its maximum *offered* amount of a given class of *operating reserve*;

settlement floor price means the minimum price that a *market participant* may be charged or paid for *energy*;

speed no-load offer means the hourly dollar amount offered by the *registered market participant* to maintain a *generation resource* synchronized with zero net *energy* injected into the *IESO-controlled grid*;

stand-alone pre-dispatch operational commitment means a minimum scheduling constraint established by the *IESO* to a *GOG-eligible resource's minimum loading point* based on the *binding pre-dispatch advisory schedule* to respect the *resource's minimum generation block run-time* during the applicable hours specified by the *IESO* pursuant to MR Ch.7 s.5.8.2.5;

standing dispatch data means the initial *dispatch data* that is submitted on a *resource* for one or more *dispatch hours* of future *dispatch days*, as specified by a *registered market participant*;

start indication value means the minimum quantity of *energy*, in MW, that a *resource* must be scheduled to determine whether it has used one or more of the submitted *maximum number of starts per day*;

start-up time means the time in hours required to bring a *generation resource* or *electricity storage resource* on line. This is measured from the time of receiving a request to start the *generation unit* or *electricity storage unit* associated with that *resource* to the time of synchronization;

steam turbine percentage share means the percentage of the total steam turbine *generation unit* capacity that is allocated to an associated *pseudo-unit*;

time lag means an amount of time less than 24 hours that it takes for the water discharged from an upstream *linked forebay* to reach a downstream *linked forebay*;

variable generation forecast quantity means an *energy* quantity submitted by the *registered market participant* in the *day-ahead market* for a *dispatchable generation resource* that is classified as *variable generation* to be used instead for the *IESO's* centralized *variable generation forecast quantity* for that *resource*;

variable generation resource means a *generation resource* associated with a *generation facility* with a fuel type of wind or solar photovoltaic that (i) has an installed capacity of 5MW or greater, or (ii) that is directly connected to the *IESO-controlled grid*;

variable generator means a *generator* associated with a *variable generation resource*;

virtual transaction means a transaction in the *IESO-administered* markets in the form described in MR Ch.7 s.3.4.1.8, that creates a financial obligation to settle against the difference between the *day-ahead market virtual zonal price* and the *real-time market virtual zonal price*, without a corresponding injection or withdrawal of *energy* in the *real-time market*;