

Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

| | |
|-------------------------------------|--|
| Identification No.: | MR-00461-R04 |
| Subject: | Market Renewal Program – Market Settlements, Metering, Market Billing and Funds Administration: Definitions |
| Title: | Market Renewal Program – Market Settlements, Metering, Market Billing and Funds Administration: Definitions |
| Nature of Proposal: | <input checked="" type="checkbox"/> Alteration <input checked="" type="checkbox"/> Deletion <input checked="" type="checkbox"/> Addition |
| 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 | December 1, 2022 |
| 2.0 | Draft following Stakeholder Review Period | April 24, 2023 |
| 3.0 | Draft for Technical Panel Review | May 2, 2023 |
| | | |

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 Settlements, Metering and Market Billing and Funds Administration batch of market rule packages (MR-00452-R00, MR-00456-R00 to R03). In addition, this proposal also includes further amendments to defined terms in previously, provisionally approved defined terms from prior batches.

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

Background

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

Discussion

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

New:

- advanced pre-dispatch operational commitment;
- binding pre-dispatch advisory schedule;
- day-ahead commitment period;
- day-ahead market external congestion rent;
- day-ahead operational commitment;
- day-ahead operational schedule;
- extended pre-dispatch operational commitment;
- generator offer guarantee eligible resource or GOG-eligible resource;
- generator failure;
- linked wheeling through transaction;
- non-committable resource;
- pre-dispatch operational commitment;
- real-time commitment period;
- real-time reliability commitment period;
- reliability commitment;

- settlement floor price
- stand-alone pre-dispatch operational commitment;
- start-up notice;

Amended:

- class r reserve;
- interchange schedule;
- market price;
- metered market participant;
- Minister;
- price-quantity pair;
- real-time market or RTM;
- TR zone;
- transmission tariff;

Deleted:

- hourly Ontario energy price or HOEP
- TR settlement price;
- transmission charge reduction fund;

Proposed Edits to Definitions Provisionally Approved by the IESO Board in Prior Batches

Amended:

- day-ahead market or DAM;
- locational marginal price or LMP;
- resource;

Deleted:

- shared daily energy limit;

Previously Released with MR-00461-R02 – Calculation Engines: Batch 3 Definitions – used in Settlements Batch

Proposed edits to definitions have been highlighted in grey for the following definitions:

- day-ahead market calculation engine;
- delivery point;
- non-quick start resource;
- Ontario zonal price;
- real-time schedule;
- single cycle mode;

- virtual transaction;
- virtual zonal price.

Appendix A MR-00472-R00 – Replacement of the IESO Settlement System (RSS) – Amendments to Defined Terms: Included for Reference Only.

Part 4 - Proposed Amendment

Definitions

advanced pre-dispatch operational commitment means a minimum scheduling constraint advancement established by the IESO to a GOG-eligible resource's minimum loading point, that applies for a duration of at least one hour in advance of an existing day-ahead operational commitment or stand-alone pre-dispatch operational commitment based on the binding pre-dispatch advisory schedule, during the applicable hours specified by the IESO pursuant to MR Ch.7 s.5B.2.2.1;

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

class r reserve means operating reserve of class r, where r = 1 denotes spinning ten-minute operating reserve, and r = 2 denotes non-spinning ten-minute operating reserve, and r = 3 denotes thirty minute operating reserve;

day-ahead commitment period means the set of contiguous settlement hours described in MR Ch.9, s.4.4.1.1(c);

day-ahead market external congestion rent means, in respect of an intertie zone and a settlement hour, the total day-ahead market external congestion collected by the IESO for all boundary entity resources, determined as the day-ahead market quantity of energy scheduled for withdrawal minus the day-ahead market quantity of energy scheduled for injection, multiplied by the day-ahead market price of external congestion ($DAM_PEC_h^i$) as defined in MR Ch. 9 App 9.2;

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. 4B.2.2.2;

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 to reflect the *ramp up energy to minimum loading point*;

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. 5B.2.2.2;

generator offer guarantee eligible resource or GOG-eligible resource means a *dispatchable non-quick start resource*:

- (i) with a registered *elapsed time to dispatch* greater than one hour;
- (ii) with a registered *minimum loading point* greater than 0 MW;
- (iii) with a registered *minimum generation block run-time* greater than one hour; and
- (iv) its primary or secondary fuel source is not uranium.

generator failure means the occurrence of a failure determined in accordance with MR Ch. 9, s. 4.10.4 or s. 4.10.7, for a *GOG-eligible resource* not associated with a *pseudo-unit* or a *GOG-eligible resource* associated with a *pseudo-unit*, respectively;

hourly Ontario energy price or HOEP means the arithmetic average of the uniform Ontario energy prices determined for each *dispatch interval* pursuant to section 8.3 of Chapter 7;

interchange schedule means the scheduled *inertie* flow between the *IESO-controlled grid* and a neighbouring *control area*, determined by the *IESO* in accordance with MR Ch. 7, s. 6.1.3;

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. 3.5.8.2;

market price means the price of *energy* or *operating reserve* determined in the *real-time market*, ~~or in the *day-ahead market*~~, or the price of *auction capacity* determined in the *capacity auction* in accordance with the provisions of ~~MR Ch. apter 7~~, or an *administrative price*, where applicable;

metered market participant means, in respect of a *registered wholesale meter facility*, the *market participant* designated as the *metered market participant* for the resource(s) associated with that registered wholesale meter ~~for that registered facility~~ in accordance with ~~MR Ch. apter 9~~;

Minister means the Minister of Energy, ~~Northern Development and Mines~~ or such member of the Executive Council that may be assigned the administration of the *Electricity Act, 1998* under the *Executive Council Act, 1990*;

non-committable resource means a dispatchable load, a dispatchable electricity storage resource, or a dispatchable generation resource that is not a GOG-eligible resource;

pre-dispatch operational commitment means (i) a stand-alone pre dispatch operational commitment; (ii) an advancement pre-dispatch operational commitment; or (iii) an extension pre-dispatch operational commitment;

price-quantity pair means a price and an associated quantity that define a “step” in an offer or bid curve ~~or an EFM offer or EFM bid curve;~~

real-time commitment period means the set of contiguous settlement hours described in MR Ch. 9, s. 4.5.1.1(c);

real-time market ~~or RTM~~ means any one of the markets operated by the IESO for energy ~~or~~ operating reserve pursuant to Chapter 7, other than the day-ahead market;

real-time reliability commitment period means the set of contiguous settlement hours described in MR Ch. 9, s. 4.5.1.1(d);

reliability commitment means a minimum scheduling constraint established manually by the IESO to at least a GOG-eligible resource’s minimum loading point in order to maintain the reliable operation of the IESO-controlled grid, as determined by the IESO;

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. 5B.2.2.5;

start-up notice means the notification issued to a GOG-eligible resource in accordance with MR Ch. 7, s. 10.1 containing the GOG-eligible resource’s start time, synchronization time, and time to reach the minimum loading point;

TR settlement price means, in respect of a TR zone, ~~the energy market price for one MWh of energy in that TR zone, determined in accordance with section 3.1.3 of Chapter 9;~~

TR zone means the IESO control area or an intertie zone in respect of which the IESO calculates prices for energy for settlement purposes in the ~~day-ahead~~real-time markets;

transmission charge reduction fund means ~~the fund whose net proceeds are used to offset the charges levied on market participants for the recovery of the sunk and other costs of operating the transmission systems that make up the IESO-controlled grid;~~

transmission tariff means a tariff fixed or ~~authorised~~authorized by the OEB in a rate order issued pursuant to the Ontario Energy Board Act, 1998 with respect to the provision of transmission services;

Proposed Edits to Definitions Provisionally Approved by the IESO Board in Prior Batches

Note: Proposed edits to definitions highlighted in grey

day-ahead market or DAM means a daily, IESO-administered market that creates financially binding obligations for a *dispatch day* on the day prior to the relevant *dispatch day*;

locational marginal price or LMP means, in respect of a ~~pricing node~~ delivery point, or intertie metering point, or other relevant location, the price of energy or operating reserve determined in the real-time market or in the day-ahead market in accordance with the provisions of MR Chapter 7, or an administrative price, where applicable. For greater certainty, the locational marginal price for intertie transactions includes both the intertie border price and the intertie congestion price;

resource means an IESO-modelled representation of one or more generation units, electricity storage units, or sets of loads equipment, existing within the IESO's systems, which is used for the secure operations of the IESO control area, or to participate in the IESO-administered markets; or a boundary entity resource; or virtual zonal resource;

Note: the proposed definition for 'resource' which was provisionally approved in the first batch of MRP definitions is currently included in the interim alignment batch of definitions with edits as shown. The addition of "or virtual zonal resource" is an additional edit proposed as part of this definitions package.

~~*shared daily energy limit* means a registration parameter that indicates whether multiple dispatchable hydroelectric generation resources registered by the same market participant draw water from the same forebay;~~

Previously Released with MR-00461-R02 – Calculation Engines: Batch 3 Definitions – used in Settlements Batch

Note: Proposed edits to definitions highlighted in grey

cascade group means one or more *forebays* in a cascade river system in which all *resources* registered across each *forebay* have the same owner;

day-ahead market calculation engine means an algorithm that consists of three passes, where each pass executes one or more optimization problems solved by the IESO to determine schedules and prices in accordance with MR Ch. 7 App. 7.5 to meet the needs of the *day-ahead market*;

delivery point means a uniquely identified reference point determined in accordance with MR Ch. 9, s. 2.4A.1 and used for *settlement* purposes in the day-ahead market and real-time markets, other than in respect of transactions involving the transmission of *energy* or *ancillary services* into or out of the *IESO-controlled grid* from a neighbouring *transmission system*;

forbidden region means an predefined operating range between the applicable lower limit and upper limit within which a hydroelectric *generation facility resource* cannot maintain steady operation without causing equipment damage. A hydroelectric *generation facility resource* may have more than one *forbidden region*;

forebay means a body of water within a cascade group upon which one or more hydroelectric generation resources that have the same registered market participant may be registered;

linked forebay means a forebay that is upstream or downstream from another forebay in the same cascade group, and that has a time lag relationship and MWh ratio with the other forebay;

load equipment means equipment within a load facility that draws electrical energy from the integrated power system;

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 or collectively from all hydroelectric generation resources registered on the same forebay;

minimum hourly output means the minimum amount of energy, in MWh, that must be scheduled for a hydroelectric generation resource within a dispatch hour if scheduled above 0 MWh;

MWh ratio means the proportional amount of energy that must be scheduled on the resources registered on the downstream linked forebay after the time lag has elapsed for every MWh of energy scheduled on the resources registered on the upstream linked forebay;

non-quick start resource means a generation resource or an electricity storage resource whose electrical energy output cannot 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;

Ontario zonal price means the price of energy in Ontario, prior to any adjustments made as a result of the load forecast deviation charge, applicable to non-dispatchable loads, as ~~as~~ determined in the real-time market or in the day-ahead market in accordance with the provisions of MR Ch. 7, or an administrative price, where applicable;

pre-dispatch schedule means an hourly schedule for the remaining hours of a dispatch day and may include all hours of the next dispatch day as determined by the pre-dispatch calculation engine;

real-time schedule means ~~;~~, in respect of a *resource* that is not a *boundary entity resource*, a *dispatch schedule* for a *dispatch interval* as determined by the *real-time calculation engine* and, in respect of a *boundary entity resource*, the *interchange schedule* pertaining to it;

- (i) in respect of a *dispatchable generation resource*, a *dispatchable electricity storage resource*, or a *dispatchable load resource*, a *dispatch schedule* for a *dispatch interval* as determined by the *real-time calculation engine*;
- (ii) in respect of a *boundary entity resource*, an *interchange schedule*;
- (iii) in respect of an *hourly demand response resource*, a *schedule to reduce energy withdrawals* as determined by the relevant *pre-dispatch schedule*; or
- (iv) in respect of a *non-dispatchable generation resource* or *self-scheduling electricity storage resource* that intends to inject energy, a *schedule* as determined by the *real-time calculation engine*;

settlement floor price means the minimum price that a *market participant* may be charged or paid for energy and is established by the *IESO Board*;

single cycle mode means the mode of operating a *pseudo-unit* without the steam turbine generation unit(s) ~~the resource associated with the combustion turbine generation unit of a combined cycle plant without the resource associated with the steam turbine generation unit(s)~~;

virtual transaction means a transaction in the *IESO-administered markets* in the form described in MR Ch.7, s. 3.4.1.4B, 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*;

virtual transaction zone means a region internal to the *IESO control area* designated by the *IESO* for the purpose of conducting *virtual transactions*;

virtual zonal price means, in respect of a *virtual transaction zone*, the price of energy determined in the *day-ahead market* or *real-time market* in accordance with the provisions of MR Ch. 7;

virtual zonal resource means a construct existing within the *IESO's systems* that corresponds to a *virtual transaction zone*, that facilitates *virtual transactions*;

Appendix A

MR-00472-R00 – Replacement of the IESO Settlement System (RSS) – Amendments to Defined Terms: Included for Reference Only

dispute outcome means the outcome of a dispute resolution process that requires adjustments to one or more settlement statements, whether arising from good faith negotiations, mediations, or an arbitrator's order;

final recalculated settlement statement means the recalculated settlement statement issued by the IESO in accordance with either section 6.3.5(g) or section 6.3.16(g) of Chapter 9;

final settlement statement means the IESO's final statement of the payments to be made by or to a market participant with respect to a given billing period and, in respect of the settlement of the purchase or sale of transmission rights in the TR market, the IESO's final statement of the payments to be made by or to a TR holder with respect to a given TR auction or the final statement of the payments to be made by or to a TR holder with respect to a given billing period;

recalculated settlement statement means the IESO's recalculated statement of the payments to be made by or to a market participant with respect to a given billing period and, in respect of the settlement of the purchase and sale of transmission rights in the TR market, the IESO's recalculated statement of the payments to be made by or to a TR holder with respect to a given TR auction or the recalculated statement of the payments to be made by or to a TR holder with respect to a given billing period;

RSS commencement date means the date on which market rule amendment MR-00475-R00 comes into effect;

settlement statement means a preliminary settlement statement, ~~and/or~~ a final settlement statement, and/or a recalculated settlement statement;

settlement statement re-calculation means the re-calculation of a final settlement statement during the attempted resolution of a settlement dispute;