

# Market Rule Amendment Proposal Form

### Part 1 - Market Rule Information

Title:	MR-00481-R00	
Subject:	Market Renewal Program - Final Alignment	
Title:	Chapter 0.11 Definitions	
Nature of Proposal:	☐ Alteration ☐ Deletion ☒ Addition	
Chapter:	0.11	
Appendix:		
Sections:	N/A	
Sub-sections proposed for amending:	N/A	
Current Market Rules Baseline:		

## Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review	June 7, 2024
2.0	Draft for Technical Panel Review	July 2, 2024
3.0	Publish for Stakeholder Review and Comment	July 17, 2024
4.0	Submitted for Technical Panel vote	September 3, 2024
5.0	Recommended by the Technical Panel; submitted for IESO Board review	September 10, 2024

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 the market rules to support the implementation of the Market Renewal Program (MRP), via the Final Alignment (FA) Batch.

The FA Batch consolidates all Technical Panel provisionally recommended/IESO Board provisionally approved market rule amendments, with three types of further modifications:

- 1. Updates or corrections to earlier batches resulting from the ongoing implementation and engagement processes;
- 2. Transitional market rules required to facilitate the mechanics of transitioning from the old market to the renewed market; and
- 3. Administrative "conforming change" to reflect any updates or corrections, e.g. update to references and defined terms.

This proposal is based on input from various stakeholder engagement initiatives for the Market Renewal Program.

Further information on MRP can be found on the IESO's Market Renewal webpage.

#### Background

Previous drafts of MRP market rule amendments have been provisionally approved by the IESO Board. The Final Alignment batch consolidates these provisionally approved amendments, with amendments where required, into a single batch that will follow the formal process for market rule amendments, including a formal vote by Technical Panel to recommend the market rules for IESO Board consideration, and formal approval by the IESO Board.

Given the scope of changes being proposed by MRP, each market rule chapter is impacted. The Final Alignment batch is structured such that there is a proposal for each chapter, with separate proposals for appendices 7 and 9.

The implementation of MRP will require two parallel sets of market rules to exist concurrently; the legacy market rules and the renewed market rules. The renewed market rules, which these proposals will create, will be labelled with unique chapter numbers to delineate them from the legacy market rules. A new section A, and in some chapters a section B, details the transitional nature of the two sets of market rules. As the renewed market rules are new chapters, there are no changes tracked. For a tracked changes view compared against the current market rules baseline, please refer to the MRP <a href="Final Alignment">Final Alignment</a> page.

### Discussion

The accompanying <u>"Summary of Changes - Final Alignment (Readers Guide)"</u> provides a summary of the market rule amendments to the market rules.

Part 4 - Proposed Amendment

## Introduction

- A.1.1 This Chapter is part of the *renewed market rules,* which pertain to:
  - A.1.1.1 the period prior to a *market transition* insofar as the provisions are relevant and applicable to the rights and obligations of the *IESO* and *market participants* relating to preparation for operation in the *IESO* administered markets following commencement of market transition; and
  - A.1.1.2 the period following commencement of *market transition* in respect of all the rights and obligations of the *IESO* and *market participants*.
- A.1.2 All references herein to chapters or provisions of the *market rules* will be interpreted as, and deemed to be references to chapters and provisions of the *renewed market rules*.
- A.1.3 Upon commencement of the *market transition*, the *legacy market rules* will be immediately revoked and only the *renewed market rules* will remain in force.
- A.1.4 For certainty, the revocation of the *legacy market rules* upon commencement of *market transition* does not:
  - A.1.4.1 affect the previous operation of any *market rule* or *market manual* in effect prior to the *market transition*;
  - A.1.4.2 affect any right, privilege, obligation or liability that came into existence under the *market rules* or *market manuals* in effect prior to the *market transition*;
  - A.1.4.3 affect any breach, non-compliance, offense or violation committed under or relating to the *market rules* or *market manuals* in effect prior to the *market transition*, or any sanction or penalty incurred in connection with such breach, non-compliance, offense or violation; or
  - A.1.4.4 affect an investigation, proceeding or remedy in respect of:
    - (a) a right, privilege, obligation or liability described in subsection A.1.4.2; or
    - (b) a sanction or penalty described in subsection A.1.4.3.
- A.1.5 An investigation, proceeding or remedy pertaining to any matter described in subsection A.1.4.3 may be commenced, continued or enforced, and any sanction or penalty may be imposed, as if the *legacy market rules* had not been revoked.

#### 1. Definitions

#### In the market rules:

actual exposure means, the estimated net amount payable by or owing to a market participant at any given time, calculated by the *IESO* for a market participant pursuant to MR Ch.2 ss.5.5, 5C.3, or 5D.2;

adequacy means the ability of the *electricity system* to supply electrical demand and *energy* requirements at all times, taking into account *outages*;

adjustment period allocation refers to a means of allocating post-final adjustments to settlement amounts. This allocation is based on market participant activity in the energy market during the event that is the subject of the originating settlement adjustment;

administrative price means a price established by the *IESO* in the circumstances referred to and in accordance with MR Ch.7 s.8.4A;

advance approval means IESO approval of a planned outage before the scheduled start date of the planned outage. Advance approval includes quarterly advance approval, weekly advance approval, three-day advance approval and one-day advance approval;

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.5.8.2.5;

*affiliate*, with respect to a corporation, has the meaning ascribed thereto in the *Business Corporations Act* (Ontario);

alternative intertie reference level value means the intertie reference level value determined by the IESO pursuant to MR Ch.7 s.22.19.4;

alternative reference quantity value means the reference quantity value determined by the IESO pursuant to MR Ch.7 s.22.15.21;

*amend*, in relation to the *market rules*, means any change to the *market rules*, whether by amendment, alteration, addition or deletion;

amendment submission has the meaning ascribed thereto in MR Ch.3 s.4.2.4;

ancillary service means services necessary to maintain the reliability of the IESO-controlled grid, including, but not limited to, regulation, black start capability, voltage control, reactive power, operating reserve and any other such services established by the market rules,

ancillary service provider means a person who provides an ancillary service;

applicable law means all laws, regulations, other statutory instruments and rules and other documents of a legislative nature which apply to the IESO or to market participants, and all orders of a government, governmental body, authority or agency having jurisdiction over the IESO or a market participant including, but not limited to, any licence issued to the IESO or a market participant,

applicant has the meaning ascribed thereto in MR Ch.3 s.2.5.1;

application for authorization to participate means the form published by the IESO and by which a person may apply for authorization to participate in the IESO-administered markets or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled* grid;

Arbitration Act, 1991 means the Arbitration Act, 1991, S.O. 1991, c. 17;

arbitrator means a qualified person appointed pursuant to MR Ch.3 s.2.7 to arbitrate a dispute;

area control error or ACE means the instantaneous difference between actual and scheduled interchange, taking into account the effects of frequency bias;

attended means regularly staffed on a twenty-four hours a day, seven days a week basis;

auction capacity means an amount in megawatts of electricity available to be provided to the IESO-controlled grid, by capacity market participants in association with a capacity auction;

auction period means, with respect to a capacity auction, the length of time commencing with the opening of the window during which the IESO receives capacity auction offers, and finishing at the time at which the IESO publishes auction results;

authority centre means, in respect of a facility, an attended location at which indirect operational control of the facility is effected;

automatic generation control or AGC means the process that automatically adjusts the output from a *generation resource* or an *electricity storage resource* that is providing regulation;

automatic voltage regulation or AVR means the process that automatically adjusts the reactive output of a *generation unit*, *electricity storage unit*, or synchronous condenser to maintain the *unit* terminal voltage within a pre-determined range;

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;

availability de-rating factor means, in respect of an obligation period, a value which is assigned to a capacity auction resource, as determined in accordance with the applicable market manual;

availability window means the hours in an obligation period during which capacity auction resources are required to be available to provide auction capacity,

basecase means a model of electrical components of the IESO-controlled grid and neighbouring electricity systems. Such components may include but are not limited to transformers, generation facilities, electricity storage facilities, and transmission lines, and includes the steady-state, dynamic and short circuit attributes of each component where applicable;

BES exception applicant means (i) a market participant who owns IESO controlled-grid elements or *facilities* who applies to the *IESO* for a *BES exception*; or (ii) a *connection* applicant who applies to the IESO for a BES exception;

BES exception request means an application for the approval, amendment, termination, or transfer of a *BES exception* pursuant to MR Ch.5 s.3.2B;

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;

bidding limit means, in respect of a given TR participant, the amount calculated by the IESO for that TR participant in accordance with MR Ch.8 s.3.14.1;

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*;

black start capability means the capability of a generation facility to start without an outside electrical supply so as to be used to energize a defined portion of the IESO-controlled grid;

boundary entity means the set of boundary entity resources associated with an intertie zone;

boundary entity resource means a construct existing within the IESO's systems that facilitates intertie flow between the IESO-controlled grid and an intertie zone;

bulk electric system exception or BES exception is an exception from compliance with the requirements of NERC reliability standards relating to elements or facilities connected to the IESO controlled-grid in accordance with the Ontario-adapted NERC procedure for processing BES exceptions;

business day means any day other than a Saturday, a Sunday or a holiday as defined in section 88 of the *Legislation Act* and, where expressed by reference to the jurisdiction of a *market participant* other that the Province of Ontario, means any day other than a Saturday, a Sunday or a day on which banks are authorized or required to be closed in the jurisdiction of that *market participant*;

buying market participant means a market participant that is purchasing energy under a physical bilateral contract;

called capacity export means an energy export from the IESO control area that is supported by the capacity of a generation resource or the capacity for injection of an electricity storage resource within the IESO control area that has committed its capacity, or a portion thereof, to an external control area and that capacity has been called by the external control area operator in accordance with MR Ch.7 s.20.3;

Canadian prime interest rate means the base lending rate that the bank where the *IESO* settlement clearing account is maintained charges for commercial loans to its best and most creditworthy commercial customers;

capacity auction means an auction operated by the IESO to acquire auction capacity;

capacity auction capacity test means a test which is used to evaluate a capacity auction resource on their ability to provide capacity, as specified in the applicable market manual;

capacity auction clearing price means the price at which a capacity auction clears for an obligation period and is expressed in \$/MW-day;

capacity auction commitment period means the period of time for each capacity auction over which it secures capacity. It consists of two obligation periods;

capacity auction deposit means the deposit required to be made by a capacity auction participant in accordance with MR Ch.7 s.18, as a condition of participating in a capacity auction;

capacity auction dispatch test means a test conducted by the *IESO* in which capacity auction resources are evaluated on their ability to successfully respond to dispatch instructions as specified in the applicable market manual;

capacity auction eligible generation resource means a generation resource that is a non-committed resource, associated with a connected facility at the commencement of the capacity qualification process for a given capacity auction, and which is registered as dispatchable with the IESO prior to the obligation period in accordance with the timelines specified in the applicable market manual;

capacity auction eligible storage resource means an electricity storage resource that is a non-committed resource associated with a connected facility at the commencement of the capacity qualification process for a given capacity auction, and which is registered as dispatchable with the IESO prior to the obligation period in accordance with the timelines specified in the applicable market manual;

capacity auction offer means an offer(s) from a capacity auction participant, in the form of a price-quantity pair(s), to provide auction capacity through a capacity auction resource for an applicable obligation period, reflecting the amount of auction capacity that the capacity auction participant can reliably and responsibly provide if received as a capacity obligation, and which offer amount is no greater than the capacity auction participant's unforced capacity;

capacity auction participant means a person that is authorized to participate in a capacity auction and submit capacity auction offers,

capacity auction reference price represents the price at which resources would be incentivized to enter the market and recover the necessary costs to make their capacity available, recognizing their revenue opportunities and avoided costs in the *energy market*. The reference price is directly associated with the *target capacity* as another key reference point in the demand curve;

capacity auction resource means a resource specified in MR Ch.7 s.19.1.2 and is utilized by a capacity auction participant to satisfy a capacity obligation;

capacity auction zonal constraints means the minimum or maximum amount of auction capacity, or virtual demand response capacity that a capacity auction seeks to secure for a specific electrical zone or group of electrical zones as detailed by the *IESO* in each preauction report;

capacity dispatchable load resource means a dispatchable load that has received a capacity obligation in a given capacity auction in accordance with the applicable market manual;

capacity export agreement means an agreement between the *IESO* and a control area operator regarding the management of called capacity exports, and which may include but is not limited to interconnection agreements;

capacity export request means a request submitted to the *IESO* by a *market participant* for approval to commit the Ontario-based capacity of a *generation resource* or the injection capacity of an *electricity storage resource* to an external *control area* in accordance with MR Ch.7 s.20.1;

capacity generation resource means a capacity auction eligible generation resource with a capacity obligation received in a given capacity auction in accordance with the applicable market manual;

capacity import call means an energy import from an external control area that is supported by the capacity of a generation unit or the capacity for injection of an electricity storage unit within the external control area that has committed its capacity, or a portion thereof, to the IESO control area and that capacity has been called by the IESO in accordance with MR Ch.7 s.19.9 or 19.9B;

capacity market participant means a capacity auction participant that has registered with the *IESO* as a capacity market participant, and who satisfies requirements contemplated in MR Ch.7s.18;

capacity obligation means the amount of cleared UCAP that a capacity market participant is required to provide from a particular capacity auction resource during each hour of the availability window of an obligation period;

capacity prudential support means the collateral provided by a market participant with a capacity obligation in accordance with the requirements contemplated in MR Ch.2 s.5B;

capacity prudential support obligation means the dollar amount of collateral required as specified by the *IESO* as a condition of satisfying a capacity obligation;

capacity qualification request means a request submitted to the *IESO* by a capacity auction participant which includes the *installed capacity* and all other applicable information, using the forms specified by the *IESO*, for the determination of the *unforced capacity* of a capacity auction resource in the capacity qualification process specified in the applicable *market manual*;

capacity storage resource means a capacity auction eligible storage resource with a capacity obligation received in a given capacity auction, in accordance with the applicable market manual;

capacity transferee means a capacity auction participant who is willing to accept all or a portion of a capacity obligation from a capacity transferor. A capacity transferee may be the same capacity auction participant as the capacity transferor;

capacity transferor means a capacity auction participant who intends to transfer all or a portion of its capacity obligation received through a capacity auction to a capacity transferee. A capacity transferor may be the same capacity auction participant as the capacity transferee;

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

certified black start facility means a generation facility contracted in accordance with MR Ch.9 s.4.2.2 that, to the satisfaction of the *IESO* acting reasonably, has complied with and continues to comply with equipment and staffing configurations, training and maintenance programs and inspection and testing regime as set out in the *market rules* or the *Ontario power system restoration plan*, and from which the *IESO* may direct the delivery of power without assistance from the electrical system;

charge type means the identifier designating an item on an invoice or a settlement statement;

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

cleared ICAP means, in respect of a capacity auction resource, an amount in megawatts of electricity, as determined in accordance with MR.Ch.7 s.18.8.2 and adjusted for any applicable capacity obligation buy-outs or capacity obligation transfers;

cleared UCAP means an amount in megawatts of electricity that a capacity auction resource cleared in a given capacity auction and adjusted for any applicable capacity obligation buyouts, capacity obligation transfers, or in-period cleared UCAP adjustments;

*close of banking business* means 3:00 p.m. on the day the relevant bank is open for business;

cogeneration facility means a generation facility that produces both electric energy and either steam or other forms of useful energy (such as heat), which are used for industrial, commercial, heating, or cooling purposes, and qualifies for treatment as a Class 43.1 facility or has qualified as a Class 34 facility under the Income Tax Act, R.S.C. 1985, c.1;

combined cycle plant means a group of generation resources associated with a generation facility in which energy is generated by one or more generation units that are combustion turbines and by one generation unit that is a steam turbine for which steam is supplied by

recovery of waste heat from one or more of the combustion turbines or by an independent injection of heat from duct firing;

commissioning electricity storage facility means an electricity storage facility located within the IESO control area that is either (i) newly constructed or (ii) significantly redesigned or rebuilt and is designated by the IESO as a commissioning electricity storage facility and, in either case, that has not yet completed the commissioning tests referred to in MR Ch.7 s.2.2D.4.2;

commissioning generation facility means a generation facility located within the IESO control area that is either (i) newly constructed or (ii) significantly redesigned or rebuilt and is designated by the IESO as a commissioning generation facility and, in either case, that has not yet completed the commissioning tests referred to in MR Ch.7 s.2.2A.4.2;

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;

confidential information means (i) information which has been supplied by the disclosing person in confidence implicitly or explicitly, where disclosure could reasonably be expected to: (a) prejudice significantly the competitive position of the disclosing person; (b) interfere significantly with the contractual or other negotiations of the disclosing person or another person; (c) result in undue loss or gain to the disclosing person or another person; (d) compromise the efficiency of the *IESO-administered markets*, (e) result in the disclosing person being in breach of a bona fide confidentiality agreement to which the information is subject; or (f) in the opinion of the *IESO*, pose a potential security threat to the *integrated power system*, the *IESO-administered markets*, or those of neighbouring jurisdictions; and (ii) information that, pursuant to the *market rules* or *applicable law*, the *IESO* or a *market participant* cannot disclose or make available to one or more persons;

confidentiality classification means a classification referred to in MR Ch.3 s.5.4.1;

connect means to form a physical link to or with the IESO-controlled grid through a connection facility;

connected facility means a facility connected to the IESO-controlled grid;

connected wholesale customer means a wholesale customer, other than a distributor, that is directly connected to the IESO-controlled grid;

connection agreement means an agreement entered into between a *transmitter* and a *market participant* governing the terms and conditions pursuant to which the *market participant* is *connected* to the *transmitter's transmission system*;

connection applicant means any of: (i) a market participant or person that applies to the IESO for approval of a new connection to the IESO-controlled grid or for approval of the

modification of an existing *connection* to the *IESO-controlled grid*, or (ii) a *distributor* in whose *distribution system* a *market participant* or person is or intends to be connected as an *embedded generator* or *embedded electricity storage participant* whose *facility* is or will be rated greater than 10 MW, that seeks to establish a new or modify an existing connection pursuant to MR Ch.4 s.6.1.6;

connection assessment means a study conducted by the *IESO* pursuant to MR Ch.4 s.6.1.5 to assess the impact of a new connection to the *IESO-controlled grid* or of the modification of an existing connection to the *IESO-controlled grid* on the reliability of the integrated power system;

connection charge means a charge for recovering costs associated with connection to a transmission system;

connection facility means a facility and equipment that allow a person to become connected to the IESO-controlled grid and includes, in the case of a distributor, distribution assets owned by a person other than the distributor that have been deemed by the OEB to be transmission assets;

connection point means a point of connection between the *IESO-controlled grid* and a generation facility, electricity storage facility, or load facility, or the point at which a neighbouring transmission system is connected to the *IESO-controlled grid*;

connection-related reliability information means any information provided or requested pursuant to MR Ch.7 s.2.2.5 and/or MR Ch.4 s.6.1.6;

connection request means a request submitted by a market participant or a connection applicant to a transmitter for connection to the IESO-controlled grid;

connection station service is station service associated with transformers, capacitors, switchgear, protection systems and control systems that connect generation facilities, electricity storage facilities, load facilities or distribution facilities to the IESO-controlled grid;

conservative operating state means the state described in MR Ch.5 s.2.5;

*consumer* means a person who uses, for the person's own consumption, electricity that the person did not generate;

contingency event means the unexpected failure of a single component or multiple components connected to the *electricity system*;

contracted ancillary services means ancillary services, other than operating reserve, procured by the *IESO* by contract rather than in the *real-time markets* in accordance with MR Ch.7 ss.9.2 to 9.5;

*contributor outage* means an *outage* of a *demand response contributor* where its energy consumption is less than 1% of its peak consumption measured in the prior three months, excluding any *outages* related to *generation units*;

control area means an area on an electricity system where supply and demand are kept in balance through dispatch by the control area operator;

control area operator means the person responsible for the secure operation of a control area, and includes independent system operators and regional transmission organizations in other jurisdictions;

control centre means, in respect of a facility or group of facilities, an attended location where signals and instructions for controlling the associated resources are received from an authority centre or the IESO, and transferred directly to the facilities for implementation;

costs of the arbitration means the fees and expenses of an arbitrator and any other costs and expenses related to the arbitration of a dispute under MR Ch.3 s.2, other than the legal costs and expenses of the parties to the dispute and of any intervenor;

costs of the mediation means the fees and expenses of a mediator and any other costs and expenses related to the mediation of a dispute under MR Ch.3 s.2, other than the legal costs and expenses of the parties to the dispute and of any person permitted by the mediator to attend a mediation session pursuant to MR Ch.3 s.2.6.6;

current period adjustment means an adjustment that is effected against amounts owing or payable in respect of transactions reflected in a settlement statement issued for the billing period or trading day during which the current period adjustment is effected regardless of the billing period or trading day during which the preliminary settlement statement to which the adjustment relates occurred;

curtailment means the involuntary curtailment of consumption by non-dispatchable loads or price responsive loads as a result of insufficient generation capacity or electricity storage capacity, of a limitation in the capacity of a transmission system or of actions taken by the IESO pursuant to MR Ch.5 to maintain the reliability of the IESO-controlled grid or of the electricity system;

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 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,

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,

day-ahead market expiration means the earliest time at which the IESO publishes and 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 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<sub>h</sub><sup>i</sup>) as defined in MR Ch.9 App.9.2;

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.4.8.1.4;

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,

day-ahead schedule means the hourly schedule for the 24-hour period of the next dispatch day as determined by the DAM calculation engine during the day-ahead market,

data collection system means a means of extracting metering data from a metering installation and transferring such metering data into a remote metering database;

data logger means a device designed to be capable of reading and holding data until that data is collected;

default amount means a dollar amount by which a market participant has defaulted upon its obligations to settle with the IESO and shall, for purposes of the imposition of a default levy, be calculated in accordance with MR Ch.2 s.8.3.1 or 8.5.1;

default interest means interest at the default interest rate;

default interest rate means the interest rate calculated as the Canadian prime interest rate plus 2%;

default levy means a levy imposed by the IESO on non-defaulting market participants in accordance with MR Ch.2 s.8;

default protection amount means a component of the maximum net exposure that represents the dollar estimate of the additional debt that a market participant could accumulate in the real-time market or day-ahead market between the time that a market participant commits an event of default and the time a market participant could be removed from the real-time market or day-ahead market, determined from time to time by the IESO for a market participant in accordance with MR Ch.2 s.5.3.8 or s.5C.1.7;

defaulting market participant means a market participant that is in default of payment in respect of monies owing to the IESO under the market rules;

defined meter point means (a) in respect of a facility connected to the IESO-controlled grid by a connection facility that is a radial line designated by the IESO for such purpose, the point at a voltage above 50 kV at which the designated radial line is connected to (i) the high voltage bus of the facility, or (ii) the facility, if there is no such high voltage bus; (b) in respect of a facility connected to the IESO-controlled grid by a connection facility other than one referred to in (a), the point at a voltage above 50 kV at which the connection facility is connected to the IESO-controlled grid; and (c) in respect of an embedded market participant, the point at which the embedded market participant's facility is connected to the distribution system within which it is embedded;

delivery point means a uniquely identified reference point determined in accordance with MR Ch.9 s.2.5 and used for *settlement* purposes in the *day-ahead market* and *real-time market*, 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*;

demand means the rate at which electric *energy* is delivered to or by a system or part of a system, generally expressed in kilowatts or megawatts, at a given instant or averaged over any designated interval of time;

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 capacity means the quantity of load reduction provided by dispatchable loads and/or hourly demand response resources;

demand response contributor means load equipment that is associated with an hourly demand response resource and is used to satisfy in whole or a portion of a capacity

obligation. Demand response contributors are registered by capacity market participants as part of the contributor management process detailed in 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, except during the capacity auction capacity test testing window, 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;

demand response resource means, in a capacity auction, either an hourly demand response resource or a capacity dispatchable load resource;

disaster recovery plan means the plan for maintaining IESO settlement functions in the event of a disaster;

disconnect means to separate facilities or equipment from the IESO-controlled grid, a transmission system, a distribution system or from a host market participant, as the case may be, and, in the case of a distributor that is connected to the IESO-controlled grid by distribution assets owned by a person other than the distributor that have been deemed by the OEB to be transmission assets, to separate the distributor from those assets;

disconnection order means an order issued by the *IESO* to any one of, or a combination of, a *transmitter*, a *distributor* or other *market participant*, directing such *transmitter*, *distributor* or other *market participant*, as applicable, to *disconnect facilities* or equipment specified within such order;

dispatch means the process by which the *IESO* directs the real-time operation of a *resource* to cause a specified amount of electric *energy* or *ancillary service* to be provided to or taken off the *electricity system*;

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 associated resources based on the dispatch instructions received from the IESO;

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

dispatch day means a period from midnight EST to the following midnight EST;

dispatch hour means a one-hour period within a dispatch day,

dispatch instructions means in respect of a resource other than a boundary entity resource, a physical operating instruction issued by the *IESO* either in the real-time dispatch process or in those dispatch intervals when administrative prices were applied pursuant to MR Ch.7

s.8.4A or the IESO-administered markets are suspended pursuant to MR Ch.7 s.13, and, in respect of a boundary entity resource, the interchange schedule pertaining to it;

dispatch interval means a five-minute interval within a dispatch hour,

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,

dispatch workstation means the communication equipment that is required to be installed and maintained in accordance with MR Ch.2 App.2.2 for the purposes referred to in MR Ch.2 App.2.2 s.1.3.1;

dispatchable means being subject to dispatch;

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 realtime market, and, for greater certainty, excludes hourly demand response resources,

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;

dispute resolution panel means the panel of the same name established by the IESO pursuant to the Governance and Structure By-law,

distribute, with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less;

distribution system means a system for distributing electricity, and includes any structures, equipment or other things used for that purpose;

distributor means a person who owns or operates a distribution system;

duct firing 10-minute operating reserve capability means the ability of a pseudo-unit to be scheduled to provide synchronized or non-synchronized ten-minute operating reserve in the duct firing region;

dynamic constrained area or DCA means a potential constrained area designated as a dynamic constrained area pursuant to MR Ch.7 s.22.10.3;

economic withholding means submitting financial dispatch data parameters or non-financial dispatch data parameters outside a resource's reference level values by more than the applicable threshold;

elapsed time to dispatch means the minimum amount of time, in minutes, between the time at which a start-up sequence is initiated for a generation resource or an electricity storage resource and the time at which it becomes dispatchable, including 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;

Electricity Act, 1998 means the Electricity Act, 1998, S.O. 1998, c. 15, Schedule A;

*Electricity and Gas Inspection Act* means the Electricity and Gas Inspection Act, R.S.C. 1985, c. E-4;

*electricity storage capacity* means the maximum power that an *electricity storage unit* or *electricity storage facility* can supply, usually expressed in megawatts (MWs);

electricity storage energy rating means the maximum amount of stored energy of an electricity storage unit or electricity storage facility, usually expressed in megawatt hours (MWhs);

electricity storage facility means a facility that is comprised of one or more electricity storage units and includes any structures, equipment or other things to support the functioning of its electricity storage units;

*electricity storage facility size* means the greater of the absolute values of the maximum injection and maximum withdrawal capabilities of the *electricity storage facility* expressed in either megawatts (MWs) or megavolt amperes (MVAs);

*electricity storage participant* means a person who owns or operates an *electricity storage facility*;

electricity storage resource means a resource modelled to represent one or more electricity storage units;

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

*electricity storage unit* means the equipment used for the sole purpose of withdrawing electricity from the *electricity system*, storing that electricity, and re-injecting it, or a portion thereof, into the *electricity system*;

*electricity storage unit size* means the greater of the absolute values of the maximum injection and maximum withdrawal capabilities of the *electricity storage unit* expressed in either megawatts (MWs) or megavolt amperes (MVAs);

*electricity system* means the *integrated power system* and all *facilities* registered with the *IESO* in accordance with MR Ch.7 s.2 that are connected to that system;

*electronic funds transfer* means the transfer of funds between bank accounts by electronic means;

*electronic information system* means the internet or the real-time communication network that is used for the exchange of information referred to in MR Ch.2 App.2.2 s.1.4.1 via the *participation workstation*;

embedded connection point means the point of connection between a facility and a distribution system;

embedded electricity storage facility means an electricity storage facility within the IESO control area and is not directly connected to the IESO-controlled grid but is instead connected to a distribution system;

embedded electricity storage participant means an electricity storage participant whose electricity storage facility is within the IESO control area and is not directly connected to the IESO-controlled grid but is instead connected to a distribution system;

embedded generator means a generator whose generation facility is within the IESO control area and is not directly connected to the IESO-controlled grid but is instead connected to a distribution system and embedded generation facility shall be interpreted accordingly;

embedded load consumer means a person that owns or operates an embedded load facility;

embedded load facility means a load facility within the IESO control area that is not directly connected to the IESO-controlled grid but is instead connected to a distribution system;

embedded market participant means a market participant whose facility is within the IESO control area and is not directly connected to the IESO-controlled grid but is instead connected to a distribution system;

embedded registered wholesale meter (RWM) means a registered wholesale meter that is not a primary registered wholesale meter and that measures flows that are also part of the flows measured by a primary registered wholesale meter;

*emergency* means any abnormal system condition that requires remedial action to prevent or limit loss of a *transmission system* or generation supply that could adversely affect the *reliability* of the *electricity system*;

emergency energy means energy acquired by the IESO from another control area or provided by the IESO to another control area in order to maintain the reliability of the IESO-controlled grid or of a transmission system within such other control area;

emergency operating state means the state described in MR Ch.5 s.2.3;

*emergency preparedness plan* means a plan prepared by the *IESO* or required to be prepared by a *market participant* and submitted to the *IESO* in accordance with MR Ch.5 s.11.2.1;

energy means, in respect of the market rules other than MR Ch.5 or MR Ch.6, real energy only and may, in respect of MR Ch.5 or MR Ch.6, mean both real energy and reactive energy if the context so requires;

energy bid intertie reference level means an intertie reference level for an energy bid;

energy limited resource means a dispatchable generation resource or dispatchable electricity storage resource with a maximum daily energy limit for the applicable dispatch day, energy offer intertie reference level means an intertie reference level for an energy offer,

energy offer reference level means a reference level for an energy offer,

energy market means the day-ahead market and real-time market for energy administered by the *IESO* pursuant to MR Ch.7, in which energy offers and energy bids are cleared and a market price for energy is determined;

energy per ramp hour means the average amount of energy, in MWh, that a generation resource is expected to produce in each hour that is part of the ramp hours to minimum loading point;

energy per ramp hour reference level means a reference level for a resource's energy per ramp hour,

energy ramp rate reference level means a reference level for a resource's ramp rate for energy;

energy trader means a market participant authorized by the IESO to participate in the energy market by importing, exporting, and wheeling energy or operating reserve;

enhanced combined cycle facility means a generation facility associated with one or more combined cycle plants in which the steam utilized to generate electricity in one or more of the steam turbines is supplemented by recovery of waste heat from an independent industrial process/processes such as waste heat from the gas turbine exhaust of a natural gas compressor station, and qualifies for treatment as a Class 43.1 facility or has qualified as a Class 34 facility under the Income Tax Act, R.S.C. 1985, c.1.;

estimated market prices means the price forecasts developed by the *IESO* for the purposes of determining market participant maximum net exposures and prudential support obligations;

event of default means an event referred to in MR Ch.3 s.6.3.1;

*exemption* means an exclusion from one or more specific obligations or standards which are or may be imposed on the *exemption applicant* or in respect of the *exemption applicant's facilities,* equipment or *resources* pursuant to the *market rules, market manuals* or from any standard, policy or procedure established by the *IESO* pursuant to the *market rules*;

exemption applicant means the IESO or a person, including a market participant, who submits an application for an exemption;

exemption application means the material submitted by the exemption applicant pursuant to the practice and procedure established by the *IESO Board* for the processing of an exemption;

existing support has the meaning ascribed thereto in MR Ch.2 s.5.2.5;

export transmission service means the transmission service relating to the use of the IESO-controlled grid for the transmission of energy out of the IESO control area into a neighbouring transmission system and in respect of which charges are required to be collected by the IESO pursuant to MR Ch.10 s.4;

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 previous 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;

facility means a generation facility, a load facility, an electricity storage facility, a connection facility, a transmission system, or a distribution system, located within the IESO control area, or any other equipment that is a component or part of the electricity system;

federal metering requirements means all requirements relating to meters and to metering installations imposed by or under the authority of an Act of Parliament;

*final recalculated settlement statement* means the *recalculated settlement statement* issued by the *IESO* in accordance with either section 6.3.6(b) or section 6.3.17(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 of transmission rights in the TR market, the IESO's final statement of the payments to be made by a TR holder with respect to a given TR auction or

the final statement of the payments to be made to a *TR holder* with respect to a given *billing period*;

financial dispatch data parameters means a subset of dispatch data that are represented as financial values and for which the IESO must determine reference levels;

flexible nuclear generation means the component of a nuclear generation resource that has flexibility for reductions due to the operation of condenser steam discharge valves, and is made available at the sole discretion of the flexible nuclear generator to manoeuvre without requiring the resource to shut down under normal operations, while respecting safety, technical, equipment, environmental and regulatory restrictions;

flexible nuclear generator means a generator whose generation resource has a component classified as flexible nuclear generation;

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

force majeure event means, in relation to a person, any event or circumstance, or combination of events or circumstances, (i) that is beyond the reasonable control of the person; (ii) that adversely affects the performance by the person of its obligations under these market rules; and (iii) the adverse effects of which could not have been foreseen and prevented, overcome, remedied or mitigated in whole or in part by the person through the exercise of diligence and reasonable care, and includes, but is not limited to, acts of war (whether declared or undeclared), invasion, armed conflict or act of a foreign enemy, blockade, embargo, revolution, riot, insurrection, civil disobedience or disturbances, vandalism or act of terrorism; strikes, lockouts, restrictive work practices or other labour disturbances; unlawful arrests or restraints by governments or governmental, administrative or regulatory agencies or authorities; orders, regulations or restrictions imposed by governments or governmental, administrative or regulatory agencies or authorities unless the result of a violation by the person of a permit, licence or other authorization or of any applicable law, and acts of God including lightning, earthquake, fire, flood, landslide, unusually heavy or prolonged rain or accumulation of snow or ice or lack of water arising from weather or environmental problems; provided however, for greater certainty, that (i) the lack, insufficiency or non-availability of funds shall not constitute a force majeure event, (ii) an act of the IESO effected in accordance with the market rules or with the provisions of any form, policy, guideline or other document referred to in MR Ch.1 s.7.7 shall not constitute a force majeure event in respect of a market participant, and (iii) an act of a market participant effected in accordance with the market rules or with the provisions of any form, policy, guideline or other document referred to in MR Ch.1 s.7.7 shall not constitute a *force majeure event* in respect of the *IESO*;

*forced outage* means an unanticipated intentional or automatic removal from service of equipment or the temporary de-rating of, restriction of use or reduction in performance of equipment;

*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;

*forecasting entity* means the entity or entities contracted by the *IESO* to provide forecasting services relating to *variable generation*;

forward period means the period of time beginning three (3) business days following a capacity auction, to the commencement of an obligation period;

*funds transfer process* means the process by which funds are transferred between the respective bank accounts of the *IESO*, *market participants* and *transmitters*;

*generation capacity* means the maximum power that a *generation unit*, generation station or other electrical apparatus can supply, usually expressed in megawatts;

generation facility means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system, and may be composed of one or more generation units including any structures, equipment or other things used for that purpose;

generation resource means a resource modelled to represent one or more generation units;

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;

*generation unit* means the principal equipment at a *generation facility* used to generate electricity, together with all internally related equipment essential to its functioning as a single unit distinguishable from other *generation units*;

generator means a person who owns or operates a generation facility;

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* that is not a *pseudo-unit* or a *GOG-eligible resource* that is a *pseudo-unit*, respectively;

generator-backed capacity auction eligible import resource means one or more generator-backed import contributors. No portion of the capacity that is being offered into the IESO capacity auction may be over committed capacity;

generator-backed capacity import resource means a generator-backed capacity auction eligible import resource with a capacity obligation received in a given capacity auction in accordance with the applicable market manual;

generator-backed import contributor means an existing in-service generation facility or electricity storage facility associated with a generator-backed capacity auction eligible import resource, and which is located in a neighbouring control area that has an agreement with the IESO to allow for the trade of capacity, is able to qualify capacity in accordance with the applicable market manual, has been in operation for at least one year prior to the capacity auction, is a resource type that is currently enabled to participate in the IESO's capacity auction, and is able to transmit energy from the generation facility or the electricity storage facility to the Ontario border;

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;

global market power reference intertie zone means an intertie zone designated pursuant to MR Ch.7 s.22.11.1;

good utility practice means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in North America;

Governance and Structure By-law means the by-law of the IESO made pursuant to subsection 22(2) of the <u>Electricity Act</u>, 1998;

gross MW as related to active power output from an electricity storage unit, generation unit, or facility, is the total amount of active power produced by such unit or facility as measured at the unit's terminal or as measured as a sum of active power produced by the facility's individual units;

gross MX as related to reactive power output from an *electricity storage unit*, generation unit, or facility, is the total amount of reactive power produced by such unit or facility as measured at the unit's terminal or as measured as a sum of reactive power produced by the facility's individual units;

*high priority path facility* means a voice communication facility that meets the requirements of MR Ch.2 App.2.2 s.1.1.7;

high-risk operating state means the state described in MR Ch.5 s.2.4;

hourly demand response resource means the capacity auction resource type that has received a capacity obligation in a given capacity auction and is used by a capacity market participant to satisfy a capacity obligation on an hourly basis and is activated by the IESO in accordance with MR Ch.7 s.19.4;

hourly must run means the quantity, in MWh, below which a dispatchable hydroelectric generation resource is incapable of responding to dispatch instructions due to specific must run conditions which could reasonably be expected to endanger the safety of any person, damage equipment, or violate any applicable law;

hourly uplift means the uplift payments that are determined for each hour based on realtime market and day-ahead market results in that hour;

*IESO* or the *Independent Electricity System Operator* means the Independent Electricity System Operator, which is the continuation of the Independent Electricity Market Operator established under Part II of the *Electricity Act, 1998*;

*IESO adjustment account* means the *settlement account* operated by the *IESO* which is used for adjustments in *settlement* payments after a preliminary market *settlement* has been made;

IESO-administered markets means the markets established by the market rules;

*IESO administration charge* means the charge imposed by the *IESO* on *market participants* for the purpose of recovery by the *IESO* of its administration costs;

IESO Board means the Board of Directors of the IESO;

*IESO catalogue of reliability-related information* means the catalogue described in MR Ch.5 s.14.1.3;

*IESO control area* means that area, including the *IESO-controlled grid*, with respect to which the *IESO* is the *control area operator*,

*IESO-controlled grid* means the *transmission systems* with respect to which, pursuant to *operating agreements*, the *IESO* has authority to direct operations;

*IESO-controlled grid model* means the model capable of being used by the *day-ahead market calculation engine,* the *pre-dispatch calculation engine,* or the *real-time calculation engine* and described in MR Ch.7 s.3A.1.3;

*IESO payment date* means the date on which the *IESO* is to make *settlement* payments to *market participants*;

*IESO prepayment account* means the *settlement account* operated by the *IESO* to hold payments by *market participants* prior to the relevant *market participant payment date* to which such payments relate;

*IESO settlement clearing account* means the *settlement account* operated by the *IESO* for holding market *settlement* payments made to the *IESO*;

*IESO Settlement Schedule & Payments Calendar or SSPC* means the *IESO*'s calendar of dates for providing *settlement* information to *market participants* and of dates on which *settlement* payments must be made by and to the *IESO*;

*information confidentiality catalogue* means the applicable *market manual* listing information and its *confidentiality classification* determined pursuant to MR Ch.3 s.5;

installed capacity or ICAP means the amount, in MW, of electricity submitted by a capacity auction participant, in accordance with the applicable market manual, during the IESO's capacity qualification process that reflects a capacity auction resource's maximum seasonal generation capability, load reduction capability, or import capability;

instance of intertie economic withholding means a dispatch day for which at least one of a market participant's bids or offers on a boundary entity resource failed a conduct test and associated impact test used to assess intertie economic withholding in an uncompetitive intertie zone in either the day-ahead market or real-time market;

instance of physical withholding means a dispatch day for which at least one of a market participant's offers for a resource failed a conduct test and associated impact test used to assess physical withholding in either the day-ahead market or real-time market;

*instrument transformer* means an iron cored device that isolates a *meter* from the primary voltage while passing a correct value of the primary measured quantity to the *meter*;

integrated power system means the IESO-controlled grid and the structures, equipment and other things that connect the IESO-controlled grid with transmission systems and distribution systems in Ontario and transmission systems outside Ontario;

*interchange schedule* means the scheduled *intertie* 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;

interchange schedule data means data pertaining to interchange schedules,

*interconnected systems* means two or more individual *transmission systems* that have one or more *interties*;

*interconnected transmitter* means a *transmitter* whose transmission facilities are outside the Ontario *control area* and has entered into an *interconnection agreement* with the *IESO*;

interconnection agreement means an agreement between the IESO and another control area operator, security coordinator or interconnected transmitter regarding the operation of an interconnection with the IESO-controlled grid;

*interconnection* means a connection between the *IESO-controlled grid* and a *transmission* system outside the *IESO control area* that have one or more interconnecting *interties*;

intermittent generation resource means a generation resource that generates on an intermittent basis as a result of factors beyond the control of the generator unless limited by dispatch, and excludes a variable generation resource;

intertie means a transmission line which forms part of an interconnection;

*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;

intertie economic withholding means submitting offers or bids on a boundary entity resource that are outside a boundary entity resource's intertie reference level values by more than the applicable threshold;

*intertie metering point* means a point within an *intertie zone*, at which the *IESO* obtains *interchange schedule data* for the purposes of the *settlement process*;

*intertie reference level* means an *IESO*-determined formula to calculate an *intertie reference level value*;

intertie reference level value means an IESO-determined estimate of a dispatch data parameter that a market participant would have submitted for a boundary entity resource if such boundary entity resource were subject to unrestricted competition;

*intertie zone* means a market region designated by the *IESO* which is connected to the *IESO-controlled grid* by an *intertie*;

*invoice* means an invoice from the *IESO* to a *market participant* which sets forth a *settlement amount*;

*lead time* means the amount of time, in hours, required for a *generation resource* to complete its start-up procedures and reach its *minimum loading point* from the applicable *thermal state*;

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

*legacy market rules* means the baseline of *market rules* and *market manuals* in effect immediately prior to *the market transition,* but excluding the *renewed market rules*;

*licence* means a licence issued by the Ontario Energy Board pursuant to the <u>Ontario Energy</u> <u>Board Act, 1998</u>;

*line connection service* means the *transmission service* relating to the use of the line connection assets of a *transmitter* whose *transmission system* forms part of the *IESO-controlled grid* and in respect of which charges are required to be collected by the *IESO* pursuant to MR Ch.10 s.5.1.1;

*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*;

*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;

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

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

load resource means a resource modelled to represent one or more sets of load equipment;

*load serving breaker* means a device, or sequence of devices, which provide a single path for *energy* to flow between a *connection facility* and a *load facility*,

local area has the meaning ascribed thereto in MR Ch.5 s.5.4.1;

locational marginal price or LMP means, in respect of a delivery point, 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 Ch.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;

long-term auction means a TR auction conducted by the IESO for the purchase of long-term transmission rights and that may also include the purchase of short-term transmission rights,

long-term transmission right means a transmission right that is valid for a period of one year;

lower energy limit means the lowest energy amount to which an electricity storage unit can be consistently discharged without damage beyond expected degradation from normal use;

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

main/alternate metering installation means a metering installation comprised of two revenue *meters* measuring the same electrical quantities;

major dispatchable load facility means a load facility associated with a dispatchable load that is rated at 100 MVA or higher; that comprises sets of *load equipment* that are associated with *dispatchable loads*, the ratings of which in the aggregate equals or exceeds 100 MVA; or that is re-classified as a major dispatchable load facility pursuant to MR Ch.2 App.2.2 s.1.5.1 or MR Ch.4 s.7.8.1;

major electricity storage facility means an electricity storage facility that includes an electricity storage unit with an electricity storage unit size rated at 100 MVA or higher; or that comprises multiple *electricity storage units*, the aggregated *electricity storage unit size* ratings of which equals or exceeds 100 MVA; or that is re-classified as a major electricity storage facility pursuant to MR Ch.2 App.2.2 s.1.5.1A or MR Ch.4 s.7.8.2A;

major generation facility means a generation facility that includes a generation unit associated with a *resource* that provides *regulation*; that includes a *generation unit* that is rated at 100 MVA or higher; that comprises generation units the ratings of which in the aggregate equals or exceeds 100 MVA; or that is re-classified as a major generation facility pursuant to MR Ch.2 App.2.2 s.1.5.1or or MR Ch.4 s.7.8.1;

margin call means a notice given by the IESO to a market participant pursuant to MR Ch.2 ss.5.4.2, 5C.2.2, or 5D.3.2 indicating that the actual exposure of that market participant equals or exceeds its trading limit,

market assessment unit means the entity established by the IESO pursuant to MR Ch.3 s.3.2.1;

market commencement date means the date on which the real-time market commences operation;

*market control entity* means a person or entity disclosed by a *market participant* to the *IESO* pursuant to MR Ch.7 s.22.9.2 of the *market rules*;

market control entity for physical withholding means the market control entity that a market participant has designated pursuant to MR Ch.7 ss 22.9.3-22.9.7 of the market rules;

*market creditor* means a person, including a *market participant*, that is owed monies by the *IESO* as a result of sales made or contracts existing in the *IESO-administered markets*,

market debtor means a person, including a market participant, that owes monies to the IESO as a result of purchases made or contracts existing in the IESO-administered markets,

market manual means a published document that is entitled as such and that prescribes procedures, standards and other requirements to be followed, met or performed by market participants, the IESO and other persons in fulfilling their respective obligations under the market rules,

market monitoring unit means the entity that monitors the markets administered by a control area operator or security coordinator;

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

market participant means a person who is authorized by the market rules to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* and includes a person that has received conditional authorization under MR Ch.2 s.4;

*market participant payment date* means the date on which *market participants* are to make *settlement* payments to the *IESO*;

*market participant settlement account* means an account designated by the particular *market participant* as the account from and into which *settlement* payments are made;

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

market rules means rules made under section 32 of the Electricity Act, 1998;

market surveillance panel means the panel of the same name continued as a panel of the OEB in accordance with subsection 4.3.1(1) of the <u>Ontario Energy Board Act, 1998</u>;

market transition means the process of enabling the IESO to administer the IESO-administered markets and dispatch the IESO-controlled grid as a single-schedule system

with *locational marginal prices*, commencing on a date specified by the *IESO* pursuant to MR Ch.7 s.13.2.4.5 and ending on the *market transition completion;* 

market transition completion means the date specified by the *IESO* pursuant to MR Ch.7 s13.2A.8 of the *market rules;* 

*market transition error* means an error during a *market transition* determined by the *IESO* based on the criteria in MR Ch.7 s.13.2A.7 of the *market rules*;

maximum continuous rating means the gross or net maximum electrical output (in megawatts) which a *generation unit* or generating station is currently capable of producing continuously. This may include seasonal effects or other "long-term" deratings;

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 market clearing price or MMCP means the maximum price that a market participant may be charged or paid for energy;

*maximum number of starts per day* means the number of times that a *resource* can be started within a *dispatch day*;

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

maximum net exposure means a component of the prudential support obligation that reflects the IESO's estimate of the net amount a market participant will owe to the IESO calculated from time to time by the IESO for a market participant in accordance with MR Ch.2 s.5.3 or s.5C.1;

maximum operating reserve price or MORP means the maximum price that can be determined or paid to a market participant for operating reserve;

*mediator* means a qualified person appointed pursuant to MR Ch.3 s 2.6 to mediate a dispute;

*meter* means a device that measures and records active *energy*, reactive *energy* or both and shall be deemed to include the data logger but to exclude the instrument transformers,

meter point means, in respect of a load facility and of a generation facility or electricity storage facility that is injecting, with respect to which the current transformers are located on the output side of the *generation facility* or *electricity storage facility*, the physical location of the current transformers used to measure power flow and, in respect of a generation facility or an electricity storage facility with respect to which the current transformers are located on the grounded side of the *generation facility*, or the *electricity* storage facility the physical location of the voltage transformers;

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

metering data means electrical quantities measured and recorded by a metering installation;

metering database means an information system established and maintained by the IESO in accordance with MR Ch.6 for the purpose of storing metering data;

metering installation means any apparatus, including but not limited to a registered wholesale meter used to measure electrical quantities and includes the communication system by which *metering data* is transferred to the relevant telecommunications network through which *metering data* is transferred to the communication interface of the *metering* database;

metering interval means the five-minute period over which metering data is collected;

metering registry means the information system established and maintained by the IESO in accordance with MR Ch.6;

metering service provider means a person that provides, installs, commissions, registers, maintains, repairs, replaces, inspects and tests metering installations,

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 means, for each thermal state, the minimum time, in hours, between the time a *generation resource* was last at its *minimum loading point* before de-synchronization and the time the *generation resource* reaches its *minimum loading point* again after synchronization;

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 means the number of hours that a generation resource must be operating at *minimum loading point*, in accordance with its technical requirements;

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

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;

minimum loading point means the minimum output of energy that can be produced by a generation resource under stable conditions without ignition support, in accordance with the technical requirements of the associated facility,

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

minimum run-time means the number of hours required for the generation resource to ramp from a cold start to minimum loading point plus minimum generation block run-time, in accordance with technical requirements of the associated facility;

minimum shut-down time means the minimum time in hours between shutdown and startup 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;

minimum trading limit means the dollar amount determined from time to time by the IESO in accordance with MR Ch.2 s.5.3.4 or s.5C.1.5, that represents the lowest possible trading *limit* that may be calculated by the *IESO* for a *market participant* as permitted by the *market* rules;

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

minor amendment, in respect of the market rules, means an amendment to the market rules to correct a typographical or grammatical error, or to effect a change of a non-material procedural nature;

minor dispatchable load facility means a load facility associated with a dispatchable load that is rated at 1 MVA or higher but less than 20 MVA; that comprises sets of load equipment that are associated with dispatchable loads the ratings of which in the aggregate equals or exceeds 1 MVA but is less than 20 MVA; or that is re-classified as a minor dispatchable load facility pursuant to MR Ch.2 App.2.2 s.1.5.2 or MR Ch.4 s.7.8.2;

minor electricity storage facility means an electricity storage facility that includes an electricity storage unit with an electricity storage unit size rated at 1 MVA or higher but less than 20 MVA; or that comprises multiple *electricity storage units*, the aggregated *electricity* storage unit size ratings of which equals or exceeds 1 MVA but is less than 20 MVA; or that is re-classified as a *minor electricity storage facility* pursuant to MR Ch.2 App.2.2 s.1.5.1A or s.1.5.2A or MR Ch.4 s.7.8.2A or s.7.8.2B;

minor generation facility means a generation facility that includes a generation unit that is rated at 1 MVA or higher but less than 20 MVA; that comprises generation units the ratings of which in the aggregate equals or exceeds 1 MVA but is less than 20 MVA; or that is reclassified as a *minor generation facility* pursuant to MR Ch.2 App.2.2 s.1.5.1 or s.1.5.2 or MR Ch.4 s.7.8.1 or s.7.8.2;

monthly confirmation notice means the notice provided by the IESO to each market participant containing a summary of the market participant's settlement payments made during a calendar month and of the payments outstanding for that calendar month;

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;

narrow constrained area or NCA means a potential constrained area designated as a NCA pursuant to MR Ch.7 s.22.10.2;

neighbouring electricity system means a system comprising generation, transmission and load facilities that is connected to the *electricity system* via one or more *interconnections*,

NERC means the North American Electric Reliability Corporation;

NERC confidentiality agreement means an agreement required to be executed between NERC and all security coordinators and, where applicable, control area operators and interconnected transmitters which ensures that required data is available and that the confidentiality of such data is protected and disclosed only to those responsible for maintaining the operational security of electricity supply in North America;

net MW as related to active power output from an electricity storage unit, generation unit, or facility is equal to the applicable unit or facility's gross MW output less the applicable unit or facility station service MW load and MW losses to the defined meter point for that applicable unit or facility;

net MX as related to reactive power output from an electricity storage unit, generation unit, or facility is equal to the applicable unit or facility's gross MX output less the applicable unit or facility station service MX load and MX losses to the defined meter point for that applicable unit or *facility*;

*net transaction dollar amount* means an amount calculated in accordance with MR Ch.2 s.8.6.1.1;

network service means the *transmission service* relating to the use of the *IESO-controlled grid* for the transmission of *energy* and *ancillary services*, other than in respect of transactions to which *export transmission service* relates, and in respect of which charges are required to be collected by the *IESO* pursuant to MR Ch.10 s.3;

no margin call option means the option wherein a market participant elects, pursuant to MR Ch.2 s.5.6.4, to not be subject to margin calls;

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

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-defaulting market participant means, for purposes of the imposition of the default levy, every market participant other than the defaulting market participant whose default in payment has triggered the imposition of the default levy;

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;

non-financial dispatch data parameters means a subset of dispatch data that are not represented as financial values and for which the IESO must determine reference levels,

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 five minutes of the IESO's request when its equipment is not synchronized to the IESO-controlled grid;

normal operating state means the state described in MR Ch.5 s.2.2;

normal priority path facility means a voice communication facility that meets the requirements of MR Ch.2 App.2.2 s. 1.1.8;

notice of default levy means a notice issued by the IESO to a non-defaulting market participant in accordance with MR Ch.2 s.8.2.3 or 8.4.1;

notice of disagreement means a notice provided by a market participant in accordance with MR Ch.9 s.6.8 to the IESO in regard to a disagreement over a settlement statement;

notice of dispute has the meaning ascribed thereto in MR Ch.3 s.2.5.1;

notice of intent to suspend means a notice issued by the *IESO* to a market participant under MR Ch.3 s.6.3.3.1;

notice of intention means a notice issued by the *IESO* to a market participant under MR Ch.3 s.6.2B.2;

notice to elect shall be in such form as may be established by the *IESO* and means a written notice provided by the *market participant* to the *IESO* under MR Ch.3 s.6.2B.7;

NPCC means the Northeast Power Coordinating Council;

*OEB* or *Ontario Energy Board* means the Ontario Energy Board continued pursuant to section 4 of the *Ontario Energy Board Act, 1998*;

*OEFC* means the Ontario Electricity Finance Corporation established under Part V of the *Electricity Act, 1998;* 

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*;

Ontario electricity emergency plan means the plan describing the responsibilities of, and coordinating the actions of, market participants and the IESO for the purpose of alleviating the effects of an emergency on the integrated power system;

<u>Ontario Energy Board Act, 1998</u> means the Ontario Energy Board Act, 1998, S.O. 1998, c. 15, Schedule B;

*OPA* or *Ontario Power Authority* means the Ontario Power Authority established under Part II.1 of the *Electricity Act, 1998*;

Ontario power system restoration plan means the detailed plan indicating how to reenergize the *IESO-controlled grid* or part of it in case the *IESO-controlled grid* or part of it collapses; Ontario zonal price means the price of energy in Ontario, prior to any adjustments made as a result of the load forecast deviation adjustment, applicable to non-dispatchable loads, 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;

operating agreement means an agreement between the *IESO* and a *transmitter* which gives the *IESO* the authority to direct operations of the *transmitter's transmission system*, as contemplated in subsection 6(1)(b) of the *Electricity Act, 1998* and in subsection 70(2)(k) of the *Ontario Energy Board Act, 1998*;

*operating deviation* means the deviation described in MR Ch.9 s.3.9 between the performance of a *resource* and the performance required of that *resource* for the provision of *operating reserve*;

operating reserve means generation capacity, electricity storage capacity or load reduction capacity which can be called upon on short notice by the *IESO* to replace scheduled energy supply which is unavailable as a result of an unexpected outage or to augment scheduled energy as a result of unexpected demand or other contingencies;

operating reserve market means a physical market in which offers to supply each class of operating reserve are cleared consistent with the energy offers and energy bids;

operating reserve offer intertie reference level means an intertie reference level for an offer to provide operating reserve;

operating reserve offer reference level means a reference level for an offer to provide operating reserve;

operating reserve ramp rate reference level means a reference level for a resource's ramp rate for operating reserve;

operating result means the physical quantity or quantities measured or estimated by the *IESO* as delivered by a resource during the actual operation of the electricity system;

outage means the removal of equipment from service, unavailability for connection of equipment or temporary derating, restriction of use, or reduction in performance of equipment for any reason including, but not limited to, to permit the performance of inspections, tests or repairs on equipment, and shall include a planned outage, a forced outage and an automatic outage;

over committed capacity means capacity has been contracted to or otherwise obligated to be provided to the *IESO*, the *OEFC*, or another control area operator at any time during a given obligation period where the same capacity is included in a cleared *ICAP* held by a capacity market participant participating with a generator-backed capacity import resource;

participation agreement means the agreement required to be executed between the *IESO* and each *market participant* pursuant to MR Ch.2 s.1.2.2.3 and pursuant to which the *IESO* and the *market participant* agree, among other matters, to be bound by the *market rules*;

participant technical reference manual means the document entitled "Participant Technical Reference Manual" and published by the IESO;

participant workstation means the communication equipment that is required to be maintained by market participants in accordance with MR Ch.2 App. 2.2 for the purposes referred to in MR Ch.2 App.2.2 s.1.4.1;

payment date means the date upon which payment is due;

per-start means the act of achieving synchronization to the *IESO-controlled grid*, ramping to the *minimum loading point* and operating at the *minimum loading point* until the end of the *minimum generation block run-time*;

performance adjustment factor means a value assigned to a capacity auction resource based on its historical performance during a capacity auction capacity test activation in the relevant summer or winter obligation period and is calculated in accordance with the process set out in the applicable market manual;

period of steady operation means a predefined number of intervals (0, 1, or 2) for which a non-quick start resource that is a generation resource must maintain steady operation before changing direction of its energy output (either increasing or decreasing). Such a resource is considered to be in steady operation if the magnitude of change between dispatch instructions for the last two dispatch intervals is less than 0.1 multiplied by its ramp rate capability between the two dispatch intervals;

phasor measurement unit or PMU is a device used to measure synchrophasor data. It can be a dedicated device, a protective relay or other device that is capable of providing synchrophasor data;

physical bilateral contract means an agreement between two parties, neither of which is the *IESO*, to trade a specified quantity of electricity at prices determined by the parties to the agreement, and pursuant to which the parties provide for the use of the *IESO* settlement process to account for physical bilateral contract data;

physical bilateral contract data means the data concerning a physical bilateral contract that a selling market participant provides to the IESO for purposes of settlement;

physical bilateral contract quantity means a quantity of energy, in MWh, that a selling market participant is selling to a buying market participant at a specified location and in a specified hour;

physical market means a day-ahead market, real-time market and/or a procurement market administered by the IESO pursuant to MR Ch.7;

physical service means the service of providing energy or ancillary services;

physical transaction means (i) a transaction in the *IESO-administered markets* that creates a financial obligation in the *day-ahead market* and a balancing obligation in the *real-time market* with a capability to fulfill the balancing obligation by delivery or consumption of *physical services* in the *real-time market*; or (ii) a transaction in the *IESO-administered markets* based on delivery or consumption of *physical services* in the *real-time market*;

physical withholding means submitting offer quantities of energy or operating reserve less than a resource's reference quantity value by more than the applicable threshold;

PJM means the Pennsylvania, New Jersey, Maryland Interconnection;

planned capability factor means the ratio of the energy which could have been delivered by a generating station with planned generation unit limitations in effect, to the energy, over the same period of time, that could have been delivered if the generating station had operated at its maximum continuous rating;

planned outage means an outage which is planned and intentional;

potential constrained area means an electrical area of the *IESO-controlled grid* that can be created when a single or multiple transmission constraints bind, leaving a reduced set of *resources* that can meet the load behind the transmission constraints;

*pre-dispatch calculation engine* means an algorithm that consists of a sequence of optimization problems solved by the *IESO* to determine *pre-dispatch schedules* and prices over the pre-dispatch look-ahead period in accordance with MR Ch.7 to meet the needs of the pre-dispatch timeframe;

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;

*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*;

*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*;

pre-existing facility or equipment means a facility or equipment (i) that was or was part of a facility that was in existence on, and in respect of which a licence has been issued prior to, or on, the date of coming into force of MR Ch.4 (April 17, 2000); or was in service on the

date of coming into force of MR Ch.4 (April 17, 2000); and (ii) in respect of which an *exemption* has been applied for or granted relating to any of the following standards or obligations: (a) the technical requirements set out in MR Ch.2 App.2.2 relating to voice communication, monitoring and control but not those relating to the *participant workstation* or *dispatch workstation*; (b) the technical requirements set out in MR Ch.5 s.12 relating to communications; and (c) the grid *connection* and data monitoring requirements set out in MR Ch.4 other than the requirements set forth in MR Ch.4 ss.6.1.5 to 6.1.21;

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

preliminary view means a statement from the IESO of the reference levels and reference quantities that the IESO intends to register for a resource;

price-quantity pair means a price and an associated quantity that define a "step" in an offer or bid curve;

price responsive load means a load resource for which the registered market participant is authorized to submit bids for energy into the day-ahead market but for which the load resource is not dispatchable and whose level is not selected or set by the IESO based on the price of energy in the real-time market;

primary registered wholesale meter or primary RWM means an registered wholesale meter that measures meter data regarding flows directly into or from the IESO-controlled grid;

procurement market means any one of the markets operated by the *IESO*, pursuant to MR Ch.7, for contracted *ancillary services*, including *regulation*, *voltage control services* and *reactive support services* and *black-start capability*, and for *reliability must-run contracts*;

prudential support means the collateral posted with the *IESO* to secure the financial obligations of a market participant, in the forms set forth in MR Ch.2 s.5.7 or s.5C.5;

prudential support obligation means an amount of prudential support owed to the IESO equal to a market participant's maximum net exposure less any allowable reductions calculated in accordance with MR Ch.2 s.5.8 or s.5C.6;

pseudo-unit means a dispatchable generation resource associated with a combined cycle plant that is modeled based on a gas-to-steam relationship between one combustion turbine generation resource and a share of one steam turbine generation resource at the same combined cycle plant;

*publish* means, in respect of a document or information, to place that document or information on the *IESO's* web site, and publication shall be interpreted accordingly;

quarterly advance approval means *IESO* approval of a *planned outage* of equipment no later than the end of the month that is one month prior to the start of a six-month period, starting with the next calendar quarter, in which the *planned outage* is scheduled to start;

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 five minutes of the IESO's request when its equipment is not synchronized to the IESO-controlled grid;

radial intertie means a transmission line or lines which form part of the IESO-controlled grid and that: (a) connect an isolated portion of the IESO control area to an adjacent control area; or (b) connect the IESO control area to an isolated portion of an adjacent control area, in either case where the connected portion cannot, in accordance with an operating agreement or an interconnection agreement, be simultaneously connected to either another portion of one such control area or to a third control area;

ramp hours to minimum loading point means the number of hours required for a *generation* resource to ramp up from synchronization to its minimum loading point as described in MR Ch.7 s.3.5.33;

ramp hours to minimum loading point reference level means a reference level for a resource's ramp hours to minimum loading point;

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;

reactive support service means a service provided by a market participant so as to allow the IESO to maintain the reactive power levels around the IESO-controlled grid;

real-time calculation engine means an algorithm that consists of a sequence of optimization problems solved by the *IESO* to determine real-time schedules and prices for the dispatch interval and the subsequent ten dispatch intervals in accordance with MR Ch.7 to meet the needs of the real-time market;

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

*real-time dispatch process* is the process described in MR Ch.7 ss.7.1, 7.2, 7.3, and 7.4, when applied (i) while the *IESO-controlled grid* is in a *normal operating state;* and (ii) at a time other than when *market operations* have been suspended or *administrative prices* have been implemented;

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

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;

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

real-time schedule means:

- 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;
- in respect of a boundary entity resource, an interchange schedule; (ii)
- in respect of an hourly demand response resource, a schedule to reduce energy (iii) withdrawals as determined by the relevant pre-dispatch schedule; or
- in respect of a *non-dispatchable generation resource* or *self-scheduling electricity* (iv) storage resource that intends to inject energy, a schedule as determined by the real-time calculation engine and includes for purposes of the settlement process, any modifications made thereto in accordance with the market rules,

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;

record of review means the document issued by the IESO to a restoration participant pursuant to MR Ch.5 s.11.4.1;

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;

reference level means an IESO-determined formula to calculate a reference level value;

reference level value means an IESO-determined estimate of a dispatch data parameter that a resource would have submitted if it were subject to unrestricted competition;

reference quantity means an IESO-determined formula to calculate a reference quantity value;

reference quantity value means an IESO-determined estimate for the quantity of energy or operating reserve that a market participant would have submitted for a resource if it were subject to unrestricted competition;

registered market participant means a market participant that is registered with the IESO to submit dispatch data with respect to a resource;

registered wholesale meter or RWM means a meter that meets the criteria specified in MR Ch.6 and that is registered with the IESO. References to a registered wholesale meter or RWM within MR Ch.9 also include meters in metering installations whose registration has expired but the IESO determines that the continued use of the metering installation is necessary for the efficient operation of the IESO-administered markets;

*regulation* means the service required to control power system frequency and maintain the balance between load and generation;

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;

reliability means, in respect of electricity service, the ability to deliver electricity within reliability standards and in the amount desired and means, in respect of the electricity system, the IESO-controlled grid, the integrated power system or a transmission system, the ability of the electricity system, the IESO-controlled grid, the integrated power system or that transmission system to operate within reliability standards in an adequate and secure manner;

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;* 

reliability must-run contract means a contract between the IESO and a registered market participant or prospective registered market participant for a resource that is or will be a generation resource, an electricity storage resource, a dispatchable load resource or a boundary entity resource, which allows the IESO to call on that registered market participant's or prospective registered market participant's resource in order to maintain reliability of the IESO-controlled grid;

reliability must-run resources means the resources described in MR Ch.5 s.4.8.1; these may also be referred to as must-run resources,

reliability standards means the criteria and standards, including an amendment to a standard or criterion, relating to the *reliable* operation of the *integrated power system* established by a standards authority, and declared in force subject to MR Ch.5 ss.1.2.6 and 1.2.7, together with those set forth in these *market rules* or otherwise established by the IESO in accordance with these market rules and which has not otherwise been staved or revoked and referred back to the IESO for further consideration by the Ontario Energy Board;

remaining duration of service means the remaining time it is expected that an electricity storage resource can continue injecting, or withdrawing, until it reaches its lower energy *limit,* or *upper energy limit,* respectively, assuming the *electricity storage resource* continues operating at its quantity offered or bid;

remedial action schemes or RAS means an automatic protection system designed to detect abnormal or predetermined system conditions, and take corrective actions other than and/or in addition to the isolation of faulted components to maintain system reliability. The term special protection system or SPS shall have the same meaning;

renewed market rules refers to a set of market rules and market manuals, the purpose and scope of which are described in MR Ch 0.1 - 0.11, s.A.1;

request for connection assessment means a request for the approval of a new connection to the IESO-controlled grid or of the modification of an existing connection to the IESOcontrolled grid made pursuant to MR Ch.4 s. 6.1.6;

request for segregation means a request from a registered market participant for approval to operate its resource in a segregated mode of operation;

reserve target means the minimum required MWs of any class of reserve required to satisfy reserve requirements;

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;

resource means an IESO-modelled representation of one or more generation units, electricity storage units, or sets of load 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-administrated markets; or a boundary entity resource; or virtual zonal resource;

respondent means a person against whom a complaint is made in a notice of dispute, a response or a response to a crossclaim;

response has the meaning ascribed thereto in MR Ch.3 s. 2.5.4;

response to the notice of intention shall be in such form as may be established by the *IESO* and means a notice provided by the *market participant* under MR Ch.3 s. 6.2B.3;

restoration participant means a market participant who has been identified by the IESO as having equipment or facilities that: (i) are directly connected to the IESO-controlled grid and (ii) affect the restoration process as set out in the Ontario power system restoration plan;

restoration participant attachment means the attachment to the *Ontario power system* restoration plan required to be prepared by a restoration participant and submitted to the *IESO* in accordance with MR Ch.5 s. 11.3.5;

retail, with respect to electricity, means (a) to sell or offer to sell electricity to a consumer; (b) to act as agent or broker for a retailer with respect to the sale or offering for sale of electricity; or (c) to act or offer to act as an agent or broker for a *consumer* with respect to the sale or offering for sale of electricity;

retailer means a person who retails electricity;

revenue meter means a meter that is the designated source of metering data to be used by the IESO for settlement purposes in accordance with the VEE process;

review notice has the meaning ascribed thereto in MR Ch.3 s. 4.4.2;

*reviewable decision* means a decision of the *IESO* referred to in MR Ch.6 ss.2.1.2, 4.4.3, 5.1.12, 5.3.9 or 6.1.5 and MR Ch.5 ss.3.2A.1, 3.2A.5.3, 3.2A.10, 3.2B.5.3, 3.2B.7 or 3.2B.10;

RSS commencement date means May 1, 2023, which is the date on which market rule amendment MR-00475-R00 came into effect;

second contingency loss means an unexpected loss of a second component from the electricity system after the first component is already lost;

secretary means the secretary of the dispute resolution panel appointed pursuant to the Governance and Structure By-law;

security means the ability of the *electricity system*, the *IESO-controlled grid*, the *integrated power* system or a *transmission system* to withstand sudden disturbances including, without limitation, electric short circuits or unanticipated loss of equipment or components;

security coordinator, in respect of the *IESO-controlled grid*, means the *IESO* and, in respect of another *transmission system*, means the person responsible for coordinating the security of that *transmission system* with that of other *transmission systems*;

security limits include operating electricity system stability limits and thermal ratings;

segregated mode of operation means an electrical configuration where a portion of the *IESO-controlled grid* is used to *connect* a *generation facility* associated with one or more *generation resources* to a neighbouring *control area* using a *radial intertie* for the purposes of delivering electricity or *physical services* to such *control area*;

self-assessed trading limit means, the dollar amount submitted to the *IESO* by a market participant in accordance with MR Ch.2 s.5.3.2, for the purposes of calculating its trading limit,

self-schedule means an hourly schedule specified by a self-scheduling generation resource or a self-scheduling electricity storage resource, and self-scheduling has an analogous meaning;

self-scheduling electricity storage resource means an electricity storage resource that is not dispatchable except for the provision of regulation services in respect of which it shall follow dispatch instructions, and when it intends to withdraw energy is authorized to submit bids for energy into the day-ahead market;

self-scheduling electricity storage facility means an electricity storage facility comprised of one or more electricity storage units that are each exclusively associated with a self-scheduling electricity storage resource;

self-scheduling generation facility means a generation facility comprised of one or more generation units that are each exclusively associated with a self-scheduling generation resource;

self-scheduling generation resource means a generation resource that can operate independently of dispatch instructions from the IESO;

selling market participant means a market participant who is selling energy under a physical bilateral contract;

settlement means the process of transferring payments from those who are required to make payment to those who are required to be paid under the *market rules*;

settlement account means a bank account held by the IESO, a market participant or a transmitter pursuant to the settlement rules set forth in MR Ch.8 and MR Ch.9;

settlement amount means any amount of money to be paid by or to a market participant, determined in accordance with MR Ch.9;

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

settlement hour means a period of one hour which corresponds to a particular dispatch hour for which metering data determined in accordance with MR Ch.6 and market prices for the physical market for services calculated pursuant to MR Ch.7 are to be used to calculate the settlement debits and credits of market participants;

settlement process means any process administered by the IESO to effect settlement,

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

short-term auction means a TR auction conducted by the IESO for the purchase of shortterm transmission rights;

short-run marginal benefit means a financial benefit that accrues to a market participant with respect to a boundary entity resource that only accrues if that boundary entity resource exports *energy* and does not accrue otherwise;

short-run marginal cost means a financial cost incurred by a market participant with respect to its *resource* that is only incurred if that *resource* provides *energy* or *operating reserve* and is not incurred otherwise;

short-term transmission right means a transmission right that is valid for a period of one month;

significant dispatchable load facility means a load facility that is associated with a dispatchable load that is rated at 20 MVA or higher but less than 100 MVA; that comprises sets of load equipment that are associated with dispatchable loads, the ratings of which in the aggregate equals or exceeds 20 MVA but is less than 100 MVA; or that is re-classified as a significant dispatchable load facility pursuant to MR Ch.2 App.2.2. s.1.5.1 or s.1.5.2 or MR Ch.4 s.7.8.1 or s.7.8.2;

significant electricity storage facility means an electricity storage facility that includes an electricity storage unit with an electricity storage unit size rated at 20 MVA or higher but less than 100 MVA; or that comprises multiple *electricity storage units*, the aggregated *electricity* storage unit size ratings of which equals or exceeds 20 MVA but is less than 100 MVA; or that is re-classified as a significant electricity storage facility pursuant to MR Ch.2 App.2.2 s.1.5.1A or s.1.5.2A or MR Ch.4 s.7.8.2A or s.7.8.2B;

significant generation facility means a generation facility that includes a generation unit that is rated at 20 MVA or higher but less than 100 MVA; that comprises *generation units* the ratings of which in the aggregate equals or exceeds 20 MVA but is less than 100 MVA; or that is re-classified as a significant generation facility pursuant to MR Ch.2 App.2.2. s.1.5.1 or s.1.5.2 or MR Ch.4 s.7.8.1 or s.7.8.2;

simulated as-offered energy locational marginal price means, for a given resource, the energy locational marginal price produced by simulating the day-ahead market or real-time market, as applicable, using the inputs used by the relevant calculation engines for the dispatch day,

simulated as-offered operating reserve locational marginal price means, for a given resource, the operating reserve locational marginal price produced by simulating the dayahead market or real-time market, as applicable, using the inputs used by the relevant calculation engines for the *dispatch day*,

simulated intertie reference level energy location marginal price means the energy locational marginal price at an uncompetitive intertie zone produced by simulating the day-ahead market or real-time market, as applicable;

simulated intertie reference level operating reserve location marginal price means the operating reserve locational marginal price at an uncompetitive intertie zone produced by simulating the *day-ahead market* or *real-time market*, as applicable;

simulated reference quantity energy locational marginal price means, for a given resource, the energy locational marginal price produced by simulating the day-ahead market or realtime market, as applicable, using the inputs used by the relevant calculation engines and the applicable reference quantities and reference levels for the dispatch day,

simulated reference quantity operating reserve locational marginal price means, for a given resource, the operating reserve locational marginal price produced by simulating the dayahead market or real-time market, as applicable, using the inputs used by the relevant calculation engines and the applicable reference quantities and reference levels for the dispatch day,

single cycle mode means the mode of operating a pseudo-unit without the steam turbine generation unit(s);

single metering installation means a metering installation comprised of one revenue meter,

small distributor means, a distributor with a projected energy consumption less than or equal to 0.25% of projected total system energy on an annual basis as determined by the IESO in accordance with the applicable market manual;

small electricity storage facility means an electricity storage facility that is comprised solely of an electricity storage unit with an electricity storage unit size rated at less than 1 MVA or that comprises multiple *electricity storage units*, the aggregated *electricity storage unit size* ratings of which is less than 1 MVA or that is re-classified as a small electricity storage facility pursuant to MR Ch.2 App.2.2 s.1.5.2A or MR Ch.4 s.7.8.2B;

small generation facility means a generation facility that is comprised solely of a generation unit rated at less than 1 MVA or of generation units the ratings of which in the aggregate is less than 1 MVA or that is re-classified as a small generation facility pursuant to MR Ch.2 App.2.2 s.1.5.2 or MR Ch.4 s.7.8.2;

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;

speed no-load offer reference level means a reference level for a speed no-load offer;

SSPC means the IESO Settlement Schedule & Payments Calendar;

standards authority means NERC, NPCC, any successors thereof, and any other agency or body that approves standards or criteria applicable both in and outside Ontario relating to the reliability of transmission systems,

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.5.8.2.4;

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 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*,

start-up offer is the dollar amount offered by the registered market participant to bring an off-line resource to its minimum loading point based on the resource's thermal state;

start-up offer reference level means a reference level for a start-up offer,

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;

state of charge means the percentage of which an electricity storage unit is charged relative to the maximum registered electricity storage energy rating of the electricity storage unit;

station service means energy withdrawn from the IESO-controlled grid to power the on-site maintenance and operation of transmission facilities, generation facilities, electricity storage facilities and connection facilities located within the IESO control area but excludes energy consumed in association with activities which could be ceased or moved to other locations without impeding the normal and safe operation of the *facility* in question;

Statutory Powers Procedure Act, R.S.O. 1990, c.S.22;

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

supervisory control and data acquisition or SCADA is a computer system for gathering and analyzing real time data;

suspended market participant means a market participant that is the subject of a suspension order,

suspension order means an order issued pursuant to MR Ch.3 s.6.3A suspending all or part of the rights of a *market participant* to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the IESO-controlled grid;

synchrophasor is a phasor representing the fundamental of an AC signal whose magnitude is the root mean square (RMS) value of the fundamental amplitude and angle is the difference between the signal fundamental angle and the phase angle of a cosine at the nominal signal frequency that is synchronized to the Coordinated Universal Time (UTC) time;

system-backed capacity auction eligible import resource means a capacity auction resource associated with a boundary entity resource that is available to qualify capacity that a neighbouring control area operator is willing to allocate to Ontario, if a capacity obligation is secured, for the duration of the applicable obligation period, which capacity would be deemed to be supplied from the entire system of the neighbouring control area. The allocated capacity must not otherwise be - in whole or in part - contracted to or otherwise obligated to be provided to the IESO, the OEFC, or another control area operator during the entire duration of a given obligation period;

system-backed capacity import resource means a system-backed capacity auction eligible import resource with a capacity obligation received in a given capacity auction in accordance with the applicable market manual;

target capacity means the amount of auction capacity which the IESO seeks to acquire through a capacity auction;

technical feasibility exception or *TFE* is a temporary exception from compliance with certain requirements of *NERC reliability standards* relating to critical infrastructure in accordance with Ontario-adapted *NERC* procedures for processing *TFEs*;

technical panel means the panel of the same name established pursuant to the Governance and Structure By-law;

*ten-minute operating reserve* or *10-minute operating reserve* means those *operating reserves* required to respond fully within ten minutes of being called upon by the *IESO*;

terminated market participant means a market participant that is the subject of a termination order; termination order means an order issued pursuant to MR Ch.3 s.6.4 terminating the rights of a market participant to participate in the IESO-administered markets or to cause or permit electricity to be conveyed into, through or out of the IESO-controlled grid;

*TFE applicant* means (i) a *market participant* who applies to the *IESO* for a *technical feasibility exception*; or (ii) a person applying to become a *market participant* who applies to the *IESO* for a *technical feasibility exception*; or (iii) the *IESO*, in the event the *IESO* requires a *technical feasibility exception*;

*TFE application* means an application for the approval, amendment, termination, or transfer of a *TFE* pursuant to MR Ch.5 s.3.2A;

thermal state means the state of a dispatchable generation resource, other than a quick start resource or a nuclear generation resource, that is either a hot, warm or cold state, as the case may be, relative to the last dispatch hour at which the resource was at its minimum loading point;

thirty-minute operating reserve or 30-minute operating reserve means those operating reserves required to respond fully within thirty minutes of being called upon by the IESO;

three-day advance approval means *IESO* approval of a *planned outage* of equipment no later than 16:00 EST on the third *business day* prior to the scheduled start date of the *planned outage;* 

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*;

tieline means a transmission line which forms part of an interconnection; see intertie;

TR auction means an auction conducted by the IESO for the purchase of transmission rights;

TR bid means a statement of the quantities and prices at which a buyer is willing to purchase transmission rights in a TR auction;

TR bidder means a person that submits a TR bid to purchase a transmission right in a TR auction;

TR clearing account means the settlement account or fund established by the IESO and described in MR Ch.8 s.3.18.1;

TR holder means, in respect of a given transmission right, the TR participant recognized by the IESO, in accordance with MR Ch.8 s.3.3.1 or s.3.9.5, as the TR participant that has the right to receive all settlement amounts under the transmission right or, in the case of a long-term transmission right, the right to receive all settlement amounts relating to one or more periods of one month under the long-term transmission right;

TR lamination means a price and an associated quantity that define a "step" in a TR bid;

*TR market* means the market operated by the *IESO* for *transmission rights* pursuant to MR Ch.8 s.3;

TR market clearing price means, in respect of a given transmission right, the market clearing price for the transmission right established in accordance with MR Ch.8 s.3.15;

TR market deposit means the deposit required to be made by a TR participant pursuant to MR Ch.8 s.3.8.2 as a condition of being a TR bidder in a TR auction;

TR participant means a person that has been authorized by the IESO to participate in the TR market in accordance with MR Ch.8 s3.8;

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 market;

trading day means a period from midnight EST to the following midnight EST within a billing period;

trading limit means the dollar amount representing the maximum amount of actual exposure that a market participant may accumulate before being issued a margin call from the IESO, determined from time to time by the IESO in accordance with MR Ch.2 ss.5.3.5, 5.3.6, 5C.1.5, or 5D.2.2;

*trading week* means seven consecutive *trading days* commencing on and including a Sunday;

transformation connection service means the transmission service relating to the use of the transformation connection assets of a transmitter whose transmission system forms part of

the *IESO-controlled grid* and in respect of which charges are required to be collected by the *IESO* pursuant to MR Ch.10 s.6.1.1;

transmission customer means a person, including but not limited to a market participant, that is required to pay for one or more transmission services pursuant to the terms of a rate order issued by the OEB to a transmitter whose transmission system forms part of the IESO-controlled grid;

transmission right or TR means a contractual right to receive a settlement amount determined in the manner described in MR Ch.8 s.3.4;

*transmission service* means any one or more of *network service*, *export transmission service*, *line connection service*, *transformation connection service* and such other service as may be approved by the *OEB* and in respect of which charges are required to be collected by the *IESO* pursuant to MR Ch.10 s.6A.1.1;

*transmission services charges* means all charges administered by the *IESO* to recover the costs of *transmission services*;

*transmission services settlement account* means a *settlement account* operated by a *transmitter* for the purpose of receiving payment of *transmission services charges* from the *IESO*;

transmission station service means station service associated with transformers, capacitors, switchgear, protection systems and control systems that are part of a transmission facility and that do not connect generation facilities, electricity storage facilities, load facilities or distribution facilities to the IESO-controlled grid;

*transmission system* means a system for transmitting electricity, and includes any structures, equipment or other things used for that purpose;

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

transmission transfer capabilities means the measure, in terms of electric power expressed in megawatts, of the ability of *interconnected* electric systems to move or transfer power in a reliable manner from one area to another over all transmission lines or paths between those areas under specified system conditions;

transmitter means a person who owns or operates a transmission system;

unattended means not attended;

*unrestricted competition* means a counterfactual market absent any conditions that would require testing for market power pursuant to the *market rules*;

unforced capacity or UCAP means the maximum amount, in MW, that a capacity auction participant is able to offer for a capacity auction resource for an applicable obligation period, as calculated pursuant to MR Ch.7 s.18.2A.1;

upper energy limit means the highest energy amount to which an electricity storage unit can be consistently charged without damage beyond expected degradation from normal use;

urgent amendment, in relation to the market rules, means an amendment to the market rules made in accordance with section 34 of the *Electricity Act, 1998* on an urgent basis for any of the purposes noted in subsection 34(1) of the *Electricity Act, 1998*;

urgent rule amendment committee means the committee referred to in the Governance and Structure By-law and established by the Board of Directors of the IESO under the authority of the Governance and Structure By-law for the purpose of making urgent amendments to the *market rules*:

variable generation means all energy that is supplied by a variable generation resource;

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 of the IESO's centralized 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;

VEE process means the process described in MR Ch.9 and used to validate, estimate and edit raw *metering data* to produce final *metering data* or to replicate missing *metering data*;

VEE standard means that part of the market manual pertaining to metering entitled Validating, Estimating, and Editing – Requirements for Validating, Estimating, and Editing Of Revenue Metering Data in the IESO-Administered Market,

virtual trader means a market participant authorized to conduct virtual transactions;

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 realtime market,

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

*virtual zonal price* means, in respect of a *virtual transaction zone*, the price of *energy* determined in the 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*;

*voltage control service* means a service provided by a *market participant* so as to allow the *IESO* to maintain the voltage around the *IESO-controlled grid*;

*voltage reduction capability* means the capability to reduce demand by lowering a customer's voltage. Within the *IESO-administered markets*, this capability is specifically defined as being able to reduce *distribution* or secondary voltages by 3% and 5%, and having the controlling authority to be able to effect that voltage reduction within five minutes of receipt of the direction from the *IESO* to do so;

weekly advance approval means *IESO* approval of a *planned outage* of equipment no later than 16:00 EST on the second Friday prior to the start of the week, starting Monday, in which the *planned outage* is scheduled to start;

wholesale consumer means a person who purchases electricity or ancillary services in the IESO-administered markets or directly from another person;

wholesale customer means a market participant who takes supply from the IESO-controlled grid for its own consumption or for sale;

wholesale seller means a person who sells electricity or ancillary services through the IESO-administered markets or directly to another person;