Market Rules

Chapter 11 **Definitions**



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 - o MR.450.R00
 - o MR.451.R00
 - o MR.453.R00
 - o MR.453.R01
 - o MR.453.R02
 - o MR.453.R03
 - o MR.453.R04
- Market Power Mitigation:
 - o MR.461.R01
 - MR.455.R00_(March 2023 update)
- Calculation Engines:
 - o MR.458.R00
 - o MR. 459.R00
 - o MR. 460.R00
 - o MR. 461.R02
- Interim Alignment:
 - o MR.457.R00
 - o MR.457.R01
 - o MR.457.R02
 - o MR.457.R03
 - o MR.00461.R03
- Settlements:
 - o MR.452.R00
 - o MR.456.R03
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Document Change History

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1. Definitions

Rule Notes:

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In the market rules:

actual exposure means, in respect of a given market participant, the estimated net amount payable by or owing to a market participant amount calculated at any given time, calculated by the IESO for a that market participant pursuant to section 5.5, 5C.3, or 5D.2 of Chapter 2;

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

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 section 8.4A of Chapter 7;

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.5B.2.2.1;

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 section 22.19.3 of Chapter 7 to re-run the conduct test and impact test on the offers or bids that failed an impact test;

alternative reference quantity value means the reference quantity value determined by the <u>IESO</u> pursuant to section 22.15.21 of Chapter 7 to re-run the conduct test and impact test on the offers that failed an impact test;

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 section 4.2.4 of Chapter 3;

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

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;

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 section 2.5.1 of Chapter 3;

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 section 2.7 of Chapter 3 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;

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authority center 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 facility generation resource- or an electricity storage facility 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 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 section 3.2B of Chapter 5;

bid means a statement of the quantities of a commodity that a buyer will purchase at different market price levels for that commodity in the <u>day-ahead market</u>, the <u>real-time market</u> or the procurement market;

bidding limit means, in respect of a given TR participant, the amount calculated by the IESO for that TR participant in accordance with section 4.14.1 of Chapter 8;

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 real-time markets and the settlement of amounts owing to TR holders under section 4.4.1 of Chapter 8, a period of a calendar month;

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

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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 an entity designated and maintained by the IESO for the purpose of energy trading, and which represents the capacity of one or more resources, including but not limited to generation facilities or load facilities, located at a point or points external to the IESO control area which a market participant is entitled to inject into or withdraw from the IESO-controlled

grid and which shall be deemed to be located in an intertie zone in accordance with section 2.2.7.2 of Chapter 7;

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 unit generation resource or the capacity for injection of an electricity storage unit 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 section 20.3 of Chapter 7;

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;

capability factor means the ratio of the energy which could have been delivered by a generating station with generation unit limitations in effect, to the energy, over the same

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period of time, that could have been delivered if the generating station had operated at its maximum continuous rating;

capacity auction means an auction operated by the *IESO* to acquire auction capacity, and includes a demand response auction;

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 deposit means the deposit required to be made by a capacity auction participant in accordance with section 18 of Chapter 7, as a condition of participating in a capacity auction:

capacity auction eligible generation resource means a generation resource that is a non-committed resource that is associated with a generation facility, which is also associated with a connected facility at the commencement of the capacity enrollment process for a given capacity auction, and which is registered as dispatchable 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 a <u>electricity storage resource</u> that is a non-committed resource associated with an <u>electricity storage facility</u>, which is also a connected facility at the commencement of the capacity enrollment 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 enrolled 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 type <u>resource</u> specified in section 19.1.2 of Chapter 7 and is utilized by a *capacity auction participant* to satisfy a *capacity obligation*;

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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 the capacity auction resource associated with 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 unit generation resource or the injection capacity of an electricity storage unit electricity storage resource to an external control area in accordance with section 20.1 of Chapter 7;

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 section 19.9 or 19.9B of Chapter 7;

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 Chapter 7, section 18;

capacity obligation means the amount of auction capacity 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 Chapter 2, section 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 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;

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

Certified certified black start facility means a registered generation facility contracted in accordance with section 4.2.2 of Chapter 9 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 spinning ten-minute operating reserve, and r = 2 denotes non-spinning ten-minute operating reserve, and r = 3 denotes thirty minute operating reserve;

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;

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combined guaranteed costs means all eligible costs incurred by a generation facility from either the point of ignition or synchronization to the IESO-controlled grid as applicable, until the earlier of the end of the minimum generation block run-time and the end of the minimum run-time for the generation facility;

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 section 2.2D.4.2 of Chapter 7;

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 section 2.2A.4.2 of Chapter 7;

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

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

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 <u>bona fide</u> 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 section 5.4.1 of Chapter 3;

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;

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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 section 6.1.6 of Chapter 4;

connection assessment means a study conducted by the *IESO* pursuant to section 6.1.5 of Chapter 4 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-related reliability information means any information provided or requested pursuant to section 2.2.5 of Chapter 7 and/or section 6.1.6.2 of Chapter 4.

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 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;

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conservative operating state means the state described in section 2.5 of Chapter 5;

constrained IESO-controlled grid model means the model capable of being used by the dispatch algorithm and described in section 4.5.1.2 of Chapter 7;

constrained off dispatchable load means a dispatchable load, electricity storage unit or boundary entity dispatched by the IESO to consume (or to withdraw in the case of an electricity storage unit or boundary entity) less energy in order to assist in addressing a transmission flow constraint on the IESO-controlled grid or a security limit in circumstances where such dispatchable load, electricity storage unit or boundary entity would, but for such constraint or security limit, otherwise be or have been dispatched to consume (or to withdraw in the case of an electricity storage unit or boundary entity) more energy;

constrained off event means, in respect of a generation unit, an electricity storage unit, a dispatchable load, or a boundary entity, the event of being dispatched as a constrained off facility;

constrained off facility means a constrained off generation unit, a constrained off dispatchable load or both;

constrained off generation unit means a generation unit, electricity storage unit, or boundary entity dispatched by the IESO to supply (or to inject in the case of an electricity storage unit or boundary entity) less energy in order to assist in addressing a transmission flow constraint on the IESO controlled grid or a security limit in circumstances where such generation unit, electricity storage unit, or boundary entity would, but for such constraint or security limit,

otherwise be or have been dispatched to supply (or to inject in the case of an electricity storage unit or boundary entity) more energy;

constrained on dispatchable load means a dispatchable load, electricity storage unit or boundary entity dispatched by the IESO to consume (or to withdraw in the case of an electricity storage unit or boundary entity) more energy in order to assist in addressing a transmission flow constraint on the IESO-controlled grid or a security limit in eircumstances where such dispatchable load, electricity storage unit or boundary entity would, but for such constraint or security limit, otherwise be or have been dispatched to consume (or to withdraw in the case of an electricity storage unit or boundary entity) less energy;

constrained on event means, in respect of a generation unit, an electricity storage unit, a dispatchable load or a boundary entity, the event of being dispatched as a constrained on facility;

constrained on facility means a constrained on generation unit, a constrained on dispatchable load or both;

constrained on generation unit means a generation unit, electricity storage unit, or boundary entity dispatched by the IESO to supply (or to inject in the case of an electricity storage unit or a boundary entity) more energy in order to assist in addressing a transmission flow constraint on the IESO controlled grid or a security limit in circumstances where such generation unit, electricity storage unit, or boundary entity would, but for such constraint or security limit, otherwise be or have been dispatched to supply (or to inject in the case of an electricity storage unit, boundary entity) less energy;

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 sections 9.2 to 9.5 of Chapter 7;

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 registered facility or group of facilities, an attended location where signals and instructions for controlling the facilities 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 section 2 of Chapter 3, 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 section 2 of Chapter 3, 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 section 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 Chapter 5 to maintain the reliability of the IESO-controlled grid or of the electricity system;

daily cascading hydroelectric dependency means there is a minimum hydraulic time lag_time lag_of less than 24 hours from a hydroelectric generation facility to one or more adjacent upstream and/or downstream hydroelectric generation facilities operated by the same registered market participant;

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

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

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 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_hⁱ) as defined in MR Ch. 9 App 9.2;

day-ahead operational commitment means a minimum scheduling constraint established by the IESO to a GOG-eligible resource's minimum loading point based on the day-ahead schedule to respect the resource's minimum generation block run-time during the hours specified by the IESO pursuant to MR Ch. 7, s. 4B.2.2.2;

<u>day-ahead operational schedule</u> means the hours in a <u>GOG-eligible resource's day-ahead</u> <u>schedule</u> that are greater than or equal to the <u>minimum loading point</u> excluding the hours scheduled to reflect the <u>ramp up energy to minimum loading point</u>;

<u>day-ahead schedule</u> means the hourly schedule for the 24-hour period of -the next <u>dispatch</u> day as determined by the *DAM calculation engine* during the <u>day-ahead market</u>;

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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 section 8.3.1 or 8.5.1 of Chapter 2;

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 section 8 of Chapter 2;

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;

default protection amount means, in respect of a given market participant, 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, amount determined from time to time by the IESO for that a market participant in accordance with section 5.3.8 or 5C.1.7 of Chapter 2;

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. section 2.4A.1 of Chapter 9 and used for settlement purposes in the <u>day-ahead</u> market and <u>real</u>-time markets, other than in respect of transactions involving the transmission of energy or ancillary services into or out of the IESO-controlled grid from a neighbouring transmission system;

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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 auction means an auction operated by the *IESO* prior to December 31, 2019, to acquire demand response capacity, in accordance with section 18 of Chapter 7;

demand response bid price threshold means the price at which a demand response energy bid shall exceed, in the day-ahead commitment process and the real-time energy market, to be considered a demand response energy bid 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 a load facility 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 commitment process and the realtime energy market, greater than the demand response bid price threshold and less than the MMCP, by a capacity market participant entered for either a capacity dispatchable load resource or an hourly demand response resource to fulfill a capacity obligation availability requirement;

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

A designated constrained off watch zone means an area within Ontario as set out in the applicable market manual, including connected intertie zones, that is monitored to determine if persistent and significant congestion management settlement credit payments for constrained off events are being made. These watch zones may be further designated for injections, withdrawals or both;

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;

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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 <u>a resource</u> registered facilities to cause a specified amount of electric energy or ancillary service to be provided to or taken off the electricity system;

dispatchable means being subject to dispatch.

dispatch algorithm means the mathematical algorithm used by the *IESO* to determine various operating schedules and prices in accordance with Chapter 7;

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

dispatch data means the offers, bids, self-schedules and estimates or forecasts of intermittent generation required to be submitted to the IESO in accordance with Chapter 7 and/or Chapter 7A and used by the IESO to determine day-ahead market schedules physical operations and physical 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 registered facility 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 section 8.4A of Chapter 7 or the IESO-administered markets are suspended pursuant to section 13 of Chapter 7, and, in respect of a registered facility that is a boundary entity resource, the interchange schedule pertaining to that registered facility it;

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

dispatch period means, in respect of a pre-dispatch schedule, a dispatch hour and, in respect of a real-time schedule, a dispatch interval;

dispatch scheduling error means an error made by the IESO in the real-time dispatch process, 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 such real-time dispatch process;

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dispatch workstation means the communication equipment that is required to be installed and maintained in accordance with Appendix 2.2 for the purposes referred to in section 1.3.1 of Appendix 2.2 of Chapter 2;

dispatchable load means a load <u>facility resource</u> which is subject to <u>dispatch</u> by the <u>IESO</u> and whose level is selected or set based on the price of <u>energy</u> in the <u>real-time market</u>, and excludes <u>hourly demand response resources</u>;

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;

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

dynamic constrained area or DCA means a potential constrained area designated as a DCA pursuant to section 22.10.3 of Chapter 7;

economic withholding means exercising market power by 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 is the minimum amount of time, in minutes, between the time at which a startup sequence is initiated for a generation <u>unit</u> resource and the time at which it becomes dispatchable by reaching its *minimum loading point*;

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

<u>Electricity and Gas Inspection Act</u> 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);

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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;

<u>electricity storage resource means a resource modelled to represent one or more electricity storage units;</u>

electricity storage station service means station service associated with an electricity storage facility that is compriseding of one or more electricity storage units each of which is a registered facility associated with a resource, including a resource that is or which together have been aggregated as a registered facility in accordance with section 2.3 of Chapter 7;

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 registered facilities registered with the IESO in accordance with section 2 of Chapter 7 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 section 1.4.1 of Appendix 2.2 of Chapter 2 via the participation workstation;

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

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

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

embedded load facility means a <u>load facility</u> <u>dispatchable load</u> or a <u>non-dispatchable load</u> within the *IESO control area* that is not directly <u>connected</u> to the *IESO-controlled grid* but is instead embedded within a <u>distribution system</u>;

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

embedded RWM means an RWM that is not a primary RWM and that measures flows that are also part of the flows measured by a primary RWM;

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 section 2.3 of Chapter 5;

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 section 11.2.1 of Chapter 5;

energy means, in respect of the market rules other than Chapter 5 or 6, real energy only and may, in respect of Chapter 5 or 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;

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

energy market means the <u>day-ahead market</u> and <u>real-time market</u> for <u>energy</u> administered by the *IESO* pursuant to Chapter 7, in which <u>energy</u> offers and <u>energy</u> bids are cleared and a <u>market price</u> for <u>energy</u> is determined;

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

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

<u>energy trader</u> means a <u>market participant</u> authorized by the <u>IESO</u> to participate in the <u>energy market</u> to provide <u>physical services</u> by importing, exporting, or wheeling <u>energy</u> or <u>operating reserve</u>.

enhanced combined cycle facility means a generation facility with one or more combined cycle plants combined cycle facility 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. Combined cycle facilities are generation facilities in which electricity is generated by one or more combustion turbines or engines, and by one or more steam turbines for which steam is supplied by recovery of waste heat from one or more of the combustion turbines or engines;

enrolled capacity means a quantity in megawatts representing the maximum capacity auction offer that a capacity auction resource is willing to provide for an applicable obligation period, and which corresponds to an amount submitted to the IESO by the capacity auction participant during the enrollment period of a relevant capacity auction and if applicable, satisfies any qualification criteria that may be set out in the applicable market manual;

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 section 6.3.1 of Chapter 3;

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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, or 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 to be exempted from an obligation or standard under the *market rules*;

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 section 5.2.5 of Chapter 2;

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 section 4 of Chapter 10;

extended pre-dispatch operational commitment means a minimum scheduling constraint extension established by the *IESO* to a *GOG-eligible resource's minimum loading point* for a duration of one hour immediately following an existing day-ahead operational commitment, stand-alone pre-dispatch operational commitment or a previously extended pre-dispatch operational commitment, based on a pre-dispatch schedule, during the hours specified by the *IESO* pursuant to MR Ch. 7, s. 5B.2.2.2;

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 6.3.5(g) or section 6.3.16(g) of Chapter 9;-

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

financial market participant means a person that participates only in the TR market;

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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 facility 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 a unit the resource to shutdown under normal operations, while respecting safety, technical, equipment, environmental and regulatory restrictions;

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

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

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 section 7.7 of Chapter 1 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 section 7.7 of Chapter 1 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 includes including any structures, equipment or other things used for that purpose;

generation offer guarantee eligible resource or GOG eligible resource means a generation resource that is eligible for a real-time generation offer guarantee or day-ahead market generation offer guarantee in accordance with Chapter 9;

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.

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

generation station service means station service associated with a generating facility that is comprising comprised of one or more generation units each of which is associated with a resource, a registered facility including a resource that is aggregated or which together have been aggregated as a registered facility in accordance with section 2.3 of Chapter 7;

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generation unit means the <u>principal</u> equipment at a <u>generation facility</u> used to <u>that actually</u> generates electricity, together with all <u>internally</u> related equipment essential to its functioning as a single <u>unitentity</u> distinguishable from other <u>generation units</u>;

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* not associated with a *pseudo-unit* or a *GOG-eligible resource* associated with 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 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 enroll 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 storage facility to the Ontario border;

global market power reference intertie zone means an intertie zone designated pursuant to sections 22.11.1 and 22.11.2 of Chapter 7;

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, 1998</u>;

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 section 1.1.7 of Appendix 2.2 of Chapter 2;

high-risk operating state means the state described in section 2.4 of Chapter 5;

historical reference price means (i) in respect of an investigated facility which is not a hydroelectric generation facility, the unweighted average of the price contained in all energy offers or energy bids submitted by the registered market participant for that investigated facility and accepted by the IESO, as reflected in the most recent market schedules for that investigated facility for the dispatch intervals to which such energy offers or energy bids relate, during all relevant hours in the ninety days preceding the date for which an investigated price is submitted by the registered market participant for that investigated facility and (ii) in respect of an investigated facility which is a hydroelectric generation facility, the average market price weighted by the market schedule quantity during all relevant intervals in the thirty days preceding the date on which an investigated price was submitted by the registered market participant for that investigated facility;

hourly demand response resource means the capacity auction resource type that is a registered facility 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 section 19.4 of Chapter 7;

hourly markets means those markets in which quantities and prices are determined using five-minute quantity and price information to derive composite hourly quantities and prices;

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

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hourly uplift means the uplift payments that are determined for each hour based on real-time 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 section 14.1.3 of Chapter 5;

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 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 section 5 of Chapter 3;

instance of intertie economic withholding means a dispatch day on 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 on 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 data means data pertaining to interchange schedules;

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;

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 generator generation resource means a generation facility resource located within the IESO control area 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 generator 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 price of energy or operating reserve determined in the real-time market or day-ahead market in accordance

with the provisions of Chapter 7. For greater clarity, the *intertie border price* does not include the *intertie congestion price*;

intertie border price or IBP means, in respect of an intertie zone, the portion of the locational marginal price of energy or operating reserve that is exclusive of the intertie congestion price, determined in the real-time market or day-ahead market in accordance with the provisions of Chapter 7 or established by the IESO in accordance with section 8.4A of Chapter 7;

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 *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 Chapter 7 or established by the *IESO* in accordance with section 8.4A of Chapter 7a price equal to the projected *market price* for *energy or operating reserve* for a given *intertie zone* minus the projected uniform *market price* for *energy* or *operating reserve* respectively, in the *IESO control area*, determined in accordance with section 8.1.1A of Chapter 7;

intertie economic withholding means exercising market power by 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*;

<u>intertie reference level means an IESO-determined formula to calculate an intertie reference</u> 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;

investigated facility means, in respect of an investigated price, the constrained on facility or the constrained off facility whose registered market participant submitted the energy offer or energy bid that contains that investigated price;

investigated price means a price contained in an energy offer or an energy bid submitted by the registered market participant for a constrained on facility or a constrained off facility that

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is the subject of investigation or of an inquiry pursuant to Appendix 7.6 of Chapter 7 in respect of a given constrained on event or a given constrained off event;

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

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

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

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

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 section 5.1.1 of Chapter 10;

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

<u>linked wheeling through transaction</u> means a set of import and export <u>energy transactions</u> scheduled in the <u>day-ahead market</u> or the <u>real-time market</u> for <u>boundary entity resources</u>, that have been linked by the relevant <u>market participant</u> pursuant to MR Ch. 7, s. 3.5.8.2;

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

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 section 5.4.1 of Chapter 5;

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;

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long-term auction means a *TR auction* conducted by the *IESO* for the purchase and sale of *long-term transmission rights* and that may also include the purchase and sale 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 dispatchable load facility that includes associated with a dispatchable load that is rated at 100 MVA or higher; that comprises dispatchable sets of load equipment sthat 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 section 1.5.1 of Appendix 2.2 of Chapter 2 or section 7.8.1 of Chapter 4;

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 section 1.5.1A of Appendix 2.2 of Chapter 2 or section 7.8.2A of Chapter 4;

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 section 1.5.1 of Appendix 2.2 of Chapter 2 or section 7.8.1 of Chapter 4;

mandatory window means the period time on a dispatch day that begins following the realtime 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;

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

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market assessment unit means the entity established by the *IESO* pursuant to section 3.2.1 of Chapter 3;

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 section 22.9.1 of Chapter 7 of the market rules;

market control entity for physical withholding means the market control entity that a market participant has designated pursuant to sections 22.9.2-22.9.7 of Chapter 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 describes 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 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 section 4 of Chapter 2;

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

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auction in accordance with the provisions of MR Ch. 7, or an *administrative price*, where <u>applicable Chapter 7</u>;

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

market schedule means the dispatch schedule which would have resulted in the absence of transmission constraints on the IESO-controlled grid;

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 *Ontario Energy Board Act, 1998*;

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 a maximum amount of energy in MWh that may be scheduled within a dispatch day for a resource or collectively from all hydroelectric generation resources registered on the same forebay, where applicable 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 section 5C.1 of Chapter 2, 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 section 2.6.7.5 of Chapter 7A.

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 is means the number of times that a unit 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, in respect of a given market participant, 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 the amount calculated from time to time by the IESO for that a market participant in accordance with sections 5.3 or 5C.1 of Chapter 2;

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

maximum regulation price or MRP means the maximum price that a market participant may be charged or paid for regulation;

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mediator means a qualified person appointed pursuant to section 2.6 of Chapter 3 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 <u>registered wholesale meterfacility</u>, the market participant designated as the metered market participant for the <u>resource(s)</u> associated with that <u>registered wholesale meter</u> for that <u>registered facility</u> in accordance with <u>MR Ch_apter 9</u>;

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 Chapter 6 for the purpose of storing *metering data*;

metering installation means any apparatus, including but not limited to an RWM, 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 Chapter 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 or collectively from all hydroelectric generation resources registered on the same forebay;

minimum generation block down_-time is-means, for each thermal state, the minimum time, in hours, between the time a generation facility resource was last at its minimum loading point before de-synchronization and the time the generation facility 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, specified by the market participant, that a generation facility resource must be operating at minimum loading point; in accordance with the its technical requirements of the associated facility;

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 specified by the market participant that can be produced by a generation facility 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 facility resource to ramp from a cold start to minimum loading point plus minimum generation block run-time, specified by the market participant, in accordance with the technical requirements of the associated facility;

minimum shut-down time means the minimum time in hours between shutdown and start-up of a generation unit. 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, in respect of a given market participant, the dollar amount determined from time to time by the IESO for that market participant in accordance with section 5.3.4 or 5C.1.5 of Chapter 2, that represents the lowest possible trading limit that may be calculated by the IESO for a market participant as permitted by the market rules;

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

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 dispatchable load facility that includes associated with a dispatchable load that is rated at 1 MVA or higher but less than 20 MVA; that comprises dispatchable sets of load equipmentloads 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 section 1.5.2 of Appendix 2.2 of Chapter 2 or section 7.8.2 of Chapter 4;

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 section 1.5.1A or 1.5.2A of Appendix 2.2 of Chapter 2 or section 7.8.2A or 7.8.2B of Chapter 4;

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 re-classified as a minor generation facility pursuant to section 1.5.1 or 1.5.2 of Appendix 2.2 of Chapter 2 or section 7.8.1 or 7.8.2 of Chapter 4;

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 section 22.10.2 of Chapter 7;

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;

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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 section 8.6.1.1 of Chapter 2;

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 section 3 of Chapter 10;

no margin call option means the option wherein a *market participant* elects, pursuant to Chapter 2, Section 5.6.4, to not be subject to *margin calls*;

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

non-committed resource means a registered facility 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 not subject to dispatch by the IESO and which is a self-scheduling generation resource, transitional scheduling generation resource or intermittent generation resource.

non-dispatchable load means a load <u>resource</u> load <u>resource</u>, within the <u>IESO control</u> area, that is not <u>subject to dispatch</u> by the <u>IESO dispatchable</u> and whose level is not selected or set <u>by the <u>IESO</u> based on the price of <u>energy</u> in the <u>real-time market</u>;</u>

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 5 minutes of the IESO's request and is provided by equipment not synchronized to the IESO-controlled grid when the request to start providing energy is made;

normal operating state means the state described in section 2.2 of Chapter 5;

normal priority path facility means a voice communication facility that meets the requirements of section 1.1.8 of Appendix 2.2 of Chapter 2;

notice of default levy means a notice issued by the *IESO* to a non-defaulting market participant in accordance with section 8.2.3 or 8.4.1 of Chapter 2;

notice of disagreement means a notice provided by a market participant in accordance with section 6.6 of Chapter 9 to the IESO in regard to a disagreement over a preliminary settlement statement:

notice of dispute has the meaning ascribed thereto in section 2.5.1 of Chapter 3;

notice of intent to suspend means a notice issued by the *IESO* to a market participant under section 6.3.3.1 of Chapter 3;

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

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 section 6.2B.6 of Chapter 3;

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;

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obligation period means the period of time for which a *capacity market participant* is required to fulfill its *capacity obligation* through the day-ahead commitment process and *energy market*;

offer means a statement of the quantities of a commodity that a seller will provide at different market prices for that commodity in the real-time market, the day-ahead market, the procurement market, or the capacity auction and includes dispatch data parameters that are submitted in accordance with section 3 of Chapter 7;

one-day advance approval means IESO approval of a planned outage of equipment no later than 14:00 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;

Ontario Energy Board Act, 1998 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 re-energize the IESO-controlled grid or part of it in case the IESO-controlled grid or part of it collapses;

Ontario Zzonal Pprice means the price of energy in Ontario, prior to any adjustments made as a result of the load forecast deviation charge, -applicable to non-dispatchable loads, as 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 section 3.8 of Chapter 9 between the performance of a <u>registered facility resource</u> and the performance required of that <u>registered facility resource</u> for the provision of <u>operating reserve</u>;

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*

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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 real-time 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;

<u>operating reserve ramp rate reference level means a reference level for a resource's</u> ramp rate for *operating reserve*;

operating result means the physical quantity or quantities measured or estimated by the *IESO* as delivered by a registered facility 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 capacity obligation 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 section 3.1.2 of Chapter 2 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 Appendix 2.2 for the purposes referred to in section 1.4.1 of Appendix 2.2 of Chapter 2;

payment date means the date upon which payment is due;

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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*;

period of steady operation means a predefined number of intervals (0, 1, or 2) for which a non quick-start generation facility-resource must maintain steady operation before changing direction of its energy output (either increasing or decreasing). Such a facility-resource is considered to be in steady operation if the magnitude of change between dispatch instructions for the last two intervals is less than 0.1 multiplied by its ramp rate capability between the two 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 <u>day-ahead market</u>, real-time market and/or a procurement market administered by the *IESO* pursuant to Chapter 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 exercising market power by 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;

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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 day means the day prior to a dispatch day;

pre-dispatch calculation engine means an algorithm that consists of a sequence of optimization problems solved by the *IESO* to determine schedules and prices over the pre-dispatch look-ahead period in accordance with Chapter 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 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 dispatch algorithmpre-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 Chapter 4 of the market rules (April 17, 2000); or was in service on the date of coming into force of Chapter 4 of the market rules (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 Appendix 2.2 of Chapter 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 Section 12 of Chapter 5 relating to communications; and (c) the grid connection and data monitoring requirements set out in Chapter 4 other than the requirements set forth in sections 6.1.5 to 6.1.21 of that Chapter.

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

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

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 <u>registered wholesale meter</u> or <u>primary</u> RWM means an RWM 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 Chapter 7, for contracted ancillary services, including regulation, voltage control and reactive support services and black-start capability, and for reliability must-run contracts;

prudential support means the obligations owed to the *IESO* by a third party and other forms of collateral security or support posted with the *IESO* to secure for the financial obligations of a market participant, in the forms set forth in sections 5.7 or 5C.5 of Chapter 2;

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

pseudo-unit means a <u>dispatchable generation resource</u> associated with a <u>eombined cycle</u> generation facility <u>combined cycle plant</u> that is modeled based on a gas-to-steam relationship between generation units, and which is comprised of one <u>resource for the</u> combustion turbine generation unit and a share of one steam turbine generation unit at the same <u>combined cycle generation facility</u> 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 facility means a generation facility or an electricity storage facility whose electrical energy output can be provided to the *IESO-controlled grid* within 5 minutes of the *IESO's* request and is provided by equipment not synchronized to the *IESO-controlled grid* when the request to start providing energy is made;

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;

<u>ramp hours to minimum loading point</u> means the number of hours required for a <u>generation</u> <u>resource</u> to ramp up from synchronization to its <u>minimum loading point</u>;

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 into the IESO-controlled grid in each hour from the time of synchronization to the time it reaches its minimum loading point;

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;

<u>real-time calculation engine</u> means an algorithm that consists of a sequence of optimization problems solved by the *IESO* to determine schedules and prices for the <u>dispatch interval</u> and the subsequent ten 5-minute intervals in accordance with Chapter 7 to meet the needs of the <u>real-time market</u>;

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

real-time dispatch process is the process described in sections 7.1, 7.2, 7.3, and 7.4 of Chapter 7, 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;

<u>real-time generation offer guarantee</u> means an arrangement that meets the requirements of Chapter 9;

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

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

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real-time schedule means.

(i) in respect of a dispatchable generation resource, a dispatchable electricity storage resource, or a dispatchable load resource, a dispatch schedule for a dispatch interval as determined by the real-time calculation engine;

(ii) in respect of a boundary entity resource, an interchange schedule;

(iii) in respect of an *hourly demand response resource*, a schedule to reduce energy withdrawals as determined by the relevant *pre-dispatch schedule*; or

(iv) in respect of a *non-dispatchable generation resource* or *self-scheduling electricity*<u>storage resource</u> that intends to inject *energy*, a schedule as determined by the
<u>real-time calculation engine</u>;

;

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 section 11.4.1 of Chapter 5;

reference bus means the bus designated by the *IESO* in accordance with section 5.2 of Appendix 7.1A, section 5.2 of Appendix 7.2A or section 5.2 of Appendix 7.3A for the purpose of determining the components of *locational marginal price*—the *RWM* on the basis of which the *IESO* determines, where applicable in accordance with section 3.6.2 of Chapter 9, the *energy market* price for the purpose of determining the losses used in calculating contributions to the *transmission charge reduction fund*;

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

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

reference price means one or more of (i) a historical reference price; (ii) a price equal to the market price for energy determined for the dispatch interval in respect of which an investigated price was submitted; and (iii) such other reference price as may be established by the IESO Board pursuant to section 1.3.4 of Appendix 7.6 of Chapter 7;

registered facility means, in respect of a facility, a facility which is capable of supplying or withdrawing physical services, and which is registered with the IESO and means, in

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respect of a *boundary entity*, a *boundary entity* which is comprised of resources capable of supplying or withdrawing *physical services*, and is registered with the *IESO*;

<u>reference quantity</u> means an <u>IESO</u>-determined formula to calculate a <u>reference quantity</u> value;

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

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

registered wholesale meter or RWM means a meter that meets the criteria specified in Chapter 6 and that is registered with the IESO. References to a registered wholesale meter or RWM within Chapter 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 facility 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 <u>IESO</u> to at least a <u>GOG-eligible resource</u>'s <u>minimum loading point</u> in order to maintain the <u>reliable</u> operation of the <u>IESO-controlled grid</u>, as determined by the <u>IESO</u>;

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

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participant's registered facility resource in order to maintain reliability of the IESO-controlled grid;

reliability must-run resources means the resources described in section 4.8.1 of Chapter 5; 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 Chapter 5, sections 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 stayed 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 facility electricity storage resource can continue injecting, or withdrawing, until it reaches its lower energy limit, or upper energy limit, respectively, assuming the electricity storage facility 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;

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 *IESO-controlled grid* made pursuant to section 6.1.6 of Chapter 4;

Request for <u>Ssegregation</u> means a request from a registered market participant for approval to operate its <u>registered facility resource</u> in a segregated mode of operation;

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

<u>reserve loading point</u> means the minimum level of <u>energy</u> output in MWs required for a <u>generation resource</u> to provide its maximum amount of a given class of <u>operating reserve</u>;

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 cross-claim;

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response has the meaning ascribed thereto in section 2.5.4 of Chapter 3;

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 section 6.2B.3 of Chapter 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 section 11.3.5 of Chapter 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 section 4.4.2 of Chapter 3;

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

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

schedule of record means the last valid set of results from the day-ahead commitment process used by the *IESO* for the application of constraints and the calculation of various day-ahead settlement amounts;

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;

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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 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 one or more registered facilities that are generation facilities 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, in respect of a given market participant, the dollar amount submitted to the <u>IESO</u> determined by the a market participant in accordance with section 5.3.2 of Chapter 2, for the purposes of calculating its <u>trading limit</u>;

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

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

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; located within the IESO control area that can operate independently of dispatch instructions from the IESO, except for the provision of regulation services in respect of which it shall follow dispatch instructions;

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 located within the IESO control area that can operate independently of dispatch instructions from the IESO;

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

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 Chapters 8 and 9;

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

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

settlement hour means a period of one hour which corresponds to a particular dispatch hour for which metering data determined in accordance with Chapter 6 and physical market prices for services calculated pursuant to Chapter 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;

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

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

short-term auction means a TR auction conducted by the IESO for the purchase and sale of short-term 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 offtakes 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 dispatchable load facility that includes a is associated with a dispatchable load that is rated at 20 MVA or higher but less than 100 MVA; that comprises dispatchable sets of loads equipment that are associated with

<u>dispatchable loads</u>, 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 section 1.5.1 or 1.5.2 of Appendix 2.2 of Chapter 2 or section 7.8.1 or 7.8.2 of Chapter 4;

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 section 1.5.1A or 1.5.2A of Appendix 2.2 of Chapter 2 or section 7.8.2A or 7.8.2B of Chapter 4;

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 section 1.5.1 or 1.5.2 of Appendix 2.2 of Chapter 2 or section 7.8.1 or 7.8.2 of Chapter 4;

simulated as-offered energy locational marginal price (LMP) means 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 for a resource;

simulated as-offered operating reserve locational marginal price (LMP) means the operating reserve locational marginal price produced by simulating the day-ahead market or real-time market, as applicable;

<u>simulated intertie reference level energy location marginal price (LMP)</u> means the <u>energy locational marginal price</u> at an uncompetitive <u>intertie zone</u> produced by simulating the <u>dayahead market</u> or <u>real-time market</u>, as applicable;

<u>simulated intertie reference level operating reserve location marginal price (LMP)</u> means the <u>operating reserve locational marginal price</u> at an uncompetitive <u>intertie zone</u> produced by simulating the <u>day-ahead market</u> or <u>real-time market</u>, as applicable;

simulated reference quantity energy locational marginal price (LMP) means 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 and the applicable reference quantities and reference levels for the dispatch day for a resource;

simulated reference quantity operating reserve locational marginal price (LMP) means the operating reserve 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 and the applicable reference quantities and reference levels for the dispatch day for a resource;

<u>single cycle mode</u> means the mode of operating a <u>pseudo-unit</u> 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 section 1.5.2A of Appendix 2.2 of Chapter 2 or section 7.8.2B of Chapter 4;

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 section 1.5.2 of Appendix 2.2 of Chapter 2 or section 7.8.2 of Chapter 4;

speed no-load cost is the hourly value offered by the registered market participant to maintain a generation facility synchronized with zero net energy injected into the IESO-controlled grid;

speed no-load offer means the hourly dollar amount to operate a generation unit in a synchronized status while injecting no energy to the *IESO-controlled grid* as offered by the registered market participant.

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

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binding pre-dispatch advisory schedule to respect the resource's minimum generation block run-time during the applicable hours specified by the IESO pursuant to MR Ch.7, s. 5B.2.2.5;

start indication value means the minimum quantity of energy in MW that a resource must be scheduled to determine whether the generation units associated with the resource have used one or more of the submitted maximum number of starts per day;

start-up cost is the value offered by the registered market participant to bring an off-line resource to its 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 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 time means the time in hours required to bring a generation unit or electricity storage unit on line. This is measured from the time of receiving a request to start the generation unit or electricity storage unit to the time of synchronization;

start volume means the incremental volume of fuel consumed by a generation facility, on a per registered resource basis, for an eligible real-time generation cost guarantee submission from either: (i) the point of ignition to the minimum loading point of the submitting eligible registered facility, on a per registered resource basis; or (ii) the point of synchronization to the minimum loading point of the submitting eligible registered facility, on a per registered resource basis, if operating in a full speed no-load state for more than five minutes in advance of synchronization to the IESO-controlled grid;

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;

<u>Statutory Powers Procedure Act</u> means the Statutory Powers Procedure Act, R.S.O. 1990, c.S.22;

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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 section 6.3A of Chapter 3 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 <u>resource</u> that is available to enroll 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 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;

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termination order means an order issued pursuant to section 6.4 of Chapter 3 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 TFE; or (ii) a person applying to become a market participant who applies to the IESO for a TFE; or (iii) the IESO, in the event the IESO requires a TFE;

TFE application means an application for the approval, amendment, termination, or transfer of a TFE pursuant to section 3.2A of Chapter 5;

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 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 hydroelectric generation facility to reach a downstream hydroelectric generation facility with the same registered market participant, and that is on the same cascade river system;

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 and sale of transmission rights;

TR bid means a bid to purchase a transmission right 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 section 4.18.1 of Chapter 8;

TR holder means, in respect of a given transmission right, the TR participant recognized by the IESO, in accordance with section 4.3.1 or 4.9.5 of Chapter 8, as the TR participant that has the right to receive all settlement amounts under the transmission right or, in the case of a

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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 market means the market operated by the IESO for transmission rights pursuant to section 4 of Chapter 8;

TR market clearing price means, in respect of a given transmission right, the market clearing price for the transmission right established in accordance with section 4.15 of Chapter 8;

TR market deposit means the deposit required to be made by a TR participant pursuant to section 4.8.2 of Chapter 8 as a condition of being a TR bidder in a TR auction;

TR offer means an offer to sell a transmission right in a TR auction;

TR offeror means a person offering to sell a transmission right 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 section 4.8 of Chapter 8;

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

TR zone means the IESO control area or an intertie zone in respect of which the IESO calculates prices for energy for settlement purposes in the <u>day-aheadreal-time</u> markets;

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

trading limit means, in respect of a given market participant, 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 for that market participant in accordance with sections 5.3.5, or 5.3.6, 5C.1.5, or 5D.2.2-of Chapter 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 section 6.1.1 of Chapter 10;

transitional scheduling generator means a generation facility located within the *IESO* control area that is under contract with *OEFC* effective April 1, 1999 and surviving the market commencement date, and is registered as such in accordance with the applicable sections of Chapter 7;

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

transmission 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 section 4.4 of Chapter 8;

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 section 6A.1.1 of Chapter 10;

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 authorised authorized by the OEB in a rate order issued pursuant to the <u>Ontario Energy Board Act, 1998</u> 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;

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unattended means not attended;

unconstrained IESO-controlled grid model means the model capable of being used by the dispatch algorithm and described in section 4.5.1.1 of Chapter 7;

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

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 <u>energy</u> that is supplied by a <u>variable generation resource</u>; wind and solar photovoltaic resources with an installed capacity of 5MW or greater, or all wind and solar photovoltaic resources that are directly connected to the <u>IESO-controlled</u> grid;

variable generator means a generator whose generation facility is classified as variable generation;

VEE process means the process described in Chapter 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;

<u>virtual transaction</u> means a transaction in the <u>IESO-administered markets</u> in the form described in MR Ch.7, s.3.4.1.4B of Chapter 7, that creates a financial obligation to settle against the difference between the <u>day-ahead market virtual zonal price</u> and the <u>real-time market virtual zonal price</u>, without a corresponding injection or withdrawal of <u>energy</u> in the <u>real-time market</u>;

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

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

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

<u>virtual zonal resource</u> means a construct existing within the <u>IESO's</u> 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;

wear and tear means, for the purposes of the Real-Time Generation Cost Guarantee Program, the useful life consumption of certain parts or equipment of a *generation facility* that would occur as a result of operation of the *generation facility* in accordance with prudent industry practices and original equipment manufacturer guidelines of the *generation facility*. The useful life consumption of certain parts or equipment of a *generation facility* manifests from applicable physical mechanisms (such as creep and fatigue) during different operating conditions (e.g. start-up, steady state operation, transients and shutdown);

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 <u>associated with a load resource</u> who purchases <u>electricity energy or ancillary services</u> in the *IESO-administered markets* or directly from another person or who provides <u>ancillary services</u> in the <u>IESO-administered markets</u> or <u>directly to the *IESO*;</u>

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

wholesale seller means an <u>energy trader or a</u> person who sells electricity or ancillary services through the *IESO-administered markets* or directly to another person;