

Market Rule Amendment Proposal Form

Part 1 - Market Rule Information

Identification No.:	MR-00454-R02
Subject:	Market Renewal Program – Market and System Operations
Title:	Market Renewal Program – Market and System Operations
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration <input checked="" type="checkbox"/> Deletion <input checked="" type="checkbox"/> Addition
Chapter:	Chapter 5 – Power System Reliability
Appendix:	
Sections:	Chapter 5, sections 4, 6, 7, 8 and 10
Sub-sections proposed for amending:	
Current Market Rules Baseline:	

Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review	July 14, 2023

Approved Amendment Publication Date:

Approved Amendment Effective Date:

Part 3 - Explanation for Proposed Amendment

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

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

Background

Discussion

Part 4 - Proposed Amendment

Chapter 5

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4.5 Operating Reserve

4.5.1 *Operating reserve* is capacity that, for any given operating interval or *dispatch interval*, is in excess to that required to meet anticipated requirements for *energy* for that operating interval or *dispatch interval*, and is available to the *integrated power system* for *dispatch* by the *IESO* within a specified time period, such as 10 minutes or 30 minutes. *Operating reserves* may be provided by *generation resources, electricity storage resources, dispatchable loads* and *boundary entity resources* to the extent that each meets the applicable requirements to be a *resource* in respect of each category of *operating reserves*. Neighbouring *control areas* may also provide *operating reserve* through simultaneous activation of *operating reserve* and regional reserve sharing programs. *Operating reserve* is required to:

4.5.1.1 cover or offset unanticipated increases in load during a *dispatch day* or *dispatch hour*;

4.5.1.2 replace or offset capacity lost due to the *forced outage* of generation, electricity storage or transmission equipment; or

4.5.1.3 cover uncertainty associated with the performance of *generation facilities, electricity storage facilities* or *dispatchable loads* in responding to the *IESO's dispatch instructions*.

4.5.2 The *IESO* shall maintain sufficient *operating reserve* to meet all applicable *reliability standards*.

4.5.2A In the event of an *operating reserve* deficiency, the *IESO* may apply voltage reductions and/or reduce the *thirty-minute operating reserve* requirements in compliance with the applicable *reliability standards*.

4.5.3 The *IESO* shall maintain, as a minimum, total *operating reserve* that is the sum of the *ten-minute operating reserve* requirement and the *thirty-minute operating reserve* requirement.

- 4.5.4 Part of the requirement for *ten-minute operating reserve* shall be synchronized with the *IESO-controlled grid* consistent with section 4.5.9.
- 4.5.5 The *IESO* shall ensure that *operating reserve* is distributed throughout the *IESO-controlled grid* such that sufficient *operating reserve* can be activated and delivered to any location on the *integrated power system*.

~~Control Action Operating Reserve~~

~~4.5.6A The *IESO* may include voltage reductions, and reductions in the *thirty-minute operating reserve* requirements within allowable *reliability standards* as standing offers in the *operating reserve markets* subject to the following conditions:~~

~~4.5.6A.1 the *IESO* shall introduce such standing offers in increasing quantities;~~

~~4.5.6A.2 the quantities referred to in section 4.5.6A.1 and the prices therefore shall be determined by the *IESO Board* and such quantities and prices shall be published by the *IESO*;~~

~~4.5.6A.3 the *IESO Board* may specify the circumstances under which any one or more of the quantities may either be withdrawn or not introduced and the manner in which any such withdrawal will be effected and the publishing thereof;~~

~~4.5.6A.4 the *IESO* shall publish the times and quantities of the voltage reductions and reduction in *thirty-minute operating reserve* when these sources of *operating reserve* have been scheduled to provide *operating reserve*; and~~

~~4.5.6A.5 the prices and quantities of the standing offers set by the *IESO Board* in accordance with section 4.5.6A.2 shall be monitored by the *IESO* to assess their impacts and that any changes to the prices and quantities would be recommended to the *IESO Board* as necessary.~~

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6. Outage Coordination

6.2 Outage Planning

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IESO Obligation to Include Planned Outages in Daily and Quarterly Assessments

- 6.2.3 The *IESO* shall include in the daily assessments referred to in section 7.3.1.4 all *planned outages* ~~which have advance approval and are planned that are~~ to occur in the immediately following ~~3334~~ calendar days as reported or scheduled by *market participants*. The *IESO* shall include in the quarterly assessments referred to in section 7.3.1.2 all *outages* planned or scheduled to occur in the immediately following 18 months as reported or scheduled by *market participants*.

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6.4 Submission of Outage Schedules and IESO Approval of Outage Schedules

- 6.4.1E If requesting *one-day advance approval of a planned outage* the *market participant* shall submit the *planned outage* with the *IESO* no later than ~~1610~~:00 EST on the second *business day* prior to the start date of the *planned outage*.
- 6.4.4 The *IESO* shall:
- 6.4.4.5A if the *market participant* submitted its *planned outage* and request for *one-day advance approval* under section 6.4.1.E, advise the *market participant* of the *one-day advance approval* or rejection of the *planned outage* no later than ~~148~~:00 EST on the *business day* prior to the day on which the *planned outage* is scheduled to commence; and

7. Forecasts and Assessments

7.3 Advance Assessments of System Reliability

- 7.3.1 The *IESO* shall prepare for the purposes referred to in section 7.4 and based on the information received pursuant to section 7.5.1 and such other information as

the *IESO* considers appropriate, and *publish*, the following reports of its findings in relation to such *reliability* assessments:

- 7.3.1.1 [Intentionally left blank – section deleted]
- 7.3.1.2 on a quarterly basis and no later than 5 *business days* prior to the end of each calendar quarter, an assessment covering an eighteen-month period commencing with the following calendar month;
- 7.3.1.3 [Intentionally left blank – section deleted]
- 7.3.1.4 on a daily basis and not later than ~~17:00-20:30~~ EST on each day, an assessment covering a ~~thirty-four~~ 34 day period commencing on the following day; and
- 7.3.1.5 as required, an assessment of the *reliability* of the *IESO-controlled grid*.

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7.4 Purpose of Assessments

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- 7.4.2 The *IESO* shall conduct the quarterly assessments referred to in section 7.3.1.2 to:
 - 7.4.2.1 provide forecasts, by month, of expected *demand*, *generation capacity*, *electricity storage capacity* and transmission capacity, *energy* capability of *generation ~~facilities~~resources*, and *electricity storage ~~facilities~~resources* and the possibility of any *security*-related events on the *IESO-controlled grid* that could require contingency planning by *market participants* or by the *IESO*;
 - 7.4.2.2 allow the *IESO* to identify exigencies potentially impacting on the coordination of *outages* that could give rise to shortfalls in *generation capacity* and *electricity storage capacity* and thus provide information by which *market participants* could act to reschedule *outage* plans to avoid such projected shortfalls; and
 - 7.4.2.3 allow the *IESO* to meet its obligations to relevant *standards authorities* so as to enable the latter organizations to assess the expected *reliability* of the regional power systems to match generation and *demand*.
- 7.4.3 [Intentionally left blank – section deleted]

~~7.4.3.1 to 7.4.3.3 [Intentionally left blank—sections deleted]~~

7.4.4 The *IESO* shall conduct the daily assessments referred to in section 7.3.1.4 to:

7.4.4.1 provide forecasts of:

7.4.4.1.1 expected hourly *demand, generation capacity, electricity storage capacity, energy capability of generation facilitiesresources* and *electricity storage facilitiesresources*, exports and imports of *energy*, and *operating reserve requirements*;

7.4.4.1.2 expected transmission limits with all elements in-service; and

7.4.4.1.3 expected transmission limits with *outages*;

that may affect the *security* of the *IESO-controlled grid* or affect operational decisions to be taken by the *IESO* that must be made more than a day in advance;

7.4.4.2 allow the *IESO* to meet its obligations to relevant *standards authorities* so as to enable the latter organizations to assess the expected *reliability* of regional power systems to match generation and *demand*, on a daily and hourly basis, particularly in peak seasons and in peak hours; and

7.4.4.3 allow the *IESO* to identify exigencies potentially impacting on the coordination of *outages* that may give rise to shortfalls in *generation capacity* and thereby assist *market participants* in finalizing *outage* plans and submitting *outage* schedules to the *IESO*.

7.4.5 The *IESO* shall conduct the assessments referred to in section 7.3.1.5 to:

7.4.5.1 meet its obligations to maintain the *reliability* of the *IESO-controlled grid*;

7.4.5.2 meet the requirements of *standards authorities*; and

7.4.5.3 assist the *OEB* in meeting their objectives.

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8.4 Responsibilities of Market Participants Whose Facilities Form Part of an RAS

8.4.1 A *market participant* with a ~~dispatchable generation facility or a dispatchable electricity storage facility that is not a non-quick start resource~~ quick start facility and that is part of an *RAS* may, in the time and manner specified in the applicable *market manual*, apply to the *IESO* for compensation, if:

~~8.4.1.1 that facility is tripped offline as a result of the activation of the RAS;~~

~~8.4.1.2 the non-quick start resource does not receive a real-time make whole payment settlement amount pursuant to MR Ch.9 s.3.5 in relation to such energy for the same metering interval;~~

~~8.4.1.3 the non-quick start resource does not receive a day-ahead market balancing credit pursuant to MR Ch.9 s.3.3 in relation to such energy for the same metering interval;~~

~~8.4.1.4 the day-ahead market locational marginal price is less than the real-time market locational marginal price at the delivery point for the non-quick start resource, and~~

~~8.4.1.5 the resource's actual quantity of energy it injects into the IESO-controlled grid is less than its day-ahead schedule.~~

~~The amount of compensation that may be claimed is the difference between the applicable real-time market locational marginal price and the applicable day-ahead market locational marginal price at the delivery point for the non-quick-start resource multiplied by the difference between the resource's day-ahead schedule and the actual quantity of energy it injects into the IESO-controlled grid.~~

~~that facility is tripped offline as a result of the activation of the RAS. The amount of compensation that may be claimed shall be determined in accordance with the applicable market manual and shall be the equivalent of up to the first two hours of constrained off-congestion management settlement credit payments that would otherwise be calculated if the facility had been constrained down to zero and its circuit breaker had remained closed.~~

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10. Demand Control

10.1 Introduction

10.1.1 This section 10 applies in situations on the *integrated power system* where there is insufficient capacity available to satisfy expected *demand*, where operating problems (such as frequency, voltage levels or thermal over-loads) exist which affect the ability to serve ~~*demand load*~~, or where there is a breakdown on any part of the *IESO-controlled grid*. This section 10 identifies actions that the *IESO* may take or direct *market participants* to take to assist in achieving reductions in *demand* to either avoid or alleviate such situations.

10.1.2 Pursuant to ~~MR Chapter 7~~, the *IESO* shall continuously inform *market participants* of conditions on the *IESO-controlled grid* that may require the *IESO* to initiate reductions in *demand* by *non-dispatchable loads* or *price responsive loads*.

10.2 Demand Control Initiated by a Market Participant

10.2.1 *Market participants* shall notify the *IESO* of any action initiated by them to control *demand* in accordance with this section 10.2.

10.2.2 Each *market participant* that can intentionally and directly cut ~~the withdrawals by a dispatchable load~~ or ~~the withdrawals~~ by a *dispatchable electricity storage resource facility* shall provide the following information to the *IESO* :

10.2.2.1 the proposed date, time, and duration of the cuts by *connection point* on the *IESO-controlled grid*, by hour;

10.2.2.2 the proposed MW reduction of *demand* by *connection point* on the *IESO-controlled grid*, by hour; and

10.2.2.3 the details of the actual decrease in ~~the withdrawals by a dispatchable load~~ or the withdrawals by a *dispatchable electricity storage resource facility* that was achieved.

10.2.3 Each *transmitter* and *distributor* that intends to initiate a voltage reduction shall:

- 10.2.3.1 by 10:00 ~~EST-EPT~~ each day, notify the *IESO* of all such planned voltage reductions and consequent reduction in load for the following day;
 - 10.2.3.2 immediately notify the *IESO* of a voltage reduction that is planned after 10:00 ~~EST-EPT~~ for the following day;
 - 10.2.3.3 the proposed date, time, and duration of the voltage reduction by connection point on the *IESO-controlled grid*, by hour;
 - 10.2.3.4 the proposed MW reduction by *connection point* on the *IESO-controlled grid*, by hour; and
 - 10.2.3.5 details of the actual voltage reduction achieved, in MWs.
- 10.2.4 Each *distributor* or *transmitter* that intends to initiate a disconnection in load (including, but not limited to, interruptible loads and demand management activities) shall:
- 10.2.4.1 by 10:00 ~~EST-EPT~~ each day, notify the *IESO* of all such planned disconnections in load and consequent reduction in loads for the following day;
 - 10.2.4.2 immediately notify the *IESO* of a disconnection in load that is planned after 10:00 ~~EST-EPT~~ for the following day;
 - 10.2.4.3 the proposed date, time, and duration of the disconnection in load by *connection point* on the *IESO-controlled grid*, by hour;
 - 10.2.4.4 the proposed reduction, in MWs, of loads by *connection point* on the *IESO-controlled grid*, by hour; and
 - 10.2.4.5 details of the actual reduction in loads achieved, in MWs.
- 10.2.5 Each *distributor* and *transmitter* that has operational control over load shall:
- 10.2.5.1 make arrangements that enable it to *disconnect* load immediately under an *emergency operating state* declared by the *IESO*;
 - 10.2.5.2 make arrangements that enable it to apply *disconnections* to load to individual or specific groups of *connection points* on the *IESO-controlled grid* as determined in a coordinated fashion by the *IESO* and *market participants*;

10.2.5.3 provide the *IESO* in writing, by week 24 in each calendar year, its total forecasted peak *demand* for the immediately following twelve-month period, by *connection point* on the *IESO-controlled grid*; and

10.2.5.4 provide the *IESO* in writing, by week 24 in each calendar year, the total forecasted peak *demand* for the immediately following twelve-month period that can be *disconnected* within the following time scales: immediately, 15 minutes, 1 hour and more than 1 hour. This information shall be provided by *connection point* on the *IESO-controlled grid*.

10.2.6 No *distributor* or *transmitter* that has *disconnected* load pursuant to section 10.2.4 shall reconnect the load until directions have been received from the *IESO* permitting it to do so. Such *distributor* or *transmitter* shall commence restoration of load immediately following receipt of such directions.

10.3 Demand Control Initiated by the IESO in an Emergency Operating State

10.3.1 When an *emergency operating state* has been declared by the *IESO*, the actions available to the *IESO* to safeguard the *security* of the *IESO-controlled grid* may include issuing directions to *market participants* to reduce *demand* for electricity.

10.3.2 Whenever possible, the *IESO* shall issue a warning by 16:00 EST on the previous day when requesting a reduction of *demand* through voltage reductions or interruptions.

10.3.3 Each *market participant* that receives a direction from the *IESO* to reduce *demand* shall achieve the reduction in *demand* within 5 minutes of receipt of the direction and shall notify the *IESO* that it has done so.

10.3.4 Each *market participant* may interchange customers to whom the *demand* reduction has been applied provided the necessary *demand* reduction required by the *IESO* is achieved by the interchange.

10.3.5 No *market participant* that has reduced *demand* pursuant to this section 10.3 shall restore *demand* until directions have been received from the *IESO* permitting it to do so. Such *market participant* shall commence restoration of *demand* immediately following receipt of such directions.

10.3.6 The *IESO* shall maintain, *publish* and revise as required, following appropriate consultations with *market participants*, the *Ontario Electricity Emergency Plan* regarding exclusions to load management activities that are undertaken for the purpose of controlling *demand*.

| 10.3.7 The *IESO* shall ~~*publish*~~ *release to all market participants* an estimate of aggregate load *curtailed* as soon as practicable following the return to a *normal operating state*.