

# Market Rule Amendment Proposal Form

Identification No.:	MR-00449-R00	
Subject:	Minor amendments	
Title:	Clarifications to the Market Rules (Omnibus 2021)	
Nature of Proposal:	$\Box$ Alteration $\boxtimes$ Deletion $\boxtimes$ Addition	
Chapter:	Chapter 4, Chapter 5, Chapter 6, Chapter 7, Chapter 8, Chapter 9, Chapter 10, Chapter 11	
Appendix:	Appendix 1.1, Appendix 4.2, Appendix 4.3, Appendix 5.1, Appendix 7.1, Appendix 7.5A	
Sections:	Various	
Sub-sections proposed for amending:	Various	
Current Market Rules Baseline	Issue 78, Baseline 45.0, February 26, 2021	

#### Part 1 - Market Rule Information

### Part 2 - Proposal History

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review and Comment	June 22, 2021
2.0	Posted for stakeholder review and comment	June 29, 2021
3.0	Submitted for Technical Panel vote	July 20, 2021
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4.0	Resubmitted for Technical Panel vote	September 28, 2021
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Approved Amendment Publication Date:	
Approved Amendment Effective Date:	

#### Part 3 Explanation for Proposed Amendment

Provide a brief description of the following:

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

#### Summary

The IESO proposes a number of minor amendments to the market rules. These amendments correct typographical errors, cross-references, italicized defined terms, and other general amendments which are minor in nature. The amendments relate to a number of different areas of the market rules, and for efficiency, have been submitted as a single "omnibus" package.

A discussion of each amendment is below. The document then provides the actual proposed edits in the same order, with the change indicated.

#### Background

The IESO proposes a number of market rule amendments in this year's omnibus process. The IESO is proposing that a suite of rule amendments be considered that includes two amendments that may not be considered minor according to the defined term *minor amendment,* as they impact the obligations of some market participants. In both cases however, the impact is expected by the IESO to be non-material. As such, their inclusion in an existing amendment process will reduce the effort involved by Technical Panel members and the IESO in administering separate initiatives. These amendment proposals are included in proposal packages R01 and R02 along with a rationale in each of why they are being included in this amendment process. Proposal R00 includes the other amendments that would typically be considered minor amendment to the market rules to correct a typographical or grammatical error, or to effect a change of a non-material procedural nature;". Proposals R03 and R04 are also considered minor amendments, however they are included as separate packages due to the volume of changes entailed in each.

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#### Discussion

#### Appendix 1.1

Appendix can be removed, as no longer required

#### Appendix 4.2

Section 6; remove space between "set" and "point", add comma following main output transformer, and move comma to after electricity storage facility.

#### Appendix 4.3

Section 12; include generation into note for electricity storage facilities

#### Chapter 3

Section 2.2.1; Remove duplicate 2.2.1.3

#### Chapter 5

Section 3.2.1; remove italics from "generation"

Section 4.9.2.1; add dispatchable load to list of resources that can be tested for providing synchronized ten minute operating reserve

Section 6.2.4; Add comma following 'Transmitter' in the title above this section.

Section 6.7.5; Include electricity storage participant in last sentence

Section 12.3.3; Add "chapter 7" to the missing chapter reference

#### Appendix 5.1

Section 1.3.4; replace real power with active power to provide consistency across market rules

#### Chapter 6

Section 4.5.3.1; replace transmission service charge with defined term *transmission services charges* 

Section 4.6.3; replace "meter service provider" with metering service provider

#### Chapter 7

Section 1.6.3.2; replace administrative pricing with defined term *administrative prices* 

Section 2.1.2.1; italicize physical service(s)

Section 2.2.3.7; remove semi-colon

Section 2.3.2.3; italicize facilities and generation unit

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Section 2.3.2.3; replace generating unit with generation unit

Section 2.3.2.3c; remove underline from 'the' in between the two references to legislation

Section 3.3A.6; add in small cap letters (a,b, etc) for the two sub-sections

Section 3.4.1.4A; remove italics from the words "to the"

Section 5.2.1.5; include electricity storage facility along with generator and dispatchable load

Section 5.3.1.3; include electricity storage facility along with generator and load

Section 5.3.1.3; remove italics from 'generator' as sentence is referring to the equipment, not the market participant

Section 8.2.2.2; Add a, b, etc to bulleted list

Sections 11.3.1 and 11.3.2; replace "1" with "one"

Section 18.4.1.1; Add 'Canada' following the Bank Act

#### Appendix 7.1

Section 1.1.6; remove italics from 'generator' as the sentence refers to the equipment, not the market participant

#### Appendix 7.5A

Section 5.1.4; Add italics to 'generator' to refer to the defined term

#### **Chapter 8**

Section 2.1.2.2c.; replace generator with generation facility

Section 4.8.2A.1; Add 'Canada' following the Bank Act

Section 4.11.2.1; Add and italicize long term auction

#### **Chapter 9**

Section 1.1.2.9; replace transmission service charge with defined term transmission services charges

Section 2.1A.6; replace "connection service" with defined term "connection station service"

Section 2.2.2; replace self-scheduled with self-scheduling and italicize all defined terms

Section 3.5.4; add in subscripts and superscripts to MQSI, DQSI and SQROR variables, and italicize *constrained-off event* 

Section 3.5.1D.1; typo, replace "registered facility" with "registered facility"

Section 3.5.7A; replace constrained on generation facility with constrained on generation unit Page 4 of 22 Public IMO\_FORM\_1087v11.1 REV-20-10

Section 3.8C.3 and 3.8C.5; remove underline from real-time

Section 3.8C.9; remove paragraph

Section 3.8F.2; correct formatting in paragraph

Section 4.1.1; replace transmission service charge with defined term transmission services charges

Section 4.7D.4; replace EDAC reference to DACP

Section 4.7E.1 and 4.7E.3; add in sub-bullets

Section 4.7E.3; italicize market participant

Section 6.3.10A; capitalize Chapter 7

Section 6.11.2.4; correct reference to defined term IESO prepayment account by removing "'s"

Section 6.11.3; add italics for defined terms and replace transmission service charges with defined term *transmission services charges* 

Section 6.14.3A; add in sub-bullets

Section 6.14.7 and 6.14.8; replace real-time market creditor with market creditor

#### Chapter 10

Section 1.1.1; replace transmission service charge with defined term *transmission services charges* 

Section 1.1.4; move comma in section 6.2, of Chapter 9

Section 8.8.1; replace transmission service charge with defined term *transmission services charges* 

#### Chapter 11

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Correct order between notice of disagreement and notice of default levy

Part 4 Proposed Amendment

# Appendix 1.1 – Staging of the Market Rules[Intentionally left blank]

Market Rules Reference	Coming Into Force
Chapter 1	February 21, 2000

Chapter 3, Sections 2.&.5February 21, 2000Chapter 4April 17, 2000Chapter 5, all of Section 4 except sections 4.4.1, 4.4.2, 4.4.3, 4.4.4, A.5 & 4.11.April 17, 2000Chapter 5, Section 11July 3, 2000Chapter 6, all of Section 5 except sections 5.1.1, 5.2.1, 5.2.2 and 5.2.3.February 21, 2000Chapter 6, Section 1, Section 2, Section 3.1 except sections 3.1.2.2(c), 3.1.4 and 3.1.5, Section 3.2, Section 4.1 except section 4.1.3, 4.1.6 and 4.1.7, Section 4.2 except section 4.2.3, Section 4.3.2, Section 4.4, Section 7.1.5, Section 7.1.6, Section 7.3.1, Section 9.1.1, Section 9.1.2, Section 9.2 except section 6.2 except section 6.2.3.4, Section 13.1.1.1, Section 13.1.1.8, Section 13.1.1.9, Section 13.1.1.1, Section 13.1.1.8, Section 13.1.1.9, Section 13.1.1.1, Section 13.1.1.1, Section 13.1.1.1, Section 13.1.1.1, Section 13.1.1.2, Section 13.1.1.1, Section 13.1.1.1, Section 13.1.1.1, Chapter 6, Appendix 6.1, section 1.3April 17, 2000Chapter 6, Appendix 6.4February 21, 2000Chapter 6, Appendix 6.4.5April 17, 2000Chapter 6, Appendix 6.5April 17, 2000Chapter 6, Appendix 6.6, section 1.2.1April 17, 2000Chapter 6, Appendix 6.6, section 1.2.1April 17, 2000		
Chapter 4April 17, 2000Chapter 5, all of Section 4 except sections 4.4.1, 4.4.2, 4.4.3, 4.4.4, April 17, 2000April 17, 2000Chapter 5, Section 11July 3, 2000Chapter 5, Section 11July 3, 2000Chapter 6, all of Section 5 except sections 5.1.1, 5.2.1, 5.2.2 and 5.2.3.February 21, 2000Chapter 6, Section 1, Section 2, Section 3.1 except sections 3.1.2.2(e), 3.1.4 and 3.1.5, Section 3.2, Section 4.1 except section 4.1.3, 4.1.6 and 4.1.7, Section 6.1.2 except section 6.1.1, Section 7.3.1, Section 9.1.1, Section 6.1.2, Section 7.1.6, Section 7.3.1, Section 9.1.1, Section 9.2.3, Section 13.1.1.1, Section 13.1.1.8, Section 9.3.1, Section 13.1.1.10, Section 13.1.1.1, Section 13.1.1.8, Section 13.1.1.9, Section 13.1.1.11, Section 13.1.1.13April 17, 2000Chapter 6, Appendix 6.1, section 1.3April 17, 2000Chapter 6, Appendix 6.4February 21, 2000Chapter 6, Appendix 6.5April 17, 2000Chapter 7, Section 2April 17, 2000	Chapter 2, all except Sections 1.2.1, 3.1.9, 5.3.4, 5.3.6.2, 7 & 8	<del>April 17, 2000</del>
Chapter 5, all of Section 4 except sections 4.4.1, 4.4.2, 4.4.3, 4.4.4, April 17, 2000Chapter 5, Section 11July 3, 2000Chapter 6, all of Section 5 except sections 5.1.1, 5.2.1, 5.2.2 and 5.2.3.February 21, 2000Chapter 6, Section 1, Section 2, Section 3.1 except sections 3.1.2.2(c), 3.1.4 and 3.1.5, Section 3.2, Section 4.1 except sections 4.1.3, 4.1.6 and 4.1.7, Section 4.2 except section 4.2.3, Section 4.3.2, Section 4.4, Section 6.1 except section 6.1.1, Section 6.2 except section 6.2.3.4, Section 7.1.6, Section 7.3.1, Section 9.1.1, Section 9.1.2, Section 13.1.1.1, Section 13.1.1.8, Section 13.1.1.9, Section 13.1.1.10, Section 13.1.1.11, Section 13.1.1.13April 17, 2000Chapter 6, Appendix 6.1, section 1.3April 17, 2000Chapter 6, Appendix 6.4February 21, 2000Chapter 6, Appendix 6.5April 17, 2000Chapter 6, Appendix 6.5April 17, 2000Chapter 7, Section 2April 17, 2000	Chapter 3, Sections 2 & 5	<del>February 21, 2000</del>
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3.1.2.2(c), 3.1.4 and 3.1.5, Section 3.2, Section 4.1 except sections4.1.3, 4.1.6 and 4.1.7, Section 4.2 except section 4.2.3, Section4.3.2, Section 4.4, Section 6.1 except section 6.1.1, Section 6.2except section 6.2.3.4, Section 7.1.5, Section 7.1.6, Section 7.3.1,Section 9.1.1, Section 9.1.2, Section 9.2 except section 9.2.1,Section 13.1.1.9, Section 13.1.1.1, Section 13.1.1.8,Section 13.1.1.9, Section 13.1.1.10, Section 13.1.1.11, Section13.1.1.13Chapter 6, Appendix 6.1, section 1.3Chapter 6, Appendix 6.2Chapter 6 Appendix 6.4Chapter 6, Appendix 6.5Chapter 7, Section 2April 17, 2000	Chapter 6, all of Section 5 except sections 5.1.1, 5.2.1, 5.2.2 and 5.2.3.	February 21, 2000
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Chapter 6 Appendix 6.4February 21, 2000Chapter 6, Appendix 6.5April 17, 2000Chapter 6, Appendix 6.6, section 1.2.1April 17, 2000Chapter 7 Section 2April 17, 2000	Chapter 6, Appendix 6.1, section 1.3	April 17, 2000
Chapter 6, Appendix 6.5April 17, 2000Chapter 6, Appendix 6.6, section 1.2.1April 17, 2000Chapter 7 Section 2April 17, 2000	Chapter 6, Appendix 6.2	<del>April 17, 2000</del>
Chapter 6, Appendix 6.6, section 1.2.1April 17, 2000Chapter 7 Section 2April 17, 2000	Chapter 6 Appendix 6.4	<del>February 21, 2000</del>
Chapter 7 Section 2 April 17, 2000	Chapter 6, Appendix 6.5	April 17, 2000
	Chapter 6, Appendix 6.6, section 1.2.1	April 17, 2000
Chapter 11 Section 1 February 21, 2000	Chapter 7 Section 2	April 17, 2000
	Chapter 11 Section 1	February 21, 2000

# Appendix 4.2

6. Automatic Voltage	Regulate voltage automatically within ±0.5% of any set point setpoint within ±5% of rated voltage at the
Regulator (AVR)	low-voltage terminal of the main output transformer, if the transformer impedance is not more than 13%
	based on the rated apparent power of the generation facility, or electricity storage facility, or at a point
	approved by the IESO. Reactive power-voltage droop or AVR reference load current compensation shall
	not be enabled without IESO approval. The equivalent time constants shall not be longer than 20 ms for
	voltage sensing and 10 ms for the forward path to the exciter output.

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# Appendix 4.3

12. Generation Units and Electricity Storage Units	Any generation unit or electricity storage unit connected within a connected wholesale customer's or a distributor's facility or distribution system that is connected to the IESO-controlled grid shall meet, at a minimum, the performance requirements for Off-Nominal Frequency Operation (category 1), Speed/Frequency Regulation (category 2), and Voltage Ride-Through (category 3) specified in Appendix 4.2.
	If a <i>connected wholesale customer</i> injects active power into the <i>IESO-controlled grid</i> , all performance requirements specified in Appendix 4.2 are applicable to the <i>generation units</i> and <i>electricity storage units</i> installed within their <i>facility</i> .
	Note: These performance requirements shall apply to <i>electricity storage units</i> and <i>generation units</i> at all times while connected within a <i>connected wholesale customer's</i> or <i>distributor's facilities</i> or <i>distribution system</i> that is connected to the <i>IESO-controlled grid</i> , unless the <i>IESO</i> identifies specific performance requirements that are not applicable to an <i>electricity storage unit</i> or <i>generation unit</i> for those with a <i>connection assessment</i> finalized after January 18, 2021. Due consideration will be given to inherent limitations.

# **Chapter 3**

### 2.2 Application

- 2.2.1 Subject to sections 2.2.3 and 3.8 and to section 8.8.1 of Chapter 2, the dispute resolution regime provided for in this section 2 shall apply to:
- 2.2.1.3 an application by a *generator* or *electricity storage participant* for compensation pursuant to section 6.7.5 of Chapter 5 in respect of an *outage* rejected by the *IESO*;
- 2.2.1.1 any dispute between the *IESO* and any *market participant* which arises under the *market rules, market manuals* or any standard, policy or procedure established by the *IESO* pursuant to these *market rules*, including with respect to any alleged violation or breach thereof, whether or not specifically identified in the *market rules* as a dispute to which this section 2 applies;
- 2.2.1.1A a contested matter pursuant to section 6.2B.5 and section 6.2B.9, except as otherwise provided in section 6.2B;
- 2.2.1.1B a dispute involving an order of the *IESO* issued pursuant to section 6.2B.15, except as otherwise provided in section 6.2B;
- 2.2.1.2 any denial by the *IESO* of authorization to any person to participate in the *IESO*administered markets or to cause or permit electricity to be conveyed into, out of or through the *IESO*-controlled grid, as to the denial of such authorization;

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- 2.2.1.3 an application by a *generator* or *electricity storage participant* for compensation pursuant to section 6.7.5 of Chapter 5 in respect of an *outage* rejected by the *IESO*;
- 2.2.1.3 an application by a *generator* for compensation pursuant to section 6.7.5 of Chapter 5 in respect of an *outage* rejected by the *IESO*;

# **Chapter 5**

### 3.2 Obligations of the IESO

3.2.1 The *IESO* shall direct the operations of the *IESO-controlled grid* pursuant to the provisions of all applicable *operating agreements* and shall maintain the *reliability* of the *IESO-controlled grid*. The *IESO's* responsibilities in this regard shall include, but are not limited to, the monitoring of, and the issuing of orders, directions or instructions to *dispatch* generation-generation, electricity storage facilities, dispatchable loads, distribution facilities and transmission facilities on the *IESO-controlled grid*.

### 4.9 Auditing and Testing of Ancillary Services

4.9.2.1 the *IESO* may test the synchronized *ten-minute operating reserve* capability of a *generation facility, <u>dispatchable load</u>* or an *electricity storage facility* by issuing unannounced *dispatch instructions* requiring the *generation facility, <u>dispatchable</u>* <u>load</u> or *electricity storage facility* to ramp up or reduce demand, in either case to its ten-minute capability;

### 6.7 Compensation

#### **Revoke Advance Approvals or Recalls**

6.7.5 A generator, electricity storage participant, distributor or wholesale consumer shall not be entitled to compensation for any costs, expenses, losses or damage associated with an *outage* which has been rejected by the *IESO* provided that, in exceptional circumstances and where a generator, electricity storage participant, distributor or wholesale consumer has suffered substantial financial harm as a direct result of such rejection, the generator, electricity storage participant, distributor or wholesale consumer may request that an arbitrator be appointed pursuant to section 2 of

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Chapter 3 to determine whether and the amount of any compensation which the *generator*, *electricity storage participant, distributor* or *wholesale consumer* shall be entitled to recover as a result of the rejection of the *outage* by the *IESO*. In the case of *generators* or *electricity storage participants*, no such compensation shall be recoverable under this section 6.7.5 unless the *generator* or *electricity storage participant* demonstrates that the amount claimed cannot be recovered through *market prices*.

### 12.3 Electronic Data

12.3.3 For the exchange of schedules referred to in Chapter <u>7</u> and of *outage* and planning data between *market participants* and the *IESO*, a computer path distinct from the EMS path shall be used. Communications shall occur over separate data links using a different protocol than that used for EMS information. Real-time *dispatch instructions* for *generation facilities*, *electricity storage facilities*, transmission *facilities* and load shall be communicated electronically through the EMS path and shall be integrated with the EMS messaging system for logging purposes.

# Appendix 5.1

### 1.3 Reactive Support and Voltage Control – Generation Facilities and Electricity Storage Facilities

1.3.4 The *IESO* may direct a *registered facility* that is a *generation facility* providing *reactive support service* and *voltage control service* to operate in an under- or over-excited state for a certain period of time in order to maintain prescribed voltages on the *IESO-controlled grid*. Such direction may require such *registered facility* to operate in the condense mode or to reduce <u>real active</u> power output in order to increase its ability to provide reactive power.

# **Chapter 6**

### 4.5 Alternative Metering Installation Standards for Embedded Generation Facilities

4.5.3 Within three months of the calendar year end, the *transmission customer* shall, for each *embedded generation facility* for which a *metering point* has been registered under the alternative *metering installation standards* of this section 4.5, in the manner specified in the applicable *market manual*:

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4.5.3.1 determine the annual adjustment dollar value for the applicable *transmission service charges*-*transmission services charges* based on the impact of the actual output of the *embedded generation facility*;

#### 4.6 Metering Installation Standards for Embedded Generation Facilities Under 2 MVA or Injecting Less than 17 GWh Per Annum

4.6.3 The *meter-metering service provider* for the *metering installation* registered under section 4.6.1 shall not be required to submit an emergency *instrument transformer* restoration plan otherwise required under section 1.3.2.17 of Appendix 6.5.

# **Chapter 7**

#### 1.6 Planned Outages for Maintenance and Upgrades of IESO-Administered Markets Software, Hardware and Communication Systems

- 1.6.3 If a *planned outage* referred to in section 1.6.1 is expected to result in a disruption to normal market operations, the *IESO* shall notify all *market participants* of the expected disruption and shall specify any required alternative procedures that will be in effect for the duration of the disruption. These alternative procedures shall be designed so as to permit normal market operations to the greatest extent practicable. These alternative procedures may include, but are not limited to:
- 1.6.3.1 Submission of *dispatch data* by an alternate means and/or in an alternative form pursuant to section 3.2.2; and
- 1.6.3.2 Establishment of administrative pricing administrative prices pursuant to section 8.4A.
- 2.1.2 A *market participant* shall not submit, and the *IESO* shall not accept, any *dispatch data* with respect to a *facility* or *boundary entity* unless:
- 2.1.2.1 that *facility* or *boundary entity* is a *registered facility* for the provision -of the physical service(s) physical service(s) to which the *dispatch data* relate;

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### 2.2 Registered Facilities

2.2.3.7 the applying *market participant* certifies to the *IESO* that all of the *facilities* and equipment to which its application for registration relates does not differ materially from the configuration or technical parameters that were used by the *IESO* as the basis for which it issued any applicable approvals for such new or modified *connection* in accordance with section 6.1.14 to 6.1.18 of Chapter 4, unless the applicable *market participant* or *connection applicant* has obtained the approval of the *IESO* for the change in configuration or technical parameter in accordance with section 6.1.22 of Chapter 4.

### 2.3 Aggregated Registered Facilities

- 2.3.2.3 one or more of the facilities proposed to be aggregated is or includes a *generating* unit *generation unit*, an *electricity storage unit*, or a *load facility* :
- c. whose *offer* or *bid* information or whose in service or out of service status is information required to be submitted to the *market assessment unit* or the *market surveillance panel* in furtherance of their respective functions and obligations under the <u>Electricity Act</u>, 1998, the the Ontario Energy Board Act, 1998 and these market *rules*;

### 3.3A Dispatch Data Submissions for the Day-Ahead Commitment Process

3.3A.6 Registered market participants that submitted offers or bids in accordance with either section 3.3A.2 or section 3.3A.5 shall require *IESO* approval to modify those offers or bids between 10:00 EST and 14:00 EST except for registered market participants for:

<u>a.</u> *dispatchable* hydroelectric *generation facilities* which submitted a *daily cascading hydroelectric dependency* in accordance with section 2.2.6K and which are designated by the *IESO* as eligible *energy* limited resources, and

**b.** physical generation units associated with a *pseudo-unit* designated in accordance with section 2.2.6G.

### 5.2 Information Used to Determine Pre-dispatch Schedules

5.2.1 The *IESO* shall use the following information for determining and updating the *predispatch schedule* in accordance with section 5.3, using in each case the most current valid information:

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5.2.1.5 the expected initial loading of each generator, *electricity storage facility* and *dispatchable load*, as determined based on the most current *pre-dispatch schedule* or, if applicable, *real-time schedule*; and

#### 5.3 Determining the Pre-dispatch Schedule

- 5.3.1 The *IESO* shall use the information described in section 5.2 and the *dispatch algorithm* to determine a *pre-dispatch schedule* as follows:
- 5.3.1.3 a *pre-dispatch schedule* shall be determined for each of the 24 *dispatch hours* of the *dispatch day* in sequence, with each *dispatch hour* assumed to be independent of the others except that the loading of each *generator* generator, *electricity storage facility* and *dispatchable load* for each *dispatch hour* shall be set equal to its value at the end of the preceding *dispatch hour*; and

### 8.2 Ex-post Prices for Each Dispatch Interval

- 8.2.2 The prices produced as part of the output of the market scheduling and pricing process described in Appendix 7.5 for a pricing run shall not necessarily be the prices that are used for *settlement* purposes. Without limiting the generality of the foregoing, the following prices shall be used for *settlement* purposes:
- 8.2.2.2 the *operating reserve* price for each class of *operating reserve* supplied from within the *IESO control area* shall for *settlement* purposes, and subject to sections 8.2.2.4 to 8.2.2.7, be formed:

<u>a.</u> from the shadow prices associated with the *operating reserve* requirements within the *IESO control area* during *dispatch intervals* when such requirements can be met; or

<u>b.</u> from the greater of the highest priced *offer* associated with the scheduled *operating reserve* or the *energy* prices for the *dispatch interval* during which the *operating reserve* requirements within the *IESO control area* cannot be met;

# 11. Generator and Electricity Storage Participant Synchronization

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# **Procedures**

#### 11.3 Process for De-synchronization

- 11.3.1 A generator or electricity storage participant intending to de-synchronize a generation unit or electricity storage unit from the IESO-controlled grid or embedding facility, as the case may be shall notify the IESO 1-one hour in advance of the intended de-synchronization time, unless a system advisory notice for overgeneration is in effect, in which event the generation unit or electricity storage unit may de-synchronize at will subject to the conditions of the system advisory notice.
- 11.3.2 If a *generator* or *electricity storage participant* does not advise the *IESO* at least 1 one hour prior to its planned de-synchronization, or any shorter interval allowed by an over-generation system advisory notice, the *IESO* may approve de-synchronization only if, in the *IESO*'s judgement, the unit's de-synchronization will not impair the ability of the *IESO* to maintain the *security* or *adequacy* of the *electricity system*.

### 18.4 Capacity Auction Deposits

- 18.4.1 A *capacity auction deposit* shall be in one or both of the following forms:
- 18.4.1.1 an irrevocable commercial letter of credit provided by a bank named in a Schedule to the *Bank Act*, (Canada), S.C. 1991, c. 46; or

# Appendix 7.1 – Energy Offer, Schedule or Forecast Information

### 1.1 Within the IESO Control Area

1.1.6 For a *dispatchable generation facility*, one to five sets of ramp quantity and ramp up/ramp down values for each *dispatch hour* applicable to the entire range of *generator* generator output contained in the *offer*.

# **Appendix 7.5A – The DACP Calculation**

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# **Engine Process**

# 5. Pass 2: Constrained Commitment to Meet Peak Demand

#### 5.1 Overview

5.1.4 *Generation facilities* already committed in Pass 1 is taken as committed in Pass 2. These resources will be scheduled to no less than their *minimum loading points*. Additional commitments of *offers* from <u>generators generators</u> are allowed.

# **Chapter 8**

#### 2.1 Overview

- 2.1.2 Any *selling market participant* selling under a *physical bilateral contract* to a *buying market participant* may submit *physical bilateral contract data* to the *IESO* complying with the requirements of this section 2, and the *IESO* shall:
- 2.1.2.2 determine, in respect of each of the *selling market participant* and the *buying market participant*, the value of the *physical bilateral contract quantity* referred to in section 2.1.2.1 for each applicable *metering interval* or *settlement hour*, as the case may be, based:
  - c. in the case of each of the *buying market participant* and the *selling market participant*, on the 5-minute *energy market* price, when the location specified pursuant to section 2.2.1 relates to a *generator generation facility* or *electricity storage facility*, other than one referred to in section 2.1.2.2(a) or a *dispatchable load facility*; or

#### 4.8 Participation in TR Markets and Rules Applicable to TR Participants

- 4.8.2A A *TR market deposit* shall be in one or both of the following forms:
- 4.8.2A.1 an irrevocable commercial letter of credit provided by a bank named in a Schedule to the *Bank Act*,(Canada) S.C. 1991, c. 46; or

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### 4.11 Long-Term Auctions

- 4.11.2 Each *long-term auction* conducted by the *IESO*;
- 4.11.2.1 shall offer *transmission rights* that are valid for a period of one year, commencing on the first day of the quarter immediately succeeding the quarter in which the <u>long-term</u> <u>auction</u> auction occurs; and

# **Chapter 9**

# 1. Introductory Rules

# 1.1 Application and Purpose

1.1.2 This chapter sets out the respective rights and obligations of the *IESO* and of *market participants* in determining, billing for and effecting payment in respect of financial obligations arising from the *IESO-administered markets*, other provisions of the *market rules*, and *applicable law* including without limitation the *Electricity Act*, *1998*, the *Ontario Energy Board Act*, *1998*, and any regulations enacted thereunder including, but not limited to the following:

- 1.1.2.9 transmission service charges <u>transmission services charges</u> and connection charges <u>connection charges</u> collected by the <u>IESO</u>;
- 1.1.2.10 [Intentionally left blank section deleted]

# 2. Settlement Data Collection and Management

### 2.1A Station Service

2.1A.6 For greater certainty, nothing in section 2.1A.4 shall be construed as permitting the apportionment of *connection<u>station</u> service* and site specific losses to a *market participant* in respect of a *facility* that is an *embedded load facility*, an *embedded generation facility*, or an *embedded electricity storage facility*.

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### 2.2 Metering Data Recording and Collection Frequency

- 2.2.2 A <u>RWM RWM</u> that serves only <u>non-dispatchable load, self-scheduled generation</u> facilities, self-scheduling electricity storage facilities, transitional scheduling generators <u>non-dispatchable load, self-scheduling generation facilities, self-</u> <u>scheduling electricity storage facilities, transitional scheduling generators</u> or <u>intermittent generators intermittent generators</u> need not record any <u>metering data</u> <u>metering data</u> regarding <u>energy energy</u> (in MWh) or reactive <u>energy energy</u> (in MVARh) for <u>metering intervals <u>metering intervals</u> but must record such <u>metering</u> <u>data metering data</u> for each-settlement hour <u>settlement hour</u>. Metering data <u>Metering</u> <u>data regarding demand demand</u> or power (in MW) shall be recorded by such <u>RWMs</u> <u>RWMs</u> for such intervals as the <u>HESO-IESO</u> may specify in the applicable-market <u>manual market manual</u>.</u>
- 3.5.4 Subject to section 5.3.4 of Chapter 5, during instances where CMSC<sub>k,h</sub> is calculated at an *intertie metering point* at which a *market participant* is conducting an import or export transaction for a *physical service* that is subject to a *constrained off event* that is reflected in *dispatch instructions* issued by the *IESO* as a result of a request initiated by an entity other than the *IESO*, the *IESO* shall not calculate any portion of CMSC<sub>k,h</sub> pertaining to the affected transaction for those *metering intervals* within *settlement hour* 'h' in which such conditions exist, and for greater certainty, during any *metering interval* in which:
- 3.5.4.1 <u>MQSIk,hm,t-MQSIk,h<sup>m,t</sup></u> is not equal to <u>DQSIk,hm,t-DQSIk,h<sup>m,t</sup></u> as a result of such a constrained off event constrained off event;
- 3.5.4.2 MQSWk,hm,t-MQSW<sub>k,h</sub><sup>m,t</sup> is not equal to DQSWk,hm,t-DQSW<sub>k,h</sub><sup>m,t</sup> as a result of such a constrained off event constrained off event; or
- 3.5.4.3 SQRORr,k,hm,t-SQROR<sub>r,k,h</sub><sup>m,t</sup> is not equal to  $\overline{\text{DQSRr},k,\text{hm,t}}$ - $\overline{\text{DQSR}_{r,k,h}}^{m,t}$  as a result of such a constrained off event <u>constrained off event</u>;

and irrespective of whether or not a *constrained on event* or a *constrained off event* was affecting the transaction in any preceding *metering interval*.

- 3.5.1D.1 the *price-quantity pairs* contained in the *energy bid* associated with that *registered facility facility for settlement hour* 'h' are not identical to the *price-quantity pairs* in the *energy bid* associated with the same *registered facility* for the applicable preceding *settlement hour* or following *settlement hour*;
- 3.5.7A A registered market participant for a constrained on generation facility unit is not entitled to a congestion management settlement credits determined in accordance with section 3.5.2 for that facility up to minimum loading point if the congestion management settlement credit is earned as a result of constraints applied under Chapter 7, section 5.8.5 for hours in the day after the dispatch day. In this case, the IESO may withhold or recover such congestion management settlement credits and

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shall redistribute any recovered payments in accordance with section 4.8.2 of Chapter 9.

3.8C.3 For all import transactions scheduled in the constrained *pre-dispatch schedule* and meeting the criteria set out in section 3.8C.2, the real-time import failure charge shall be formulated as follows:

EMP<sub>h</sub><sup>m,t</sup> is the <u>real-time real-time 5</u>-minute *energy market price* applicable to all *delivery points* 'm' in the Ontario zone during *metering interval* 't' of *settlement hour* 'h';

3.8C.5 For all export transactions scheduled in the constrained *pre-dispatch schedule* and meeting the criteria set out in section 3.8C.4, the real-time export failure charge shall be formulated as follows:

 $EMP_h^{m,t}$  is the <u>real-time-real-time</u>5-minute *energy market price* applicable to all *delivery points* 'm' in the Ontario zone during *metering interval* 't' of *settlement hour* 'h'

# 3.8C.9 Until the *IESO* has the software capability to include the following *settlement amounts*:

the real-time import failure charge (RT\_IFCk,h); or

the real-time export failure charge (RT\_EFC<sub>k,h</sub>),

as hourly settlement amounts on preliminary settlement statements under section 6.5.2A.1, the IESO may include such settlement amounts in the preliminary settlement statement issued in respect of the last trading day of a billing period. The IESO shall give market participants 5 days notice of when such software capability will be put into service. This section shall then cease to have effect and shall be noted as "[Intentionally left blank – section deleted]" [Intentionally left blank – section deleted].

3.8F.2 The day-ahead *generator* withdrawal charge shall be formulated as follows:

If withdrawal notification is received at or 4 hours prior to the first withdrawal hour in real time (PD - 4), then the Withdrawal Charge is calculated as follows:

$$\begin{array}{ll} DA\_GWC_{k,start} & = & MIN\left(0,\sum_{i=1}^{n}(-1)\times OP\left(MIN\left(PD\_EMP_{h}^{m,t},EMP_{h}^{m,t}\right),MLP_{k,h}^{m,t},DA\_BE_{k,h}^{m,t}\right)\right) \end{array}$$

Where:

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n = the set of all *metering intervals* 't' in *settlement hour* 'h' for the total number of hours with a *schedule of record* that are withdrawn

start event = the set of hours with a contiguous *schedule of record* 

If withdrawal notification is received later than PD-4 or if the *market participant* does not notify the IESO of their intent to withdraw and does not inject for the hours committed in the *schedule of record*, then the withdrawal charge is calculated as follows or if the *market participant* does not notify the *IESO* of their intent to withdraw and does not inject for the hours committed in the *schedule of record*, then the withdrawal charge is calculated as follows:

# 4. Non-hourly Settlement Amounts

### 4.1 Transmission Tariff Charges

4.1.1 The *IESO* shall collect from *transmission customers*, and distribute to *transmitters*, *transmission service charges transmission services charges* approved by the *OEB* in accordance with Chapter 10.

# 4.7D Day-Ahead Production Cost Guarantee Payments

4.7D.1 The *IESO* shall determine on a *per-start* basis, for each *generation unit* that has met the criteria set out in chapter 7, sections 5.8.4, a day-ahead production costs guarantee consisting of the following components:

#### Component 5 – Variant 1

The rules for calculating Component 5 are as follows:

- Scenario 1: If the *market participant* achieves *minimum loading point* within the first 6 intervals<sup>1</sup> of the start of the DACP scheduled period, the full as-offered start-up cost is considered.
- Scenario 2: If the *generation unit* achieves *minimum loading point* between the start of the 7<sup>th</sup> interval and before the start of the 18<sup>th</sup> interval of the start of the EDAC-DACP scheduled period, the as-offered start-up cost is calculated on a fractional basis. The as-offered start-up cost is calculated based on the number of 5-minute intervals the resource

<sup>&</sup>lt;sup>1</sup> The duration of an interval is 5 minutes. Page 18 of 22

takes to achieve *minimum loading point* between the start of the 7<sup>th</sup> interval and before the start of the 18<sup>th</sup> interval.

• Scenario 3: If the *generation unit* achieves *minimum loading point* after the 17<sup>th</sup> interval of the start of the DACP scheduled period (i.e. 18<sup>th</sup> interval and onwards), the as-offered *start-up cost* is not considered.

### 4.7E Day-Ahead Fuel Cost Compensation Settlement Amount

4.7E.1 In the event that the *IESO*, in order to maintain reliable operation of the *IESO*controlled grid requires a generation facility:

a. that was included in the schedule of record; and

**b.** for which the *registered market participant* for the *generation facility* is deemed to have accepted the day-ahead production cost guarantee in accordance with Section 5.8.4 of Chapter 7;

either to de-synchronize from the *IESO-controlled grid* prior to the end of its commitment scheduled in the *schedule of record* or not to synchronize to the *IESO-controlled grid*, the *market participant* may, in accordance with chapter 7 section 6.3B, claim, in the manner specified in the applicable *market manual*, reimbursement of financial losses related to the procurement of fuel for operation at its commitment schedule of *record* and which was not ultimately utilized by that *generation facility*.

4.7E.3 All claims made to the *IESO* pursuant to section 4.7E.1 may be subject to audit by the *IESO* which may obligate the *market participant* to demonstrate or otherwise make a binding declaration that the financial loss being claimed was not mitigated through the actions of:

a. the market participant market participant;

b. an affiliate or subsidiary of the market participant; or

<u>c.</u> any other party that may have a commercial relationship with the *market participant* where that commercial relationship involves compensation of any kind that is directly related to the mitigation of the financial loss being claimed.

### 6.3 Settlement Cycles

6.3.10A Each *market participant* shall have five *business days* to notify the *IESO* of errors or omissions in the *preliminary settlement statements* issued for each of the *trading days* of the first two *billing periods* following the first use of the day-ahead commitment process referred to in section 1.7.3 of chapter 7 Chapter 7.

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### 6.11 Payment of Invoices

- 6.11.2.4 on any *market participant payment date*, the *IESO* may initiate the transfer of necessary funds from the *IESO's <u>IESO</u> prepayment account* to the *IESO settlement clearing account* to discharge, up to the amount of the prepayment, that *market participant*'s outstanding payment obligations arising in relation to that *market participant payment date;* and
- 6.11.3 With respect to transmission service charges transmission services charges, the IESO IESO may instruct the bank where the IESO settlement clearing account IESO settlement clearing account is held to debit the IESO settlement clearing account IESO settlement clearing account and transfer to the relevant transmitter's transmission services settlement account sufficient funds to pay in full the transmission service charges transmission service charges falling due to that transmitter transmitter on any IESO payment date IESO payment date and the sections 6.3.23, 6.3.27, and 6.3.29.

### 6.14 Payment Default

6.14.3A If the *market participant's invoice* includes a *settlement amount* owing for the smart metering charge under section 6.11.4A and the *market participant*:

<u>a.</u> fails to remit the full *invoice* amount due by the *market participant payment date*; and

**b.** does not direct the *IESO* how to apportion the payment between the smart metering charge and all other *settlement amounts* on the *invoice* prior to the *IESO payment date*,

the *IESO* shall allocate the payment made by the *market participant* first to satisfying any *settlement amounts* due under the *market rules* before being applied to the smart metering charge.

- 6.14.7 If the *IESO* has exhausted credit availability contemplated by section 6.14.4, then the *IESO* shall pay *real-time market creditors* on a pro rata basis in proportion to the amounts owed to each *real-time market creditor market creditor*. Any amounts that remain owing to *real-time market creditors* shall bear interest at the *default interest rate* until paid.
- 6.14.8 Upon receipt of any payments by the *IESO*, either from or on the behalf of one or more *defaulting market participants* including any *prudential support* held by the *IESO*, or on behalf of *non-defaulting market participants* pursuant to a *default levy*, the *IESO* shall first repay all existing lines of credit and other banking facilities, and

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following repayment of such lines of credit and banking facilities, the *IESO* shall then repay on a pro-rata basis all *real-time market creditors market creditor* owed amounts pursuant to section 6.14.7.

# Chapter 10

# 1. Introduction

### 1.1 Objectives of this Chapter and Interpretation

- 1.1.1 This Chapter of the *market rules* sets forth the terms and conditions under which the *IESO* will administer the collection and distribution of *transmission service charges transmission services charges* for transactions that use the *IESO-controlled grid* for the transmission of *energy* and *ancillary services*.
- 1.1.4 For the purpose of giving effect to the collection and *settlement* of *transmission services charges* contemplated in this Chapter 10, all references in section 6, other than section 6.2, of Chapter 9, to a *market participant* shall be deemed to include a reference to a *transmission customer*.

### 8.8 Transmitter Data Access

8.8.1 Each *transmitter* for which the *IESO* administers the collection and distribution of *transmission service charges transmission services charges* for the various classes of *transmission service* as required by this Chapter and as established by the *OEB* from time to time pursuant to the *Ontario Energy Board Act, 1998* and whose *transmission system* forms part of the *IESO-controlled grid* shall, where applicable, have access to the following *confidential information* related to each type of *transmission services charge* in a manner and form specified by the *IESO*:

# Chapter 11

*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* to the *IESO* in regard to a disagreement over a *preliminary settlement statement*;

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

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