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Market Manual 11: Reliability Compliance

Part 11.3: Reliability Information Catalogue

Issue 8.0

A catalogue of the information that is to be shared between the *IESO* and *Market Participants* in relation to maintaining the reliability of the *IESO-controlled grid*

Public

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This document may contain a summary of a particular *market rule*. Where provided, the summary has been used because of the length of the *market rule* itself. The reader should be aware, however, that where a *market rule* is applicable, the obligation that needs to be met is as stated in the *"Market Rules"*. To the extent of any discrepancy or inconsistency between the provisions of a particular *market rule* and the summary, the provision of the *market rule* shall govern.

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I in advance of Baseline 45.0. Updated to include electricity storage participation.
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Issue	Reason for Issue	Date
1.0	This manual is new, superseding Market Manual 7.5 "Reliability Information Catalogue"	March 6, 2013
2.0	Issue released in advance of Baseline 33.1 to update the IESO logo.	March 31, 2015
3.0	Issue released in advance of Baseline 36.0	June 21, 2016
4.0	Issue released for Baseline 36.0	September 14, 2016
5.0	Issue released for Baseline 37.1	June 7, 2017
6.0	Issue released in advance of Baseline 44.0	June 29, 2020
7.0	Updated to meet accessibility requirements pursuant to the Accessibility for Ontarians with Disabilities Act.	December 2, 2020
8.0	Issue released in advance of Baseline 45.0. Updated to include electricity storage participation.	February 26, 2021

Document Change History

Related Documents

Document ID	Document Title
N/A	

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Table of Changes

Reference (Section and Paragraph)	Description of Change
Throughout	Added reference to electricity storage participation where required.

Market Manuals

The *market manuals* consolidate the market procedures and associated forms, standards, and policies that define certain elements relating to the operation of the *IESO-administered markets*. Market procedures provide more detailed descriptions of the requirements for various activities than is specified in the "*Market Rules*". Where there is a discrepancy between the requirements in a document within a *market manual* and the "*Market Rules*", the "*Market Rules*" shall prevail. Standards and policies appended to, or referenced in, these procedures provide a supporting framework.

Market Procedures

The "Reliability Compliance Manual" is Series 11 of the "*Market Manuals*", where this document forms "Part 11.3: Reliability Information Catalogue".

- End of Section -

1. Introduction

1.1 Purpose

The *IESO* is required by the "*Market Rules*" to produce a catalogue of the information that is to be shared between the *IESO* and *market participants* in relation to maintaining the *reliability* of the *IESO-controlled grid*.

This catalogue is designed to advise *market participants* on the *reliability*-related information requirements and needs, and to assist them in meeting their obligations for maintaining the *reliability* of the *IESO-controlled grid*.

This document catalogues:

- The information relating to the *reliability* of the *IESO-controlled grid* that is provided by the *IESO* to *market participants*, and
- The information relating to the *reliability* of the *IESO-controlled grid* that is provided by *market participants* to the *IESO*.

1.2 Scope

This document catalogues only the information that relates to the *reliability* of the *IESO-controlled grid*.

1.3 Overview

The following sections of this document describe the information that is shared between the *IESO* and the *market participants*. Each entry in the table identifies:

- To whom the information is provided,
- A description of the information that is provided,
- The frequency with which the information is provided,
- The method by which the information is provided,
- Any referenced documents relating to the information, and
- The "Market Rules" reference relating to the information.

1.4 Contact Information

As part of the participant authorization process, *applicants* are able to identify a range of contacts within their organization that address specific areas of market operations. For system operations, these contacts will most likely be the *authority centre*, *dispatch* or *control centre*, *facility* location operator or the restoration plan coordinator as indicated in the participant registration data. If the *market participant* has not identified a specific contact, the *IESO* will seek to contact the Main

Contact established during the participant authorization process. The *IESO* will seek to contact these individuals for activities within this procedure, unless alternative arrangements have been established between the *IESO* and the *market participant*.

If you wish to contact us, you can email *IESO* Customer Relations at <u>customer.relations@ieso.ca</u> or contact us by <u>telephone or mail</u>. Customer Relations staff will respond as soon as possible.

- End of Section -

2. Reliability Information Provided by the IESO

ltem No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
1.	Market participants	Reliability Standards NERC/NPCC	Ongoing	By email from the <i>IESO</i> or by links to: <u>IESO Internal Compliance</u> <u>Programs</u> <u>NERC website</u> <u>NPCC website</u>	<u>NERC Standards</u> <u>NPCC Criteria</u>	Ch. 4, Sec. 2.1.1
2.	Market participants	Reliability policy and security for local area supply	Ongoing	"Market manual" (Details upon request of authorized market participants, subject to confidentiality provisions.)	Market Manual 11.1: Applicability Criteria for Compliance with NERC Reliability Standards and NPCC Criteria	Ch. 5, Sec. 5.4
3.	Market participants	Equipment Performance Standards	Ongoing	<u>IESO website</u> "Market Rules"	N/A	General: Ch. 4, Sec.3.1.1 Ch. 4, Appendix 4.1 Generators and Electricity Storage Participants: Ch. 4, Appendix 4.2 Connected Wholesale Customers and Distributors Connected to IESO-Controlled Grid: Ch. 4, Appendix 4.3 Transmitters: Ch. 4, Appendix 4.4

Table 2-1: Reliability Information Provid	ed by the IESO
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ltem No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
4.	Market participants	Operating Procedures and Instruction	Ongoing	IESO website Upon request of authorized Market Participants, subject to confidentiality provisions	Market Manual 7.1: IESO-Controlled Grid Operating Procedures For internal procedures: Publicly available System Control Orders (SCO) and Internal Manuals	Ch. 5, Sec. 3.2.3
5.	Market participants	Requirements for commissioning, inspection and testing of equipment connected to IESO- controlled grid.	Ongoing, as changes occur	<i>IESO</i> website <u><i>OEB</i> website</u>	Transmission System Code (OEB), and Appendices Other reference documents to be added when developed.	General: Ch. 4, Appendix 4.2 to 4.9 Generators: Ch. 4, Sec. 3.4.1.3 Electricity Storage Participants: Ch. 4, Sec 3.6 Connected Wholesale Customers and Distributors Connected to IESO-Controlled Grid: Ch. 4, Sec. 3.5.1.3 and 5 Transmitters: Ch. 4, Sec. 3.3.1.3
6.	Market participants	Ancillary Service provider performance standards: black start, regulation, voltage control and reactive support, and Operating Reserve.	Ongoing	Market Rules	N/A	Ch. 5, Sec. 4.2.2 and 4.3.2 Ch. 5, Appendix 5.1
7.	Market participants	Ancillary Services: requirements and procedures for testing ancillary service provider facilities.	Ongoing; within 6 months of Market Rules Chapter 5 being in force	IESO website	Market Manual 7.8: Ontario Power System Restoration Plan	Ch. 5, Sec. 4.9 Ch. 5, Appendix 5.1 (performance standards)

ltem No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
8.	Market participants	List of equipment and <i>facilities</i> the <i>outage</i> of which must be reported and scheduled with the <i>IESO</i> .	As required	Generic list available in <i>Market Manual</i> Participant specific list available through Outage Management System	Market Manual 7.3: Outage Management.	Ch. 5, Sec. 6.1.3
9.	Market participants	Planned outage information provided by transmitters, generators and electricity storage participants subject to confidentiality provisions	Refer to reference document for schedule	Included in the <i>security</i> and <i>adequacy</i> assessments	Market Manual 7.3: Outage Management Market Manual 7.2: Near Term Assessments and Reports	Ch. 5, Sec. 6.5.2
10.	Generators affected	Generation facilities whose outages must be reported to support monthly summaries when their generation facilities are identified by the IESO as affecting the reliability of the IESO- controlled grid but are less than 0.5% of the generator's total capacity and the generator's total capacity is greater than 4000 MW	Ongoing/as required	Hardcopy or electronic advice to generators affected	Market Manual 2.11: Reliability Outlook and Related Information Requirements	Ch. 5, Sec. 6.2.5.2
11.	Market participants	Dispatch criteria for Remedial Action Schemes (e.g., Load rejection, generation rejection)	Ongoing; updates as criteria changes	IESO website	Market Manual 7.4: IESO-Controlled Grid Policies	Ch. 5, Sec. 8.2.4
12.	Market participants	Specifications regarding exclusions to load management activities undertaken for the purpose of controlling <i>demand</i>	As required	<i>Market manual</i> s available on the <i>IESO</i> website	Market Manual 7.1: <i>IESO-Controlled</i> <i>Grid</i> Operating Procedures	Ch. 5, Sec. 10.3.6
13.	Market participants	Specifications regarding exclusions to load management activities undertaken for the purpose of shedding load during under- frequency conditions	As required	<i>Market manuals,</i> available on the <i>IESO</i> website	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures	Ch. 5, Sec. 10.4.11

ltem No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
14.	Distributors and Connected Wholesale Customers subject to automatic under- frequency load shedding	Specification for automatic under- frequency load shedding discrete MW blocks: number, location, size, associated low frequency settings of these blocks	Annually, by week 24 of calendar year	<i>Market Manuals,</i> available on the <i>IESO</i> website	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures Market Manual 7.4: <i>IESO-Controlled Grid</i> Policies.	Ch. 5, Sec. 10.4.7
15.	Minister of Energy, Northern Development & Mines	Ontario electricity emergency plan and emergency preparedness plan for major market participants – filing with Minister (see subsection 39(1) of the Electricity Act, 1998)	As required	IESO website	<u>Emergency Preparedness link on the</u> <u>IESO website</u>	Ch. 5, Sec. 11.2.2
16.	Minister of Energy, Northern Development & Mines	Ontario Power System Restoration Plan – filing with Minister	As required	IESO website	Market Manual 7.8: Ontario Power System Restoration Plan	Ch. 5, Sec. 11.3.4
17.	Market participants	Security limits for all facilities that are part of IESO-controlled grid	Ongoing, updates as changes occur	Upon request of authorized market participants, subject to confidentiality provisions.	System Control Orders <i>IESO</i> Summary of Limits and Transfer Capability	Ch. 5, Sec. 5.1.2.2
18.	Market participants	Criteria and margins for developing <i>security limits</i> , and a process for reviewing and revising such criteria and margins	Ongoing, updates as criteria changes	IESO website	Market Manual 7.4: IESO-Controlled Grid Policies	Ch. 5, Sec. 5.1.2.3
19.	Market participants	Transmission transfer capabilities	Ongoing, updates as changes occur	By email. <i>IESO</i> website <u>NERC website</u> <u>NPCC website</u>	<i>Reliability</i> Assessments and Regional/interregional Studies, available on <i>NERC</i> and <i>NPCC</i> websites Reliability Outlooks on <i>IESO</i> website	Ch. 5, Sec. 5.2.1 and 5.2.2

ltem No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
20.	Market participant	Demand Forecast Methodology	Ongoing, updated as changes in methodology occur	IESO website	Market Manual 7.2: Near Term Assessments and Reports (Appendix B) Market Manual 2.11: Reliability Outlook and Related Information Requirements Market Manual 2.8: Reliability Assessments Information Requirements	Ch. 5, Sec. 7.1.3
21.	Market participants	Advance security and adequacy assessments of IESO-controlled grid	For the next 34 days: Refer to reference document for schedule Quarterly: For at least the next 18 months Annually: Exceeding the 18- month timeframe	Market Manuals, Quarterly and Annual assessments, outlooks available on the IESO website Security and adequacy assessments available on website	Daily and weekly assessments: Market Manual 7.2: Near Term Assessments and Reports Monthly assessments: Market Manual 2.11: Reliability Outlook and Related Information Requirements Annual assessments: Market Manual 2.8: Reliability Assessments Information Requirements	Ch. 5, Sec. 7.3
22.	Market participants	<i>Demand</i> forecasts for Ontario or parts thereof	For the next 34 days: Refer to reference document for schedule Quarterly: For the next 18 months Annually: Exceeding the 18- month timeframe	Market Manuals, Quarterly and Annual assessments available at the IESO website Adequacy assessments available on website	Daily and weekly assessments: Market Manual 7.2: Near Term Assessments and Reports Monthly assessments: Market Manual 2.11: Reliability Outlook and Related Information Requirements Annual assessments: Market Manual 2.8: Reliability Assessments Information Requirements	Ch. 5, Sec. 7.1.1

ltem No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
23.	Market participants	IESO-controlled grid emergency operating state anticipated or declared	As required; promptly	Advisory notice, or telephone call if required	List of <i>Emergency Operating State</i> Control Actions (EOSCA) as per Market Manual 7.1: IESO-Controlled Grid Operating Procedures	Ch. 5, Sec. 2.3.3
24.	Market Participants	Issue NERC Energy Emergency Alerts	As required	Posted on <i>NERC</i> public website Advisory notice	List of Emergency Operating State Control Actions (EOSCA) as per Market Manual 7.1: IESO-Controlled Grid Operating Procedures. NERC Standard EOP-002 Attachment 1.	
25.	Market participants	IESO-controlled grid high-risk operating state anticipated or declared	As required; promptly	Advisory notice, or telephone call if required	Market Manual 7.1: <i>IESO-Controlled</i> <i>Grid</i> Operating Procedures Market Manual 7.3: Outage Management	Ch. 5, Sec. 2.4.3
26.	Market participants	<i>10-minute Operating Reserve</i> requirements for next day	Refer to reference document for schedule	Adequacy Report	Market Manual 7.2: Near Term Assessments and Reports	Ch. 5, Sec. 4.5.11
27.	Market participants	Black Start required amounts and location	Before obtaining black start capability service	Contracts	Market Manual 7.8: Ontario Power System Restoration Plan	Ch. 5, Sec. 4.7.2
28.	Market participants	Conditions on IESO-controlled grid that may require demand reductions by non-dispatchable load	As required, promptly	Advisory notice SCOs upon request of authorized <i>Market</i> <i>Participants,</i> subject to confidentiality provisions	Market Manual 7.1: IESO-Controlled Grid Operating Procedures	Ch. 5, Sec. 10.1.2

ltem No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
29.	Market participants	Warning of request to reduce <i>demand</i> through voltage reductions or interruptions	By 16:00 of the previous day (whenever possible)	Advisory notice SCOs upon request of authorized market participants, subject to confidentiality provisions	Market Manual 7.1: IESO-Controlled Grid Operating Procedures List of <i>Emergency Operating State</i> Control Actions (EOSCA) as per Market Manual 7.1: <i>IESO-Controlled</i> <i>Grid</i> Operating Procedures	Ch. 5, Sec. 10.3.2
30.	Transmitters	Conditions on the IESO-controlled grid after load shedding	Immediately after loads have been shed	Advisory notice	Market Manual 7.1: <i>IESO-Controlled</i> <i>Grid</i> Operating Procedures	Ch. 5, Sec. 10.4.5
31.	Market Participants	Issuance of a System Advisory for under- <i>generation</i> via an advisory notice	Two days prior to <i>dispatch day</i> ; One day prior to <i>dispatch day;</i> Any time thereafter if condition is present	Advisory notice	List of Emergency Operating State Control Actions (EOSCA) as per Market Manual 7.1: IESO-Controlled Grid Operating Procedures Market Manual 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets, Section 2 and Appendix B.	Ch. 7, Sec. 12.1.1, 12.1.3.2, and 12.1.3.3
32.	Market participants	Pre-dispatch schedule- reliability related information: total system load and losses, projected hourly energy shortfalls, operating reserve requirements and shortfalls, reliability must-run resources and security constraints	As required under relevant market rules and market manual Initial pre-dispatch schedule by 12:00 EST of each pre- dispatch day	Online IESO <i>Dispatch</i> Workstation Adequacy Report, Transmission Facility Outage Limits Report, and advisory notices	Market Manual 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets (Section 2 and Appendix D) Market Manual 4.3 Real-Time Scheduling of the Physical Markets	Ch. 7, Sec. 5.5 (5.5.3.1 to 5.5.3.8)

Item No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
33.	Market participants	Real-Time schedule- reliability related information: total system load and losses, area operating reserve requirements and shortfalls, list of network and security constraints affecting real- time schedule	As required under relevant market rules and market manual Within five minute period after each dispatch interval for operating reserve, and for other items: within one hour after end of each dispatch hour	Online IESO <i>Dispatch</i> Workstation	Market Manual 4.3: <i>Real-Time</i> Scheduling of the <i>Physical Markets</i>	Ch. 7, Sec. 6.5 (6.5.3.1, 6.5.3.2, 6.5.3.6, and 6.5.3.7)
34.	Market participants	Real-Time dispatch – reliability related information: total load met, transmission capacity, outages of transmission facilities, total operating reserve scheduled and total energy called from such operating reserve	As required under relevant market rules and market manual Within one hour after each dispatch hour	<i>Dispatch</i> Workstation	Market Manual 4.3: <i>Real-Time</i> Scheduling of the <i>Physical Markets</i>	Ch. 7, Sec. 7.8 (7.8.1.1 to 7.8.1.4)
35.	Market participants	To provide to all <i>market</i> <i>participants</i> , the OEB and relevant government authorities, a preliminary and final report (to <i>market participants</i> and the public) related to market suspension and all related steps and actions taken by the <i>IESO</i>	Within 10 <i>business</i> <i>days</i> following the resumption of normal market operations Final report as soon as practicable	By electronic or hard copy to market participants IESO website	Market Manual 4.5: Market Suspension and Resumption	Ch. 7, Sec. 13.7.3 and 13.7.4
36.	Market participants	Estimate of aggregate load curtailed following return to a normal operating state	As soon as practicable	Online IESO Dispatch Workstation	Market Manual 7.1: <i>IESO-Controlled</i> <i>Grid</i> Operating Procedures	Ch. 5, Sec. 10.3.7

ltem No.	Information To	Information Description	Frequency / Timing	Means of Provision	Reference Document	Market Rule Reference
37.	Market Participants (dispatchable generation facilities)	Real-time Generation Cost Guarantee (RT-GCG) – expected start time, run time, spare generation amount	Hourly basis	Online IESO <i>Dispatch</i> Workstation	Market Manual 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets Market Manual 4.3: Real-Time Scheduling of the Physical Markets Market Manual 4.6: Real-time Generation Cost Guarantee Program	Ch. 7, Sec. 2.2B, 5.7, 6.3A
38.	Market Participants	Acceptance/Approval of planned Replacement <i>Energy</i> to Support <i>Planned Outages</i> (boundary entity, time period, amount etc.)	Promptly	Online IESO Dispatch Workstation		Ch. 5, Sec. 6.3.6 - 6.3.10
39.	Market Participants	RMR (Reliability Must Run) requirements to generators, electricity storage participants, and dispatchable loads	As soon as possible	Telephone call / Electronically		Ch. 5, Sec. 4.8
40.	Market Participants	Information/communications during Planned Outage	As required	Telephone call Outage Management System Outage Form		Ch. 5, Sec. 6.1.7
41.	Market Participants	To publish the times and quantities of voltage reductions and reductions in thirty minute <i>operating reserve</i> upon scheduling of these sources of reserves	As and when required	IESO website Online IESO Dispatch Workstation	Market Manual 4.3: Real-Time Scheduling of the <i>Physical Market</i> Market Manual 4.2: <i>Dispatch Data</i> in the <i>Real-Time Energy</i> and <i>Operating Reserve Markets</i>	Ch. 5, Sec. 4.5.6A

- End of Section -

3. Reliability Information Required by the IESO

Item	Information			Provis	ion		
No.	From	Information Description	Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
1.	<i>Market</i> participants	Complying with <i>reliability</i> related information requirements Results of compliance monitoring and performance testing The <i>IESO</i> is authorized by the <i>Electricity Act</i> (1988) to administer Ontario's <i>reliability</i> compliance program including the specific <i>IESO reliability</i> related information requirements, set forth in the <i>market rules</i> and as listed in this "Market Manual 11.3: <i>Reliability</i> Information Catalogue". The <i>market participants</i> may be required to provide the <i>reliability</i> compliance related information and/or other associated data to the <i>IESO</i> (as per <i>market rules</i>), where applicable.	Upon request of the <i>IESO</i>	Specified upon request	Hard copy to the IESO, or electronic files via the ORCP (Ontario Reliability Compliance Program) mailbox at <u>ORCP@ieso.ca</u> , or the Reliability Compliance Tool (RCT) in Online IESO. To facilitate market participants in the submission of reliability compliance related information, where applicable, a dedicated email link to the Reliability Compliance Program has been established that would be utilized for emailing the information to the IESO via <u>ORCP@ieso.ca</u> . Hard or electronic copy to the ORCP mailbox (<u>ORCP@ieso.ca</u>).	Market Manual 11.0: Reliability Compliance Monitoring and Enforcement Overview Market Manual 11.2: <i>Ontario Reliability</i> <i>Compliance Program</i>	Ch. 5, Sec. 14 and 3 Ch. 4, Sec 1 to 5

Table 3-1: Reliability Information Required by the IESO

Item	Information	Information Description		Provis	ion		Market Rule Reference
No.	From	Information Description	Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
2.	Market participants	Network Impact Information for proposed new or modified connection to <i>IESO-controlled grid</i>	For each System Impact Assessment (SIA) study	As soon as the SIA is finalized	As per Connection Assessment and Approval process	Market Manual 1.4: Connection Assessment and Approval	General: Ch. 4, Sec. 6.1.6 Generators and Electricity Storage Participants: Ch. 4, Appendix 4.6 Connected Wholesale Customers and Distributors Connected to the IESO- Controlled Grid: Ch. 4, Appendix 4.7 Registered Facilities providing Ancillary Services: Ch. 4, Appendix 4.8 Transmitters: Ch. 4, Appendix 4.9
3.	Market participants	All connection-related reliability information regarding all information for a facility to be represented in energy and market systems	As part of <i>facility</i> registration	Required to complete commissioning	Online IESO form supporting document (PDF) Market Registration <u>Market.Registration@ieso.ca</u>	Facility Registration Help File Market Manual 1.5: Market Registration Procedures	Ch. 7, Sec. 2.2 Ch. 4, Appendix 4.5A to 4.9
4.	Generator, Electricity Storage Participant, and Connected Wholesale Customer (Load)	<i>Connection Agreement</i> with <i>transmitter</i> or <i>distributor</i> for new or modified <i>connection facility</i>	<i>Facility</i> Registration		Market Registration Market.Registration@ieso.ca	OEB Transmission and Distribution System Codes Facility Registration Help File Market Manual 1.5: Market Registration Procedures	Ch. 4, Sec. 4 and 6 Ch. 7, Sec. 2.2.6.3

Item	Information			Provis	ion		
No.	From	Information Description	Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
5.	Transmitters	Detailed procedures for processing connection requests; and Requirements that must be met for connection to its transmission system or for the modification of an existing connection to such system	For each SIA study	As soon as the SIA is finalized	OEB Transmission Code	OEB Transmission and Distribution System Codes Market Manual 1.4: Connection Assessment and Approval	Ch. 4, Sec. 6.1
6.	<i>Market</i> <i>participants</i>	IESO Monitoring Requirements	Contin	ual Basis	Control and Monitoring Equipment through <i>real-</i> <i>time</i> network	N/A	General: Ch. 4, Sec. 7.3, 7.4, 7.5, 7.6 Generators: Ch. 2, Appendix 2.2 Ch. 4, Appendix 4.15 and 4.19 Electricity Storage Participants: Ch. 2, Appendix 2.2 Ch. 4, Appendix 4.24 and 4.25 Transmitters: Ch. 2, Appendix 2.2 Ch. 4, Appendix 4.26, 4.20, and 4.21 Connected Wholesale Customers and Distributors Connected to the IESO- Controlled Grid: Ch. 2, Appendix 2.2 Ch. 4, Appendix 2.2 Ch. 4, Appendix 2.2 Ch. 4, Appendix 4.17 and 4.22 Embedded Load Customers: Ch. 2, Appendix 2.2 Ch. 4, Appendix 2.2

Item	Information From	Information Description		Provis	sion		Market Rule Reference
No.			Periodicity	Deadline	Format/Means of Provision	Reference Document	
7.	Market participants	Emergency Preparedness Plan and such other emergency preparedness-related information, including the manner in which the market participant will minimize the cutting and expedite the restoration of critical loads and priority loads during short and prolonged emergencies.	At the time of registration and reviewed at least annually thereafter by the market participant. Information to be submitted to the IESO as required.		Market participant Authorization	Market Manual 7.10: Ontario Electricity Emergency Plan	Ch. 5, Sec. 11.2.3, 11.2.4, and 11.2.5
8.	Restoration participants	A restoration participant attachment and such other system restoration-related information	At the time of registration and updated at least annually thereafter by the <i>market</i> <i>participant</i> . Information to be submitted to the <i>IESO</i> as required.		Market participant Authorization	Market Manual 7.8: <i>Ontario</i> <i>Power System Restoration</i> <i>Plan</i>	Ch. 5, Sec. 11.3.5, 11.3.6, and 11.3.7
9.	Market participants	Emergency Preparedness Plan and/or Restoration Participant Attachment audit and re-file	As and when directed by the IESO		Hard or electronic copy to the Manager, IESO <i>'Emergency</i> Preparedness Department' at: <u>Emergency.Preparedness@ieso.</u> <u>ca</u>	Market Manual 7.10: Ontario Electricity Emergency Plan	Ch. 5, Sec. 11.4.4
10.	SPS Owners	SPS Equipment maintenance for previous 12 months	Every 12 months	December 1 st	Hard or electronic copy to the Ontario Reliability Compliance (ORCP) team at <u>ORCP@ieso.ca</u>	NERC Standard PRC-017 (available on NERC website)	Ch. 5, Sec. 14.1.3.3
11.	SPS Owners	Operating statistics, performance information related to SPS	Annually, or By request by the IESO	December 31 st As specified by the IESO	Hard or electronic copy to the ORCP team at the IESO, <u>ORCP@ieso.ca</u>	NERC Standard PRC- 016 and PRC-017 (available on NERC website)	Ch. 5, Sec. 8.3.1.2 and 8.3.1.3
12.	SPS Owners	Request and evaluation of request from affected market participant for permanent exemption from connection to SPS	As required		Exemption Application Form on the IESO website	N/A	Ch. 5, Sec. 8.3.1.4

Item	Information	Information Description		Provis	ion	Reference Document	Market Rule Reference
No.	From	Information Description	Periodicity	Deadline	Format/Means of Provision	Reference Document	Warket Rule Reference
13.	Market participants	Summary of demand control actions for previous 12 months	Annually, or By request by the IESO	December 31 st As specified by the IESO	Hard or electronic copy to the ORCP team at the IESO, <u>ORCP@ieso.ca</u> ,	Information Submittal Form at IESO website when available. Market Manual 7.1: IESO- Controlled Grid Operating Procedures Market Manual 7.3: Outage Management The established procedures/principles in above documents and market rules to be used as guidelines, as applicable).	Ch. 5, Sec. 14.1.3.5 and 10.3
14.	Market participants	<i>Reliability</i> related performance measures for <i>transmission</i> <i>facilities</i> and connections to <i>IESO-</i> <i>controlled grid</i>	Annually, or By request by the IESO	December 31 st As specified by the IESO	Hard copy to the IESO, or electronic files via the ORCP mailbox at <u>ORCP@ieso.ca</u> , or the Reliability Compliance Tool (RCT) in Online IESO or as otherwise specified by the IESO.	Forms on the IESO website. IESO –Transmitter Operating Agreement with each <i>transmitter</i> .	Ch. 5, Sec. 14.1.3.7 and 5.4
15.	Market participants	Summary of automatic under- frequency load shedding activities for previous 12 months	Annually, or By request by the IESO	December 31 st As specified by the IESO	Electronic files via the ORCP mailbox at <u>ORCP@ieso.ca.</u>	Operating Agreements	Ch. 5, Sec. 14.1.3.6
16.	Market participants	Planned change to a setting on a fixed-tap transformer	As required	Within one week prior to scheduled change or within one business day of implementation of change	Outage Management System, Electronic copy to the IESO at: <u>Market.Registration@ieso.ca</u>	Market Manual 7.1: IESO- Controlled Grid Operating Procedures	Ch. 5, Sec. 14.1.3.1

Item	Information			Provis	sion		
No.	From	Information Description	Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
17.	Market participants Parties to connection agreement	Notice of equipment testing that requires change to normal operation of that equipment	As required	As per outage submission timelines outlined in MM 7.3	Outage Management System	Market Manual 7.3: Outage Management	Ch. 4, Sec. 5.1.5
18.	Market participants	Report describing proposed or emergency modifications to primary protection relay	As required	Within one week of date for IESO approval of proposed modification or within one week of unplanned, emergency modifications	Outage Management System, Outage Form Electronic copy to the <i>IESO</i> at: <u>Market.Registration@ieso.ca</u>	Market Manual 7.3: Outage Management	Ch. 5, Sec. 14.1.3.4
19.	Distributor and Connected Wholesale Customer	Estimate of <i>demand</i> reduction that has occurred as a result of disconnecting under-frequency <i>demand</i>	Within two weeks following an incident of under-frequency load shedding		Hard or electronic copy to ORCP team at the IESO, ORCP@ieso.ca	Market Manual 7.1: IESO- Controlled Grid Operating Procedures	Ch. 5, Sec. 10.4.9
20.	Generators and Electricity Storage Participants	Frequency excursion ≥ 60.2 Hz or ≤ 59.8 Hz Restoration action to protect equipment, personnel or public safety, environment	As required	As soon as possible	By telephone to IESO Shift Operating Staff	Market Manual 7.1: IESO- Controlled Grid Operating Procedures	Ch. 5, Sec. 10.5.2, 10.5.3 Electricity Storage: Ch. 5, Sec 10.5A.2 and 10.5A.3
21a.	Generators and Electricity Storage Participants (embedded and non- embedded)	If facilities cannot operate in accordance with agreed schedule	As changes occur	As soon as possible	Telephone call Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 3.6.1.4 Electricity Storage: Chapter 5, Section 3.8.1

Item	Information			Provis	sion		
No.	From	Information Description	Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
21b.	Generators and Electricity Storage Participants (embedded and non- embedded)	If facilities cannot operate in accordance with agreed schedule	As changes occur, promptly	As soon as possible	Changes in <i>bids/offers</i>	Market Manual 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets	Ch. 5, Sec. 3.6.1.4 Electricity Storage: Ch. 5, Sec 3.8.1.4
22.	Generators and Electricity Storage Participants	Any change or anticipated change in the status of any generation facility, <i>electricity storage facility</i> , or related equipment that is under the dispatch control of the IESO, and could have a material impact on the IESO-controlled grid or the operation of IESO-administered markets (list of changes to be reported in Market Rules Chapter 5, Section 3.6.1.3)	As unavailabilities occur	As soon as possible	Telephone call Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 3.6.1.3 Electricity Storage: Ch. 5, Sec 3.8.1.3
23.	Market participants	<i>Emergency</i> removal from service of equipment or <i>facilities</i>	As removals occur	As soon as possible	Telephone call Outage Management System Outage Form	Market Manual 7.3: Outage Management	Ch. 5, Sec. 6.1.6
24.	Market participants	Notice of forced outage, Nature and cause of forced outage	As outages occur	As soon as possible, and in any event ≤ 48 hours after outage	Telephone call Outage Management System Incident Report	Market Manual 7.3: Outage Management	Ch. 5, Sec. 6.3.4 and 6.3.5
25.	Market participants	Action taken to control <i>demand</i> (list of actions and information to be reported listed in Market Rules Chapter 5, Sections 10.2.2, 10.2.3 and 10.2.4)	As required	Prior notification by 10:00 EST day prior	Through Outage Management System prior, Telephone call to advise of actions	Market Manual 7.1: IESO- Controlled Grid Operating Procedures	Ch. 5, Sec. 10.2.1, 10.2.2, 10.2.3, and 10.2.4

Item	Information			Provis	ion		Mandath Dula Defenses
No.	From	Information Description	Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
26.	Market participants	Equipment test information (see Market Rules Chapter 5, Section 6.6.2 for list)	As tests occur	As per outage submission timelines outlined in MM 7.3	Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 6.6
27.	Distributor or Connected Wholesale Customer	Change or anticipated change in its facilities or equipment that could have a material impact on operation of IESO-controlled grid or IESO-administered markets (Connected wholesale customers) Change or anticipated change in capability of distribution facilities that could have a material impact on operation of IESO-controlled grid or IESO-administered markets (Distributors)	As changes occur	As soon as possible, and as per outage submission timelines outlined in MM 7.3	Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 3.5.1.2 and 3.7.1.2
28.	Distributors	Event in service territory that could have material effect on the <i>reliability</i> of the <i>IESO-controlled</i> grid	As events occur	As soon as possible	By telephone to IESO System Operations staff	Market Manual 7.1: IESO- Controlled Grid Operating Procedures	Ch. 5, Sec. 3.7.1.3
29a.	Market participants	Submit <i>planned outage</i> in order to obtain IESO approval of <i>outage</i> ; provide time required to return <i>facilities</i> or equipment to service.	As required	As per outage submission timelines outlined in MM 7.3	Telephone call Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 6.4.1
29b.	Market participants	Notice and request of extension to originally approved <i>planned</i> outage	As extensions occur	As soon as possible	Telephone call Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 6.4.7
30.	Market participants	Information and reports to facilitate preparation of disturbance report by IESO for standards authority	As required	Within 48 hours and follow-ups as required	Initially be telephone Hard or electronic copy to the ORCP team at the IESO, <u>ORCP@ieso.ca</u>	Market Manual 7.1: IESO- Controlled Grid Operating Procedures	Ch. 5, Sec. 14.1.5

Item	Information	Information Description	Provision				
No.	From		Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
31.	Transmitters	Frequency values for stations, when under-frequency alarm or indication of declining frequency and voltage Amount and location of load shed and conditions on <i>IESO-controlled</i> <i>grid</i>	As required	As soon as possible after occurrence	By telephone to IESO System Operations staff	Market Manual 7.1: IESO- Controlled Grid Operating Procedures	Ch. 5, Sec. 10.4.2 and 10.4.4
32.	Transmitters and Distributors	Annual total forecast peak demand by connection point Annual total forecast peak demand that can be disconnected within various time scales, by connection point	Annually	By week 24 of calendar year	Hard or electronic copy to the ORCP team, <u>ORCP@ieso.ca</u>	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures Market Manual 7.3: Outage Management (The established procedures/principles in above documents and Market Rules Section 10.2, to be used as guidelines for submission)	Ch. 5, Sec. 10.2.5.3 and 10.2.5.4
33.	Transmitters, Generators, and Electricity Storage Participants	Outage plans for facilities forming part of the IESO-controlled grid Provide outage information for IESO to review for the purpose of the Reliability Outlook assessments	As required	As per the submission timelines outlined in Market Rules Chapter 5, Sections 6.2.4.1 and 6.2.4.2	Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 6.2.4
34.	Market participants	Schedule of all <i>planned outages,</i> regardless of duration	As required	As per outage submission timelines outlined in MM 7.3	Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 6.3.1

Item	Information	Information Description	Provision			Defense Desument	
No.	From		Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
35.	Generators and Electricity Storage Participants	Data for IESO reliability assessments and Reliability Outlook. Refer to reference document for specific data requirements	Annually Refer to reference document for schedule	April 1 of each year	Electronic copy to IESO at: <u>Forecasts.Assessments@ieso.ca</u>	Market Manual 2.8: Reliability Assessments Information Requirements	Ch. 5, Sec. 7.2 and 7.5
36.	Transmitters	Data for <i>IESO</i> Reliability Outlook report. Refer to reference document for specific data requirements	Quarterly; refer to reference documents for schedule	January 1, April 1, July 1, October 1 of each year	Electronic copy to IESO at: Forecasts.Assessments@ieso.ca	Market Manual 2.8: Reliability Assessments Information Requirements Market Manual 2.11: Reliability Outlook and Related Information Requirements	Ch. 5, Sec. 7.2 and 7.5
37.	Generators and energy limited resources	Data for <i>IESO</i> 34-day <i>adequacy</i> assessments. Refer to reference document for specific data requirements	Weekly	EOB Everyday Tuesday	Electronic copy to <i>IESO</i> via Online IESO	Market Manual 7.2: Near- Term Assessments and Reports	Ch. 5, Sec. 7.5
38.	Connected Wholesale Customers	Planned outage, closure, test or similar event for next 4 trading weeks that results in change in demand of \geq 20 MW Planned outage closure, test or similar event for next 4 trading weeks of a facility specifically designated by the IESO	Every second trading week	By 2:00 p.m. on last trading day of every second trading week	Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 3.5.1.5
39.	Market participants	Data required to satisfy request by standards authority	As specified by the IESO		Hard copy to the IESO, or electronic files via the ORCP mailbox at <u>ORCP@ieso.ca</u> , or the Reliability Compliance Tool (RCT) in Online IESO, or as otherwise specified by the IESO.	Market Manual 11.0: Reliability Compliance Monitoring and Enforcement Overview Market Manual 11.2: Ontario Reliability Compliance Program	Ch. 5, Sec. 14.1.4

Item	Information From	Information Description	Provision				
No.			Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
40.	Transmitter	Transmission system reliability related information required for scheduling and dispatching in real time	As frequently as necessary in accordance with the requirements of Market Rules Chapter 7, Section 3.9	130 minutes prior to the <i>dispatch</i> hour	Real Time Network, Outage Management System, and Market Registration, as applicable	Market Manual 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets	Ch. 7, Section 3.9 Ch. 7, Appendix 7.4
41.	Market Participants (dispatchable generation facilities)	Real-time Generation Cost Guarantee (RT-GCG) – start time, minimum run time, minimum load level	As required	During registration and before each activation	Online IESO <i>Dispatch</i> workstation	Market Manual 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets Market Manual 4.3 Real- Time Scheduling of the Physical Markets Market Manual 4.6: Real- time Generation Cost Guarantee Program	Ch. 7, Sec. 2.2B, 5.7, and 6.3A
42.	Market Participants	Replacement <i>Energy</i> to support <i>planned outages</i> (<i>boundary entity</i> , time period, amount, etc.)	As required	16:00 EST three business days prior to the commencement of the shortfall week(s)	Online IESO <i>Dispatch</i> workstation Outage Management System	Market Manual 7.3: Outage Management	Ch. 5, Sec. 6.3.6 to 6.3.10
43.	Market Participants	RMR (<i>Reliability Must Run</i>) amounts, locations, time, etc.	As required	As soon as possible	Telephone call Electronic copy	Market Manual 7.3: Outage Management	Ch. 5, Sec. 4.8
44.	Market Participants	Information regarding market operations to assist the <i>IESO</i> in analyzing the suspension	As required	Immediately prior to and during the suspension period	Telephone call By electronic or hard copy to Manager, System Operations at <i>IESO</i>	Market Manual 4.5: Market Suspension and Resumption	Ch. 7, Sec. 13.7.2

Item	Information From	Information Description	Provision			Defenses Desiment	Marilian Dula Deferrence
No.			Periodicity	Deadline	Format/Means of Provision	Reference Document	Market Rule Reference
45.	Market Participants	Information and <i>Request for</i> Segregation for approval to operate its registered facility in a segregated mode of operation	As required	As per the timelines outlined in Market Rules Chapter 7, Appendix 7.7, Section 1.3	Telephone call Outage Management System	Market Manual 7.3: Outage Management	Ch. 7, Appendix 7.7, Section 1.3
46.	Market Participants	Information/communications during <i>planned outage</i>	As required	As soon as possible	Telephone call Outage Management System		Ch. 5, Sec. 6.1.7
47.	External Reliability Coordinators (RCs)	Network data including, generators, transformers, lines, loads, shunts, breakers, switches, connectivity information, as well as any other equipment supplementary data	Upon request of the IESO (subject to model build frequency of data provider)	Within the first week following the deployment of a production model release	NEMF (North East Modeling Format) via SharePoint	MISO-IESO Operating Instruction: MISO-IESO-C05-R2 MISO-IESO EMS Data Exchange: MISO-IESO C0X-R0	
48.	External RCs	Real-time telemetry	Continual basis	Next available ICCP build	EIDSN's Elnet, ICCP	MISO-IESO Operating Instruction: MISO-IESO-C05-R2 MISO-IESO EMS Data Exchange: MISO-IESO C0X-R0 EIDSN: Node Responsibilities	

– End of Section –

References

Document ID	Document Name
	NERC Standards
	NPCC Criteria
	Reliability Assessments and Regional/Interregional Studies
MDP_RUL_0002	Market Rules
MDP_PRO_0048	Market Manual 1.4: Connection Assessment and Approval
PRO-408	Market Manual 1.5: Market Registration Procedures
<u>MDP_PRO_0024</u>	Market Manual 2.8: Reliability Assessments Information Requirements
IMP_PRO_0024	Market Manual 2.11: Reliability Outlook and Related Information Requirements
<u>MDP_PRO_0027</u>	Market Manual 4.2: Submission of <i>Dispatch Data</i> in the Real-Time <i>Energy</i> and <i>Operating Reserve</i> Markets
<u>IMP_PRO_0034</u>	Market Manual 4.3 Real-Time Scheduling of the Physical Markets
<u>MDP_PRO_0030</u>	Market Manual 4.5: Market Suspension and Resumption
PRO-324	Market Manual 4.6: Real-time Generation Cost Guarantee Program
<u>MDP_PRO_0040</u>	Market Manual 7.1: System Operating Procedures
IMP_PRO_0033	Market Manual 7.2: Near Term Assessments and Reports
<u>IMP_PRO_0035</u>	Market Manual 7.3: Outage Management
IMP_POL_0002	Market Manual 7.4: IESO-Controlled Grid Operating Policies
IMO_PLAN_0001	Market Manual 7.8: Ontario Power System Restoration Plan
IMO_PLAN_0002	Market Manual 7.10: Ontario Electricity Emergency Plan
<u>MAN-103</u>	Market Manual 11.0: Reliability Compliance Monitoring and Enforcement Overview
<u>IESO_PRO_0874</u>	Market Manual 11.2: Ontario Reliability Compliance Program

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