

CATALOGUE



Market Manual 11: Reliability Compliance

Part 11.3: Reliability Information Catalogue

Issue 5.0

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*

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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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1.0	This manual is new, superseding Market Manual 7.5 "Reliability Information Catalogue"	March 6, 2013
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Table of Changes

Reference (Section and Paragraph)	Description of Change
Throughout	Corrected references and hyperlinks.

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 customer.relations@ieso.ca or contact us by telephone or mail. Our telephone numbers and mailing address can be found on the *IESO* website (<http://www.ieso.ca/corporate-ieso/contact>). Customer Relations staff will respond as soon as possible.

– End of Section –

2. Reliability Information Provided by the IESO

Table 2-1: Reliability Information Provided by the IESO

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
1.	<i>Market participants</i>	<i>Reliability Standards NERC/NPCC</i>	Ongoing	By e-mail from the IESO or by links to IESO Internal Compliance Programs http://www.nerc.com http://www.npcc.org	NERC Standards NPCC Criteria	4	2.1.1
2.	<i>Market participants</i>	<i>Reliability policy and security for local area supply</i>	Ongoing	"Market manual" (Details upon request of authorized <i>market participants</i> , subject to confidentiality provisions.)	Market Manual 11.1: <i>Applicability Criteria for Compliance with NERC Reliability Standards and NPCC Criteria</i>	5	5.4

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
3.	<i>Market participants</i>	Equipment Performance Standards	Ongoing	<p>IESO website http://www.ieso.ca/ "Market Rules"</p>	<p>General: Appendix 4.1 of "Market Rules (Chapter 4)</p> <p>Generators: Appendix 4.2 of "Market Rules (Chapter 4)</p> <p>Connected Wholesale Customers and Distributors Connected to IESO-Controlled Grid: Appendix 4.3 of "Market Rules (Chapter 4)</p> <p>Transmitter: Appendix 4.4 of "Market Rules (Chapter 4)</p>	4	3.1.1
4.	<i>Market participants</i>	Operating Procedures and Instruction	Ongoing	<p>IESO website http://www.ieso.ca/ ----- Upon request of authorized <i>Market Participants</i>, subject to confidentiality provisions</p>	<p>Market Manual 7: System Operations - Part 7.1: IESO-Controlled Grid Operating Procedures</p> <p>For internal procedures: Publicly available System Control Orders (SCO) and Internal Manuals</p>	5	3.2.3

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
5.	<i>Market participants</i>	Requirements for commissioning, inspection and testing of equipment <i>connected to IESO-controlled grid.</i>	Ongoing, as changes occur	<p><i>IESO</i> website http://www.ieso.ca/</p> <p><i>OEB</i> website https://www.oeb.ca/</p>	<ul style="list-style-type: none"> <i>Market Rules</i> Appendices 4.2 to 4.9 (Chapter 4) Transmission System Code (OEB), and Appendices <p>Other reference documents to be added when developed.</p>	4	<p><i>Transmitters:</i> 3.3.1.3</p> <p><i>Generators:</i> 3.4.1.3</p> <p><i>Connected Wholesale Customers and Distributors Connected to IESO-Controlled Grid:</i> 3.5.1.3, 5</p>
6.	<i>Market participants</i>	<i>Ancillary Service provider</i> performance standards: <i>black start, regulation, voltage control and reactive support, and Operating Reserve.</i>	Ongoing	" <i>Market Rules</i> "	Appendix 5.1 of " <i>Market Rules</i> " (Chapter 5)	5	4.2.2 , 4.3.2
7.	<i>Market participants</i>	<i>Ancillary Services:</i> requirements and procedures for testing <i>ancillary service provider facilities.</i>	Ongoing; within 6 months of " <i>Market Rules</i> " (Chapter 5) being in force	<p><i>IESO</i> website http://www.ieso.ca/</p>	Appendix 5.1 of " <i>Market Rules</i> " (Chapter 5) contains performance standards <i>Market Manual 7 System Operations. Part 7.8: Ontario Power System Restoration Plan</i>	5	4.9

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
8.	<i>Market participants</i>	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: System Operations: Part 7.3: Outage Management. (Sections 2, 4, and Appendix B).	5	6.1.3
9.	<i>Market participants</i>	<i>Planned outage</i> information provided by <i>transmitters</i> and <i>generators</i> subject to confidentiality provisions	Refer to reference document for schedule	Included in the <i>security</i> and <i>adequacy</i> assessments	(1) Market Manual 7.3 Outage Management (2) Market Manual 7.2 Near Term Assessments and Reports	5	6.5.2
10.	<i>Generators</i> affected	<i>Generation facilities</i> whose <i>outages</i> must be reported to support monthly summaries when their <i>generation facilities</i> are identified by the <i>IESO</i> as affecting the <i>reliability</i> of the <i>IESO-controlled grid</i> but are less than 0.5% of the <i>generator's</i> total capacity and the <i>generator's</i> total capacity is greater than 4000 MW	Ongoing/as required	Hardcopy or electronic advice to <i>generators</i> affected	Market Manual 2: Market Administration. Part 2.11: 18-Month Outlook and Related Information Requirements	5	6.2.5.2
11.	<i>Market participants</i>	<i>Dispatch criteria for Remedial Action Schemes</i> (e.g. Load rejection, <i>generation</i> rejection)	Ongoing; updates as criteria changes	<i>IESO</i> website http://www.ieso.ca/	Market Manual 7: System Operations Manual. Part 7.4: <i>IESO-Controlled Grid</i> Policies. (Section 2.7.6 and Appendices B and C)	5	8.2.4

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
12.	<i>Market participants</i>	Specifications regarding exclusions to load management activities undertaken for the purpose of controlling <i>demand</i>	As required	<i>Market manuals</i> available on the <i>IESO</i> website http://www.ieso.ca/	Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i> (Section 11.2)	5	10.3.6
13.	<i>Market participants</i>	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 http://www.ieso.ca/	Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i> " (Section 11.2)	5	10.4.11
14.	<i>Distributors and Connected Wholesale Customers</i> 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 http://www.ieso.ca/	Covered in: (1) Market Manual 7.1: : <i>IESO-Controlled Grid Operating Procedures</i> (Section 11.3) (2) Market Manual 7.4: <i>IESO-Controlled Grid Policies</i> . (Section 4.4.1)	5	10.4.7
15.	<i>Minister of Energy</i>	<i>Ontario electricity emergency plan and emergency preparedness plan for major market participants</i> – filing with <i>Minister</i> (see subsection 39(1) of the <i>Electricity Act</i> , 1998)	As required	<i>IESO</i> website http://www.ieso.ca/	<i>Emergency Preparedness</i> link on the <i>IESO</i> website http://www.ieso.ca/sector-participants/system-reliability/emergency-preparedness	5	11.2.2
16.	<i>Minister of Energy</i>	<i>Ontario power system restoration plan</i> – filing with <i>Minister</i>	As required	<i>IESO</i> website http://www.ieso.ca/	Market Manual 7.8: <i>Ontario Power System Restoration Plan</i>	5	11.3.4

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
17.	<i>Market participants</i>	<i>Security limits for all facilities that are part of IESO-controlled grid</i>	Ongoing, updates as changes occur	Upon request of authorized <i>market participants</i> , subject to confidentiality provisions.	System Control Orders <i>IESO Summary of Limits and Transfer Capability</i>	5	5.1.2.2
18.	<i>Market participants</i>	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	<i>IESO</i> website http://www.ieso.ca/	Market Manual 7.4: <i>IESO-Controlled Grid Policies</i> ".	5	5.1.2.3
19.	<i>Market participants</i>	<i>Transmission transfer capabilities</i>	Ongoing, updates as changes occur	By e-mail. <i>IESO</i> website <i>NERC</i> website <i>NPCC</i> website http://www.ieso.ca/ http://www.nerc.com/ http://www.npcc.org/	(1) <i>Reliability Assessments and Regional/interregional Studies</i> , available on <i>NERC</i> and <i>NPCC</i> websites (2) 18-month outlooks, on <i>IESO</i> website	5	5.2.2 and 5.2.1
20.	<i>Market participant</i>	<i>Demand Forecast Methodology</i>	Ongoing, updated as changes in methodology occur	<i>IESO</i> website http://www.ieso.ca	(1) Market Manual 7.2: Near Term Assessments and Reports (Appendix B) (2) Market Manual 2. Part 2.11: 18-Month Outlook and Related Information Requirements (3) Market Manual 2. Part 2.8: Reliability Assessments Information Requirements	5	7.1.3

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
21.	<i>Market participants</i>	<i>Advance security and adequacy assessments of IESO-controlled grid</i>	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	<i>Market Manuals, Quarterly and Annual assessments outlooks available at the IESO website http://www.ieso.ca/ Security and adequacy assessments available on website</i>	(1) Market Manual 7.2: Near Term Assessments and Reports, for the daily and weekly assessments. (2) Market Manual 2.11: 18-Month Outlook and Related Information Requirements, for monthly assessments. (3) Market Manual 2.8: Reliability Assessments Information Requirements	5	7.3
22.	<i>Market participants</i>	<i>Demand forecasts for Ontario or parts thereof</i>	For the next 34 days Refer to reference document for schedule Monthly: For next 18 months Annually: Exceeding the 18 month timeframe	<i>Market Manuals, Quarterly and Annual assessments available at the IESO website http://www.ieso.ca/ Adequacy assessments available on website</i>	For the daily and weekly: Market Manual 7.2: Near Term Assessments and Reports For monthly: Market Manual 2.11: 18-Month Outlook and Related Information Requirements For yearly: Market Manual 2.8: Reliability Assessments Information Requirements	5	7.1.1

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
23.	<i>Market participants</i>	<i>IESO-controlled grid emergency operating state</i> anticipated or declared	As required; promptly	Advisory notice, or telephone call if required	List of <i>Emergency Operating State Control Actions (EOSCA)</i> as per Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i>	5	2.3.3
24.	<i>Market Participants</i>	Issue <i>NERC Energy Emergency Alerts</i>	As required	Posted on <i>NERC</i> public website Advisory notice	List of <i>Emergency Operating State Control Actions (EOSCA)</i> as per Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i> . <i>NERC Standard EOP-002 Attachment 1</i> .		
25.	<i>Market participants</i>	<i>IESO-controlled grid high-risk operating state</i> anticipated or declared	As required; promptly	Advisory notice, or telephone call if required	Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures (Section 5.1)</i> Market Manual 7.3: <i>Outage Management (Section 4.3)</i>	5	2.4.3
26.	<i>Market participants</i>	<i>10 minute Operating Reserve</i> requirements for next day	Refer to reference document for schedule	Adequacy Report	Market Manual 7.2: <i>Near Term Assessments and Reports</i>	5	4.5.11
27.	<i>Market participants</i>	<i>Black Start</i> required amounts and location	Before obtaining <i>black start capability</i> service	Contracts	Market Manual 7.8: <i>Ontario Power System Restoration Plan, Section 11</i>	5	4.7.2

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
28.	<i>Market participants</i>	Conditions on <i>IESO-controlled grid</i> that may require <i>demand</i> reductions by <i>non-dispatchable load</i>	As required, promptly	Advisory notice ----- SCOs upon request of authorized <i>Market Participants</i> , subject to confidentiality provisions	Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i> ", Section 9	5	10.1.2
29.	<i>Market participants</i>	Warning of request to reduce <i>demand</i> through voltage reductions or interruptions	By 16:00 hrs of previous day (whenever possible)	Advisory notice ----- SCOs upon request of authorized <i>Market Participants</i> , subject to confidentiality provisions	Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i> ", Section 8 <i>List of Emergency Operating State Control Actions (EOSCA)</i> as per Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i>	5	10.3.2
30.	<i>Transmitters</i>	Conditions on the <i>IESO-controlled grid</i> after load shedding	Immediately after loads have been shed	Advisory notice	Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i> ", Section 9.1.3	5	10.4.5

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
31.	<i>Market Participants</i>	Issuance of a System Advisory for under-generation via an advisory notice.	2 days prior to <i>dispatch day</i> ; 1 day prior to <i>dispatch day</i> ; any time thereafter if condition is present	Advisory notice	List of <i>Emergency Operating State Control Actions (EOSCA)</i> as per Market Manual 7.1: <i>IESO-Controlled Grid Operating Procedures</i> Market Manual 4.2: <i>Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets</i> , Section 2 and Appendix B.	7	12.1.1 12.1.3.2 12.1.3.3
32.	<i>Market participants</i>	<i>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.</i>	As required under relevant <i>market rules and market manual</i> Initial <i>pre-dispatch schedule</i> by 12:00 EST of each <i>pre-dispatch day</i>	MPI (<i>Market Participant Interface</i>)/Dispatch Workstation Adequacy Report, Transmission Facility Outage Limits Report, and advisory notices	Market Manual 4.2: <i>Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets</i> (Section 2.9 and Appendix D) Market Manual 4.3 <i>Real-Time Scheduling of the Physical Markets</i>	7	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 Rules Reference	
						Chapter	Section
33.	<i>Market participants</i>	<i>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</i>	As required under relevant <i>market rules</i> and <i>market manual</i> Within five minute period after each <i>dispatch interval</i> for <i>operating reserve</i> , and for other items: within one hour after end of each <i>dispatch hour</i>	MPI (<i>Market Participant Interface</i>) /Dispatch Workstation	Market Manual 4.3: <i>Real-Time Scheduling of the Physical Markets</i>	7	6.5 (6.5.3.1, 6.5.3.2, 6.5.3.6, 6.5.3.7)
34.	<i>Market participants</i>	<i>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</i>	As required under relevant <i>market rules</i> and <i>market manual</i> Within one hour after each <i>dispatch hour</i>	<i>Real Time Dispatch Workstation</i>	Market Manual 4.3: <i>Real-Time Scheduling of the Physical Markets</i>	7	7.8 (7.8.1.1 to 7.8.1.4)

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
35.	<i>Market participants</i>	To provide to all <i>market 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 days</i> following the resumption of normal market operations Final report as soon as practicable	By electronic or hard copy to <i>market participants</i> <i>IESO</i> website Http://www.ieso.ca	Market Manual 4.5: Market Suspension and Resumption	7	13.7.3 and 13.7.4
36.	<i>Market participants</i>	Estimate of aggregate load curtailed following return to a <i>normal operating state</i>	As soon as practicable	MPI (<i>Market Participant Interface</i>)/ <i>Real Time</i> Dispatch Workstation	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures	5	10.3.7
37.	<i>Market Participants (dispatchable generation facilities)</i>	Spare Generation on-line – expected start time, run time, spare <i>generation</i> amount	Hourly basis	MPI (<i>Market Participant Interface</i>) / Dispatch Workstation	Market Manual 4.2: Submission of <i>Dispatch Data</i> in the <i>Real-Time Energy</i> and Operating Reserve Markets Market Manual 4.3 <i>Real-Time</i> Scheduling of the <i>Physical Markets</i>	7	2.2B, 5.7, 6.3A
38.	<i>Market Participants</i>	Acceptance/Approval of planned Replacement <i>Energy</i> to Support <i>Planned Outages</i> (<i>boundary entity</i> , time period, amount etc.)	Promptly	MPI (<i>Market Participant Interface</i>) / Dispatch Workstation		5	6.3.6 - 6.3.10
39.	<i>Market Participants</i>	RMR (<i>Reliability Must Run</i>) requirements to <i>generators</i> , <i>dispatchable loads</i>	As soon as possible	By Phone/Electronically		5	4.8
40.	<i>Market Participants</i>	<i>Information/communications during Planned Outage</i>	As required	Telephone Call, Outage Management System, Outage Form		5	6.1.7

Item No.	Information To	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
41.	<i>Market Participants</i>	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 http://www.ieso.ca MPI (Market Participant Interface) / Dispatch Workstation	Market Manual 4 4.3: Real-Time Scheduling of the <i>Physical Market</i> , Section 5.1.1 Market Manual 4.2: <i>Dispatch Data</i> in the <i>Real-Time Energy and Operating Reserve Markets</i> , Section 2.1	5	4.5.6 A

– End of Section –

3. Reliability Information Required by the IESO

Table 3-1: Reliability Information Required by the IESO

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
1.	<i>Market participants</i>	<p>Complying with <i>reliability</i> related information requirements</p> <p>Results of compliance monitoring and performance testing</p> <p>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: Reliability Compliance. Part 11.3: <i>Reliability Information Catalogue</i>". 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.</p>	Upon request of the <i>IESO</i>	<p>Hard or electronic copy to IRCP (<i>IESO Reliability Compliance Program</i>) team¹ at the <i>IESO</i>. IRCP@ieso.ca</p> <p>To facilitate <i>market participants</i> in the submission of <i>reliability</i> compliance related information, where applicable, a dedicated e-mail link to the <i>Reliability Compliance Program</i> has been established that would be utilized for e-mailing the information to the <i>IESO</i> via IRCP@ieso.ca.</p>	Market Manual 11.2: <i>Ontario Reliability Compliance Program</i>	5 4	14 and 3 1 to 5

¹ IRCP Team to make initial contact with the *market participants*.

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
2.	<i>Market participants</i>	Network Impact Information for proposed new or modified connection to <i>IESO-controlled grid</i>	At least 60 days prior to proposed change	As per Connection Assessment and Approval process	<p>General: Market Manual 2: Market Administration. Part 2.10: Connection Assessment and Approval</p> <p><i>Generators:</i> Appendix 4.6 of “<i>Market Rules</i>” (Chapter 4). <i>Connected Wholesale Customers and Distributors Connected to the IESO-Controlled Grid:</i> Appendix 4.7 of “<i>Market Rules</i>” (Chapter 4). <i>Registered Facilities providing Ancillary Services:</i> Appendix 4.8 of “<i>Market Rules</i>” (Chapter 4). <i>Transmitters:</i> Appendix 4.9 of “<i>Market Rules</i>” (Chapter 4).</p>	4	6.1.6

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
3.	<i>Market participants</i>	Connection Information Equipment ratings, in form suitable for dynamic calculation Functional descriptions, equipment ratings and operating restrictions for equipment and distribution <i>facilities</i> included within the <i>IESO-controlled grid</i> .	As part of <i>facility</i> registration	<i>Facility</i> Registration Facility.Registration@ieso.ca	General: Facility Registration Guide Market Manual 1: Market Entry. Part 1.2: Facility Registration Appendix 4.5A to 4.9 of <i>Market Rules</i> (Chapter 4)	4 5 5	6.1.11 5.2.5 <i>Generators:</i> 3.6.1.2 <i>Distributors:</i> 3.7.1.4 <i>Transmitters:</i> 3.4.1.3
4.	<i>Generator and Connected Wholesale Customer</i>	<i>Connection Agreement</i> with <i>transmitter</i> or <i>distributor</i> for new or modified <i>connection facility</i>	<i>Facility</i> Registration	<i>Facility</i> Registration Facility.Registration@ieso.ca	OEB Transmission and Distribution System Codes Facility Registration Guide Market Manual 1: Market Entry. Part 1.2: Facility Registration	4 7	4 and 6 2.2.6.3
5.	<i>Transmitters</i>	Detailed procedures for processing <i>connection requests</i> ; and Requirements that must be met for connection to its <i>transmission system</i> or for the modification of an existing connection to such system	Within 6 months following the coming into force of Chapter 4.	OEB Transmission Code	OEB Transmission and Distribution System Codes Market Manual 2: Market Administration. Part 2.10: Connection Assessment and Approval	4	6.1

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
6.	<i>Market participants</i>	<i>IESO Monitoring Requirements</i>	Continual Basis	Control and Monitoring Equipment through <i>real-time</i> network	<p><i>Generators:</i> Appendix 2.2 of <i>Market Rules</i> (Chapter 2) Appendix 4.15 and 4.19 of <i>Market Rules</i> (Chapter 4)</p> <p><i>Transmitters:</i> Appendix 2.2 of <i>Market Rules</i> (Chapter 2) Appendix 4.16, 4.20, and 4.21 of <i>Market Rules</i> (Chapter 4)</p> <p><i>Connected Wholesale Customers and Distributors Connected to IESO-Controlled Grid:</i> Appendix 2.2 of <i>Market Rules</i> (Chapter 2) Appendix 4.17 and 4.22 of <i>Market Rules</i> (Chapter 4)</p> <p>Embedded Load Customers: Appendix 2.2 of <i>Market Rules</i> (Chapter 2) Appendix 4.18 and 4.23 of <i>Market Rules</i> (Chapter 4)</p>	4	7.3 7.4 7.5 7.6
7.	<i>Generators (embedded and connected)</i>	Maximum unit capabilities (physical rating) to facilitate <i>dispatch</i> in an <i>emergency operating state</i>	<i>Facility Registration</i>	<i>Facility Registration</i> Facility.Registration@ieso.ca	Facility Registration Guide	5	3.6.1.5

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
8.	<i>Market participants</i>	<i>Emergency Preparedness Plan</i> and such other <i>emergency preparedness</i> -related information	At the time of registration and updated at least annually thereafter by the <i>market participant</i> . Information to be submitted to the <i>IESO</i> as required	<i>Market participant</i> Authorization	Market Manual 7.10: <i>Ontario Electricity Emergency Plan</i>	5	11.2.3 and 11.2.4
9.	<i>Market participants</i>	A <i>restoration participant attachment</i> and such other system restoration-related information	Annually	<i>Market participant</i> Authorization	Market Manual 7.10: <i>Ontario Electricity Emergency Plan</i>	5	11.3.5, 11.3.6, and 11.3.7
10.	<i>Market participants</i>	<i>Emergency Preparedness Plan</i> and/or <i>restoration participant attachment</i> audit and re-file	As and when directed by the <i>IESO</i>	Hard or electronic copy to the Manager, via 'Emergency Preparedness Department' at the <i>IESO</i> at: Emergency.Preparedness@ieso.ca	Market Manual 7.10: <i>Ontario Electricity Emergency Plan</i>	5	11.4.4

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
11.	<i>Market participants</i>	Manner in which the <i>market participant</i> will minimize the cutting and expedite the restoration of critical loads and priority loads during short and prolonged <i>emergencies</i>	At the time of registration and updated at least annually thereafter by the <i>market participant</i> . Information to be submitted to the <i>IESO</i> as required	<i>Emergency Preparedness Plan</i>	Market Manual 7.10: <i>Ontario Electricity Emergency Plan</i>	5	11.2.4, 11.2.3, and 11.3.6
12.	SPS Owners	SPS Equipment maintenance for previous 12 months	No later than Dec 1 of each year	Hard or electronic copy to IRCP team at the <i>IESO</i> . IRCP@ieso.ca	NERC Standard PRC-017 (available on NERC website)	5	14.1.3.3
13.	SPS Owners	Operating statistics , performance information related to SPS	On an annual basis and when requested by <i>IESO</i>	Hard or electronic copy to IRCP team at the <i>IESO</i> . IRCP@ieso.ca	NERC Standard PRC-016 and PRC-017 (available on NERC website)	5	8.3.1.2 and 8.3.1.3
14.	SPS Owners	Request and evaluation of request from affected <i>market participant</i> for permanent <i>exemption</i> from connection to SPS	As required	Exemption Application Form on the <i>IESO</i> website.	"Market Rules"	5	8.3.1.4

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
15.	<i>Market participants</i>	Summary of <i>demand</i> control actions for previous 12 months	Annually; as and when requested by <i>IESO</i>	Hard or electronic copy to IRCP at the <i>IESO</i> . IRCP@ieso.ca	Information Submittal Form at <i>IESO</i> website when available. Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures (Sections 7, 8, and 9) Market Manual 7.3: <i>Outage Management</i> (Sections 2 and 4) (The established procedures/principles in above documents and " <i>Market Rules</i> " to be used as guidelines, as applicable).	5	14.1.3.5 10.3
16.	<i>Market participants</i>	<i>Reliability</i> related performance measures for <i>transmission facilities</i> and connections to <i>IESO-controlled grid</i>	Annually; and when requested by <i>IESO</i>	Hard or electronic copy to IRCP at the <i>IESO</i> . IRCP@ieso.ca	Forms at <i>IESO</i> website . <i>IESO –Transmitter Operating Agreement</i> with each <i>transmitter</i> .	5	14.1.3.7 5.4
17.	<i>Market participants</i>	Summary of automatic under-frequency load shedding activities for previous 12 months	Annually; and when requested by the <i>IESO</i>	Form at the <i>IESO</i> website when available Hard or electronic copy to IRCP at the <i>IESO</i> . IRCP@ieso.ca	<i>Operating Agreements</i>	5	14.1.3.6

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
18.	<i>Market participants</i>	Planned change to a setting on a fixed-tap transformer	Within one week prior to scheduled change	Outage Management System, Outage Form Electronic copy to the IESO at: Facility.Registration@ieso.ca	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures, Section 8.1.1	5	14.1.3.1
19.	<i>Market participants</i> Parties to <i>connection agreement</i>	Notice of equipment testing that requires change to normal operation of that equipment	As testing proposed; (\geq 4 weeks prior to planned test)	Outage Management System, Outage Form	Market Manual 7.3: Outage Management	4	5.1.5
20.	<i>Market participants</i>	Report describing proposed or <i>emergency</i> modifications to primary protection relay	Within one week of date for IESO approval of proposed modification or within one week of unplanned, <i>emergency</i> modifications	Outage Management System, Outage Form Electronic copy to IESO at: Facility.Registration@ieso.ca	Market Manual 7.3: Outage Management	5	14.1.3.4
21.	<i>Distributor and Connected Wholesale Customer</i>	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 IRCP at IESO. IRCP@ieso.ca	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures	5	10.4.9

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
22.	<i>Generators</i>	Frequency excursion $\geq 60.2\text{Hz}$ or $\leq 59.8\text{Hz}$ Restoration action to protect equipment, personnel or public safety, environment	Immediately	By telephone to <i>IESO</i> Shift Operating Staff	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures, Section 11.2	5	10.5.2 10.5.3
23.	<i>Generators</i> (embedded and non-embedded)	If <i>facilities</i> cannot operate in accordance with agreed schedule	As changes occur; promptly	Telephone Call, Outage Management System, Outage Form Changes in <i>bids/offers</i>	Market Manual 7.3: Outage Management Market Manual 4.2: Submission of <i>Dispatch Data</i> in the <i>Real-Time Energy and Operating Reserve</i> Markets	5	3.6.1.4
24.	<i>Generators</i>	Any change or anticipated change in the status of any <i>generation facility</i> or related equipment that is under the <i>dispatch</i> control of the <i>IESO</i> , and could have a material impact on the <i>IESO-controlled grid</i> or the operation of <i>IESO-administered markets</i> (list of changes to be reported in Section 3.6.1.3)	As unavailability occurs, promptly	Telephone Call, Outage Management System, Outage Form	Market Manual 7.3: Outage Management	5	3.6.1.3
25.	<i>Market participants</i>	<i>Emergency</i> removal from service of equipment or <i>facilities</i>	As removal occurs; promptly	Telephone Call, Outage Management System, Outage Form	Market Manual 7.3: Outage Management	5	6.1.6
26.	<i>Market participants</i>	Notice of <i>forced outage</i> Nature and cause of <i>forced outage</i>	As <i>outages</i> occur; promptly ≤ 48 hrs after <i>outage</i>	Telephone Call, Outage Management System, Outage Form Incident Report	Market Manual 7.3: Outage Management	5	6.3.4 6.3.5

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
27.	<i>Market participants</i>	Action taken to control <i>demand</i> (list of actions and information to be reported listed in Sections 10.2.2, 10.2.3 and 10.2.4 of “Market Rules”)	Prior notification by 10:00 EST day prior. Advise of actions as soon as possible	Through Outage Management System prior. Telephone call to advise of actions	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures (Sections 8 and 9)	5	10.2.1
28.	<i>Market participants</i>	Equipment test information (see Section 6.6.2 for list)	Sufficiently in advance of proposed test to allow co-ordination and assessment	Letter or e-mail; then <i>outage</i> request through Outage Management System	Market Manual 7.3: Outage Management	5	6.6
29.	<i>Distributor or Connected Wholesale Customer</i>	Change or anticipated change in its <i>facilities</i> or equipment that could have a material impact on operation of <i>IESO-controlled grid</i> or <i>IESO-administered markets</i> (<i>Connected wholesale customers</i>) Change or anticipated change in capability of <i>distribution facilities</i> that could have a material impact on operation of <i>IESO-controlled grid</i> or <i>IESO-administered markets</i> (<i>Distributors</i>)	As soon as known, promptly in time frames of <i>outage</i> management	Outage Management System, Outage form	Market Manual 7.3: Outage Management	5	3.5.1.2 3.7.1.2
30.	<i>Distributors</i>	Event in service territory that could have material effect on the <i>reliability</i> of the <i>IESO-controlled grid</i>	As soon as known, promptly	By telephone to <i>IESO</i> Shift Operating Staff	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures (Sections 4.2.3 and 5.2.3)	5	3.7.1.3

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
31.	<i>Market participants</i>	Confirm <i>planned outage</i> in order to obtain <i>IESO</i> approval of <i>outage</i> ; provide time required to return <i>facilities</i> or equipment to service Notice and request of extension to originally approved <i>planned outage</i>	Before 10:00 am EST on third <i>business day</i> prior to planned <i>outage</i> date As soon as possible	By telephone call, Outage Management System, Outage Form	Market Manual 7.3: Outage Management	5	6.4.1 6.4.7
32.	<i>Market participants</i>	Information and reports to facilitate preparation of disturbance report by <i>IESO</i> for <i>standards authority</i>	Within 48 hours and follow-ups as required	Initially by telephone Hard or electronic copy to IRCP at <i>IESO</i> . IRCP@ieso.ca	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures	5	14.1.5
33.	<i>Transmitters</i>	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 grid</i>	As soon as possible after occurrence	By telephone to <i>IESO</i> Shift Operating Staff	Market Manual 7.1: <i>IESO-Controlled Grid</i> Operating Procedures, Section 5.2.1	5	10.4.2 10.4.4

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
34.	<i>Transmitters and Distributors</i>	Annual total forecast peak demand by connection point Annual total forecast peak demand that can be disconnected within various time scales, by connection point	Annual, by week 24 of calendar year	Hard or electronic copy to IRCP at IESO. IRCP@ieso.ca	Market Manual 7.3: Outage Management Sections 2 and 4 Market Manual 7.1: IESO-Controlled Grid Operating Procedures (Sections 7, 8, and 9) (The established procedures/principles in above documents and Market Rules Section 10.2, to be used as guidelines for submission)	5	10.2.5.3 10.2.5.4
35.	<i>Transmitters and Generators</i>	Outage plans for facilities forming part of the IESO-controlled grid Provide outage information for IESO to review	As frequently as necessary with reference to Market Rules Chapter 5, Sections 6.2.4.1 and 6.2.4.2	Outage Management System, Outage Form	Market Manual 7.3: Outage Management	5	6.2.4 6.5.1
36.	<i>Market participants</i>	Schedule of all planned outages, regardless of duration	No later than 33 calendar days prior to a planned outage	Outage Management System, Outage Form	Market Manual 7.3: Outage Management	5	6.3.1

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
37.	<i>Transmitters and Generators</i>	Data for <i>IESO reliability</i> assessments; refer to reference document for specific data requirements	Annually; refer to reference document for schedule	Electronic copy to <i>IESO</i> at: Forecasts.Assessments@ieso.ca	Market Manual 2.8: Reliability Assessments Information Requirements"	5	7.5 and 7.2
38.	<i>Transmitters</i>	Data for <i>IESO 18 month</i> assessment report; refer to reference document for specific data requirements	January, July, and October; refer to reference document for schedule	Electronic copy to <i>IESO</i> at: Forecasts.Assessments@ieso.ca	Market Manual 2.11: 18-Month Outlook and Related Information Requirements"	5	7.2 and 7.5
39.	<i>Generators with energy limited resources</i>	Data for <i>IESO 34 day adequacy</i> assessments: refer to reference document for specific data requirements	Weekly	Electronic copy to <i>IESO</i> via Online <i>IESO</i>	Market Manual 7.2: Near-Term Assessments and Reports	5	7.2 and 7.5
40.	<i>Connected Wholesale Customers</i>	<i>Planned outage</i> , closure, test or similar event for next 4 <i>trading weeks</i> that results in change in <i>demand</i> of ≥ 20 MW <i>Planned outage</i> closure, test or similar event for next 4 <i>trading weeks</i> of a <i>facility</i> specifically designated by the <i>IESO</i>	By 2:00 p.m. on last <i>trading day</i> of every second <i>trading week</i>	Outage Management System, Outage Form	Market Manual 7.3: Outage Management (Section 2)	5	3.5.1.5
41.	<i>Market participants</i>	Data required to satisfy request by <i>standards authority</i>	As required: pursuant to the established procedure and submission due dates	Hard or electronic copy to IRCP team at <i>IESO</i> . IRCP@ieso.ca	Market Manual 11.2: <i>Ontario Reliability Compliance Program</i>	5	14.1.4

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
42.	<i>Transmitter</i>	<i>Transmission system reliability</i> related information required for scheduling and <i>dispatching</i> in <i>real time</i>	As frequently as necessary in accordance with the requirements of <i>Market Rules</i> Chapter 7, Section 3.9	Real Time Network, Outage Management System and Facility Registration, as applicable	Market Manual 4.2: Submission of <i>Dispatch Data</i> in the <i>Real-Time Energy</i> and <i>Operating Reserve</i> Markets Appendix 7.4 of <i>Market Rules</i> (Chapter 7)	7	3.9
43.	<i>Market Participants (dispatchable generation facilities)</i>	Spare Generation on-line – start time, minimum run time, minimum load level	Hourly basis	MPI (Market Participant Interface) / Dispatch Workstation	Market Manual 4.2: Submission of <i>Dispatch Data</i> in the <i>Real-Time Energy</i> and <i>Operating Reserve</i> Markets Market Manual 4.3 <i>Real-Time</i> Scheduling of the <i>Physical</i> Markets	7	2.2B, 5.7, 6.3A
44.	<i>Market Participants</i>	Replacement <i>Energy</i> to support <i>planned outages</i> (<i>boundary entity</i> , time period, amount etc.)	As required	MPI (Market Participant Interface) / Dispatch Workstation, Outage Management System	Market Manual 7.3: Outage Management	5	6.3.6 - 6.3.10
45.	<i>Market Participants</i>	RMR (<i>Reliability Must Run</i>) amounts, locations, time etc.	As soon as possible	Telephone, electronic copy	Market Manual 7.3: Outage Management	5	4.8
46.	<i>Market Participants</i>	Information regarding market operations to assist the <i>IESO</i> in analyzing the suspension	Immediately prior to and during the suspension period	Telephone By electronic or hard copy to Manager, System Operations at <i>IESO</i>	Market Manual 4.5: Market Suspension and Resumption	7	13.7.2

Item No.	Information From	Information Description	Frequency; Timing	Means of Provision	Reference Document	Market Rules Reference	
						Chapter	Section
47.	<i>Market Participants</i>	Information and <i>Request for Segregation</i> for approval to operate its <i>registered facility</i> in a <i>segregated mode of operation</i>	Within the time required, as mentioned in <i>Market Rules Chapter 7, Appendix 7.7, Section 1.3</i>	Outage Management System, Outage Form, Telephone Call	Market Manual 7.3: Outage Management, Section 2	7, Appendix 7.7	1.3
48.	<i>Market Participants</i>	Information/communications during <i>Planned Outage</i>	As and when required	Telephone Call, Outage Management System, Outage Form		5	6.1.7

– 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_0014	Market Manual 1.1: Participant Authorization, Maintenance and Exit
MDP_PRO_0016	Market Manual 1.2: Facility Registration, Maintenance and De-registration.
MDP_PRO_0024	Market Manual 2.8: Reliability Assessments Information Requirements
MDP_PRO_0048	Market Manual 2.10: Connection Assessment and Approval
IMP_PRO_0024	Market Manual 2.11: 18-Month Outlook and Related Information Requirements
MDP_PRO_0027	Market Manual 4.2: Submission of <i>Dispatch Data</i> in the Real-Time <i>Energy</i> and <i>Operating Reserve</i> Markets
IMP_PRO_0034	Market Manual 4.3 Real-Time Scheduling of the Physical Markets
MDP_PRO_0030	Market Manual 4.5: Market Suspension and Resumption
MDP_PRO_0040	Market Manual 7.1: System Operating Procedures
IMP_PRO_0033	Market Manual 7.2: Near Term Assessments and Reports
IMP_PRO_0035	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
IESO_PRO_0874	Market Manual 11.2: Ontario Reliability Compliance Program

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