



Independent Electricity
System Operator

Market Manual 2: Market Administration

Part 2.8: Reliability

Assessments

Information

Requirements

Issue 12.0

This procedure provides the steps required for *market participants* to submit the information required for *reliability* assessments.

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This *market manual* 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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Table of Changes

Reference (Paragraph and Section)	Description of Change
Entire Document	Changed August and October to January and March respectively.
Section 1.4.2	Changed the reference to the appendix of <i>market manual</i> “Part 2.10: Connection Assessment and Approval” from Appendix A to Appendix B.
Section 1.4.3	Updated dates used in the example and corrected the inconsistency between the text in paragraph 2 (“with the next calendar year”) and the dates given in the example.
Section 1.5, bullet 2 second sub-bullet	Changed “directions” to “directives”
Section 1.7	Removed references to PLC.
Table 3-1, Ref. 8.11	Changed “update” to “updates” in column 2.

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 “Market Administration Manual” is Volume 2 of the *market manuals*, where this document forms “Part 2.8: Reliability Assessments Information Requirements”.

A list of the other component parts of the “Market Administration Manual” is provided in “Part 2.0: Market Administration Overview”, in Section 2, ‘About This Manual’.

Structure of Market Procedures

Each Market Procedure is composed of the following sections:

1. **Introduction**, which contains general information about the procedure, including an overview, a description of the purpose and scope of the procedure, and information about roles and responsibilities of the parties involved in the procedure.
2. **Procedural Work Flow**, which contains a graphical representation of the steps and flow of information within the procedure.
3. **Procedural Steps**, which contains a table that describes each step and provides other details related to each step.
4. **Appendices**, which may include such items as forms, standards, policies, and agreements.

Conventions

The *market manual* standard conventions are as defined in the “Market Administration Manual, Part 2.0: Market Administration Overview” document.

– End of Section –

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1. Introduction

1.1 Purpose

The *IESO* is required by the “Market Rules” to prepare and *publish security and adequacy* assessments (Chapter 5, Section 7.3.1.5) to meet its obligations to maintain the *reliability* of the *IESO-controlled grid*.

Market participants are required by the “Market Rules” (Chapter 5, Section 7.5.1) to provide the required information for the *IESO* to conduct the *security and adequacy* assessments described above. This procedure specifies the information required and provides *market participants* and *connection applicants* with the specific steps to submit such information to the *IESO*.

1.2 Scope

This procedure is intended to provide *market participants* and *connection applicants* with a summary of the steps and interfaces among *market participants*, *connection applicants*, the *IESO*, and other parties for submitting information for the purpose of conducting *security and adequacy* assessments. Procedural work flows and procedural steps described in this document will serve as a roadmap for *market participants*, *connection applicants*, the *IESO*, and other parties, and will reflect the requirements set out in the “Market Rules” (Chapter 5, Section 7 and Chapter 10, Section 8.8) and applicable *IESO* policies and standards.

The process relating to the production of the 18-Month Outlook is set out in “Part 2.11: 18-Month Outlook and Related Information Requirements.”

The process relating to the production of the 14-day and 28-day *Security and Adequacy* Assessments is set out in “Market Manual 7: System Operations.”

The overview information in Section 1.3, below, is provided for context purposes only, highlighting the main actions that comprise the procedure as illustrated in Section 2 and described in Section 3.

Detailed and specific procedures internal to the *IESO* relative to forecasts and assessments are not provided.

1.3 Overview

The *IESO* is required to conduct assessments of the *reliability* of the *IESO-controlled grid* (“Market Rules”, Chapter 5, Section 7.3.1.5). The *IESO* will *publish* the results of the above-mentioned *reliability* assessments.

With respect to *adequacy of generation facilities and transmission facilities*, the purpose of the *reliability* assessments is to notify *market participants*, the *OEB*, the *OPA*, and the public of the *IESO*'s evaluation of the *adequacy* of Ontario's generation and transmission resources for meeting the projected *demand* for electricity.

The *reliability* assessments are also designed to provide relevant *standards authorities* and government authorities with input on the status of the *IESO-controlled grid security and adequacy*, and to assist the *OEB* and *OPA* in meeting their respective objectives. ("Market Rules", Chapter 5, Sections 7.4.5.2 and 7.4.5.3).

In conducting the *reliability* assessments, the *IESO* may identify an adverse condition on the *IESO-controlled grid* that requires action to be initiated within the next twelve months in order to maintain the *reliability* of the *IESO-controlled grid*. ("Market Rules", Chapter 5, Section 7.10.1). The process of issuing and responding to, directives for proposal (DFP) is described in *Market Manual 2.9: Directives for Proposal*.

The *IESO* shall describe and assess in the relevant *reliability* assessments all options identified by *market participants* in response to DFP that the *IESO* considers to be technically feasible.

If the *IESO* identifies an adverse condition on the *IESO-controlled grid* that does not require action within the current annual planning period, the *IESO* shall notify the *OEB* and *OPA* of its determination and provide support to the *OPA* in the *OPA*'s assessment of the options that may be available for *market participants* or others to remove or alleviate the condition ("Market Rules", Chapter 5, Section 7.10.3).

In order to conduct its *reliability* assessments, the *IESO* requires *market participants* and *connection applicants* to provide the information set out in this procedure ("Market Rules", Chapter 4, Sections 6.1.6, and 7.1.2, Chapter 5, Section 7.5.1, and Chapter 10, Section 8.7.2). Two types of information will be provided by *market participants* and *connection applicants* to support the production of the *reliability* assessments:

- static information (impedance, static ratings, etc.) that change infrequently ("Market Rules", Chapter 4, Sections 6.1.6, and 7.1.2); and
- dynamic information (energy forecasts, outage forecasts, etc.) that change throughout the year ("Market Rules", Chapter 5, Section 7.5.1).

Once initial information has been provided, it will only be necessary for *market participants* and *connection applicants* to provide updates as appropriate for the information type. Changes to static information should be provided when such changes occur throughout the year, while dynamic information updates need only be provided annually. Information submitted each year should include information for relevant *facilities* planned in the specified 10-year period.

Submission of information by *market participants* and *connection applicants* will begin on or about January 15 of each year and be completed by March 1 of each year.

1.4 Market Participant Information

Some of the information related to the *reliability* assessments will be provided by *market participants* via the market entry process, as detailed in "Market Manual 1: Market Entry, Maintenance & Exit",

(“Market Rules”, Chapter 5, Section 7.5.1). Other information will be submitted by *market participants* as part of the *outage* management process using the Integrated Outage Management (IOMS) tool, as detailed in “Market Manual 7: System Operations”, (“Market Rules”, Chapter 5, Section 7.5.1). The remaining information will be provided by *market participants* who are following this procedure by using the associated forms listed in Appendix A (“Market Rules”, Chapter 5, Section 7.5.1, and Chapter 10, Section 8.7.2).

The forecasts and assessments process will access the *outage* information already submitted using the IOMS tool and the information provided via the market entry process. When submitting the information required by this procedure, *market participants* must also ensure before March 1 that their *outage* information relating to their *facilities* for the specified 10-year period residing in the IOMS tool is up to date (“Market Rules”, Chapter 5, Section 7.5.1.). In addition, they must keep up-to-date, at all times, the registration information they submitted to the *IESO* as part of the market entry process (“Market Rules”, Chapter 5, Section 7.5.1).

The *IESO* will assign an appropriate confidentiality level to all information received from *market participants* (“Market Rules”, Chapter 3, Section 5.4.1), and will obtain written permission from the *market participant* before *publishing* confidential information that is specific to that *market participant* (“Market Rules”, Chapter 3, Section 5.3.1.3b.).

The forms listed in this procedure are not to be used for submitting any information required by the *IESO* to prepare the 18-month, 28-day and 14-day forecasts and assessments. Separate forms are available for these other forecast and assessment processes, as detailed in the relevant market procedure.

1.4.1 Plans for Retired, New, or Modified Facilities

In preparing the *reliability* assessments, there is a need to incorporate retired, new, and modified *facilities* that are likely to impact the *reliability* of the *IESO-controlled grid*, that have not been identified to the *IESO* through the Connection Assessment and Approval process, and that have estimated in-service or retirement dates that fall within the specified 10-year period.

Market Participants must inform the *IESO* of any such plans they might have and submit the information required by this procedure using the forms listed in Appendix A, as relevant (“Market Rules”, Chapter 5, Section 7.5.1, and Chapter 10, Section 8.7.2).

1.4.2 New or Modified Connections

In preparing the *reliability* assessments, there is a need to incorporate relevant new or modified connections to the *IESO-controlled grid*, which have been identified to the *IESO* through the Connection Assessment and Approval process and which have estimated in-service dates that fall within the specified 10-year period.

Connection applicants planning to establish new or modified connection(s) to the *IESO-controlled grid*, will be guided by “Part 2.10: Connection Assessment and Approval” procedure to submit information related to the planned new or modified connection(s), using the forms listed in Appendix B of that procedure (“Market Rules”, Chapter 4, Section 6.1.6).

Additionally, *connection applicants* are required to submit the information required by this procedure using the forms listed in Appendix A, as applicable (“Market Rules”, Chapter 5, Section 7.5.1).

1.4.3 Timing

The *IESO* will send a reminder notice to all *market participants* on or about January 15, reminding them to begin submitting information required under this procedure. Allowing for data preparation, submission, verification and adjustments, the information submittal process will be completed by March 1 for all information specified in this procedure (“Market Rules”, Chapter 5, Section 7.5.1).

The 10-year period for which market participants will submit the information required by this procedure commences with January of the following calendar year (e.g. Information submitted by March 1, 2013 means a 10-year period from January 1, 2014 to December 31, 2023). The specified 10-year period and information submittal due date are also specified on the information submittal forms.

1.5 Information Contained in the Reliability Assessments

When completed, the *reliability* assessments will be made available to the public via the *IESO* public web site. The information in the *reliability* assessments will be presented in aggregate form where necessary for confidentiality purposes and will include, as appropriate:

1) Monthly forecasts of:

- Ontario electricity *demand* (a summary of the methodology used to prepare the forecast will be provided in a separate document);
- generation and *transmission system* capability (including import and export capability) ;

2) Assessments of:

- the *adequacy* of relevant existing and planned generation and transmission *facilities* and other related resources, taking into account any planned retirements, to meet current and future electricity needs of Ontario; and
- relevant options identified by *market participants* independently or in response to *IESO* directives for proposal.

1.6 Roles and Responsibilities

Responsibility for carrying out the procedure for providing *reliability* assessments related information is shared among:

- *Generators*, who are responsible for providing:
 - initial generation information and changes to initial information (“Market Manual 1: Market Entry, Maintenance & Exit”), (“Market Rules”, Chapter 4, Sections 6.1.6 and 7.1.2);

- dynamic forecast information and new or modified *facility* plans (IMO_FORM_1494 and IMO_FORM_1223 forms listed in Appendix A of this procedure); and
- any additional information the *IESO* requires to conduct *reliability* assessments (“Market Rules”, Chapter 5, Section 7.5.1).
- **Transmitters**, who are responsible for providing:
 - initial transmission information and changes to initial information (“Market Manual 1: Market Entry, Maintenance & Exit”), (“Market Rules”, Chapter 4, Sections 6.1.6 and 7.1.2);
 - dynamic forecast information and new or modified *facility* plans (IMO_FORM_1494 form listed in Appendix A of this procedure and inputs into the Integrated Outage Management System – IOMS), (“Market Rules”, Chapter 10, Section 8.7.2); and
 - any additional information the *IESO* requires to conduct *reliability* assessments (“Market Rules”, Chapter 5, Section 7.5.1).
- **Connection applicants**, who are responsible for providing:
 - initial and dynamic information required via Connection Assessment and Approval process (“Market Manual 2: Market Administration Part 2.10: Connection Assessment and Approval”), (“Market Rules”, Chapter 4, Sections 6.1.6 and 7.1.2); and
 - dynamic information for the new or modified connections to the *IESO-controlled grid* that fall within the specified 10-year period (forms listed in Appendix A of this procedure, as relevant (“Market Rules”, Chapter 4, Section 7.1.2, Chapter 5, Section 7.5.1).

The *IESO* is responsible for receiving the information submitted by *market participants*, conducting *reliability* assessments, and *publishing* the results of those assessments (“Market Rules”, Chapter 5, Section 7).

1.7 Contact Information

As part of the *market participant* authorization and registration process, applicants are able to identify a range of contacts within their organization that address specific areas of market operations. For the *reliability* assessments, this contact will most likely be the Forecasts – 18 Month Forecast Assessment Market Contact Type. If a *market participant* has not identified a specific contact, the *IESO* will seek to contact the Main Contact that is 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*. For more information on the participant authorization process see “Market Entry, Maintenance and Exit, Part 1.1: Participant Authorization, Maintenance and Exit.”

If the *market participant* wishes to contact the *IESO*, the *market participant* can contact *IESO* Customer Relations via email at customer.relations@ieso.ca or via telephone, mail or courier to the numbers and addresses given on the *IESO*'s Web site. (www.ieso.ca)

Standard forms that *market participants* must complete for this procedure are listed in Appendix A. These forms are available for downloading on the *IESO*'s public Web site. These forms must be transmitted to the *IESO* via email to the addresses specified on each form. *Market participants* may submit the required information by sending electronic files or other *IESO* approved media via mail or courier using the appropriate address. The *IESO* must be notified in advance by **e-mail** of the intention to use the alternate method. All correspondence relating to this procedure shall identify the subject: **Reliability Assessments Information**.

– End of Section –

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2. Procedural Work Flow

Figure 2–1 represents the flow of work and information related to providing *reliability* assessments information shared among the *IESO*, *market participants*, and other parties.

The steps illustrated in the procedural work flow diagrams are described in detail in Section 3.

Table 2–1: Legend for Work Flow Diagrams

Legend	Description
Oval	An event that triggers task or that completes task. Trigger events and completion events are numbered sequentially within procedure (01 to 99).
Task Box	Shows reference number, party responsible for performing task (if “other party”), and task name or brief summary of task. Reference number (e.g., 1A.02) indicates procedure number within current <i>Market Manual</i> (1), sub-procedure identifier (if applicable) (A), and task number (02).
Solid horizontal line	Shows information flow between the <i>IESO</i> and external parties.
Solid vertical line	Shows linkage between tasks.
Broken line	Links trigger events and completion events, preceding or succeeding task.

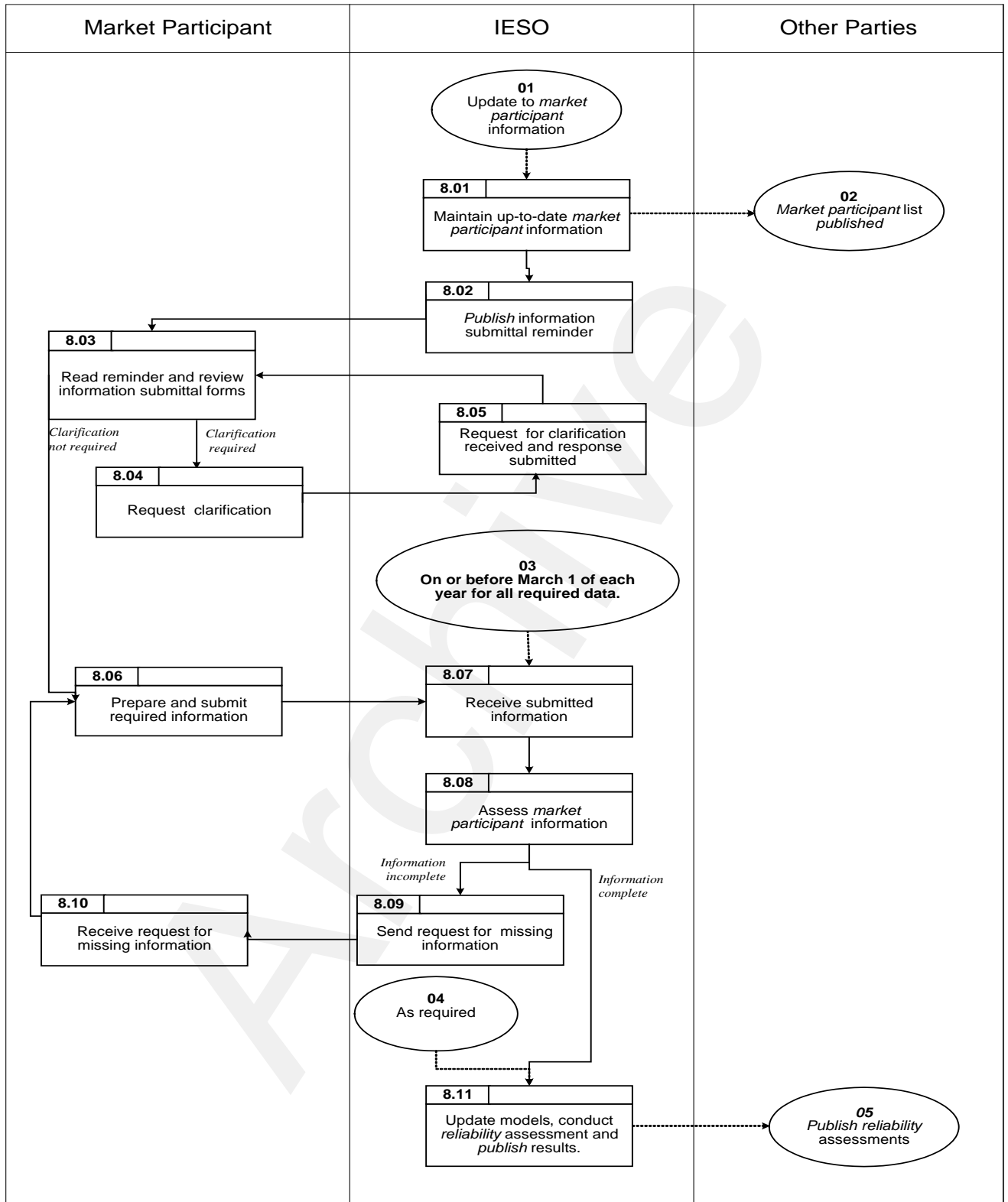


Figure 2–1: Work Flow for Submittal of Reliability Assessments Information

– End of Section –

3. Procedural Steps

This section contains detail on the tasks (steps) that comprise the Reliability Assessments Information Requirements. The steps in the following tables are illustrated in Section 2.

The table contains seven columns, as follows:

Ref

The numerical reference to the task.

Task Name

The task name as identified in Section 2.

Task detail

Detail about the task.

When

Timeline for executing task.

Resulting Information

A list of the information flows that may or must result from the task.

Method

The format and method for each information flow are specified.

Completion events

A list of all the circumstances in which the task should be deemed finished.

Table 3–1: Procedural Steps For Submittal of Reliability Assessments Information

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
8.01	Maintain up-to-date <i>market participant</i> information.	The <i>IESO</i> maintains a <i>published</i> list of current and anticipated <i>market participants</i> , including contact information, mailing addresses, etc. and all updated forms required for information submittal.	As <i>market participant</i> information is updated.	List of <i>market participants</i> and all required forms.	<i>IESO</i> public Web site.	<i>Market participant</i> list and all forms made available to <i>market participants</i> .
8.02	<i>Publish</i> information submittal reminder.	The <i>IESO publishes</i> an information submittal reminder to <i>market participants</i> , along with the timeframe for information submittal.	On or about January 15 of each year.	Reminder for Information Submission	<i>IESO</i> public Web site.	Information submittal <i>published</i> on the <i>IESO</i> web site.
8.03	Read reminder and review information submittal forms.	The <i>market participant</i> reads the information submittal reminder, along with the timeframe for information submission. The <i>market participant</i> reviews the <i>IESO</i> information submittal forms for clarity.	Following Step 8.02.	None.	None.	Information submission forms and obligations reviewed and understood or require clarification.
8.04	Request clarification.	The <i>market participant</i> requests clarification from the <i>IESO</i> of any portion of the information request that requires clarification.	Following Step 8.03, if required.	Questions with respect to the information request.	By e-mail, via <i>IESO</i> Customer Relations.	Request for clarification received by the <i>IESO</i> Customer Relations.
8.05	Request for clarification received and response submitted.	The <i>IESO</i> receives the clarification request and responds to the <i>market participant</i> . <i>Market Participant</i> returns to Step 8.03.	Following Step 8.04, if required.	Response to Clarification Request	By e-mail, via <i>IESO</i> Customer Relations.	Clarification of information request sent to <i>market participant</i> .

Table 3–1: Procedural Steps For Submittal of Reliability Assessments Information

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
8.06	Prepare and submit required information.	The <i>market participant</i> prepares the required information in accordance with the provided forms and sends the required information to the <i>IESO</i> .	Following Step 8.03.	Required information, as appropriate: Generator Information Submittal Form (IMO-FORM-1223) Plans for Retired, New, or Modified Facilities Information Submittal Form (IMO-FORM-1494)	Via e-mail (preferred), or send electronic files via conventional mail or courier.	Required information is sent to the <i>IESO</i> .
8.07	Receive submitted information.	The <i>IESO</i> receives the required information from the <i>market participant</i> .	Following Step 8.06. By March 1, annually, for all required data.	Completed Generator Information Submittal Form (IMO-FORM-1223) and Plans for Retired, New, or Modified Facilities Information Submittal Form (IMO-FORM-1494)	Via e-mail (preferred), or send electronic files via conventional mail or courier.	Required information received.
8.08	Assess <i>market participant</i> information.	The <i>IESO</i> assesses the information provided by the <i>market participants</i> for completeness.	Following Step 8.07.	None.	None.	Information completeness determined. Missing information or need for additional information identified.
8.09	Send request for additional information.	The <i>IESO</i> sends a request to the <i>market participant</i> for the incomplete information.	Following Step 8.08, if information is incomplete.	Request for Additional Information	By e-mail.	Request for additional information sent to <i>market participant</i> .

Table 3–1: Procedural Steps For Submittal of Reliability Assessments Information

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
8.10	Receive request for additional information.	The <i>market participant</i> receives the request for the additional information and returns to Step 8.06.	Following Step 8.09, if information is incomplete or unreasonable.	None.	None.	Request for additional information received.
8.11	Update models, conduct reliability assessments, and <i>publish</i> results.	<p>The <i>IESO</i> updates models, performs the <i>reliability</i> assessment, and <i>publishes</i> the results.</p> <p><i>Confidential information</i> is removed from the <i>reliability</i> assessment prior to <i>publication</i>, unless prior written approval for disclosure is obtained from the <i>market participant</i>.</p> <p>A complete <i>reliability</i> assessment, including that <i>confidential information</i>, is provided separately to the <i>OEB</i>, and the <i>OPA</i>.</p>	Following Step 8.08	Results of the <i>reliability</i> assessment.	Electronic publication on <i>IESO</i> public Web site.	<i>Reliability</i> assessment results <i>published</i> .

- End of Section –

Appendix A: Forms

This appendix contains a list of forms associated with this procedure, which are available on the *IESO* public Web site (<http://www.ieso.ca>). The forms included are as follows:

Form Name	Form Number
Generator Information Submittal Form	IMO-FORM-1223
Plans for Retired, New, or Modified Facilities Information Submittal Form	IMO-FORM-1494

– End of Section –

References

Document ID	Document Title
MDP_RUL_0002	Market Rules
MDP_MAN_0002	Market Manual 2: Market Administration, Part 2.0: Market Administration Overview
MDP_PRO_0025	Market Manual 2: Market Administration, Part 2.9: Directives for Proposal (DFP)
MDP_PRO_0048	Market Manual 2: Market Administration, Part 2.10: Connection Assessment and Approval
IMP_PRO_0024	Market Manual 2: Market Administration, Part 2.11: 18-Month Outlook and Related Information Requirements
IMP_MAN_0012	Market Manual 7: System Operations Part 7.0: System Operations Overview
MDP_PRO_0014	Market Manual 1: Market Entry, Maintenance and Exit Part 1.1: Participant Authorization, Maintenance and Exit
MDP_PRO_0016	Market Manual 1: Market Entry, Maintenance and Exit, Part 1.2: Facility Registration, Maintenance and De-Registration

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