

**Market Manual 2: Market Administration** 

# Part 2.11: 18-Month Outlook and Related Information Requirements

**Issue 11.0** 

This procedure provides the steps required for market participants to submit the information required for the 18-Month Outlook, and specifies the information to be contained in the 18-Month Outlook.

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# **Table of Changes**

Reference (Paragraph and Section)	Description of Change			
Sections 3.1 and 4	Replaced all references to "IOMS" with "the outage management system"			
Figure 6-1	Corrected a typo			
Cover page	Updated IESO logo			
Throughout	Corrected formatting of the term "market rules"			

# **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 2.11: 18-Month Outlook and Related 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.

1. Introduction IMP PRO 0024

## 1. Introduction

## 1.1 Purpose

The *IESO* is required to prepare and *publish*, quarterly, a *security* and *adequacy* assessment covering an 18-month period (Chapter 5, Section 7.3.1.2 of the *market rules*). This assessment and its publication are referred to as the "18-Month Outlook."

*Market participants* are required to provide information for the *IESO* to perform *reliability* assessments (Chapter 5, Section 7.5.1 of the *market rules*), including the 18-Month Outlook.

This procedure specifies the information *market participants* and *connection applicants* must provide in support of the 18-Month Outlook and describes the process for submitting such information to the *IESO*.

## 1.2 Scope

The procedural work flow 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 applicable *IESO* policies and standards.

The process relating to preparing and *publishing reliability* assessments covering the long-term, i.e. beyond the next 18-months is set out in "Part 2.8: Reliability Assessments Information Requirements."

The process relating to the production of the near-term *security* and *adequacy* assessments is set out in "Market Manual 7: System Operations."

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

## 2. Overview

The *IESO* is responsible for producing a quarterly 18-Month Outlook that provides an assessment of generation and transmission *adequacy* for each week of the next 18 months (Chapter 5, Section 7 of the *market rules*).

The purposes of the 18-Month Outlook, as stated in the (Chapter 5, section 7.4.2 of the *market rules*) are to provide *market participants* with information to facilitate *outage* planning and contingency planning, and to facilitate standards authorities in assessing the *reliability* of regional power systems.

In order to conduct its assessments and prepare the associated reports, the *IESO* requires *market* participants and connection applicants to provide the information set out in this procedure (Chapter 4, Sections 6.1.6, 7.1.2, Chapter 5, Section 7.5.1, and Chapter 10, Section 8.7.2 of the *market rules*).

*Transmitter* information shall be submitted quarterly and should include information for relevant *facilities* planned in the appropriate 18- month period defined in Section 3.3.1. Information will be due on the first day of each calendar quarter.

Generator information shall be submitted annually and should include information for relevant facilities planned in the data coverage period defined in Section 3.3.2. Information will be submitted between March 1 and April 1. Any material changes to information, as defined in Section 3.4, shall be communicated to the IESO when such changes are identified, as specified in Section 3.3.2, using the associated forms listed in Appendix A.

The IESO will conduct the assessment and publish the 18-Month Outlook on the IESO website.

# 3. Information Requirements

## 3.1 Market Participant Information

Some of the information related to the 18-Month Outlook will be provided by *market participants* via the market entry process, as detailed in "Market Manual 1: Market Entry, Maintenance & Exit," Part 1.2: Facility Registration, Maintenance and De-registration. Other information will be submitted by *market participants* as part of the *outage* management process using the IESO's *outage* management system, as detailed in "Market Manual 7.3: Outage Management."

The remaining information must be submitted to the *IESO* using the forms associated with this procedure, listed in Appendix A (Chapter 5, Section 7.5.1, and Chapter 10, Section 8.7.2 of the *market rules*).

The forecasts and assessments process will access the *outage* information already submitted using the *outage* management system and the information provided via the market entry process. When submitting the information required by this procedure, as outlined in the associated forms listed in Appendix A, *market participants* must also ensure that, on the due date for each quarterly 18-Month Outlook, the short-term *outage* information relating to their *facilities* within the *outage* management system is up to date (Chapter 5, Section 7.5.1 of the *market rules*). *Market participants* must also keep up-to-date, at all times, the registration information they submitted to the *IESO* as part of the market entry process (Chapter 5, Section 7.5.1 of the *market rules*).

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

The forms listed in this procedure are to be used for submitting *generator* information annually (Form 1230) and *transmitter* information quarterly (Form 1484). The forms are not to be used for submitting any information required by the *IESO* to prepare the near-term forecasts and assessments described in "Market Manual 7: System Operations." Separate submission requirements are available for these other forecast and assessment processes, as detailed in the relevant market procedure.

## 3.2 Plans for New, Modified or Retiring Facilities

In preparing its *reliability* assessments, the *IESO* must consider resource changes that could impact the *reliability* of the *IESO-controlled grid*. As such, information on all new, modified and retiring *facilities* that have estimated in-service or retirement dates falling within the specified data coverage period must be provided to the *IESO* by *market participants* and *connection applicants*.

Market participants and connection applicants 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 (Chapter 5, Section 7.5.1 and Chapter 10, Section 8.7.2 of the *market rules*).

## 3.3 Timing

Submission requirements for transmitters and generators differ as indicated below.

#### 3.3.1 Transmitters

Information that relates to *transmitters*, as specified in this procedure, must be submitted to the *IESO* by the first day of each calendar quarter (January 1, April 1, July 1, and October 1), (Chapter 5, Section 7.5.1 of the *market rules*).

- Q1 'current year' 18-Month Outlook. Information due on January 1, 'current year' using Form 1484. The 18-month period will be April, 'current year' through September, 'current year'+1, where 'current year' is the year the information submittal process is completed (e.g. process completed January 1, 2016 means the 18-month period from April 2016 to September 2017);
- Q2 'current year' 18-Month Outlook. Information due on April 1, 'current year'. *Transmitters* are **not** required to submit Form 1484 in this quarter. Since the Q2 submission coincides with the long-term *reliability* assessment data submission, the *IESO* will use the long-term data submission (Form 1494) in lieu of the Q2 submission. The requirements for long-term data submission are defined in "Market Manual 2.8: Reliability Assessments Information Requirements," Section 3.1. The data coverage period for this submission commences on July 1 of the current calendar year and extends for the next 10 years and 6 months (e.g. information submitted by April 1, 2016 covers a period from July 1, 2016 to December 31, 2026);
- Q3 'current year' 18-Month Outlook. Information due on July 1, 'current year' using Form 1484. The 18-month period will be October, 'current year' through March, 'current year'+2, where 'current year' is the year the information submittal process is completed (e.g. process completed July 1, 2016 means the 18-month period from October 2016 to March 2018);
- Q4 'current year' 18-Month Outlook. Information due on October 1, 'current year' using Form 1484. The 18-month period will be January, 'current year'+1 through June, 'current year'+2, where 'current year' is the year the information submittal process is completed (e.g. process completed October 1, 2016 means the 18-month period from January 2017 to June 2018).

The study period and information submittal due date are also specified on the information submittal forms.

#### 3.3.2 Generators

Generators shall submit the information required by this procedure to the *IESO* by April 1 of each calendar year using Form 1230. This submission is also required by the "Market Manual 2.8: Reliability Assessments Information Requirements," and Form 1230 will be used for both processes. The data coverage period for this submission commences on July 1 of the current calendar year and extends for the next 10 years and 6 months (e.g. information submitted by April 1, 2016 covers a period from July 1, 2016 to December 31, 2026).

The study period (data coverage period) and information submittal due date are also specified on the information submittal forms.

Any material changes to *generator* information previously submitted on Form 1230, as defined in Section 3.4, shall be communicated to the *IESO* using Form 1230 once the *generator* becomes aware of the change (Chapter 5, Section 7.5.1 of the *market rules*). If outage plan changes have been reported to the *IESO* through the *outage* process, they do not need to be reported using Form 1230.

## 3.4 Material Changes to Generators' Information

For the purpose of this procedure, changes to the *market participant* facility parameters listed in Table 1-1 below are considered material if they are greater than the indicated threshold. For example, a material change in *generator* maximum continuous rating is a change equal to the **greater of** 2% of rated output or 10 MW. These criteria are applied on a resource basis (a resource can be a single *generator* or an aggregate of *generators* as defined during *facility* registration).

Table 3–1: Definition of Material Changes

Resource Parameter	Unit	Materiality Threshold
Maximum Continuous Rating	MW	2% or 10 MW
Facility Station Service Load	MW	2% or 10 MW
Station Minimum Baseload Capacity	MW	2% or 10 MW
Station Maximum Peaking Capability	MW	2% or 10 MW
Station Maximum Capability	MW	2% or 10 MW
Energy Production Capability	MWh	2%
Array-to-Inverter Ratio	%	2%
Planned Outage - Start Date	YYYY, MMM	Start date delayed or advanced by 1 month
Planned Outage - Duration	number of days	Duration lengthened or shortened by 5 weekdays
Maintenance Outage	number of days	Duration lengthened or shortened by 5 weekdays
Equivalent Forced Outage Rate (EFOR)	%	10%
Weighted Planned and Maintenance Outage Factor (WPMOF)	%	10%
Weighted Equivalent Forced Outage Rate (WEFOR)	%	10%

The material changes are also specified on the information submittal form 1230.

### 3.5 Information Contained in the 18-Month Outlook

The information in the 18-Month Outlook will include forecasts of Ontario electricity *demand*, *generation capacity* and transmission capacity, *energy* capability of *generation facilities*, and the possibility of any *security*-related events on the *IESO-controlled grid* that could require contingency planning by *market participants* or by the IESO. The results of the 18-Month Outlook will be made available to the public via the *IESO* website.

# 4. Roles and Responsibilities

Responsibility for carrying out this procedure for providing 18-Month Outlook related information is shared among:

- *Generators*, who are responsible for providing:
  - generation information and changes to information as per "Market Manual 1: Market Entry, Maintenance & Exit," Part 1.2: Facility Registration, Maintenance and Deregistration and Chapter 4, Sections 6.1.6 and 7.1.2 of the *market rules*);
  - forecast information for existing, new or modified *facilities* using Form 1230 (see Appendix A) and, where appropriate, inputs into the *outage* management system as per Chapter 5, Section 7.5.1 of the *market rules*;
- *Transmitters*, who are responsible for providing:
  - transmission information and changes to information as per "Market Manual 1: Market Entry, Maintenance & Exit," Part 1.2: Facility Registration, Maintenance and Deregistration and Chapter 4, Sections 6.1.6 and 7.1.2 of the *market rules*);
  - forecast information for existing, new or modified *facility* plans on a quarterly basis, using Form 1484 (see Appendix A) and, where appropriate, inputs into the *outage* management system as per Chapter 5, Section 7.5.1 and Chapter 10, Section 8.7.2 of the *market rules*;
- *Connection applicants*, who are responsible for providing:
  - information required via the Connection Assessment and Approval process as per "Market Manual 2: Market Administration," Part 2.10: Connection Assessment and Approval and Chapter 4, Sections 6.1.6and 7.1.2 of the *market rules*); and
  - information for the new or modified connections to the *IESO-controlled grid* that fall within the 18-month study period on a quarterly basis, using forms listed in Appendix A, as appropriate (Chapter 4, Section 7.1.2 and Chapter 5, Section 7.5.1 of the *market rules*). For *generation facilities*, IMO\_FORM\_1230 must be completed and submitted annually and updated as required. For transmission *facilities*, IMO\_FORM\_1484 must be completed and submitted quarterly.
- The *IESO*, who is responsible for (Chapter 5, Section 7 of the *market rules*):
  - receiving the information submitted by market participants and connection applicants;
  - conducting the quarterly forecasts and assessments; and
  - *publish*ing the 18-Month Outlook.

# 5. Submission and Response Methods

#### 5.1 Contact Information

As part of the 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 18-Month Outlook, this contact will be the *market participant's* designated primary contact unless alternative arrangements have been established between the *IESO* and the *market participant*. *Market participants* are responsible for updating their contact information.

#### 5.2 Submission of Data

Standard forms to be used for data submission for this procedure are listed in Appendix A. These forms are also available for download on the *IESO* website. The method for submitting the information is via email to forecasts.assessments@ieso.ca.

All correspondence relating to this procedure shall include the following text in the subject to facilitate identification: **18-Month Outlook Related Information.** 

6. Procedural Work Flow IMP\_PRO\_0024

# 6. Procedural Work Flow

Figure 6–1 represents the flow of work and information related to providing 18-Month Outlook related information shared among the *IESO* and *market participants*.

The steps illustrated in the procedural work flow diagram are described in detail in Section 7.

Table 6-1: Legend for Work Flow Diagram

Legend	Description			
Oval	An event that triggers task or that completes task. Trigger events and completion events are numbered sequentially within the procedure (01 to 99).			
Task Box	Shows reference number, task name and 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 <i>market participants</i> .			
Solid vertical line	Shows linkage between tasks.			
Broken line	Links trigger events and completion events, preceding or succeeding task.			

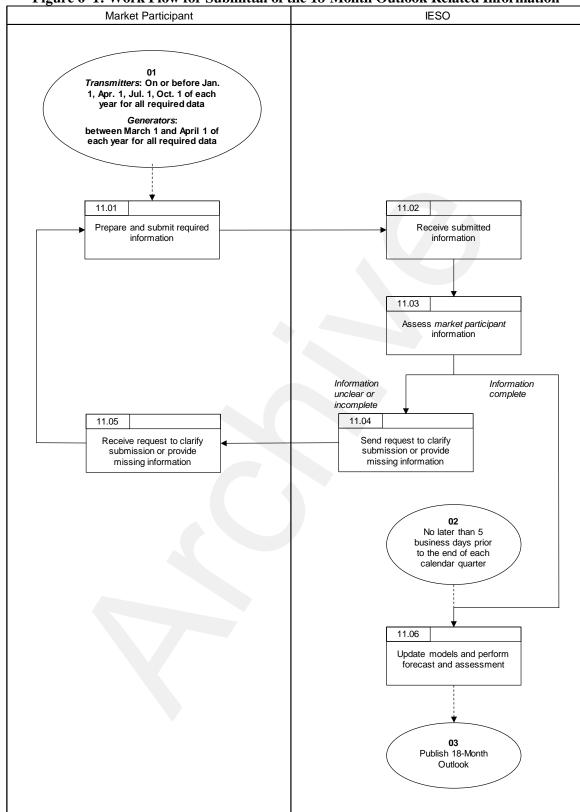


Figure 6-1: Work Flow for Submittal of the 18-Month Outlook Related Information

7. Procedural Steps IMP\_PRO\_0024

# 7. Procedural Steps

This section contains detail on the tasks (steps) that comprise the 18-Month Outlook information requirements and 18-Month Outlook procedure. The steps in the following table are illustrated in Section 6.

The table contains seven columns, as follows:

#### Ref

The numerical reference to the task.

#### **Task Name**

The task name as identified in Section 6.

#### 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.

#### **Completion Events**

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

Table 7–1: Procedural Steps for Submittal of the 18-Month Outlook Related Information

Ref.	Task Name	Task Detail	When	Resulting Information	Method	<b>Completion Events</b>
11.01	Prepare and submit required information.	The market participant prepares the required information in accordance with the provided forms and sends the required information to the IESO.	Generators: For annual submission - between March 1 and April 1; For material changes - when the generator becomes aware of the change.  Transmitters: Each calendar quarter.	Required information, as appropriate:  For generators - Generator Information Submittal Form for Reliability Assessments (IMO_FORM_1230).  For transmitters - Plans for New, Modified and Retiring Transmission Facilities Information Submittal Form for 18-Month Outlook (IMO_FORM_1484) and Plans for New, Modified or Retiring Transmission Facilities Information Submittal Form for New, Modified or Retiring Transmission Facilities Information Submittal Form for Reliability Assessments (IMO_FORM_1494).	Via email.	Required information is sent to the <i>IESO</i> .

7. Procedural Steps

Table 7–1: Procedural Steps for Submittal of the 18-Month Outlook Related Information

Ref.	Task Name	Task Detail	When	Resulting Information	Method	<b>Completion Events</b>
11.02	Receive submitted information.	The IESO receives the required information from the market participant.	From <i>generators</i> : By April 1for their annual submission and as required once the <i>generator</i> becomes aware of material changes to their annual submission.  From <i>transmitters</i> : On or before the first day of each quarter (Jan.1, Apr. 1, Jul. 1, Oct.1).	From generators: Completed Generator Information Submittal Form for Reliability Assessments (IMO_FORM_1230). From transmitters: Completed Plans for New, Modified or Retiring Transmission Facilities Information Submittal Form for 18-Month Outlook (IMO_FORM_1484) and completed Plans for New, Modified or Retiring Transmission Facilities Information Submittal Form for Retiring Transmission Facilities Information Submittal Form for Reliability Assessments (IMO_FORM_1494).	Via email.	Required information received.
11.03	Assess market participant information.	The <i>IESO</i> assesses the information provided by the <i>market participants</i> for completeness.	Following Step 11.02.	None.	None.	Information completeness determined. Unclear or missing information identified.

Table 7–1: Procedural Steps for Submittal of the 18-Month Outlook Related Information

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
11.04	Send request to clarify submission or provide missing information	The <i>IESO</i> sends a request to the <i>market participant</i> for the unclear or incomplete information.	Following Step 11.03, if information is unclear or incomplete.	Request for clarification or missing information.	By email.	Request to clarify submission or provide missing information sent to market participant.
11.05	Receive request to clarify submission or provide missing information.	The <i>market participant</i> receives the request to clarify submission or provide missing information and returns to Step 11.01.	Following Step 11.04, if information is unclear or incomplete.	None.	None.	Request to clarify submission or provide missing information received.
11.06	Update models, perform forecast and assessment, and <i>publish</i> the 18-Month Outlook.	The <i>IESO</i> updates models, performs the quarterly 18-month forecast and assessment, and <i>publish</i> the associated 18-Month Outlook.	Following Step 11.04 and prior to the publication date for the quarterly 18- Month Outlook.	18-Month Outlook.	Electronic publication on the <i>IESO</i> website.	18-Month Outlook published.

# **Appendix A: Forms**

This appendix contains a list of forms and letters associated with this procedure, which are available on the *IESO* website (<a href="http://www.ieso.ca">http://www.ieso.ca</a>). The forms included are as follows:

Form Name	Form Number
Generator Information Submittal Form for Reliability Assessments	IMO_FORM_1230
Plans for New, Modified or Retiring Transmission Facilities Information Submittal Form for 18-Month Outlook	IMO_FORM_1484
Plans for New, Modified or Retiring Transmission Facilities Information Submittal Form for Reliability Assessments	IMO_FORM_1494

# References

Document ID	Document Title
MDP_RUL_0002	Market Rules
MDP_PRO_0016	Market Manual 1: Market Entry, Maintenance and Exit, Part 1.2: Facility Registration, Maintenance and De-Registration
MDP_MAN_0002	Market Manual 2: Market Administration, Part 2.0: Market Administration Overview
MDP_PRO_0024	Market Manual 2: Market Administration, Part 2.8: Reliability Assessments Information Requirements
MDP_PRO_0048	Market Manual 2: Market Administration, Part 2.10: Connection Assessment and Approval
IMP_MAN_0012	Market Manual 7: System Operations Part 7.0: System Operations Overview

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