



Market Manual 2: Market Administration

**Part 2.10: Connection
Assessment and
Approval**

Issue 10.0

This document provides detailed procedures to be followed by *connection applicants* who wish to connect to the *IESO-controlled grid*.

PROCEDURE

Disclaimer

The posting of documents on this Web site is done for the convenience of *market participants* and other interested visitors to the *IESO* Web site. Please be advised that, while the *IESO* attempts to have all posted documents conform to the original, changes can result from the original, including changes resulting from the programs used to format the documents for posting on the Web site as well as from the programs used by the viewer to download and read the documents. The *IESO* makes no representation or warranty, express or implied, that the documents on this Web site are exact reproductions of the original documents listed. In addition, the documents and information posted on this Web site are subject to change. The *IESO* may revise, withdraw or make final these materials at any time at its sole discretion without further notice. It is solely your responsibility to ensure that you are using up-to-date documents and information.

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.

Document ID	MDP_PRO_0048
Document Name	Part 2.10: Connection Assessment and Approval
Issue	Issue 10.0
Reason for Issue	Issue released for Baseline 27.0
Effective Date	March 7, 2012

Document Change History

Issue	Reason for Issue	Date
1.0	Board approved version released for Baseline 3	21 June, 2000
1.1	IMO Board approval	1 September, 2000
2.0	Board approved for Baseline 4.0	3 October, 2000
3.0	Released for Baseline 5.0	January 2, 2001
4.0	Issue released for Baseline 6.2	May 22, 2001
5.0	Issue released for Baseline 6.3	July 12, 2001
6.0	Issue released for Baseline 9.1	June 4, 2003
7.0	Issue released for Baseline 10.0	September 10, 2003
8.0	Issue released for Baseline 13.0	March 9, 2005
9.0	Issue released for Baseline 19.1	June 4, 2008
10.0	Issue released for Baseline 27.0	March 7, 2012

Related Documents

Document ID	Document Title

Table of Contents

Table of Contents	i
List of Tables	iv
Table of Changes	v
Market Manuals	1
Market Procedures	1
1. Introduction	3
1.1 Purpose.....	3
1.2 Scope.....	3
2. Overview of the Connection Assessment and Approval Process	5
2.1 Feasibility Study (Optional).....	5
2.2 System Impact Assessment.....	6
2.2.1 System Impact Assessment.....	6
2.2.2 Expedited System Impact Assessment (ESIA).....	7
3. Management of Connection Proposals	9
3.1 Project Lists.....	9
3.2 Rules of Withdrawal from a Project List.....	9
3.3 Queue Principles for Generation Projects.....	10
3.3.1 SIA Applications Received before April 30, 2005.....	10
3.3.2 SIA Applications Received On or After April 30, 2005.....	11
3.4 Loss of Queue Position.....	11
3.4.1 Milestones for Generation Projects.....	11
4. Criteria for Connection Assessments	13
5. Responsibilities	14
5.1 Connection Applicants.....	14
5.1.1 Distributor(s).....	14
5.2 Transmitter(s).....	15
5.3 IESO.....	15
5.4 Consultant (if applicable).....	16
6. Submission and Response Methods	18
7. Feasibility Study	19
7.1 Objectives.....	19
7.2 Scope.....	19
7.3 Submitting a Feasibility Study Application.....	19

7.3.1	Required Deposit.....	20
7.4	Missing Information and Information Clarification	20
7.5	Feasibility Study Agreement Execution.....	20
7.6	Timelines.....	21
7.7	Feasibility Study Report	21
7.8	Costs.....	21
8.	System Impact Assessment	23
8.1	Objectives	23
8.2	Scope.....	23
8.2.1	Basecase Assumptions	23
8.2.2	Other Studies	24
8.2.3	Consultants	24
8.3	IESO Study Activities	24
8.4	Submitting an SIA Application.....	25
8.4.1	Embedded Generators.....	25
8.4.2	Required Deposit.....	26
8.5	Missing Information and Information Clarification	26
8.6	SIA Agreement Execution	26
8.6.1	Embedded Generators.....	27
8.7	Timelines.....	27
8.8	Final SIA Report.....	29
8.9	Notification of Conditional Approval or Notification of Disapproval with Reasons.....	29
8.10	Publication of the final SIA Report	29
8.11	Costs.....	30
9.	Expedited System Impact Assessment.....	31
9.1	Objectives	31
9.2	Guidelines for Determining if an ESIA is Appropriate	31
9.3	Submitting an Expedited SIA Application.....	31
9.3.1	Cost Recovery Agreement	32
9.4	Missing Information and Information Clarification	32
9.5	Timelines.....	32
9.6	ESIA Report	32
9.7	Notification of Conditional Approval, Notification of Final Approval or Notification of Disapproval with Reasons.....	33
9.8	Publication of ESIA Report.....	33
9.9	Costs.....	33
10.	Project Status Reporting	34
11.	Withdrawal	35

12. Information Confidentiality..... 36

**13. Connection Applicant Actions Subsequent to the Connection
Assessment and Approval Process 37**

Appendix A: Procedural Steps A-1

Appendix B: Forms B-1

References 1

List of Tables

Table 3–A: Procedural Steps for the Feasibility Study phase of the CAA process A-3
Table 3-B: Procedural Steps for the SIA phase of the CAA process A-8

Table of Changes

Sections 8.4.1, 8.6.1	Clarified the official connection applicant for embedded generation as per the Distribution System Code
Entire document	General clarifications; corrections (e.g. added connection where applicant was written alone; changed connection proposal to project; italicized defined terms;
Various	Added reference to Regulated completion targets
Various	Clarified treatment of expedited and full SIAs
Section 8	Removed references to Part Two SIAs as this is no longer valid
Task 3B.22	Corrected “when” information
Appendix A	Removed Procedural Work Flow figures A1 & A2 since tables 3-A & 3-B provide duplicate information.

Market Manuals

The *Market Manuals* consolidate the market procedures and associated forms, standards and policies that define the operation of the various areas within the *IESO-administered markets*. Market procedures provide more detailed descriptions of the requirements for various activities than are 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 2.10: *Connection Assessment and Approval*.

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 detail 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 Manual Overview” document. The standard conventions followed for *market manuals* are as follows:

- The word ‘shall’ denotes a mandatory requirement;
- Terms and acronyms used in this *market manual* including all Parts thereto that are italicized have the meanings ascribed thereto in Chapter 11 of the “*Market Rules*”;

- Double quotation marks are used to indicate titles of legislation, publications, forms and other documents.

Feasibility Study means an optional study that the *IESO* can perform at the request of a *connection applicant* to assess the technical acceptability of a new or modified connection to the *IESO-controlled grid*, and to identify alternate or preferable options with respect to the *reliability* of the *integrated power system*.

System Impact Assessment (SIA) means a mandatory assessment conducted by the *IESO* pursuant to Section 6.1.5, Chapter 4 of the *market rules* to assess the impact of a new connection to the *IESO-controlled grid* or the modification of an existing connection to the *IESO-controlled grid* on the *reliability* of the *integrated power system*.

Expedited System Impact Assessment (ESIA) means a System Impact Assessment conducted by the *IESO* pursuant to Section 6.1.5, Chapter 4 of the *market rules* that only requires a simple study since it is expected to have no impact, or minimal impact on the *reliability* of the *integrated power system*.

Connection applicant means any of: (i) a *market participant* or person that applies to the *IESO* for approval of a new connection to the *IESO-controlled grid* or for approval of the modification of an existing connection to the *IESO-controlled grid*, or (ii) a *distributor* in whose *distribution system* a *market participant* or person is or intends to be *connected* as an *embedded generator* whose *generation facility* is or will be rated greater than 10 MW, that seeks to establish a new or modify an existing connection pursuant to section 6.1.6 of Chapter 4;

Connection proposal or project mean the new or modified *connection* to the *IESO controlled grid* that is the object of a *request for connection assessment*.

Regulated completion target(s) means the timelines the *IESO* must meet when providing the *connection assessment* results for specific project types as defined by regulation(s) made under the *Electricity Act, 1998* (i.e. Ontario regulation 326/09).

End of Section

1. Introduction

In accordance with the *market rules*, chapter 4, section 6, anyone planning to establish or modify a connection to the *IESO-controlled grid* must obtain *IESO* approval through the *Connection Assessment and Approval (CAA)* process. The CAA process allows the *IESO* to assess the impact of new or modified connections to the *IESO-controlled grid* on the *reliability* of the *integrated power system*.

A new or modified connection to the *IESO-controlled grid* includes, but is not limited² to:

- the connection of a new or modified *generation facility* or the connection of a new or modified *embedded generation facility* greater than 10 MW;
- the connection of a new or modified *transmission facility*;
- the connection of a new or modified *load facility* or a onetime addition of load greater than 10 MW; and
- the connection of a new or modified *ancillary services facility*.

A *connection applicant* does not have to be a *market participant* in order to apply for *connection assessment* and approval; however, the required *IESO* Market Entry process must be completed prior to participation in the *IESO-administered markets*¹.

1.1 Purpose

This document is a guide for *connection applicants* seeking the *IESO*'s approval to establish or modify a connection to the *IESO-controlled grid*, in accordance with the *Market Rules*, Chapter 4, section 6.

1.2 Scope

This procedure provides a *connection applicant* with the required steps as well as an understanding of the roles played by the *connection applicant*, the *IESO*, consultants, the affected *distributor(s)* and the affected *transmitter(s)*. Work flows and procedural steps described in this document serve as a road map for *connection applicants*, *transmitters* and the *IESO*, and reflect the requirements set out in the *market rules*, applicable standards and *IESO* policies and procedures. The overview information in Section 2, provided for context purposes only, highlights the main actions that comprise the procedure.

Anyone who wishes to participate in the *IESO-administered markets* or that causes or permits electricity to be conveyed into, through or out of the *IESO-controlled grid* must complete the *IESO* Market Entry process. For information about being authorized as a *market participant*, refer to *Market Manual 1: Market Entry, Maintenance & Exit*, Part 1.1: Participant Authorization,

² If in doubt, *connection applicants* are encouraged to contact the *IESO* for clarification.

¹ Before applying to the *IESO* for a connection assessment, *connection applicants* are strongly advised to initiate discussions with the affected *transmitter*.

Maintenance & Exit. For detailed *facility* registration procedures, refer to *Market Manual 1: Market Entry, Maintenance & Exit, Part 1.2: Facility Registration, Maintenance and De-registration*.

End of Section

2. Overview of the Connection Assessment and Approval Process

The CAA process consists of two types of assessments:

- a. a Feasibility Study, which is an optional confidential assessment that a *connection applicant* may request the *IESO* to conduct in order to identify any major concerns or issues associated with the connection proposal; or
- b. an SIA, which is a mandatory assessment that a *connection applicant* requests the *IESO* to conduct in order to assess the impact of the connection proposal on the *reliability* of the *integrated power system*. If the *IESO* determines, based on the guidelines outlined in section 9.2, that a detailed *SIA* is not required, an ESIA, which involves a simple study, will be performed.

The objective of the SIA/ESIA is to ensure the *reliability* of the *IESO-controlled grid* is not compromised. When completed, it provides the *connection applicant* with an SIA/ESIA report and Notification of Conditional Approval or a Notification of Disapproval with Reasons for the project as submitted to the *IESO*.

Connection applicants may choose to engage a consultant to perform *connection assessment* studies that would normally be performed by the *IESO*. The *IESO* will make use of the consultant's study results to the fullest extent possible when conducting the assessment.

The CAA process involves specific timelines that are specified by this document or regulated under the *Electricity Act, 1998*. While the *IESO*, the affected *transmitter(s)*, or the *connection applicant* may request an extension, any variation in the timing specified in this document requires the prior agreement of all affected parties to the extent allowed by the regulations made under the *Electricity Act, 1998*.

An overview of each of the above assessment types is provided below. Comprehensive descriptions are provided in sections 7, 8 and 9.

2.1 Feasibility Study (Optional)

To initiate a Feasibility Study, the *connection applicant* completes the appropriate Feasibility Study application form which can be found on the *IESO* Web site at <http://www.ieso.ca/imoweb/connassess/ca.asp> (see Appendix C: Forms).

Upon receipt of the appropriate application, the associated documents and the required deposit, the *IESO* and the *connection applicant* negotiate a Scope of Work, including timelines, and execute a Feasibility Study agreement based on the template located on the *IESO* Web site at: http://www.ieso.ca/imoweb/pubs/forms/IMP_AGR_0001-FS-Agreement.pdf. Due to its optional nature, there are no legislated timelines for Feasibility Studies.

Following the execution of the Feasibility Study agreement the *IESO* conducts the Feasibility Study within the timeline agreed upon. Upon completion, the *IESO* issues a Feasibility Study report to the *connection applicant* and an *invoice* detailing the total costs and expenses associated with the

Feasibility Study. If the costs and expenses are less than the deposit amount, the *IESO* will issue a refund to the *connection applicant*.

Since the Feasibility Study is confidential, the Feasibility Study report and associated information will not be posted on the *IESO* Web site.

2.2 System Impact Assessment

To initiate an SIA, the *connection applicant* completes the appropriate SIA application form which can be found on the *IESO* Web site at <http://www.ieso.ca/imoweb/connassess/ca.asp> (see Appendix C: Forms).

In its response, the *IESO* will identify any additional information necessary to determine whether an SIA or ESIA is required⁴ based on the guidelines described in Section 9.2. The *IESO* will notify the *connection applicant* if an SIA or an ESIA is required normally within five *business days* following receipt of all necessary information. The following two sections describe the processes associated with SIA and ESIA:

2.2.1 System Impact Assessment

Upon receipt of the required deposit and the associated documents, the *IESO* and the *connection applicant* negotiate a Scope of Work and execute an SIA agreement based on the template located on the *IESO* Web site at: http://www.ieso.ca/imoweb/pubs/forms/IMP_AGR_0002-SIA-Agreement.pdf. Upon execution of the SIA agreement, the connection proposal is posted on a project list as described in section 3.1.

An SIA may consist of two parts performed at different times if the *connection applicant* for the related connection proposal requests it (i.e. the *connection applicant* intends to participate in a procurement process that requires the Part 1 SIA as part of the application). The scope of these two parts are described in section 8.2. If the *connection applicant* for the related connection proposal does not specifically request a two part SIA, the two parts will normally be combined.

The *IESO* conducts an SIA within the timeline agreed upon with the *connection applicant*, which cannot exceed the regulated completion target times⁵. Upon completion, the *IESO* issues an SIA report and either a Notification of Conditional Approval or a Notification of Disapproval with Reasons for the connection proposal to the *connection applicant* and the affected *transmitter(s)*.

Upon completion, the SIA report will be posted on the *IESO* Web site as described in section 3.1.

The *IESO* then sends an *invoice* to the *connection applicant* detailing the total costs and expenses associated with the SIA, which includes the affected *transmitter(s)* costs as invoiced to the *IESO*. If the total costs and expenses are less than the deposit amount the *IESO* will issue a refund to the *connection applicant*.

⁴ Due to their nature and complexity, connection applications for renewable energy generation facilities, as defined by Ontario Regulation 328/09, or other type of facility that has a regulated delivery timeline of the connection assessment, without exception, require an SIA.

⁵ An example would be connection assessments for Renewable Energy Generation Facilities that, under Ontario Regulation 326/09, must be delivered within 150 days from receipt of a complete application.

The *connection applicant* must inform the *IESO* when their design and equipment procurement processes are concluded and provide the updated project related information. The *IESO* will analyze the final project specifications and indicate if the post-SIA changes need to be addressed in an addendum to the final SIA report.

The addendum SIA report will be posted on the *IESO* web site as described in section 3.1.

Any subsequent costs incurred by the *IESO*, e.g. post-SIA changes to the project requested by the *connection applicant* that result in addenda to the SIA report, or *IESO* support and participation in regulatory proceedings will be separately invoiced to the *connection applicant*.

2.2.2 Expedited System Impact Assessment (ESIA)

Upon receipt of the appropriate application and the documents containing all relevant technical information and project details, the *IESO* will determine whether the connection proposal meets the ESIA guidelines described in Section 9.2. A Cost Recovery agreement which includes an obligation by the *connection applicant* to pay all costs and expenses incurred by the *IESO* in performing the assessment and preparing the ESIA report will be executed with each unique *connection applicant*.

The *IESO* then conducts an ESIA within the timeline agreed upon with the *connection applicant*. Upon completion, the *IESO* issues an ESIA report and either a Notification of Conditional Approval, a Notification of Final Approval or a Notification of Disapproval with Reasons for the connection proposal to the *connection applicant*.

The ESIA report will be posted on the *IESO* Web site as described in section 3.1.

The *IESO* sends an *invoice* to the *connection applicant* every quarter detailing the total costs and expenses associated with conducting all ESIA's for that *connection applicant* in the previous quarter.

End of Section

3. Management of Connection Proposals

3.1 Project Lists

A connection proposal that meets the SIA criteria will be placed on a project list after the associated SIA agreement has been executed by the *IESO*. Projects that meet the ESIA criteria will be placed on the list immediately.

Connection proposals are assigned to one of the following lists on the *IESO* Web site:

1. [Status of System Impact Assessment Applications received before April 30, 2005](#). This list contains all transmission, load, generation and *ancillary services* connection proposals that have submitted an SIA application before April 30, 2005 and subsequently executed an SIA agreement;
2. [Status of System Impact Assessment Applications received on or after April 30, 2005](#). This list contains all transmission, load, generation and *ancillary services* connection proposals that have submitted an SIA application on or after April 30, 2005 and subsequently executed an SIA agreement;
3. [Status of System Impact Assessment Applications in the Committed Generation Project Queue](#). This list contains all generation projects that have executed an SIA agreement and meet the requirements for committed projects described in sections 3.3.1 and 3.3.2; and
4. [Status of Expedited System Impact Assessment Applications](#). This list contains all transmission, load, generation and *ancillary services* connection proposals that *IESO* decided to process under the expedited process as described in section 9.2.

Each project list contains SIA status information and hyperlinks to completed SIA/ESIA reports.

The project lists are updated on a monthly basis⁶ to reflect new entries and status changes.

3.2 Rules of Withdrawal from a Project List

These rules of withdrawal apply to connection proposals in lists 1, 2 or 4.

1. A connection proposal will be withdrawn if a *connection applicant* submits a Notification of Withdrawal based on the template listed on the *IESO* Web site at http://www.ieso.ca/imoweb/pubs/forms/IMO_FORM_1073-WithdrawalNotification.doc; or
2. A connection proposal will be deemed by the *IESO* to have been withdrawn if:

⁶ The *IESO* targets the last business day of each month to update these lists. Connection Applicants with different targets for report publishing should contact the *IESO* in advance to arrange for off schedule updates.

- a *connection applicant* declares that there is no intention to complete the connection proposal;
- a *connection applicant* fails to respond to two consecutive requests made by the *IESO* for submission of a project status report in accordance with Section 10: or
- a *connection applicant* proposes any of the following changes that would have the potential to result in an unacceptable impact on the *reliability* of the *integrated power system*, or an adverse impact on other connection proposals:
 - a change in *generation unit* real or reactive output capacity, or an increase in real or reactive peak load;
 - a change in the transmission *facilities* ratings;
 - a modification to the *connection point*, or *connection facilities*; or
 - a change to the normal mode of operation of the *connection facilities*.

A *connection applicant* may consider submitting a new SIA application if the project is removed from a project list.

Generation projects placed in project list 3 will be deemed to be withdrawn upon cancellation of its power purchase contract or Connection Cost Recovery Agreement (CCRA) agreement with the *transmitter*.

In all cases listed at item 2 above the *IESO* will issue a Notification of Deemed Withdrawal to the *connection applicant*.

3.3 Queue Principles for Generation Projects

Transmission and load connection proposals are not assigned a queue position. Generation connection proposals will be assigned a queue position as described below. Different queue principles are applied to generation projects depending on whether the SIA application was received before or after April 30, 2005.

3.3.1 SIA Applications Received before April 30, 2005

Independent of their type, SIA applications received before April 30, 2005 were assigned a sequential queue position based on the SIA agreement date. If a *connection applicant* had submitted more than one SIA application for a given site, each SIA application was assigned the same queue position.

A queue position does not confer rights to physical transmission capacity. However, a project earlier in the queue will not be financially disadvantaged in the *IESO-administered markets* as the result of a project later in the queue connecting first. This queue position confers the financial equivalent to physical transmission capacity rights for projects earlier in the queue that do not trigger the need for *reliability*-related transmission upgrades.

A generation project is moved from the "Status of SIA Applications Received Before April 30, 2005" list to the "Status of SIA Applications in the Committed Generation Project Queue" list when it is deemed to be committed. A generation project is deemed to be committed by the *IESO* when the *connection applicant* has signed a power purchase contract or a CCRA with the *transmitter*.

A generation project that was moved to the “Status of SIA Applications in the Committed Generation Project Queue” list will be moved back to its original list when it goes in service.

3.3.2 SIA Applications Received On or After April 30, 2005

SIA applications for generation projects received on or after April 30, 2005 are assigned a sequential queue position when the *connection applicant* signs a power purchase contract or a CCRA with the *transmitter* (it is then deemed “committed”).

The date used to assign the queue position is based on either the power purchase contract date or the CCRA date, but cannot be earlier than the SIA agreement execution date. All generation projects that are successful in a procurement process will be treated as having the same queue date as the date when the results of the procurement process are announced.

At the time a generation project is assigned a queue position, it is also moved from the “Status of SIA Applications Received On or After April 30, 2005” list to the “Status of SIA Applications in the Committed Generation Project Queue” list.

A generation project that was moved to the “Status of SIA application in the Committed Generation Project Queue” list will be moved back to its original list when it goes in service.

3.4 Loss of Queue Position

A generation project that was placed in the “Status of SIA Applications received before April 30, 2005” list will lose its queue position and be deemed to be withdrawn if it fails to demonstrate ongoing ability to meet milestones as described in section 3.4.1.

A generation project that was placed on the “Status of SIA Applications in the Committed Generation Project Queue” list will lose its queue position and be deemed to be withdrawn upon cancellation of its power purchase contract or CCRA agreement with the *transmitter*.

The generation project will be moved back to its original list when it is withdrawn.

3.4.1 Milestones for Generation Projects

Milestones are only applicable to those generation projects for which SIA applications were received before April 30, 2005 and which were assigned a queue position as described in section 3.3.1, but are not committed. Milestones are not applicable to generation projects for which SIA applications were received on or after April 30, 2005.

The milestones for generation projects listed below demonstrate ongoing project viability and a *connection applicant's* commitment to the project and, if fulfilled, allow a *connection applicant* to maintain their assigned queue position for the duration specified. Monitoring of all milestones for generation projects commences from the date the SIA agreement is executed.

To maintain a queue position, a project needs to meet one of the following milestones within 5 years:

1. It must be demonstrated to the reasonable satisfaction of the *IESO* that the project is under active construction and is moving towards timely completion;

2. The *connection applicant* must have submitted a letter of intent or an application in response to a procurement process request for proposal or a letter of intent to a power purchaser; or
3. The *connection applicant* has entered into a CCRA agreement with a *transmitter*.

If a *connection applicant* is unable to meet a milestone due to circumstances beyond their control, they may use the existing *IESO Exemptions* process to request an extension. If an extension is not granted, their assigned queue position will be revoked.

The *connection applicant* must confirm that a milestone has been met by notifying the *IESO*.

End of Section

4. Criteria for Connection Assessments

The criteria used by the *IESO* for *connection assessments* are contained in the "Ontario Resource and Transmission Assessment Criteria" posted on the *IESO* Web site at:

http://www.ieso.ca/imoweb/pubs/marketAdmin/IMO_REQ_0041_TransmissionAssessmentCriteria.pdf

End of Section

5. Responsibilities

The *IESO* is responsible for the overall administration and coordination of the CAA process. Depending on the assessment type, the *connection applicants*, *transmitter(s)*, the *IESO* and consultants have specific responsibilities as described below.

5.1 Connection Applicants

Connection applicants are required to:

1. submit the appropriate SIA application form to the *IESO*, including the required deposit for generator *connection facilities*, transmission *connection facilities*, load *connection facilities* or *ancillary service facilities*, as described in this document;
2. review and provide comments to the *IESO* on the proposed Scope of Work prepared by the *IESO* for the applicable assessment type;
3. execute with the *IESO*, based on the type of assessment required, a Feasibility Study agreement, an SIA agreement or a Cost Recovery agreement for an ESIA;
4. submit responses to *IESO* requests for missing or supplementary information or clarification;
5. review and provide comments to the *IESO* on Feasibility Study reports or SIA reports;
6. adhere to the time lines stipulated in this document;
7. submit requests for time extensions, if required;
8. engage consultants to perform *connection assessment* studies, if applicable;
9. pay, upon receipt of an *invoice*, the costs and expenses incurred by the *IESO* and affected *transmitter(s)* in conducting the SIA or ESIA, and if applicable, in supporting and participating in regulatory proceedings associated with the *connection applicant's* connection proposal;
10. pay, upon receipt of an *invoice*, the costs and expenses incurred by the *IESO* in conducting the Feasibility Study; and
11. provide project status reports when requested by the *IESO*.

If a *connection applicant* retains a consultant to perform *connection assessment* studies, the *connection applicant* and their consultant are required to execute a non-disclosure agreement with the *IESO*.

5.1.1 Distributor(s)

Distributor(s) are required to:

1. Submit the appropriate SIA application for embedded generation projects greater than 10 MW, including the required deposit to the *IESO* on behalf of the *generator*, as required by the Distribution System Code⁷;
2. review and provide comments to the *IESO* on the proposed Scope of Work prepared by the *IESO* for the embedded generation project;
3. execute the SIA agreement with the *IESO*;
4. submits to the *IESO* a copy of the distribution System Impact Assessment provided for in the Distribution System Code as part of the SIA application; and
4. complete other applicable responsibilities identified in section 5.1.

5.2 Transmitter(s)

Transmitter(s) are required to:

1. provide *transmission system facilities* ratings⁸ to the *IESO* on request;
2. assess the expected impact of connection proposal(s) on the *IESO-controlled grid* short circuit levels and protections when requested by the *IESO*;
3. assess compliance of the connection proposal with the Transmission System Code⁹, to the extent possible, based on the *connection applicant's* submission;
4. assess the expected impact of the connection proposal on the *reliability* of existing *transmission customers* via the Customer Impact Assessment (CIA), as per the Transmission System Code;
5. submit the results of the CIA provided for in section 6.4 of the Transmission System Code to the *IESO* within an agreed-upon timeframe¹⁰ consistent with the schedule for the SIA; and
6. prepare and issue *invoices* to the *IESO* to cover the costs of studies requested by the *IESO*.

5.3 IESO

The *IESO* is required to perform some or all of the following depending on the assessment type:

1. acknowledge and process all *requests for connection assessment* and related submissions;
2. inform the *connection applicant* of the assessment type to be followed;
3. review project data and issue requests for missing or supplementary information or clarification;
4. provide each connection proposal with a CAA ID number;
5. inform the affected *transmitter(s)* of the connection proposal;

⁷ In the event of any inconsistency between this Manual and the Distribution System Code, the Distribution System Code shall prevail to the extent of the inconsistency.

⁸ Includes: line ratings, transformer ratings, breaker ratings, etc.

⁹ In the event of any inconsistency between this Manual and the Transmission System Code, the Transmission System Code shall prevail to the extent of the inconsistency.

¹⁰ For project types that have regulated completion targets, the transmitter must submit the CIA report to the *IESO* within the regulated timelines.

6. establish the Scope of Work and execute with each *connection applicant*, based on the type of assessment required, a Feasibility Study agreement, an SIA agreement or a Cost Recovery agreement for an ESIA;
7. inform the *connection applicant* of the requirement to contact the *transmitter* regarding the Customer Impact Assessment process;
8. place the project in the appropriate project list as described in section 3.1;
9. respect the time lines negotiated with the *connection applicant*, regulated under the *Electricity Act, 1998*, or otherwise stipulated within this document;
10. record all costs and expenses incurred in performing all *connection assessment* activities and, if applicable, in supporting and participating in regulatory proceedings associated with the *applicant's* connection proposal;
11. schedule and perform study activities;
12. in consultation with the affected *transmitter(s)*, prepare and negotiate the Scope of Study for short circuit analysis, if applicable;
13. inform the affected *transmitter(s)* of the SIA's findings, including *transmission system* reinforcement requirements, if applicable;
14. issue Feasibility Study reports or SIA reports to the *connection applicant* and affected *transmitter(s)*, if applicable;
15. *publish* the status of SIA applications and reports on the *IESO* Web site as described in Section 3;
16. issue a Notification of Conditional Approval, a Notification of Final Approval or a Notification of Disapproval with Reasons for the connection proposal;
17. support and participate, as required, in regulatory proceedings related to Leave to Construct applications for the project;
18. issue *invoices* pertaining to performing all *connection assessment* activities and in supporting and participating in regulatory proceedings associated with the *connection applicant's* connection proposal; and
19. include, where applicable, connection proposals in the baseline assumptions for future *IESO connection assessments* and other *IESO* forecast and *adequacy* studies.

If a *connection applicant* retains a consultant to perform *connection assessment* studies, the *IESO* is required to:

20. execute a non-disclosure agreement with the *connection applicant* and the consultant;
21. develop a Scope of Study for the consultant;
22. meet with the consultant to discuss the Scope of Study, as well as the reporting requirements and related assumptions that will be required; and
23. provide basecase, dynamic data and other data as may be required.

5.4 Consultant (if applicable)

If a *connection applicant* retains a consultant to perform *connection assessment* studies, the consultant is required to:

1. execute a non-disclosure agreement with the *connection applicant* and the *IESO*;

2. perform *connection assessment* studies in accordance with the Scope of Study developed by the IESO; and
3. prepare a study report in accordance with the reporting requirements identified in the Scope of Study.

End of Section

6. Submission and Response Methods

The CAA process requires the submission of various types of information. The preferred method of correspondence is via email to connection.assessments@ieso.ca.

All application forms should be submitted by email¹¹. Hard copies of the application forms and supporting documents are not required. Where the supporting documentation (e.g. single line diagram) is not suitable for email submission, it should be submitted by mail or courier.

The required deposit for a *connection assessment* can be made by cheque or by *electronic funds transfer* as per the details on the appropriate application form. If the required deposit is made by cheque it must be accompanied by a copy of the application.

The *IESO* will correspond with the *connection applicant* via email for requests or general notifications, and via mail or courier if an original *IESO* signature is involved. In cases in which a document bearing a signature is required, an electronic copy shall constitute a good-faith assurance that the signed document is forthcoming and the CAA process may continue.

The CAA process requires an extensive exchange of information between the *IESO* and the *connection applicant*, necessitating a large number of emails and telephone calls. Unless any of the parties requests otherwise, emails and phone calls will not require a follow-up paper copy.

End of Section

¹¹ To the extent possible, the documents and drawings should be submitted in .pdf format. Signed documents should be scanned in .pdf format. Connection applicants intending to send documents in a different format are encouraged to contact the IESO in advance.

7. Feasibility Study

7.1 Objectives

A Feasibility Study is an optional phase in the CAA process. The purpose of the Feasibility Study is to:

1. identify general issues and concerns associated with a connection proposal(s) that may affect its feasibility;
2. identify the preferred connection alternative from an *integrated power system reliability* point of view; and
3. assist the *connection applicant* in finalizing high-level design details such as the *connection point* or the configuration of *facilities*, before applying for an SIA.

It is the responsibility of the *connection applicant* and the *IESO* to carry out the relevant responsibilities described in section 5.

The exchange of information between the *connection applicant* and the *IESO* will follow the methods described in section 6.

7.2 Scope

The scope and timing of each Feasibility Study will be negotiated with the *connection applicant*, and will be based on the particular issues and concerns associated with the connection proposal under consideration.

Connection applicants may choose to engage a consultant to perform *connection assessment* studies. Upon request by a *connection applicant*, the *IESO* will provide a list of consultants who have indicated an interest in performing *connection assessment* studies. The *IESO* does not give any assurances regarding the performance of any consultant, nor does it assume any liability for performance by a consultant.

7.3 Submitting a Feasibility Study Application

A Feasibility Study is initiated by the submission of a Feasibility Study application package to the *IESO*, comprised of the appropriate completed Feasibility Study application form, the appropriate supporting documentation including a single-line diagram(s), and the required deposit as described in Section 7.3.1. The Feasibility Study application form (see Appendix C, Forms) can be downloaded from the *IESO* Web site at

http://www.ieso.ca/imoweb/connassess/caa_process.asp. It should be noted that there are specific Feasibility Study application forms for generator *connection facilities*, transmission *connection facilities*, load *connection facilities* or *ancillary service facilities*, respectively. The Feasibility Study application package must be submitted as described in section 6.

Relevant sections of this Feasibility Study application form must be completed, signed by an authorized representative of the *connection applicant* and submitted to the *IESO* with the required deposit.

Upon receipt of a Feasibility Study application package and the required deposit, the *IESO* will assign an ID number with the format YEAR-yyy, where the first four digits represent the year the Feasibility Study application was received, and the three digits following the year are a sequential number. The *IESO* then sends an email to the *connection applicant* acknowledging receipt of the Feasibility Study application and providing the ID number, normally within five *business days*. The ID number is to be referenced in all subsequent steps in the CAA process pertaining to the particular connection proposal.

7.3.1 Required Deposit

A deposit of \$20,000 must be remitted against the anticipated cost and expense of the Feasibility Study. Final costs are calculated after completion of the Feasibility Study, and an *invoice* is issued to the *connection applicant*, as described in Section 7.8.

Feasibility Study applications submitted to the *IESO* with an *electronic funds transfer* will not be processed until the *IESO* confirms that the deposit has been received.

7.4 Missing Information and Information Clarification

If the *IESO's* review of the submitted material reveals that any information is missing or requires clarification, the *connection applicant* will receive a request for additional information or clarification. If the *connection applicant* cannot provide specific equipment data, the *IESO*, in consultation with the *connection applicant*, may propose suitable typical values to be used in the Feasibility Study.

7.5 Feasibility Study Agreement Execution

The execution of a Feasibility Study agreement between the *IESO* and the *connection applicant* consists of the following steps:

1. When the *IESO* determines the information contained in the Feasibility Study application package is complete and the required deposit has been paid, the *IESO* prepares the draft Scope of Work for the Feasibility Study to be negotiated with the *connection applicant*. This Scope of Work is attached as Schedule 1 to the Feasibility Study agreement;
2. The *IESO* sends an undated copy of the Feasibility Study agreement, including a proposed Scope of Work, to the *connection applicant*;
3. Normally within ten *business days* of the receipt of the Feasibility Study agreement from the *IESO*, the Scope of Work is negotiated between the *IESO* and the *connection applicant*. Once the Scope of Work is agreed upon, the *connection applicant* prints, signs and returns to the *IESO* a scanned copy¹² of the Feasibility Study agreement;

¹² *Connection applicants* that require original signatures on the FS agreement must mail or courier two signed paper copies to the *IESO* for execution.

4. The *IESO* produces two paper copies of the Feasibility Study agreement based on the files received from the *connection applicant*.
5. The *IESO* Vice President Resource Integration, or designate, signs each copy, and assigns a date to the Feasibility Study agreement (the agreement execution date).
6. Normally within ten *business days* of receipt of the Feasibility Study agreement signed by the *connection applicant*, the *IESO* mails one copy of the executed and dated Feasibility Study agreement to the *connection applicant*.
7. Any subsequent revisions to Schedule 1 (Scope of Work) that are agreed upon by the *connection applicant* and the *IESO* will be subject to the terms and conditions of the Feasibility Study agreement.

7.6 Timelines

The completion date for a Feasibility Study is negotiated between the *IESO* and the *connection applicant* as part of the Scope of Work. It depends on factors such as the agreed-upon set of study activities, the complexity of the connection proposal, and the availability of *IESO* resources.

7.7 Feasibility Study Report

The Feasibility Study report will indicate the following:

1. whether the connection proposal(s) satisfies applicable criteria, and areas where deficiencies have been noted;
2. significant issues or concerns associated with the connection proposal(s), and possible measures to address the issues or concerns;
3. advice with respect to a more preferable *connection point* or *facility* configuration;
4. potential requirements for new or modified system *facilities*; and
5. any specific issues that require further consideration in a subsequent SIA.

Due to its confidential nature, a Feasibility Study report will not be posted on the *IESO* Web site.

7.8 Costs

Once the Feasibility Study report has been issued, the *connection applicant* will receive an *invoice* from the *IESO* to cover the total costs and expenses incurred by the *IESO* in conducting the Feasibility Study. If the total costs and expenses are less than the deposit amount, the *connection applicant* will receive a refund for the difference.

The *IESO* will notify the *connection applicant* if, during the course of a Feasibility Study, it is expected that the total costs and expenses are approaching and are expected to exceed the deposit amount. The *connection applicant* can then decide whether or not to continue with the Feasibility Study.

If the *connection applicant* withdraws or is deemed to have withdrawn its Feasibility Study application before the completion of the assessment, the *connection applicant* will receive an *invoice* from the *IESO* to cover the total costs and expenses incurred by the *IESO* in conducting the Feasibility Study up to and including the date of the *IESO*'s receipt of a Notification of

Withdrawal. If the total costs and expenses are less than the deposit amount, the *connection applicant* will receive a refund for the difference.

Details of the cost recovery mechanism are found in the [Feasibility Study agreement template](#).

End of Section

8. System Impact Assessment

8.1 Objectives

An SIA is a mandatory phase in the CAA process. SIAs are conducted to determine the impact of connection proposals on the *reliability* of the *integrated power system* and to identify enhancements to the *transmission system* that would be required by the *IESO* in order to mitigate any adverse *reliability* impacts. SIAs are conducted with input from the affected *transmitter(s)* and in consultation with the *connection applicant*.

It is the responsibility of the *connection applicant*, the affected *transmitter(s)* and the *IESO* to carry out the relevant responsibilities described in section 5.

The exchange of information between the *connection applicant* and the *IESO* will follow the methods described in section 6.

8.2 Scope

SIAs focus on *reliability* issues related to the *integrated power system*. Studies are conducted to assess the extent to which all of the assessment criteria (see Section 4) are met, and where this is not the case, to identify the mitigating measures required by the *IESO*.

In an SIA, a single project, or a portfolio of projects, is assessed to determine the impact of the project or portfolio of projects on the *reliability* of the *integrated power system*, and to identify the *transmission system* upgrades required to mitigate any negative *reliability* impacts.

Where specifically requested by the *connection applicant*, some SIA, in particular those for projects participating in a procurement process, may include a Part One SIA, where the connection proposal is assessed in isolation of all other proposed new generation projects (including new capacity at existing *generating facilities*). The focus of the Part One SIA is on *local area* impacts and requirements to *connect* to the *IESO-controlled grid*. This assessment provides preliminary information regarding connection requirements necessary to formulate an *offer price* by those *connection applicants* who are planning to participate in a procurement process. A full SIA will be performed either after the results of the procurement process are known, or alternatively, at the request of the *connection applicant*, as a continuation of the Part One assessment.

8.2.1 Basecase Assumptions

The basecase used to perform SIA studies will include all existing *generation units* plus new *generation units* (including new capacity at existing *generating facilities*) that are committed.

The basecase will also include transmission projects that have obtained all necessary approvals or are under construction at the date of the assessment.

The *IESO* may need to confirm in-service dates of other connection proposals in order to establish the study assumptions for the basecase. These updates will be obtained through requests as described in section 10.

Generation projects that have lost their queue position in accordance with section 3.4 will be removed from basecase assumptions.

8.2.2 Other Studies

Connection applicants should make available to the *IESO* any relevant studies that they have undertaken, or which have been undertaken on their behalf. The *IESO* will utilize the study results to the fullest extent possible in preparation of the SIA report. Where the *IESO* determines that the study is incomplete or inadequate, it will identify and conduct such further studies and assessments as may be required and will issue its SIA report accordingly.

8.2.3 Consultants

Connection applicants may choose to engage a consultant to perform *connection assessment* studies. Upon request by a *connection applicant*, the *IESO* will provide a list of consultants who have indicated an interest in performing *connection assessment* studies. The *IESO* does not give any assurances regarding the performance of any consultants, nor does it assume any liability for performance by a consultant.

8.3 IESO Study Activities

It is the responsibility of the *IESO* to:

1. establish basecase assumptions;
2. verify compliance of connection proposals with the *market rules*, applicable standards and *IESO* policies and procedures;
3. assess dynamic performance of the *integrated power system* and the connection proposal using the criteria noted in section 4;
4. assess the expected impact of the connection proposal, using the criteria noted in section 4, on:
 - prevailing operating *security limits* and transfer capabilities of the *integrated power system*;
 - operating voltages of the *IESO-controlled grid*;
 - operating flexibility of the *IESO-controlled grid*; and
 - the ability of existing connections to deliver to or withdraw power from the *IESO-controlled grid*;
5. determine the need for additional *facilities* or for modifications to existing *facilities* that may be required to incorporate the project and mitigate any material adverse impacts on the *reliability* of the *integrated power system*;
6. provide the *transmitter(s)* with advance notification of SIA study results to facilitate completion of the Customer Impact Assessment (CIA) process; and

7. take into consideration the results of CIA(s) provided by the *transmitter(s)* in formulating *IESO* requirements for system modifications;

8.4 Submitting an SIA Application

An SIA is initiated by the submission of an SIA application package to the *IESO*, comprised of the appropriate completed¹³ SIA application form, the appropriate supporting documentation including a single-line diagram(s), and the required deposit, as described in section 8.4.2. The appropriate SIA application forms (see Appendix C, Forms) can be downloaded from the *IESO* Web site at http://www.ieso.ca/imoweb/connassess/caa_process.asp. It should be noted that there are specific SIA application forms for generator *connection facilities*, transmission *connection facilities*, load *connection facilities* or *ancillary service facilities* respectively. The SIA application package must be submitted as described in section 6.

Relevant sections of this SIA application form must be completed, signed by an authorized representative of the *connection applicant*, and submitted to the *IESO* with the required deposit.

Upon receipt of an SIA application and the required deposit, the *IESO* will assign an ID number with the format YEAR-yyy, where the first four digits represent the year the SIA application was received and the three digits following the year are a sequential number. The *IESO* will send an email to the *connection applicant* acknowledging receipt of the SIA application and including the ID number, normally within five *business days*. The ID number is to be referenced in all subsequent steps in the CAA process pertaining to the particular connection proposal. The *IESO* also notifies the applicable *transmitter(s)* of the SIA application.

8.4.1 Embedded Generators

For proposed generation projects greater than 10 MW planning to *connect* to a *distribution system* (including new capacity at existing *generating facilities*), the *distributor* is considered the official *connection applicant*. The *distributor* is required to submit the SIA application and the required deposit to the *IESO* on behalf of the *generator*.

¹³ For projects that have regulated completion timelines, the application form contains specific requirements for being deemed “complete”.

8.4.2 Required Deposit

Other than as approved by the *IESO* Vice President Resource Integration or delegate, the following study deposits are required for SIAs:

Type of Project	Amount of Deposit
<i>Load facility</i>	\$20,000
<i>Embedded generation facility</i>	\$20,000
<i>Ancillary services facility</i>	\$20,000
<i>Non-embedded generation facility</i>	\$30,000
<i>Transmission facility</i>	\$40,000

The above deposits must be remitted against the anticipated cost and expense of the SIA studies for the connection proposal. Final costs are calculated after completion of the SIA, and an *invoice* is issued to the *connection applicant*, as described in Section 8.11. No guarantee is given that the final costs will be less than the deposit amount.

SIA applications submitted to the *IESO* with an *electronic funds transfer* will not be processed until the *IESO* confirms that the deposit has been received.

8.5 Missing Information and Information Clarification

If the *IESO's* review of the submitted material reveals that any information is missing or requires clarification, the *connection applicant* will receive a request for additional information or clarification. If the *connection applicant* cannot provide specific equipment data, the *IESO*, in consultation with the *connection applicant*, may propose suitable typical values to be used in the SIA. If typical values are used, *connection applicants* must be aware that they are committing to these values as design specifications, and it is their responsibility to ensure that installed *facilities* have similar performance.

8.6 SIA Agreement Execution

The execution of an SIA agreement between the *IESO* and the *connection applicant* consists of the following steps:

1. When the *IESO* determines the information contained in the SIA application package is complete and the required deposit has been paid, the *IESO* prepares a draft Scope of Work for the SIA study to be negotiated with the *connection applicant*. This Scope of Work is attached as Schedule 1 to the SIA agreement.
2. The *IESO* sends an undated copy of the SIA agreement, including a proposed Scope of Work, to the *connection applicant*.
3. A Scope of Work is negotiated between the *IESO* and the *connection applicant*, normally within ten *business days* of the receipt of the SIA agreement from the *IESO*. Once the Scope

of Work is agreed upon, the *connection applicant* prints, signs and returns to the *IESO* a scanned copy¹⁴ of the SIA agreement.

4. The *IESO* produces two paper copies of the SIA agreement based on the files received from the *connection applicant*.
5. The *IESO* Vice President Resource Integration, or designate, signs each copy, and assigns a date to the SIA agreement (the agreement execution date).
6. Normally within ten *business days* of receipt of the SIA agreement signed by the *connection applicant*, the *IESO* mails one copy of the executed and dated SIA agreement to the *connection applicant*.
7. Any subsequent revisions to Schedule 1 (Scope of Work) that are agreed upon by the *connection applicant* and the *IESO* will be subject to the terms and conditions of the SIA agreement.

8.6.1 Embedded Generators

Upon receipt of the SIA application for proposed generation project(s) planning to *connect* to a *distribution system* (including new capacity at existing *generating facilities*), the *IESO* and the *distributor* negotiate the Scope of Work.

An SIA agreement incorporating the agreed-upon Scope of Work is then executed with the *distributor* according to steps 2 through 7 outlined above.

8.7 Timelines

The order in which *connection assessments* are conducted will be determined by the *IESO* on an individual basis, in consultation with the *connection applicant*, to meet the needs of both the *connection applicant* and the *IESO*. Considerations will include regulated completion targets, *reliability* needs, the project in-service date and procurement process timelines.

In the case where several SIA applications are associated with the same procurement process, the order in which these assessments will be conducted will be based on the regulated completion targets or their executed SIA agreement date, whichever is applicable.

Phase 1 - Production of draft SIA report

The draft SIA report will normally be completed within 120 calendar days of the start date of the *IESO* study activities or as mutually agreed by the *connection applicant* and the *IESO*, and will contain the information described in section 8.8.

For projects that have 150 days regulated completion target, the draft SIA report will normally be completed within 100 calendar days after receipt of the complete SIA application¹⁵ for *connection assessment*.

¹⁴ *Connection applicants* that require original signatures on the SIA agreement must mail or courier two signed paper copies to the *IESO* for execution.

¹⁵ An application for *connection assessment* is complete when it contains information sufficient to allow both the *IESO* and the *transmitter* to carry out their *connection assessment* activities.

The draft SIA report will be submitted to the *connection applicant* and to the relevant *transmitter(s)* for review.

Phase 2 - Production of agreed draft SIA report

The agreed draft report will be issued by the *IESO* upon agreement of the *connection applicant* and the relevant *transmitter(s)*. The report will reflect comments received during Phase 1, any additional analysis or investigation required as a result of Phase 1 and, if applicable, preliminary Customer Impact Assessment results.

For projects that have 150 days regulated completion target, the *connection applicant* and affected *transmitter(s)* are expected to provide their comments within 10 calendar days. The *IESO* will normally prepare and issue a revised draft SIA report within 130 calendar days after receipt of the complete SIA application for *connection assessment* to address the comments received and include the relevant CIA findings provided by the affected *transmitter(s)*. The revised draft SIA report will normally be submitted to the *connection applicant* and affected *transmitter(s)* for a 10 calendar days review period following which the agreed draft SIA report will be produced.

The agreed draft SIA report¹⁶ is not normally posted on the *IESO* Web site.

Phase 3 - Production of final SIA report

The final SIA report, based on the agreed draft SIA report, will be issued when the Notification of Conditional Approval or the Notification of Disapproval with Reasons are signed by the *IESO*.

For projects that have regulated completion targets, the final SIA report will be issued to the *connection applicant* and affected *transmitter(s)* within the timelines required under the regulation.

The final SIA report will be posted on the *IESO* Web site typically at month end.

If the *connection applicant* requests a part 1 SIA (i.e. the project is related to a procurement process), a Notification of Conditional Approval will not be issued with the final report for a part 1 SIA. The final report for part 1 SIA will be posted on the *IESO* Web. The complete SIA will be performed after the decision to continue the project is made.

Phase 4 – Production of addendum to final SIA report (if required)

More effective or economic solutions to implement the requirements of the SIA may be identified by the *connection applicant* or the relevant *transmitter(s)* when the detailed design work is undertaken. Additionally, the *connection applicant* may revise the original connection proposal assessed by the *IESO*. In these cases, the *IESO* will consider the proposed changes and will issue an addendum to the final SIA report, except when the conditions listed in section 3.2 are deemed to be applicable.

¹⁶ For a period of time, due to procedural issues, the *IESO* posted a series of agreed draft SIA reports under the designation “final draft report”. For the affected projects a final SIA report was never produced. For those projects the “final draft report” should be considered “final SIA report”.

Addenda to the final SIA reports are not subject to regulated completion targets. The completion date is negotiated between the *IESO* and the *connection applicant* and depends on factors such as the agreed-upon set of study activities, the complexity of the project and the availability of *IESO* resources. Best efforts will be made to accommodate the *connection applicant's* in service scheduled date.

8.8 Final SIA Report

The final SIA report will contain the following information:

- the requirements for the connection proposal that must be satisfied before receiving final approval to *connect*;
- a description of the system modifications that are required by the *IESO* in order to mitigate adverse *reliability* impacts of the connection proposal;
- an assessment of whether or not the connection proposal satisfies applicable criteria and, if not, which criteria are not satisfied;
- a description of other inadequacies, if applicable, of the existing power system that were identified in the course of the studies but are not the result of the connection proposal; and
- a summary of relevant study results.

8.9 Notification of Conditional Approval or Notification of Disapproval with Reasons

If a connection proposal is acceptable to the *IESO*, subject to the implementation of any applicable requirements identified in the final SIA report, a Notification of Conditional Approval of connection proposal is issued by the *IESO* to the *connection applicant*, affected *transmitter(s)* and to the *Ontario Energy Board*.

If there are no feasible system modifications that will mitigate the adverse *reliability* impacts of the connection proposal, the *connection applicant* and the affected *transmitter(s)* are notified by means of a Notification of Disapproval with Reasons of the connection proposal. The Notification of Disapproval with Reasons of the connection proposal is issued by the *IESO* to the *connection applicant*, affected *transmitter(s)* and to the *Ontario Energy Board*.

8.10 Publication of the final SIA Report

The final SIA report will be *published* on the *IESO* Web site after the Notification of Conditional Approval or Notification of Disapproval with Reasons and the final SIA report have been issued to the *connection applicant* and the affected *transmitter(s)*. Access to final SIA reports is provided via hyperlinks within one of the project lists, as described in Section 3.1 of this document.

8.11 Costs

As indicated in section 2.2.1, the *connection applicant* must update their project information when their design and equipment procurement processes are concluded. The *IESO* will perform post-SIA changes, if applicable, in an addendum to the final SIA report.

Upon completion of an SIA or post-SIA, the *connection applicant* will receive an *invoice* from the *IESO* to cover the total costs and expenses incurred by the *IESO* and the affected *transmitter(s)* in conducting the SIA. If the total costs and expenses are less than the deposit amount, the *connection applicant* will receive a refund for the difference.

The *IESO* will notify the *connection applicant* if, during the course of the SIA, it is expected that the total costs and expenses are approaching and expected to exceed the deposit amount. The *connection applicant* can then decide whether or not to continue with the SIA.

If the *connection applicant* withdraws or is deemed to have withdrawn its connection proposal before the completion of the assessment, the *connection applicant* will receive an *invoice* from the *IESO* to cover the total costs and expenses incurred by the *IESO* in conducting the SIA up to and including the date of the *IESO's* receipt of a Notification of Withdrawal. The cost and expense of performing additional SIA studies as a result of the *connection applicant's* withdrawal of its request, up to an amount of \$15,000, will also be invoiced to the *connection applicant*. If the total costs and expenses are less than the deposit amount, the *connection applicant* will receive a refund for the difference.

If alternatives to the original connection proposal are proposed by either the *transmitter* or the *connection applicant*, and an addendum to the SIA report is required, the *connection applicant* will be separately invoiced by the *IESO* for any *IESO* costs and expenses incurred in the assessment of alternatives and the preparation of an addendum to the final SIA report.

The *connection applicant* will be separately invoiced by the *IESO* for any *IESO* costs and expenses incurred as the result of the *IESO* in supporting and participating in regulatory proceedings associated with the connection proposal.

Details of the cost recovery mechanism are found in the SIA agreement.

End of Section

9. Expedited System Impact Assessment

9.1 Objectives

A detailed SIA may not be necessary for projects that do not represent significant system changes and are not expected to have a major impact on the *reliability* of the *integrated power system*. In this case an expedited SIA (ESIA), which involves a simple study, will be conducted. The *IESO* will determine whether an SIA or an ESIA is appropriate.

It is the responsibility of the *connection applicant*, the affected *transmitter(s)* and the *IESO* to carry out the relevant responsibilities described in section 5.

The exchange of information between the *connection applicant* and the *IESO* will follow the methods described in section 6.

9.2 Guidelines for Determining if an ESIA is Appropriate

As a guideline, an ESIA will be appropriate for the following connection proposals:

1. where the electrical characteristics of *generation facilities* are improved by less than 5%, do not exceed accepted design standards or tolerances, and are in conformance with Appendix 4.2 of the *market rules*;
2. like-for-like replacement of existing *transmission system facilities* where there is no connectivity change on the system, and a new contingency is not created;
3. where the electrical characteristics of a transmission *facility* are changed by less than 10%;
4. *connection stations* and lines where the line tap is short, the total capacity is not expected to exceed 10 MW, the load does not include significant reactive power requirements such as those associated with large motors, furnaces or other similar *facilities*, and there is no significant change in system impedance;
5. addition of feeder breakers at system voltages less than 50 kV;
6. reactive compensation devices *connected* at system voltages less than 50 kV; or
7. protection changes, using approved standards and equipment, which may require studies to determine if there is an adverse impact on the *reliability* of the *integrated power system*.

9.3 Submitting an Expedited SIA Application

A *connection applicant* may initiate an ESIA if its connection proposal appears to meet the guidelines described in Section 9.2. This can be done by the submission of the appropriate SIA application and the documents containing all relevant technical information and project details.

The appropriate SIA application form (see Appendix C, Forms) can be downloaded from the *IESO* Web site at http://www.ieso.ca/imoweb/connassess/caa_process.asp. It should be noted that there are specific SIA application forms for generator *connection facilities*, transmission *connection facilities*, *load connection facilities* or *ancillary service facilities* respectively. The SIA application must be submitted as described in section 6.

The *IESO* will notify the *connection applicant* if an ESIA is appropriate for the project normally within five *business days* following receipt of the ESIA application.

The *IESO* will assign a number with the format YEAR-EX###, where the first four digits are the year the SIA application was received and the three digits following the "EX" are a sequential number. The *connection applicant* will be notified if additional information is required. The ID number is to be referenced in all subsequent steps in the CAA process pertaining to the particular connection proposal. The *IESO* also notifies the applicable *transmitter(s)* of the SIA application.

9.3.1 Cost Recovery Agreement

The *connection applicant* will not be required to submit a deposit for an ESIA, but will be required to agree to pay for the total costs and expenses associated with all of their ESIA's by signing a Cost Recovery agreement. The *IESO* will negotiate a Cost Recovery agreement with each unique *connection applicant* before commencing the first expedited SIA for that *connection applicant*. This Cost Recovery agreement will also cover all subsequent ESIA's initiated by the *connection applicant*.

If the *IESO* determines that an SIA is required instead of an ESIA, the *IESO* and the *connection applicant* will follow the process described in section 8.

9.4 Missing Information and Information Clarification

If the *IESO's* review of the submitted material reveals that information is missing or requires clarification, the *connection applicant* will receive a request for additional information or clarification. If the *connection applicant* cannot provide specific equipment data, the *IESO*, in consultation with the *connection applicant*, may propose suitable typical values to be used in the ESIA. If typical values are used, *connection applicants* must be aware that they are committing to these values as design specifications, and it is the responsibility of the *connection applicant* to ensure that installed *facilities* have similar performance.

9.5 Timelines

The completion date for an ESIA is negotiated between the *IESO* and the *connection applicant* and usually depends on the in-service date of the connection proposal and the availability of *IESO* resources.

9.6 ESIA Report

The ESIA report will contain the following information:

- the requirements for the connection proposal that must be satisfied before receiving final approval to *connect*;

- an assessment of whether or not the connection proposal satisfies applicable criteria, and if not, which criteria are not satisfied;
- a description, if applicable, of other inadequacies of the existing power system that were identified in the course of the studies; and
- a summary of relevant study results, if applicable.

9.7 Notification of Conditional Approval, Notification of Final Approval or Notification of Disapproval with Reasons

If a connection proposal is acceptable to the *IESO*, subject to the implementation of any applicable requirements identified in the ESIA report, a Notification of Conditional Approval of connection proposal is issued by the *IESO* to the *connection applicant* and the affected *transmitter(s)*.

If a connection proposal is acceptable to the *IESO*, with no requirements identified in the ESIA report, a Notification of Final Approval of connection proposal is issued by the *IESO* to the *connection applicant* and the affected *transmitter(s)*.

If the connection proposal has an adverse *reliability* impact and no mitigating measures can be identified, the *connection applicant* and the affected *transmitter(s)* are notified by means of a Notification of Disapproval with Reasons of connection proposal. The Notification of Disapproval with Reasons of connection proposal the project is issued by the *IESO* to the *connection applicant* and the affected *transmitter(s)*.

9.8 Publication of ESIA Report

The ESIA report will be *published* on the *IESO* Web site after the Notification of Conditional Approval, Notification of Final Approval or Notification of Disapproval with Reasons and the ESIA report have been issued to the *connection applicant* and the affected *transmitter(s)*. Access to ESIA reports is provided via hyperlinks within one of the project lists, as described in Section 3.1 of this document.

9.9 Costs

The *IESO* sends an *invoice* to the *connection applicant* every quarter detailing the total costs and expenses associated with the completed ESIA's in the previous quarter.

End of Section

10. Project Status Reporting

Connection applicants may periodically be requested by the *IESO* to provide a status report of their proposed connection with respect to its progress. The project status report form can be found on the *IESO* Web site at http://www.ieso.ca/imoweb/pubs/caa/caa_f1399_StatusReport.doc (see Appendix C, Forms).

As a minimum, such requests will be made by the *IESO* annually in order to establish baseline assumptions for the *IESO's reliability* outlook reports as described in the *market rules*, Chapter 5, Section 7. Additional requests may be made on a quarterly basis if required to establish baseline assumptions for the *IESO's* quarterly 18-Month assessment of the *security* and *adequacy* of the *IESO-controlled grid*.

The *IESO* may also make such requests before the start of an SIA where other connection proposals may impact the SIA. Based on the information received, the *IESO* will determine the study assumptions for the SIA.

Connection proposals for which the *connection applicants* fail to comply with the project status reporting requirements will be withdrawn as described in section 3.2.

End of Section

11. Withdrawal

At any point in the CAA process, the *IESO* may deem a connection proposal to be withdrawn based on the criteria outlined in Section 3.2.

Where a *connection applicant* withdraws or is deemed to have withdrawn its connection proposal in accordance with the provisions of this document, the *connection applicant* remains responsible for any costs and expenses incurred by the *IESO*, up to an amount of \$15,000, as described in sections 7.8, 8.11 and 9.9 for the applicable assessment type.

End of Section

12. Information Confidentiality

Except as described below, *confidential information* submitted by a *connection applicant* in support of its connection proposal, further to a request made by the *IESO* or as otherwise required by this document, shall be treated as *confidential information* by the *IESO* in the same manner as the *IESO* treats *confidential information* received from *market participants* under the *market rules*. Specifically, the *IESO* will deal with such *confidential information* in the manner set forth in Section 5.2 of Chapter 3 of the *market rules*, and the provisions of Section 5.3 of Chapter 3 of the *market rules* similarly apply to the *IESO* when dealing with such *confidential information*, in both cases as though the references in those sections to a *market participant* were references to the *connection applicant*.

By way of exception, and notwithstanding the preceding paragraph, the *IESO* may disclose *confidential information* received from a *connection applicant*:

- to affected *transmitter(s)*, where required to enable such *transmitter(s)* to carry out their responsibilities as described in Section 6 of Chapter 4 of the *market rules* and in this document, and for the purposes of the their associated obligations under the Transmission System Code; and
- where the *confidential information* is contemplated by this document or any form, letter or agreement referred to in this document to be disclosed by the *IESO* or the affected *transmitter(s)*.

Where the *IESO* discloses *confidential information* to a consultant or affected *transmitter*, such consultant or *transmitter* may not, except as permitted by Section 5.3 of Chapter 3 of the *market rules*², disclose or use such information other than for the purpose of carrying out its responsibilities as described in Section 6 of Chapter 4 of the *market rules*, the Transmission System Code and this document.

Upon completion of an SIA, the final SIA report, including technical information associated with the connection proposal, will be posted on the *IESO* Web site. The *connection applicant* will have an opportunity to review the draft SIA report for confidentiality issues prior to the posting.

End of Section

² For this purpose, references in that Section shall be considered references to an affected *transmitter*.

13. Connection Applicant Actions Subsequent to the Connection Assessment and Approval Process

Following receipt of a Notification of Conditional Approval for a connection proposal from the *IESO*, the *connection applicant* will be required to undertake some or all of the following actions in order to construct and operate new *generation*, transmission, *load* or *ancillary services facilities*.

- In accordance with Section 92 of the *Ontario Energy Board Act, 1998*, the *connection applicant* may be required to seek an order granting leave to construct from the *Ontario Energy Board*.
- The *connection applicant* may be required to enter into an agreement with the relevant *transmitter(s)* to cover the cost of preparing cost estimates for implementing the system modifications required by the *IESO*.
- In accordance with the Transmission System Code, the *connection applicant* is required to enter into a *Connection Agreement* with the relevant *transmitter(s)*.
- In accordance with the *market rules* and before final connection approval is issued by the *IESO*, the *connection applicant* is required to complete the Market Entry process with the *IESO* in order to *connect* and to participate in one or more of the *IESO-administered markets*. During the *IESO* Market Entry process, *connection applicants* will be required to demonstrate to the *IESO* that all requirements identified in the SIA report have been satisfied. Details with respect to the *IESO* Market Entry process can be found in the *IESO* Web site at <http://www.ieso.ca/imoweb/marketEntry/me.asp>.

End of Section

Appendix A: Procedural Steps

This Section contains a table of the detailed tasks (steps) that comprise the *connection assessment* and approval procedure. The table contains the following seven columns:

1. Ref.

The reference number for the task.

2. Task Name

The task name as referenced in Appendix A.

3. Task detail

Information about the task, including areas of responsibility.

4. When

Information about when the task will be required.

5. Resulting information

A list of the information that results from the task, including related *IESO* correspondence. Table 3-1 provides a list of the letters utilized by the *IESO* during *connection assessment* and approval process:

6. Method

The format and method for completing the task.

7. Completion events

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

Table 3–A: Procedural Steps for the Feasibility Study phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3A.01	Initiate <i>request for connection assessment</i> with the <i>IESO</i> .	<i>Connection applicant</i> downloads, completes, signs and sends electronically the Feasibility Study application form with all supporting documents, as set out in this procedure.	<i>Connection applicant</i> intends to submit a <i>request for connection assessment</i> .	Completed forms: <ul style="list-style-type: none"> Application form (signed) including cheque or proof of payment of deposit (Use IMO-FORM-1052, 1174, 1380 or 1381 as appropriate). Supporting documentation appropriate to connection type (see Section 7.3). 	Email (Mail, courier, or fax also accepted)	Receipt by <i>IESO</i> .
3A.02	<i>IESO</i> acknowledges <i>request for connection assessment</i> application package.	<i>IESO</i> acknowledges receipt of <i>request for connection assessment</i> application package.	<i>Request for connection assessment</i> application package received by <i>IESO</i> .		Email.	Receipt by <i>connection applicant</i> .
3A.03	<i>Connection applicant</i> receives acknowledgement from the <i>IESO</i> .					

Table 3–A: Procedural Steps for the Feasibility Study phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3A.04	<i>IESO</i> reviews information and requests missing information/clarification if required.	If the application is incomplete, or requires clarification, <i>IESO</i> requests missing information/clarification	Within the time specified in the acknowledgement of receipt of <i>request for connection assessment</i> application package.		Email.	Receipt of email by <i>connection applicant</i> .
3A.05	<i>Connection applicant</i> submits missing information/clarification to <i>IESO</i> .	<i>Connection applicant</i> supplies missing information/clarification to support the <i>request for connection assessment</i> application.	Within the time specified in email at step 3A.04.	All information requested in email with authorized signatures where required.	Email (fax, mail or courier also accepted).	Receipt of information by <i>IESO</i> .
3A.06	<i>IESO</i> submits draft Scope of Work for the Feasibility Study to be reviewed by the <i>connection applicant</i> .	<i>IESO</i> prepares draft Scope of Work for the Feasibility Study and sends the proposed Feasibility Study agreement and draft Scope of Work to the <i>connection applicant</i> . The <i>connection applicant</i> reviews and request changes if applicable.	Normally within 10 <i>business days</i> of receipt of complete <i>connection assessment</i> application package.	Feasibility Study agreement, which includes the Feasibility Study scope of work specifying planned completion date for the Feasibility Study.	Email.	Receipt by <i>connection applicant</i> .

Table 3–A: Procedural Steps for the Feasibility Study phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3A.07	<i>Connection applicant submits signed Feasibility Study agreement.</i>	<i>Connection applicant signs Feasibility Study agreement (in duplicate if the connection applicant requires original signature).</i>	Within 10 <i>business days</i> of receipt date of Feasibility Study agreement.	Scanned copy of the signed original of Feasibility Study agreement ready for <i>IESO</i> signature (signed original of the Feasibility Study agreement if the <i>connection applicant</i> requires original signature).	Email (Mail or courier if the <i>connection applicant</i> requires both signatures in original).	Receipt by <i>IESO</i> .
3A.08	<i>IESO</i> dates, executes and returns one original of the Feasibility Study agreement.	<i>IESO</i> prints (if scanned copy) and signs the Feasibility Study agreement.	Normally within 10 <i>business days</i> of <i>IESO</i> 's receipt of Feasibility Study agreement signed by <i>connection applicant</i> .	One copy of Feasibility Study agreement signed by the <i>IESO</i> attached.	Paper copy by mail or courier.	Receipt by <i>connection applicant</i> .
3A.09	<i>Connection applicant</i> receives a duly executed Feasibility Study agreement.		Step 3A.08 is completed.			Receipt by <i>connection applicant</i> .
3A.10	<i>IESO</i> conducts a Feasibility Study in consultation with <i>connection applicant</i> .	<i>IESO</i> , in consultation with <i>connection applicant</i> , conducts a Feasibility Study, and issues requests for additional information, if required.	Feasibility Study completed in the time specified in the Feasibility Study scope of work.	Feasibility Study report finalized upon completion of Feasibility Study.		Feasibility Study report issued.

Table 3–A: Procedural Steps for the Feasibility Study phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3A.11	<i>IESO</i> notifies <i>connection applicant</i> if cost is expected to exceed deposit.	<i>IESO</i> will notify the <i>connection applicant</i> that assessment cost is expected to exceed deposit and if possible provide an estimate for the assessment cost.	When about 80% of the deposit has been spent.		Email.	<i>Connection applicant</i> takes decision on whether or not to continue assessment.
3A.12	<i>Connection applicant</i> notifies the <i>IESO</i> of decision to withdraw.	If <i>connection applicant</i> withdraws the <i>request for connection assessment</i> , the <i>IESO</i> terminates the Feasibility Study.	Anytime during the study.	<i>Connection applicant</i> downloads and submits Notification of Withdrawal form from the <i>IESO</i> Web site, IMO-FORM-1073.	Email(mail or courier also accepted).	Withdrawal by <i>connection applicant</i> and termination of the Feasibility Study.
3A.13	<i>IESO</i> acknowledges withdrawal and terminates assessment.	If <i>connection applicant</i> withdraws the <i>IESO</i> terminates the Feasibility Study.	When requested by <i>connection applicant</i> .		Email (mail or courier also accepted).	Termination of Feasibility Study.
3A.14	<i>Connection applicant</i> receives Acknowledgement of Notification of Withdrawal.					Receipt by <i>connection applicant</i> .
3A.15	<i>IESO</i> issues Feasibility Study report.	<i>IESO</i> completes and provides the Feasibility Study report.	Date indicated in the Feasibility Study agreement by the <i>IESO</i> or date agreed upon subsequently with <i>connection applicant</i> .	<i>IESO</i> issues Feasibility Study report to <i>connection applicant</i> .	Email.	Feasibility Study report.

Table 3–A: Procedural Steps for the Feasibility Study phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3A.16	<i>Connection applicant</i> receives Feasibility Study report.		Date indicated in Feasibility Study agreement by the <i>IESO</i> .		Email.	Receipt by <i>connection applicant</i> .
3A.17	<i>IESO</i> issues <i>invoice</i> or refund statement.	<i>IESO</i> prepares <i>invoice</i> or refund statement to cover costs and expenses incurred by the <i>IESO</i> during Feasibility Study.	Following release of Feasibility Study report or upon withdrawal of the request for <i>connection assessment</i> .	<i>Invoice</i> or refund amount, including all <i>IESO</i> costs and expenses, less <i>connection applicant's</i> initial deposit.	Mail.	Receipt by <i>connection applicant</i> .
3A.18	<i>Connection applicant</i> receives <i>invoice</i> /refund statement and forwards/receives payment/refund to/from the <i>IESO</i> .	<i>Connection applicant</i> submits cheque or proof of <i>electronic funds transfer</i> to <i>IESO</i> ; or <i>Connection applicant</i> receives refund by cheque or <i>electronic funds transfer</i> .	Within 10 <i>business days</i> of receipt of an <i>invoice</i> .		Courier or <i>electronic funds transfer</i> .	<i>IESO</i> or <i>connection applicant</i> receipt of payment.
3A.19	<i>IESO</i> receives payment if balance outstanding; or notifies <i>IESO</i> compliance unit if payment not received within 10 <i>business days</i> .		<i>IESO</i> compliance unit is notified if payment not received within 10 <i>business days</i> of receipt of an <i>invoice</i> .		<i>IESO</i> internal email.	<i>IESO</i> compliance unit receives notification of <i>connection applicant's</i> failure to make payment within 10 <i>business days</i> .

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.01	Initiate <i>request for connection assessment</i> .	<i>Connection applicant</i> downloads SIA application, completes, signs, scans and sends the form to the <i>IESO</i> electronically with all supporting documents, as set out in this procedure.	<i>Connection applicant</i> intends to submit a <i>request for connection assessment</i> .	Completed forms: <ul style="list-style-type: none"> Application form (signed) including cheque or proof of payment of deposit (Use IMO-FORM-1536, 1537, 1538 or 1539 as appropriate). Supporting documentation appropriate to connection type. 	Email (mail, courier, or fax can also be used).	Receipt by <i>IESO</i> .
3B.02	<i>IESO</i> acknowledges <i>request for connection assessment</i> application package.	<i>IESO</i> acknowledges receipt of <i>request for connection assessment</i> application package material and assigns a CAA ID number to be used throughout the assessment process.	<i>Request for connection assessment</i> application package received by <i>IESO</i> .		Email.	Receipt by <i>connection applicant</i> .
3B.03	<i>Connection applicant</i> receives acknowledgement from the <i>IESO</i> , including CAA ID number.				Email.	

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.04	<i>IESO</i> reviews information and requests missing information/clarification (if required).	If the application is incomplete, or requires clarification, <i>IESO</i> requests missing information/clarification	Within the time specified in the acknowledgement of receipt of <i>request for connection assessment</i> application package or normally within 10 calendar days for projects with 150 days regulated completion target.		Email.	Receipt of email by <i>connection applicant</i> .
3B.05	<i>Connection applicant</i> submits missing information/clarification in line with request.	<i>Connection applicant</i> supplies missing information/clarification to support the <i>request for connection assessment</i> application.	Within the time specified in email at step 3B.04.	All information requested in email with authorized signatures where required.	Email (fax, mail or courier can also be used).	Receipt of information by <i>IESO</i> .
3B.06	<i>IESO</i> issues reminder notice for missing information/clarification, including warning of deemed withdrawal.	If no response to step 3B.04 is received by the <i>IESO</i> within the specified time, a reminder notice is issued.	After time indicated in Step 3B.04 has lapsed and no response was received.		Email, with subsequent paper copy by mail or courier.	Receipt by <i>connection applicant</i> .

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.07	<i>IESO</i> deems <i>request for connection assessment</i> to have been withdrawn.	If no response is received by the <i>IESO</i> , <i>request for connection assessment</i> may be deemed to have been withdrawn by the <i>IESO</i> .	At least two weeks after date indicated in <i>IESO</i> request for additional information if no response received.	IMO-FORM-1049, "Notification of Deemed Withdrawal".	Email, with subsequent paper copy by mail or courier.	Receipt by <i>connection applicant</i> .
3B.08	<i>Connection applicant</i> receives Notification of Deemed Withdrawal.		Step 3B.07 is completed.		Email, with subsequent paper copy by mail or courier.	Receipt by <i>connection applicant</i> .
3B.09	<i>IESO</i> prepares draft Scope of Work for SIA study for negotiation with <i>connection applicant</i> and affected <i>transmitter(s)</i> .	<i>IESO</i> submits draft Scope of Work to the <i>connection applicant</i> and affected <i>transmitter(s)</i> to establish an agreed-upon scope of study for the SIA.	Normally within 10 <i>business days</i> of receipt of complete <i>connection assessment</i> application package.	SIA agreement, which includes SIA scope of work specifying, planned completion date for the SIA.	Email.	Receipt by <i>connection applicant</i> .
3B.10	<i>Connection applicant</i> submits signed SIA agreement (in duplicate if they require both party signatures in original).	<i>Connection applicant</i> signs SIA agreement (in duplicate if they require both party signatures in original).	Within 10 <i>business days</i> of receipt date of SIA agreement.	Signed original of SIA agreement signature page ready for <i>IESO</i> signature.	Email (sail or courier should be used if the <i>connection applicant</i> requires both party signatures in original).	Receipt by <i>IESO</i> .

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.11	<i>IESO</i> issues requests for project status update from previous <i>connection applicants</i> .	<i>IESO</i> contacts approved <i>connection applicants</i> and requests prevailing project status information.	When baseline assumptions need to be updated.	Status of approved projects IMO-FORM 1399 "Project Status Report".	Email (mail or courier can also be used).	Approved projects status information received by the <i>IESO</i> .
3B.12	Previously approved projects provide information on the current status of the projects.		Upon receipt of request from the <i>IESO</i> .		Email (fax or mail can also be used).	Receipt by the <i>IESO</i> .
3B.13	<i>IESO</i> dates, executes and returns one original of the SIA agreement, and places project on project list. Update status on <i>IESO</i> Web site.	<i>IESO</i> signs the SIA agreement,. <i>IESO</i> updates the <i>Connection Assessment</i> Application Status Summary page on the <i>IESO</i> Web site accordingly.	Normally within 10 <i>business days</i> of <i>IESO</i> 's receipt of SI A agreement signed by <i>connection applicant</i> .	One copy of SIA agreement signed by the <i>IESO</i> attached. <i>Connection Assessment</i> Application Status Summary page on the <i>IESO</i> Web site updated.	Paper copy by mail or courier. <i>IESO</i> Web site is updated.	<i>Connection Assessment</i> Application Status Summary page updated to include new request.
3B.14	<i>Connection applicant</i> receives a duly executed SIA agreement.		Step 3B.10 is completed.		Paper copy by mail or courier.	Receipt by <i>connection applicant</i> .
3B.15	<i>IESO</i> updates baseline assumptions accordingly.	<i>IESO</i> creates base cases to be used in the current SIA.	Upon receiving the approved projects information.	Current SIA base case.		Base case completed.

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.16	<i>IESO</i> and affected <i>transmitter(s)</i> conduct a coordinated SIA.	<i>IESO</i> and affected <i>transmitter(s)</i> in consultation with <i>connection applicant</i> conduct an SIA, and issue requests for additional information, if required. If a request for additional information is not met, the <i>IESO</i> may deem the <i>request for connection assessment</i> to have been withdrawn.	SIA completed in the time specified in the SIA scope of work.	SIA report finalized upon completion of SIA.		SIA report and Notification of Approval or Disapproval with Reasons if appropriate.
3B.17	<i>Transmitter(s)</i> to submit results of Customer Impact Assessment (CIA) to be integrated in the SIA.		Upon agreed date between <i>transmitter</i> and the <i>IESO</i> .		Email (fax or mail can also be used).	
3B.18	<i>IESO</i> to notify <i>connection applicant</i> if cost is expected to exceed deposit.	<i>IESO</i> will notify the <i>connection applicant</i> that assessment cost is expected to exceed deposit and if possible provide an estimate for the assessment cost.	When about 80% of the deposit has been used.		Email.	<i>Connection applicant</i> takes decision on whether or not to continue assessment.

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.19	Notify the <i>IESO</i> of decision to withdraw.	If <i>connection applicant</i> withdraws the <i>request for connection assessment</i> , the <i>IESO</i> terminates the SIA.	Anytime during the study.	<i>Connection applicant</i> downloads and submits Notification of Withdrawal form from the <i>IESO</i> Web site, (IMO-FORM-1073), and <i>IESO</i> issues IMO-FORM-1060, “Acknowledgement of Notification of Withdrawal by <i>Connection applicant</i> ”. or <i>IESO</i> issues a notification of deemed withdrawal. Proceed to step 3B.21.	Email (mail or courier can also be used).	Withdrawal by <i>connection applicant</i> and termination of SIA.
3B.20	<i>IESO</i> acknowledges withdrawal and terminates assessment.	If <i>connection applicant</i> withdraws the <i>IESO</i> terminates the SIA.	When requested by <i>connection applicant</i> .	<i>IESO</i> issues as acknowledgement of Notification of Withdrawal by <i>Connection applicant</i> .	Email (mail or courier can also be used).	Issue IMO-FORM-1060.
3B.21	<i>Connection applicant</i> receives Acknowledgement of Withdrawal.		Step 3B.14 is completed.			Receipt by <i>connection applicant</i> .

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.22	<i>IESO</i> issues draft SIA report to <i>connection applicant</i> and <i>transmitter</i> for review.	<i>IESO</i> completes a draft SIA report and provides to <i>connection applicant</i> and affected <i>transmitter(s)</i> .	Normally within 120 calendar <i>days</i> of the start date of the <i>IESO</i> study activities or by a mutually agreed date; normally within 100 calendar days from receipt of a complete application for projects with 150 days regulated completion targets	Draft SIA report.	Email.	
3B.22 A	For projects with regulated completion targets the <i>IESO</i> issues a revised draft SIA report to <i>connection applicant</i> and <i>transmitter</i> for review.	<i>IESO</i> completes a revised draft SIA report to include the applicable CIA findings and provides it to <i>connection applicant</i> and affected <i>transmitter(s)</i> .	Normally within 130 days from receipt of a complete application	Revised draft SIA report.	Email.	
3B.22 B	For projects with regulated completion targets the <i>connection applicant</i> reviews the revised draft SIA report and submits comments to the <i>IESO</i>		Normally within 10 days from receipt of the revised draft SIA report	Revised draft SIA report.	Email.	

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.22 C	For projects with regulated completion targets the <i>Transmitter</i> reviews revised draft SIA report and submits comments to the <i>IESO</i> .		Normally within 10 calendar days from receipt of the draft SIA report		Email.	
3B.23	<i>Connection applicant</i> reviews draft SIA report and submits comments to the <i>IESO</i> .		Upon completion of review, within 10 calendar days for projects with 150 days regulated completion targets		Email or fax.	
3B.24	<i>Transmitter(s)</i> to submit results of <i>Customer Impact Assessment</i> to be integrated in the SIA.		Upon agreed date between <i>transmitter</i> and the <i>IESO</i> , For projects with 150 days regulated completion targets the <i>transmitter</i> normally submits the list of CIA findings within 120 calendar days from receipt of a complete application		Email or fax.	

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.25	<i>Transmitter</i> reviews draft SIA report and submits comments to the <i>IESO</i> .		Upon completion of review, normally within 10 calendar days for projects with 150 days regulated completion targets		Email or fax.	
3B.26	<i>IESO</i> issues final SIA report and Notification of Conditional Approval of Connection Proposal or Notification of Disapproval with Reasons of Connection Proposal. <i>IESO</i> updates status on the <i>IESO</i> Web site.	<i>IESO</i> completes the SIA report and provides to <i>connection applicant</i> , affected <i>transmitter(s)</i> , and <i>OEB</i> . <i>IESO</i> updates the <i>Connection Assessment</i> Application Status Summary pages on the <i>IESO</i> Web site.	Normally within 5 <i>business days</i> of issuance of Draft SIA report or by a mutually agreed date. Within the allocated time for projects with regulated completion targets.	SIA report and either: IMO-FORM-1065, “Notification of Conditional Approval of Connection Proposal”, or IMO-FORM-1066, “Notification of Disapproval with Reasons of Connection Proposal”. <i>Connection Assessment</i> Application Status Summary and the SIA report and Study summary pages updated.	Email, with subsequent paper copy by mail or courier.	<i>Connection Assessment</i> Application Status Summary and the SIA report and Study summary pages updated, and SIA report made publicly available on the <i>IESO</i> Web site.
3B.27	<i>Connection applicant</i> receives SIA report and Notification of Conditional Approval of Connection Proposal or Notification of Disapproval with Reasons of Connection Proposal.		Upon SIA completion.		Email, with subsequent paper copy by mail or courier.	

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.28	<i>Ontario Energy Board (OEB) and transmitter(s) receive SIA report and all Notifications of Conditional Approval of Connection Proposal or Notifications of Disapproval with Reasons of Connection Proposal.</i>		Upon SIA completion.		Paper copy by mail or courier.	
3B.29	<i>IESO issues invoice/refund statement to connection applicant.</i>	<i>IESO prepares invoice/refund statement to cover costs and expenses incurred by the IESO and affected transmitter(s) during SIA.</i>	Following release of SIA report.	<i>Invoice amount for each connection applicant.</i>	Mail.	Receipt by <i>connection applicant</i> .
3B.30	<i>Connection applicant receives invoice/refund statement and forwards/receives payment/refund to/from IESO.</i>	<i>Connection applicant submits cheque or proof of electronic funds transfer to IESO.</i>	Within 10 <i>business days</i> of receipt of an <i>invoice</i> .		Courier or <i>electronic funds transfer</i> .	<i>IESO</i> receipt of payment.
3B.31	<i>Connection applicant reviews SIA report.</i>	<i>Connection applicant review of SIA report, including discussion with affected transmitter(s) where appropriate.</i>		Clarification amongst <i>connection applicant</i> and <i>transmitter(s)</i> of any issues that impact either party.		

Table 3-B: Procedural Steps for the SIA phase of the CAA process

Ref.	Task Name	Task Detail	When	Resulting Information	Method	Completion Events
3B.32	<i>IESO</i> action for compliance.	<i>IESO</i> compliance unit is notified of failure by <i>connection applicant</i> to make payment within specified time frame.	If payment not received within 10 <i>business days</i> of receipt of an <i>invoice</i> .		Internal email.	<i>IESO</i> compliance unit receives notification of <i>connection applicant's</i> failure to make payment.
3B.33	Alternative solutions are proposed to meet <i>IESO</i> requirements.		After SIA report has been issued.	Alternative solutions proposed to <i>IESO</i> .	Email.	<i>IESO</i> receives description of alternative solution.
3B.34	<i>IESO</i> initiates review of alternative solution and produces addendum to the final SIA report.		Following receipt of description of alternative solution.	<i>IESO</i> assessment of proposed alternative solution.	Email.	Addendum to final SIA report.

– End of Section –

Appendix B: Forms

The following forms, letters and agreements are used in this Procedure.

Form Name	Form Number
Feasibility Study Application – Generation facilities	IMO-FORM-1380
Feasibility Study Application – Transmission facilities	IMO-FORM-1381
Feasibility Study Application – Load facilities	IMO-FORM-1052
Feasibility Study Application – Ancillary Services facilities	IMO-FORM-1174
System Impact Assessment Application (IESO)/ Customer Impact Assessment Application (Hydro One) for Generation Facilities	IMO-FORM-1536
System Impact Assessment Application – Transmission facilities	IMO-FORM-1537
System Impact Assessment Application (IESO)/ Customer Impact Assessment Application (Hydro One) for Load Facilities	IMO-FORM-1538
System Impact Assessment Application – Ancillary Services facilities	IMO-FORM-1539
System Impact Assessment Application - Renewable Energy Generation Facility Application to Request a Connection Assessment for Hydro One	IESO-FORM-1706
System Impact Assessment Application - Renewable Energy Generation Facility Application to Request a Connection Assessment for GLP Transmission	IESO-FORM-1707
Notification of Withdrawal	IMO-FORM-1073
Feasibility Study Agreement	IMP_AGR_0001
System Impact Assessment Agreement	IMP_AGR_0002
Notification of Conditional Approval of Connection Proposal	IMO-FORM-1065
Notification of Disapproval with Reasons of Connection Proposal	IMO-FORM-1066
Project Status Report	IMO-FORM-1399

–End of Section–

References

Document ID	Document Title
MDP_RUL_0002	Market Rules
MDP_PRO_0014	Market Manual 1: Market Entry, Maintenance & Exit, Part 1.1: Participant Authorization, Maintenance & Exit
MDP_PRO_0016	Market Manual 2: Market Entry, Maintenance & Exit, Part 1.2: Facility Registration, Maintenance and De-registration
N/A	Ontario Energy Board Act, 1998

-End of Document -