Canada Energy Regulator | Régie de l'énergie du Canada

Electricity Filing Manual

Canada

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Glossary of Terms

Abandon	The permanent cessation of the operation of a facility which results in the discontinuance of service.
Action Plans	In the context of the *Species at Risk Act* – The competent minister is required to prepare one or more action plans based on the recovery strategy for a listed species. The action plan or plans and any amendments will be included in the public registry established under the *Species at Risk Act*.
Adverse Effect	The impairment of or damage to the environment or health of humans, or damage to property or loss of reasonable enjoyment of life or property.
Baseline Information	The current state of the environment or environmental setting for a particular element. This information will assist in determining potential environmental effects of the project by providing an environmental reference point for the element, with which to compare future environmental conditions, and potential project effects.
Biophysical Environment	The components of the earth including: land, water and air, including all layers of the atmosphere; all organic and inorganic matter and living organisms; and the interacting natural systems that include components referred to in the previous bullets.
Bulk Power System	(or bulk electric system) The network of generating facilities and interconnected transmission facilities that produce and then flow electricity, respectively, around the overall power system and into non-networked distribution facilities that, in turn, radially serve end user load.
Contaminant	A substance that is present or released in the environment at an amount, concentration, level or rate that results in or may result in an adverse effect.
Critical Habitat	The habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species [*Species at Risk Act* subsection 2(1)].
Cumulative Effects	Changes to the environment that are caused by an action in combination with other past, present and future human actions. ('Action' includes projects and activities.)
Deleterious Substance	(a) any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water; or (b) any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to

	be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water [*Fisheries Act* subsection 34(1)].
Designated Project	A project designated under the *Physical Activities Regulations* as a physical activity requiring a federal impact assessment under the *Impact Assessment Act*.
Easement	An agreement under which a company acquires the right to use the land for the pipeline or powerline. It is a written contract that sets out the rights of the company and rights of the landowner for the use of the right of way.
Election Certificate	An authorization for an IPL for which the applicant has chosen that federal rather than provincial laws apply and resulting in a public hearing [*Canadian Energy Regulator Act* section 266].
Environmental Effect	In respect of a project, any change that a project may cause to a biophysical element found in Table 6-2 and any effect of any such change on a socio-economic element (Table 6.3) (see definition of Socio-economic effect).
Environmentally Sensitive Area	An area designated in regional or local land use plans, or by a local, regional, provincial or federal government body as being sensitive to disturbance or identified by an applicant as being sensitive for some reason.
Federal Lands	Under section 82 of the *Impact Assessment Act*, the CER must make a significance determination for any projects on federal lands. *The Impact Assessment Act* defines federal lands as: (a) lands that belong to Her Majesty in right of Canada, or that Her Majesty in right of Canada has the power to dispose of, and all waters on and airspace above those lands, other than lands under the administration and control of the Commissioner of the Yukon, Northwest Territories or Nunavut; (b) the following lands and areas: i. the internal waters of Canada, in any area of the sea not within a province, ii. the territorial sea of Canada, in any area of the sea not within a province, iii. the exclusive economic zone of Canada, and iv. the continental shelf of Canada: and (c) reserves, surrendered lands and any other lands that are set apart for the use and benefit of a band and that are subject to the *Indian Act*, and all waters on and airspace above those reserves or lands.

Fee Simple Owner	The person who is entitled to the entire property, with unconditional power to disposition during his/her life, and descending to his/her heirs upon death. Usually it is the person named on the title.
Fish	Includes (a) parts of fish, (b) shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and (c) the eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals [*Fisheries Act* subsection 2(1)].
Fish Habitat	Means water frequented by fish and any other areas on which fish depend directly or indirectly to carry out their life processes, including spawning grounds and nursery, rearing, food supply and migration areas [*Fisheries Act* subsection 2(1)].
Heritage Resources	Cultural, historic, archaeological and paleontological resources are collectively known as heritage resources and can include pre-contact and post-contact features.
Human Health	A state of complete physical, mental and social well-being, and the ability to adapt to the stresses of daily life; it is not merely the absence of disease or infirmity.
Indigenous Peoples	Includes the First Nations, Inuit and Métis Peoples of Canada.
IPL	International Power Line
IPLDPR	*International and Interprovincial Power Line Damage Prevention Regulations – Authorizations* (IPLDPR–A)
Migratory Bird	A migratory bird referred to in the convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird [*Migratory Birds Convention Act* section 2].
Mitigation	In respect of a project, the elimination, reduction or control of the adverse environmental effects of the project, and includes restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means.
Monitoring	Activities for resolving specific outstanding environmental issues, observing the potential environmental effects of a project, assessing the effectiveness of mitigation measures undertaken, identifying unanticipated environmental issues and determining the action required based on the result of these activities.
Navigable Water or Waterway	Includes a canal and any other body of water created or altered as a result of the construction of any work. As well a navigable water is considered as any body of water capable, in its natural state, of being navigated by floating vessels of any description for the purpose of transportation, recreation or commerce, and may also be a human-made feature such as a canal or reservoir.
Navigation	Use of a vessel for transportation, recreation or commerce on a navigable water.

Notice	A notice of the application for a permit or an election certificate, published by the applicant in accordance with section 249 of the *Canadian Energy Regulator Act*.
Owner	For the purposes of sections 320 to 322 of the *Canadian Energy Regulator Act*, the 'owner' is not restricted to the fee simple owner or to freehold lands.[1] In this regard, an owner may include any interest in, or possession of land, such as the fee simple owner, Indigenous title, the administrators of crown and public lands and occupants of land. The interest held may be registered or unregistered. With respect to sections 199 and 201 of the *Canadian Energy Regulator Act*, the owner of lands includes the fee simple owner and may also include any other interest held in the land, as described above. When determining the owners of lands required for the project, the applicant should consider all potential owners of the lands required and implement its notification and acquisition processes pursuant to the Act.
Permit	A permit means an authorization for the construction and operation of an international power line issued under Part 4 of the *Canadian Energy Regulator Act*.
Power Line Outside Canada	That part of a power line in the United States that is between its connection to the international power line at the border and the first switching station in the United States.
Power System	Includes the generating stations, transformers, switching stations, transmission lines, substations, distribution lines and circuits necessary for the production, transmission and distribution of electricity.
Power Transfer Capability	The amount of power that can be transferred from one power system to another without impairing the reliability criteria of the interconnected systems.
Reclamation	The process of re-establishing a disturbed site to a former or other productive use, not necessarily to the same condition that existed prior to disturbance. The land capability may be at a level different (i.e., lower or higher) than that which existed prior to the disturbance, depending on the goal of the process. Reclamation includes the management of a contaminated site and revegetation where necessary. Reclamation is not considered complete until the goals for reclamation have been achieved.
Recovery Strategy	A strategy for the recovery of a listed extirpated, endangered or threatened species prepared by the competent minister (as defined under the *Species at Risk Act*). If the recovery of the listed species is feasible, the recovery strategy must address the threats to the survival of the species identified by the Committee for the Status of Endangered

[1] Sections 314 and 320 of the CER Act describe the nature of an 'owner'

314. A company must, in the exercise of the powers granted by this Act or a Special Act, do as little damage as possible, and must make full compensation in the manner provided in this Act and in a Special Act, to all persons interested, for all damage sustained by them by reason of the exercise of those powers.

320. In sections 321 to 334, ***owner*** means any person who is entitled to compensation under section 314.

	Wildlife in Canada, including any loss of habitat. The recovery strategy and any amendments will be included in the public registry established under the *Species at Risk Act*.
Reliability	Power system reliability is the degree of performance of the elements of the bulk electric system that results in electricity being delivered to customers within accepted standards and in the amount desired (from North American Electricity Reliability Corporation).
Residual Effects	Effects that are present after mitigation is applied.
Right of Entry	The right of access to, and use of, land surface.
Right of Entry Order	An order by the Commission of the Canada Energy Regulator made under the *Canadian Energy Regulator Act* granting a company access to, and use of, a defined portion of land for the purposes as set out in the order.
Right of Way (RoW)	The strip of land acquired for which a company has obtained the rights for the construction and operation of the pipeline or powerline.
Socio-economic Effect	In respect of a project, any effect on a socio-economic element found in Table 6-3, including direct effects as well as effects resulting from a change in the environment (as referred to in the definition of Environmental Effect).
Species at Risk	An extirpated, endangered or threatened species or a species of special concern [*Species at Risk Act* subsection 2(1)].
Species of Special Status	Species listed under provincial jurisdiction or of recognized local importance because they are vulnerable, threatened, endangered or extirpated.
Study Area	The area within the spatial boundaries of the scope of the environmental and socio-economic effects assessment. Since the spatial boundaries of the assessment may vary with different biophysical and socio-economic elements, the study area may also vary.
Substation	A subsidiary station of the electric power system where network interconnections are made and managed between transmission lines, or where electricity is flowed to or from the transmission network and transformed for further transmission or distribution along lower-voltage lines.
Traditional Territory	Area where an Indigenous Nation has claimed or asserted the right to use the land for traditional purposes such as hunting, fishing, trapping, gathering or spiritual activities. One or more Indigenous Nations may claim the same lands as their traditional territory.
Valued Ecosystem Component (VEC)	Resources or environmental features that have all or some of the following features: • importance to local human populations; • regional, national or international profiles; or

- if altered from their existing status will be important in evaluating the impacts of development or human actions, and in focusing management or regulatory policy.

Valued Socio-cultural Component (VSC)	Cultural, social, economic or health aspects of the study population that, if affected by the project, would be of concern to local human populations or government regulators.
Viewshed	The area visible from an observer's viewpoint and those areas from which that viewpoint may be seen. The boundaries of a viewshed are determined by the width of the angle of vision and the distance between the observer and various levels of vision (i.e., foreground, middle-ground, background, distant, etc.).
Water Body	A water body, including a canal, reservoir, an ocean and a wetland, up to the high-water mark, but does not include a sewage or waste treatment lagoon or mine tailings pond.
Wetlands	Land where the water table is at near or above the surface, or which is saturated for a long enough period to promote such features as wet-altered soils and water tolerant vegetation. Wetlands include organic wetlands or "peatlands", and mineral wetlands or mineral soil areas that are influenced by excess water, but produce little or no peat.

List of Abbreviations

ADR	Alternative Dispute Resolution
CCME	Canadian Council of Ministers of the Environment
CER	Canada Energy Regulator
CER Act	*Canadian Energy Regulator Act*
Commission	Commission of the Canada Energy Regulator
CSA	Canadian Standards Association
DFO	Fisheries and Oceans Canada
Electricity Regulations	*National Energy Board Electricity Regulations*
ESA	Environmental and Socio-economic Assessment
EPP	Environmental Protection Plan
GPS	Global Positioning System
IA Act	*Impact Assessment Act*
IAAC	Impact Assessment Agency of Canada
IPL	International Power Line
IPLDPR	*International and Interprovincial Power Line Damage Prevention Regulations – Authorizations* (IPLDPR-A)
kV	Kilovolt
NEB Act	*National Energy Board Act*
NERC	North American Electric Reliability Corporation
OPR	*Canadian Energy Regulator Onshore Pipeline Regulations*
Post-construction report	Post-construction environmental monitoring report
PPBoR	Plans, Profiles and Books of Reference
RoW	Right of Way
Rules	*National Energy Board Rules of Practice and Procedure, 1995*
SARA	*Species at Risk Act*
UTM	Universal Transverse Mercator
VEC	Valued Ecosystem Component
VSC	Valued Socio-cultural Component
Valued Component	VEC and VSC

Electricity Filing Manual – Chapter 1 – Introduction

1.1 Scope and Purpose of the Manual

Electric utility companies regulated by the *Canadian Energy Regulator Act* (CER Act) are required to obtain approval from the Commission of the Canada Energy Regulator (Commission) to construct new facilities or modify or abandon existing facilities and export electricity. Facilities include a transmission line and associated equipment, such as at a substation.

The Electricity Filing Manual is designed to provide guidance as to the type of information the Commission would typically need to make a decision concerning the issuance of a permit or certificate for an IPL.

The Electricity Filing Manual is also designed to assist applicants in understanding why information is required and how it is assessed by the Commission, so that applicants can therefore understand the level of detail that is needed.

This manual is not applicable to electricity exports or to other areas of CER jurisdiction such as pipelines or oil and gas activities. Parties may wish to contact the CER for further advice or guidance on these other activities.

1.1.1 Transition from National Energy Board to Canada Energy Regulator

On August 28 2019 the CER Act came into force, replacing the National Energy Board Act. The CER Act introduces a modern governance structure with clear separation between key functions:

- An independent Commission, headed by a Lead Commissioner, to adjudicate projects (i.e., hearings)
- A Board of Directors, led by a Chair, to provide strategic oversight
- A Chief Executive Officer, accountable for leading the organization and delivering results.

Every decision or order made by the National Energy Board is considered to have been made under the CER Act and may be enforced as such. Every certificate, license or permit issued by the National Energy Board is considered to have been issued under the CER Act. Those instruments remain in force for the remainder of the period during which they would have been in force had the CER Act not come into force.

Regulations made under the *National Energy Board Act* remain in force under the CER Act until they are repealed or others made in their stead, as per the *Interpretation Act*. Updates to regulations are being implemented through a phased approach, starting with the Transitional Regulations for the Purpose of the *National Energy Board Cost Recovery Regulations*. Our CER "Acts and Regulations" web page will be regularly updated with opportunities to provide feedback on regulatory development and notifications of regulatory changes.

1.2 Canada Energy Regulator Expectations

This manual sets out the information requirements the CER expects in an application and also provides guidance on those requirements. The CER expects the applicant to include all necessary and sufficient information to explain and support the application.

When seeking approval, applicants must submit applications or information filings to the CER that enable the Commission to:

- evaluate the overall public good that the facilities requested can create as well as its potential negative aspects;
- weigh the various impacts; and
- make an informed decision that balances various interests.

While it is ultimately the responsibility of the applicant to make its case before the Commission, this manual provides direction regarding the information the Commission would typically expect to see addressed in a filing. Complete filings should allow the Commission to carry out more consistent assessments with fewer information requests and, therefore, shorten timelines required to make a decision.

As will be seen from the detailed requirements, the Commission's assessment of proposed projects includes, along with other considerations, a risk-oriented approach that considers the probability and consequence of potential issues. The level of detail for any particular issue in an application should therefore consider this.

1.3 Content Organization

The filing requirements are generally presented in the following format:

- a **Goal** statement that summarizes the subject matter of the information to be provided;
- **Filing Requirements** that specify the information needed;
- a **Guidance** section that provides direction regarding, for example, the level of detail, potential issues and information references; and
- **"FYI" (for your information) grey boxes** that provide direction for when further information may be appropriate, where further guidance can be found, 'off-ramps' for when additional information may not be required, and various other tips, examples, and reminders.

1.4 Confidential Filing

The CER is committed to transparency and accountability. As an administrative tribunal, the Commission holds hearings that are open to the public and makes its court record available for public viewing. However, some filings may need to be made confidentially for any of the reasons indicated in sections 60 or 61 of the CER Act. As confidentiality is an exception to the fundamental principle that proceedings are open to the public, the onus is on the applicant to show why this remedy should be granted to keep information in a public proceeding confidential.

Filings may also be required by the CER for matters beyond proceedings of the Commission. Such filings may still be made available to the public as part of the CER's commitment to transparency. Where a filing is unrelated to a Commission proceeding, sections 60 and 61 of the CER Act may not apply. However, an informal request can also be made of the CER not to make the filing public.

The CER will protect the confidentiality of Indigenous knowledge if provided in confidence pursuant to section 58 of the CER Act. Confidential Indigenous knowledge does not need to meet the requirements described here. In situations where such knowledge is being shared, the CER will discuss the process and requirements with the party who is sharing that information.

Please note that all filings, regardless of whether they are confidential or not, are nevertheless subject to the *Access to Information Act* and *Privacy Act*.

1.4.1 Filing Requirements

Applications for all requests to treat filings confidentially, whether in a proceeding or otherwise, must have sufficient detail and provide:

1. A cover letter containing:
    a. the request and reasons for the request;
    b. a summary of the nature of the information to be treated confidentially; and
    c. a detailed description of why the filing requires confidential treatment.
2. If possible, a redacted version of the filing that can be made public (with redactions to the information requested to be kept confidential).
3. One unredacted copy of the filing that the applicant requests to be kept confidential. The filing must be provided via hand delivery, ordinary mail, registered mail or courier to the Secretary of the Commission in a double sealed envelope under confidential cover.

Guidance

Sections 60 and 61 of the CER Act

Sections 60 and 61 of the CER Act allow for certain filings in a proceeding to be treated confidentially and protected from disclosure. These sections will generally apply in respect of a filing related to:

- any regulatory proceeding (i.e., applications filed under the CER Act or any other public hearing process under the CER Act);
- matters related to condition compliance where the condition is a "for approval" condition of the Commission; and
- in the case of section 61, information that is contained in any order under the CER Act.

For number 1c. above, the detailed description must indicate under which section or subsection of the CER Act confidentiality is being requested. Given the importance of maintaining open, accessible and transparent proceedings, any request for confidentiality should be as narrow as possible.

The detailed description must also clearly describe how the requirements of that section or subsection are met based on the language in the CER Act:

60 The Commission or a designated officer may take any measures and make any order that the Commission or designated officer considers necessary to ensure the confidentiality of any information likely to be disclosed in any proceedings under this Act if the Commission or designated officer is satisfied that

(a) disclosure of the information could reasonably be expected to result in a material loss or gain to a person directly affected by the proceedings, or could reasonably be expected to prejudice the person's competitive position;

(b) the information is financial, commercial, scientific or technical information that is confidential information provided to the Regulator and

(i) the information has been consistently treated as confidential information by a person directly affected by the proceedings, and

(ii) the Commission or designated officer considers that the person's interest in confidentiality outweighs the public interest in disclosure of the proceedings; or

(c) there is a real and substantial risk that disclosure of the information will compromise the safety and well-being of persons or cause harm to property or the environment.

61 The Commission or a designated officer may take any measures and make any order that the Commission or designated officer considers necessary to ensure the confidentiality of information that is contained in any order under this Act or that is likely to be disclosed in any proceedings under this Act if the Commission or designated officer is satisfied that

(a) there is a real and substantial risk that disclosure of the information will pose a risk to the security of pipelines, abandoned pipelines, power lines, offshore renewable energy projects, including buildings, structures or systems – including computer or communication systems, or methods employed to protect them – and the need to prevent disclosure of the information outweighs the public interest in disclosure of orders and proceedings; or

(b) there is a real and substantial risk that disclosure of the information will compromise the safety and well-being of persons or cause harm to property or the environment.

When considering the confidentiality request, the Commission or Designated Officer may establish a comment process to solicit feedback on the request and may post a notice of the request on the CER website to permit comments from the public.

If the Commission or Designated Officer is satisfied that the filing meets the requirements set out in sections 60 or 61, it may take measures that it considers necessary to ensure the confidentiality of the filing. One such measure is that only select CER staff, Commissioners or Designated Officers responsible for considering the filing would have access to the information, and the information would not be available to the public. In some proceedings it may be necessary for fairness reasons for another party or parties to have access to the confidential filing, subject to appropriate undertakings or other protective measures.

If a request for confidentiality is granted the Commission or Designated Officer will provide reasons and issue directions or an order. The confidential information will be protected by the CER.

If the Commission or Designated Officer is not satisfied that the applicant has demonstrated that the filing meets the requirements of sections 60 or 61, the document will be returned to the applicant and the applicant may refile the information on the public record, in order to have complete information for the application.

Other filings

Where a filing is unrelated to a Commission proceeding, sections 60 and 61 of the CER Act may not apply. However, an informal request can also be made of the CER not to make the filing public. Such informal requests can be made for filings that are unrelated to:

- regulatory proceedings;
- matters relating to condition compliance where the condition is a "for approval" condition of the Commission; and
- information contained in any order under the CER Act.

In determining whether a document should not be made public, the CER will consider the reasons provided for requesting confidentiality, such as: similar criteria as sections 60 and 61 applications, any other applicable legislation, as well as whether a filing is expected to attract significant third-party interest. As such, requesters are asked to consider the requirements in sections 60 and 61 when providing detailed information explaining why a filing should not be made public.

When considering the request, the CER may seek feedback and may post a notice of the request on its website to permit comments from the public, if appropriate.

If the CER is satisfied that the filing should not be made public, it may take measures that it considers necessary to ensure that this is accomplished, subject to specific disclosures as may be appropriate to fulfill the CER's mandate in conjunction with undertakings or other protective measures as necessary.

If the CER is not satisfied that the requester has demonstrated that the filing should be withheld from the public, the document will be returned to the requester and the requester may refile the information in a manner that would permit disclosure to the public.

FYI – Single Line Diagrams (see also section 4.2.1 Engineering Design Details)

If confidential treatment is requested for the single-line diagram, the Applicant must also provide a simplified diagram which excludes information the Applicant deems sensitive, but includes the IPL and major components which are the subject of the application (i.e., transformer, converter metering equipment, isolation switches, and breaker) in the form of block diagrams, and shows how the IPL interconnects to the existing bulk power system (i.e., termination points, voltage levels and how it connects to existing transmission lines and substations).

1.5 Previously Filed Material

If an applicant wishes to refer to documents previously filed with the CER and those documents are still current (e.g., company manuals, programs, standards or procedures), rather than resubmitting the documents, the applicant may:

1. indicate when, under what circumstances and under what CER file number (if known) the information was filed;
2. identify the document and its version; and

3. identify the section(s) of the document being referenced.

1.6 Pre-application Meetings – Guidance Notes

Applicants may request a pre-application meeting to clarify filing requirements with CER staff. The Pre-application Meetings – Guidance Notes describe the process for requesting a meeting. These can be found on the CER website.

1.7 Filing with the Canada Energy Regulator

Parties with the ability to file electronically are expected to file documents through the CER's electronic document repository. Any person who has the ability to access documents through the repository must accept service of a notification that the document is in the repository rather than requiring that a hard copy of the document be served.

For more information about filing electronically, please refer to the Filer's Guide to Electronic Submission and the Memorandum of Guidance on Electronic Filing. Both of these documents are available on the CER's internet site.

Please note that e-mails are not considered electronic filing and will not be accepted in a proceeding.

The CER's electronic document repository will contain the full text of only those documents filed electronically (following the procedures mentioned above). When documents are filed by hard copy or facsimile, the CER may create an electronic placeholder. This placeholder indicates that a document has been filed in hard copy (and is available in the CER's library) but it will not be possible to view or search these documents on the electronic document repository.

If you are filing an application as hard copies, you must file 15 copies. Please use pressboard report covers rather than plastic binders. Pressboard covers are more compact and durable, and a large amount of plastic waste will be avoided.

If you file electronically, one hard copy must be subsequently filed. The hard copy must have attached to it a signed copy of the Electronic Filing Receipt that the system will return to the filer upon receipt of the electronic document. Please file your completed application with the CER and address it to:

Secretary of the Commission
Canada Energy Regulator
210-517 10 Ave SW
Calgary AB T2R 0A8
Telephone: 403-292-4800 or 1-800-899-1265
Facsimile: 403-292-5503 or 1-877-288-8803

1.8 Updates

It is the CER's intent to update this document as necessary. The CER would appreciate any comments users may have regarding the content, usability or other matters associated with this document that could assist with future updates and revisions.

All comments may be directed to the CER by:

E-mail: FilingManual@cer-rec.gc.ca
Facsimile: Secretary at 403-292-5503 or 1-877-288-8803
Telephone: 1-800-899-1265

Mail:

Secretary of the Commission
Canada Energy Regulator
210-517 10 Ave SW
Calgary AB T2R 0A8
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The CER will communicate its future revision process and schedule and any interim updates on the website.

Electricity Filing Manual – Chapter 2 – Instructions to Users

2.1 Summary of International Power Line Filing Requirements

Table 2-1 below provides a high level overview of the information requirements the CER considers applicants must file with the CER for an authorization to construct an international power line. The table outlines the main chapters and headings and their corresponding main information filing requirements.

Applicants should consider each chapter of this manual and file all the information that is of relevance to their particular project, in accordance with the nature and magnitude of the project.

Applicants are encouraged to structure their application in logically sequenced and numbered paragraphs based on the content of the information.

Table 2-1: Summary of International Power Line Filing Requirements

Electricity Filing Manual Chapter	Main Information Requirements
3. Common Information Requirements 3.1 Action Sought by Applicant 3.2 Project Applicants 3.3 Proof of Publication of Notice	• A description of what CER authorization is being applied for • Identity of applicant and contact information • Identity of the owners and operators of the IPL in Canada, if different from the applicant • A description of the owner and operator of the power systems • Identity of the owners and operators of the power line outside Canada • A proof of publication of notice
4. Project Description and Engineering	• Provide a description of the IPL project that includes its location, all project components and activities, the project schedule and any related undertakings

4.1 Project Location	• Locational information should include a description, and maps, of:
	  ○ The route, facility sites and any proposed ancillary facilities
	  ○ The terminal points and international boundary crossover point
	  ○ Environmental, socio-economic, and land or resource use constraints that restrict the preferred route or location of facilities
	  ○ Land use features which the IPL is to cross

	○ The power line outside Canada
4.2 Project Components and Activities	• The description of project components and activities should include: ○ Voltage level ○ Number and size of conductors ○ Description of the tower or other structures that will provide the physical support ○ A single-line diagram identifying all the IPL facilities ○ Discussion of engineering philosophy and principles ○ A description of standards, practices and procedures to be used in the design, construction and operation of the IPL
4.3 Impacts to the Bulk Power system	• Impacts to the bulk power system • A description of the power transfer capability and the criteria for this • A copy of all interconnection agreements or other agreements • A description of provincial requirements and any other approvals required, including those for the power line outside Canada
4.4 Other Required Approvals and Project Schedule	• A schedule showing the proposed dates for the start and completion of construction of the IPL and the power line outside Canada • A description of the other approvals required, the review process and schedule applicable, and their current status
4.5. Alternatives	• A description of the environmental, land-use and other criteria used to determine the proposed route and facility sites, and any alternatives • A map of the alternative route and facility sites
5. Engagement	• A description of any engagement or early public notification process implemented by the applicant, which should include: ○ The principles and goals of the engagement program ○ The design of the engagement program ○ The results of the engagement ○ An explanation if an engagement program was not implemented ○ Notification of third parties ○ Description of any adverse effects on other provinces

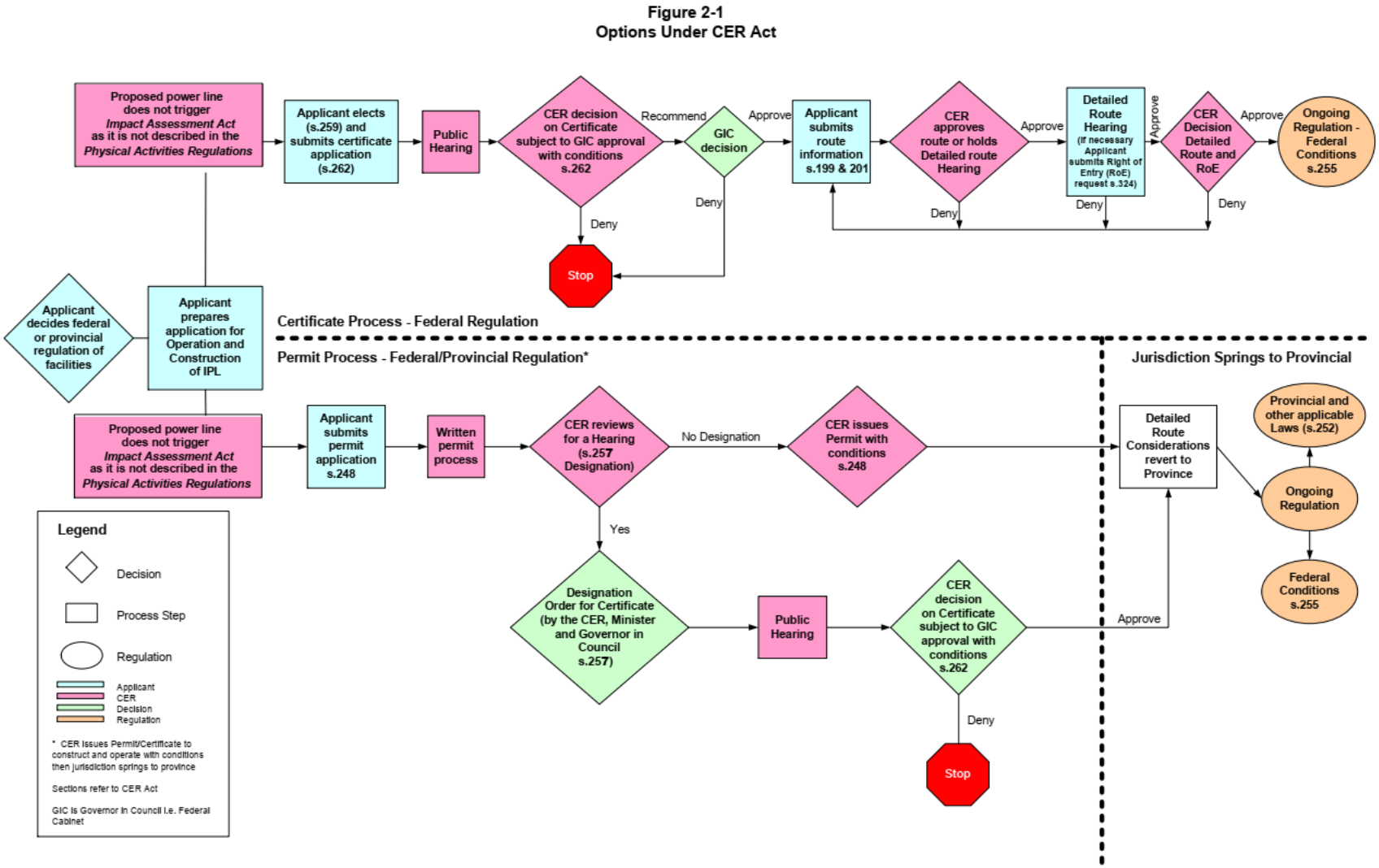
6. Environmental and Socio-economic Assessment	• An impact assessment, completed according to the applicable federal or provincial legislation, for the construction and operation of the proposed project • This should be based on the project description, provide a description of the environmental setting, elucidate any project-environment interactions and identify potential project-related environmental effects, describe the mitigative measures to be used, and evaluate the environmental and cumulative effects arising from the IPL

7. Economics	• A copy of the most recent annual report of the owner and operator of the lines both in Canada and outside of Canada
	• And alternatively, for the line in Canada, information for the Commission to determine:
	  ○ Evidence that the proposed IPL will be used, useful and and contribute to the Canadian public interest
	  ○ Description of supply, demand, load conditions
	  ○ Evidence of the ability to finance the IPL

8. Lands Information	• Documentation on land areas and land rights • For election certificates, service of notice, land acquisition process • A plan or survey for the international boundary crossover point

Figure 2-1 outlines the different regulatory options an applicant should choose from before applying to the CER. The figure also sets out, under each option, the different steps for processing IPL facilities applications and the legislation, whether federal or provincial that would apply.

Figure 2-1: Options Under CER Act



2.2 Regulatory Listing

Table 2-2 lists the sections of the CER Act and instruments issued in accordance with the CER Act that have been identified within this Manual as requiring an application to the CER with respect to IPLs.

Table 2-2: Sections of CER Act Regarding IPLs

Application Description	CER Act Sections and Legal Instruments	Guide or Appendix
International Power Line (election certificate)	259	
Information Filed Respecting PPBoR and Notices	199 and 201	Guide A
Right-of-Entry Application	324	Guide B
International Power Line (permit)	248	
Addition or modification of facilities	280 to 284	
Deviations (for federal lines)	211	
General Order for Electricity Reliability Standards	MO-036-2012	Appendix 1

2.3 Permit Applications

Permit applicants should note that the information required for CER IPL permit authorizations is stipulated in Part II of the *Electricity Regulations*.

As this Filing Manual is intended to set out the requirements for an election certificate, the requirements and guidance within the manual may be more extensive and detailed than necessary for a permit application. The manual should be used as a reference and potential source of guidance and applicants should apply judgment accordingly.

For example, judgment should be used where regulatory requirements logically require certain other information or details that may not necessarily be stipulated in the *Electricity Regulations*. For instance, where section 5 of the *Electricity Regulations* refer to the need for an environmental assessment report, this would necessarily require sufficient description of the project and the environmental setting to complete the report regardless whether certain details about the project or environmental setting are specifically required in other sections of the regulation. Therefore, in accordance with the nature and magnitude of the project, as well as the *Electricity Regulations*, applicants should file all relevant information. This filing manual strives to provide guidance to this end.

A pre-application meeting with staff at the CER is available if further guidance is desired. Please contact the CER if you wish to arrange a pre-application meeting.

To assist permit applicants for IPLs greater than 50 kV in using this filing manual as guidance, Table 2-3 below cross-references the section 5 *Electricity Regulations* requirements with the corresponding relevant chapter in the manual. Table 2-4 cross-references section 4 of *Electricity Regulations* for IPLs less than 50 kV with related sections in the manual.

As with certificate applications, applicants are encouraged to structure their application in logically sequenced and numbered paragraphs based on the content of the information. However, permit applications may also be filed according to the order and structure of section 5, Part II of the *Electricity Regulations*.

Table 2-3: Guide to Electricity Filing Manual by *Electricity Regulations* section 5 for IPLs over 50 kV

Part II *Electricity Regulations*	**Electricity Filing Manual Chapter**
subsections 5(a) and (b)	3. Common Information Requirements 7. Economics
subsection 5(c)	3.3 Proof of Publication of Notice
subsection 5(d)	5. Engagement
subsections 5(e) and (f)	4.1 Project Location 4.5. Alternatives
subsections 5(g), (h) and (i)	4.1 Project Location
subsection 5(j)	8. Lands Information
subsection 5(k)	3.2 Project Applicants
subsection 5(l)	7. Economics
subsections 5(m), (n) and (o)	4.2 Project Components and Activities 4.3 Impacts to the Bulk Power System
subsections 5(p), (q) and (r)	5. Engagement 4.4 Other Required Approvals and Project Schedule
subsections 5(s), (t) and (u)	6. Environmental and Socio-economic Assessment
subsection 5(v)	5. Engagement
subsection 5(w)	4.2 Project Components and Activities

Based on the nature and magnitude of the project, Applicants may wish to consult the appropriate chapter of this manual and file all the information that is of relevance to their particular project while keeping in mind that this manual generally goes further than what is required for Permit applications for IPLs over 50 kV.

Table 2-4: Guide to Electricity Filing Manual by *Electricity Regulations* section 4 for IPLs under 50 kV

Part II *Electricity Regulations*	**Filing Manual Chapter**
subsections 4(a) and (b)	3. Common Information Requirements
subsection 4(c)	3.3 Proof of Publication of Notice
subsection 4(d)	5. Engagement
subsections 4(e) and (f)	4.1 Project Location
subsection 4(g)	3.2 Project Applicants
subsection 4(h)	4.2 Project Components and Activities
subsection 4(i)	4.3 Impacts to the Bulk Power System
subsection 4(j)	6. Environmental and Socio-economic Assessment
subsections 4(k) and (l)	4.4 Other Required Approvals and Project Schedule

Electricity Filing Manual – Chapter 3 – Common Information Requirements

This chapter outlines the filing requirements that are of a general administrative nature:

- a description of, and justification for, the authorization being sought by the applicant;
- details regarding the applicant, owners and operators of the IPL; and
- details regarding the publication of Notice.

3.1 Action Sought by Applicant

Goal

The application states the request being made, the reasons for it, and what action is being requested of the Commission.

3.1.1 Project Summary

Filing Requirements

1. The application must contain a concise description of the proposed project.

Guidance

In describing what authorization is being sought from the Commission, it is necessary to provide a summary overview of key facts concerning where the project is situated and what the project entails.

3.1.2 Authorization Being Sought

Filing Requirements

1. The application must state what authorization is being sought and the provisions of the Act under which the application is made.

Guidance

Types of Authorizations

Part 4 of the CER Act governs construction, operation and abandonment of power lines. For new projects, Applicants can apply for two types of authorizations: permits and election certificates. Permits may require a public hearing and can be granted more expeditiously, if the application is complete and suitable. Election Certificates always require a full public hearing process. Applicants can apply for a permit, but the Commission, once it has reviewed the application, may recommend to the Minister that the IPL be designated by order of the GIC, which would mean the IPL would require a certificate and thus a public hearing. The latter is a

designation order certificate distinct from an election certificate from an implementation perspective.

Applicants can also consider whether they want the CER or the province to have jurisdiction over the life of the facilities. In the case of permits or designation order certificates, authority over the facilities reverts to the province once the permit or designation order certificate is granted. For election certificates, the applied-for facilities would fall under CER jurisdiction as the provisions of the CER Act would apply and not the laws of a province.

3.1.3 Project Justification

Filing Requirements

1. The application clearly articulates the justification and rationale for the proposed project and authorization being sought from the Commission.

Guidance

The application should provide justification for the authorization being sought. This should describe the purpose of the proposed project, the need that would be addressed by the project and how the project is an appropriate option to meeting the need while serving the public interest.

3.2 Project Applicants

Goal

The application identifies the parties involved in the proposal of the project and provides their contact information.

Filing Requirements

1. The application must contain:
    - the name of the applicant and any authorized representative of the applicant, their mailing address, address for personal service, telephone number and any other contact information;
    - the names and addresses of the owner and the operator of the IPL, if they are different from the applicant, and a description of the power systems that each owns and operates; and
    - the name and address of the owner and operator of the power line outside Canada.

3.3 Proof of Publication of Notice

Applicants for certificate applications will be supplied with direction on how to publish a Notice of Hearing and its contents by the Commission in the Hearing Order to be issued once the Commission has decided to set an application down for a hearing. This requirement most commonly would require publication in selected newspapers or other publications along the route.

All applicants for IPL permits are required by the CER Act (section 249) to publish a Notice at the time of the application. This is to be published in the Canada Gazette, Part I in both official languages and other publications as the CER considers appropriate. CER staff can assist applicants in finding recent examples during a pre-application meeting.

In addition, applicants for IPL permits are directed:

- for IPL permits exceeding 50 kV, to serve a copy of their application and Notice on each directly interconnected Canadian utility, and
- to publish the Notice on the same date (insofar as it is possible to do so) as publication occurs in the Canada Gazette, Part 1 as follows:
    - in English in the largest paid general circulation English language newspaper and in French in the largest paid general circulation French language newspaper, published in the most populous community along the route;
    - if the community referred to above is not served by a general circulation English and a general circulation French language newspaper, the Notice must be published in both official languages in the newspaper which has the largest paid circulation in that community.

Electricity Filing Manual – Chapter 4 – Project Description and Engineering

This chapter describes the information an applicant needs to file with the CER with respect to describing the IPL project, including all project components, activities and related undertakings, their location and the project schedule.

4.1 Project Location

Goal

The application includes a complete description of where the project and its components are located.

Filing Requirements

1. Provide a description of, and maps that show, at an appropriate scale:
    - the terminal points and international boundary crossover point;
    - the route, facility sites and any proposed ancillary facilities;
    - land use features which the IPL is to cross;
    - constraints that restrict the preferred route or location of facilities or project components;
    - the power line outside Canada; and
    - the location of project components and related undertakings.

Describe the width of the right of way proposed and the reasons why that width was selected.

Guidance

Constraints that restrict the preferred route or location of facilities or project components include environmental, socio-economic, and land or resource use factors, including general land tenure; current land uses, zoning and land use plans; the nearest residences and communities; and unique or major physical features.

For some information, line drawings or site plans may be more appropriate.

The CER encourages applicants to include key Global Positioning System (GPS) locations, where available, as part of their spatial information submissions, particularly for the project endpoints, boundary crossover point and main IPL route locator points.

4.2 Project Components and Activities

4.2.1 Engineering Design Details

Goal

The application provides a description of the physical design, operational details and lifecycle activities of the proposed project, with sufficient detail to:

- identify project design features and procedures that will ensure the safe, secure and reliable operation of the proposed facilities;
- identify potential project related interactions with the environment; and
- identify project design features and practices that will mitigate adverse environmental and socio-economic effects.

Filing Requirements

1. The application shall identify and describe all project components, activities and related undertakings (e.g., conductors, substation components, access roads including temporary and permanent bridges, construction camps, temporary work space, etc.), including, but not limited to:
    - the voltage level;
    - the number and size of conductors;
    - a description of the tower or other structures that will provide physical support for the international power line; and
    - a single-line diagram identifying all the facilities that constitute the international power line.
2. The application should include a description of how the project will be carried out.
3. Provide a description of any facilities to be constructed by others which are required to accommodate the proposed facilities including temporary facilities.
4. Describe other permits, licenses, or authorizations that will be required before part or all of the project can proceed.

Guidance

CER-regulated facilities are to be safe and secure. They are also to be built and operated in a manner that respects the rights of those affected. In general, the information listed above is required in order for the Commission to ascertain that the electrical design and operation of the project, if it were built, would meet these goals.

The project description should address:

- what the project is, including:
    - a complete list and thorough description of the project components, activities and, any related undertakings (i.e., any additional components or activities required for the project to proceed, such as temporary work space, means of access including temporary and permanent bridges, etc.);

    - a description of replacements or expansions of physical works and activities that are anticipated over the life of the project; and
    - preliminary drawings if available.
- how the project will be carried out, including:
    - a thorough description of how project activities (e.g., clearing, blasting, tower foundations, tower raising, stringing, watercourse crossings, inspection, monitoring programs, testing, etc.) would be carried out during the construction and operations phases; and
    - the anticipated workforce (i.e., person days and skills required for construction and operations activities).

The above requirements generally assume that the project is of overhead construction. If the project is of underground construction, in whole or in part, substitute information should be provided as appropriate (e.g., trenching or conduit details and construction information versus information on tower structures).

The single-line diagram identifying all the facilities that constitute the international power line should include information detailing the line's connection to substation facilities in Canada. The diagram should clearly delineate what substation components form part of the line versus substation components forming part of the host Canadian power system. Components to be identified should include equipment and structures such as busbar, transformers, breakers, switches, air breaks, reactive compensation components, protective relaying and metering equipment, etc.

4.2.2 Engineering Design Philosophy

Goal

The application provides sufficient description of the applicable codes, standards and regulations and any engineering details with respect to any special design challenges, to demonstrate that the proposed facilities will be safe, secure and reliable.

Filing Requirements

1. The application should clearly indicate all primary codes and standards, including the version and date of issue, that will be followed in the design and material selection for each element of the applied-for facility, subject to the following:
    - where there is a choice in the code or standard selected, provide a brief reason why the referenced code or standard is considered appropriate, and
    - where there is no industry-recognized code or standard, provide brief reasoning why the proposed course of action would be taken with respect to affected design and material selections.
2. The application should clearly indicate that the project will comply with applicable company design and operations manuals and confirm that, in turn, these manuals comply with the codes and standards for the project. As well applicants are expected to keep the latest versions of these manuals available for CER audit and file copies upon request.

Guidance

1. The information listed above is desired in order for the Commission to ascertain that the electrical design and operation of the project, if it were built, would be safe and secure and perceived as being so. To this end the application should demonstrate that the project would not be inconsistent with current generally accepted industry practice and procedure for similar facilities built and operated under similar circumstances and conditions elsewhere, preferably in Canada.
2. Where no clearly applicable industry-recognized code or standards exist, the use of good engineering practice is recognized, respected and expected. However, to the extent possible, a course of action proposed as a consequence of doing so should be clearly traceable back to established code, standards or engineering principles.

4.3 Impacts to the Bulk Power System

Goal

The application provides sufficient information to identify and justify the effects of the proposed project on the safe operation, security and reliability of the existing and projected power system it would become a part of.

Filing Requirements

1. The application shall provide:
    - the total export and import power transfer capabilities, with and without the proposed international power line, of the local Canadian power system to which the proposed project will interconnect, and of the non-Canadian power system that the international power line will connect to, stating the criteria for those capabilities;
    - the proposed international power line's power transfer capability for sustained transmission of power under winter and summer conditions, and the criteria for the stated power transfer capability;
    - a description of the reliability standards to which the IPL will be subject during operation;
    - a copy of:
        i. each interconnection agreement that relates to the construction of the international power line, and
        ii. any other agreement between the applicant and the owner or the operator of the power line outside Canada that relates to the construction and operation of the international power line and the power line outside Canada;
    - confirmation ensuring compliance with the North American Electricity Reliability Corporation (NERC) reliability standards, as applicable.

Guidance

1. Applicants should review the General Order for Electricity Reliability Standards (Appendix 1) for guidance on the CER's expectations regarding reliability standards.

2. The information listed above is required in order to ascertain that the presence, timing, design and operation of the project, if it were built, would respect others' right to expect safe and reliable electrical service from the power system in its existing and projected future forms. It should also assist in ascertaining that the project, if it were built, would not compromise or jeopardize the power system's physical security. To this end the application must demonstrate that the project has or will acquire all approvals required for it from provincial governments or other appropriate authorities.
3. Where the project would be considered to form part of the bulk power system, the application for the project should provide the details of the international power line's review, studies and recommendations by the appropriate element(s) of governing electric system reliability organization(s), such as the Regional Reliability Organization(s) of the NERC. This could be provided in the form of copies of appropriate documents, such as study reports, issued by such organizations with respect to the project.
4. It is the expectation of the CER that applicants will comply with the most current version of reliability standards those are developed by a standards development authority, for example NERC, that is recognized in a province during the design, construction, and operation of the proposed facility. Applicants should confirm their commitment to the Commission.

4.4 Other Required Approvals and Project Schedule

Goal

The application includes information on other regulatory approvals and processes and the project schedule.

Filing Requirements

1. Provide:
    - a description of provincial approvals that are required for the power line in Canada including,
        - a description of the review process for each provincial approval including any public engagement component,
        - the status of each review process and the schedule for the completion of any outstanding reviews, and
        - a copy of any provincial approvals already obtained;
    - a description of the approvals that are required to be obtained, from the appropriate authorities for the power line outside Canada;
    - for permit applications, the identity of the designated provincial regulatory agency;
    - a schedule showing the projected dates for the start and completion of construction of the international power line and the power line outside Canada; and
    - the expected in-service date.

Guidance

The CER requires information regarding the status of all approvals or authorizations both inside and outside Canada. This is in order to reasonably assure the Commission that there are no issues before other regulators that would prevent or delay either the construction or use of the applied-for facilities. Updates on status may also be provided after an application has been submitted. The Commission will consider non-CER approvals that are filed with the application to the CER and will minimize, to the extent possible duplications in regulatory burden. It is therefore in the applicant's interest to file non-CER approvals at the outset to improve regulatory efficiency.

While applicants may choose when to apply for their provincial and CER authorizations, applicants should be aware that the CER permit process is best suited for after the corresponding provincial review. Should an applicant choose to apply to the CER before, or at the same time as, applying to the provincial regulator, it will be especially important that project routing is as detailed as much as possible and that public engagement (on that specific route) is as complete as possible. Should an applicant's project planning and engagement not be far enough advanced before applying to the CER this may result in a longer review process.

In the case of permit applications, section 250 of the CER Act requires that the applicant identify what provincial regulatory agency is designated for the oversight of the proposed IPL. This is an important requirement to ensure there is no regulatory gap in the jurisdiction of the IPL ultimately reverting to the province. Applicants may wish to be prudent in ensuring this issue is resolved prior to applying with the CER.

With respect to scheduling information, the project schedule should:

- include a breakdown of all major construction activities by sub-activities;
- identify any timing constraints or windows which the schedule must accommodate; and
- describe how any changes to schedule can affect the rest of the schedule and ultimately the project.

You should include a description of when proposed decommissioning and abandonment of the project might take place.

For elected certificates, you should also provide a schedule for operational activities, such as inspection, repair or maintenance.

FYI – Reminders...

Applicants applying under a Permit process should obtain provincial approvals prior to applying to the NEB for authorization of an IPL and identify the ongoing provincial regulator.

4.5 Alternatives

Goal

The application includes a description of the alternatives considered and the rationale for the options selected.

Filing Requirements

1. Describe other alternatives that were examined and the rationale for selecting the applied-for project over these other possible alternatives.
2. Describe and justify the selection of the proposed route and site, including a comparison of the alternatives using selection criteria.
3. Describe, where appropriate, any alternative designs and construction methods that were considered and the rationale for selecting the preferred design and construction methods.

Guidance

Alternatives Considered

Alternatives are functionally different ways of meeting the need and purpose of the project, or are other technically, economically, socially and environmentally feasible means of fulfilling the project. These could include an alternative:

- interconnection strategy;
- route or site;
- facility design; or
- construction methods, including different means of development, implementation and mitigation.

Selection Criteria for Alternatives

Different project, routing, design and construction alternatives should be summarized and compared using a suite of criteria that justifies and demonstrates how the proposed option was selected and why it is the best option.

When comparing project, routing, design or construction alternatives, you should elaborate on the following criteria, as appropriate:

- engineering design;
- economic feasibility or costs;
- effect on reliability and security of the existing host power system;
- demonstrated public concern;
- environmental and socio-economic constraints, benefits or potential effects; or
- regional concern from a cumulative effects standpoint.

The level of detail provided should be consistent with the scope of the project and any potential impacts on the stability and reliability of the host power system, other parties, and the environment.

Electricity Filing Manual – Chapter 5 – Engagement

The CER expects an applicant to have a company-wide Engagement Program that establishes a systematic, comprehensive and proactive approach for the development and implementation of project-specific engagement activities. The following information is required within the application:

- an overview of the company-wide Engagement Program;
- an overview of the project-specific engagement activities; and
- a description of the outcomes of the project-specific engagement activities; or
- the circumstances and justification for not undertaking project-specific engagement activities.

Each of these information requirements is discussed in further detail in the following sections.

The CER also expects companies to continue effective engagement activities with the public and Indigenous Nations during the construction and operation phases of a project. The CER's requirements for engagement related to operations and maintenance activities on pipelines can be found on the CER's website in the "Operations and Maintenance Activities on Pipelines Regulated Under the *National Energy Board Act*: Requirements and Guidance Notes (January 2013)".

5.1 Company-wide Engagement Program

Goal

The application outlines the corporate policy or vision with respect to engagement and the principles and goals that guide the applicant's Engagement Program.

Filing Requirements

1. Provide an overview of the company's engagement approach, which should include:
    - the corporate policy or vision with respect to engagement.
    - the principles and goals established for the applicant's Engagement Program; and
    - a copy of the Indigenous engagement policy, along with any more specific related documented policies and principles, such as, for collecting traditional knowledge or traditional use information.

Guidance

The CER expects an applicant to have an Engagement Program to anticipate, prevent, mitigate and manage conditions which have the potential to affect persons and communities. An Engagement Program should be appropriately integrated into a company's overall management system to provide protection for the public, employees, property and the environment throughout the lifecycle (design, construction, operation, maintenance, abandonment) of a pipeline system. An Engagement Program should be based on the elements of a standard management system (for example, the management system elements described in the

Canadian Energy Regulator Onshore Pipeline Regulations). Additional guidance is provided in the NEB's Draft Expectations – Public Involvement Program [Filing A22289].

The CER also expects applicants to consider the distinct language needs of the potentially affected persons and/or communities and include a description of this consideration in their application. Further to section 41 of the *Official Languages Act*, the CER is also committed to fostering the full recognition and use of both English and French in Canadian society. The CER recognizes the importance of considering official languages when developing and implementing an engagement program, to result in effective communication with potentially affected persons in the official language of their choice.

5.2 Design of Project-specific Engagement Activities

Goal

The application indicates why the design of project-specific engagement activities is appropriate for the nature of the project in alignment with the company's Engagement Program.

Filing Requirements

1. Provide an overview of the project-specific engagement activities and the factors that influenced the design, which should include:
    - a list of potentially affected persons or communities that were engaged for the project, including:
        - landowners, local residents, and land or waterway users;
        - government authorities; and
        - Indigenous Nations;
    - a sample of the information package that the applicant has provided to all potentially affected persons and communities as outlined in the CER Early Engagement Guide;
    - methods, locations, and timing of engagement activities, including where community cultural protocols were identified and followed;
    - manner in which relevant languages were considered, including in particular how project information will be provided and communicated to potentially affected persons or communities in the official language of their choice to ensure effective and meaningful participation in the CER process;
    - procedure for responding to issues and concerns; and
    - plans for future engagement and follow-up throughout the operations phase of a project, which may include activities such as public awareness programs, continuing education and engagement with persons regarding proposed operations that may potentially affect them.

Guidance

The CER expects that applicants will consider engagement for all projects. Depending on the project scope, that could mean carrying out extensive engagement activities or a simple engagement activity such as notifying a single landowner. Applicants must justify the extent of

engagement carried out for each application. For additional details, applicants should refer to "CER Expectations for Companies during the Early Engagement Phase".

Local and Indigenous Knowledge

The application should, where relevant, available and applicable to the effects of the Project, include local and Indigenous knowledge. This information and knowledge should be integrated, where appropriate, into the design of the project. Where local and Indigenous knowledge is obtained, provide an opportunity for the individual who provided the information to confirm the interpretation of the information and how it was used in the project design.

Applicants should identify and incorporate within their effects assessment, preferably beginning at the assessment design phase, those valued components that are most relevant for an assessment of the project's potential effects on the exercise of Indigenous rights (refer to Chapter 6 for additional details). Applicants should also engage with Indigenous Nations to ascertain whether any Indigenous knowledge is being provided in confidence, and if so, ensure that confidential Indigenous knowledge can be appropriately protected from unauthorized disclosure. Applicants should strive to reach agreements or utilize existing community protocols with respect to Indigenous knowledge.

5.3 Outcomes of Project-specific Engagement Activities

Goal

The application describes the results of the engagement activities conducted to-date for the project, in sufficient detail to demonstrate:

- that all persons and communities potentially affected by the project are aware of: the project, the project application to the CER, and how they can contact the CER with outstanding application-related concerns;
- that those potentially affected by the project have been adequately engaged, and
- that any concerns raised have been considered, and addressed as appropriate.

Filing Requirements

1. Describe the outcomes of the engagement activities conducted for the project, including:
    - a summary of the comments and concerns expressed by potentially affected persons or communities;
    - a summary of the response made regarding each of the concerns or comments, including:
        - the measures taken, or that will be taken to address those concerns or an explanation of why no further action is required to address the concerns or comments; and
        - the methods and dates that the response was made to the person(s) who raised the concern(s);
    - how outstanding concerns will be addressed;

- how input from persons or communities has influenced the design, construction or operation of the project;
- details regarding discussions with Indigenous Nations, which includes each of the items listed above and:
    - the identity of all Indigenous Nations contacted, how they were identified, when and how they were contacted and who was contacted;
    - any relevant, non-confidential written documentation received regarding engagement;
    - any concerns about the project raised by Indigenous Nations that have been discussed with any government department or agency, including when contact was made and with whom; and
    - where there is any known involvement of the Crown in consultations with the Indigenous Nations with respect to the project, describe the Crown involvement; and
- the details and results of the engagement activities undertaken with all persons who may be affected by any changes to the project (e.g., persons that would be uniquely impacted following changes to the project as a result of engagement activities).

2. Confirm that potentially affected persons or communities will receive adequate notice that:
    - the application has been filed with the CER;
    - the process by which potentially affected persons and communities can contact the CER at any point before the CER makes its decision; and
    - the methods and timing of notification.

Guidance

The Applicant should maintain records and be prepared to further demonstrate the adequacy of engagement activities that have been conducted with all potentially affected persons and communities.

For engagement activities that could involve a large number of people, it might not be practical to list all individuals that were engaged. It may be more practical to describe the main groups and why they are identified. For example, where a group has a common concern or association, describe:

- the group;
- their location;
- their common concern; and
- the authority of any representatives of the group.

5.4 Justification for Not Undertaking Engagement Activities

Goal

The application provides justification as to why it was not necessary to carry out engagement activities with respect to the proposed project.

Filing Requirements

1. Explain why engagement activities were considered unnecessary, including:
    - the scenario or scenarios that are applicable to the application (i.e., equivalent engagement activities, no or negligible environmental or socio-economic effects, facilities within company owned or leased lands); and
    - evidence that these scenarios meet the requirements of this section of the manual.

Guidance

Engagement activities might not be necessary if the applicant can demonstrate that one or more of the following scenarios applies.

Equivalent Engagement Activities

Engagement has already been undertaken as required by another agency and the applicant can demonstrate it is relevant to the current project and is equivalent to the CER's guidance and requirements.

For example, where a road widening requires that an existing CER-regulated pipeline be relocated, the responsible transportation authorities might conduct engagement activities for the road widening that includes engagement regarding the relocation of the pipeline. The pipeline application would then include a description of these engagement activities and how it meets the requirements of this manual.

No or Negligible Environmental or Socio-economic Effects

Applicants will be conducting environmental and socio-economic assessments of the project in accordance with the requirements of the CER Act and this manual (see Guide A within Chapter 4).

Through this assessment process, applicants will determine the potential adverse effects of the project. If the project's potential environmental and socio-economic effects are negligible, engagement activities might be unnecessary. A project with negligible effects might exist where many or all of the following conditions are met:

- the proposed project is of a small scale and is localized;
- all construction is to occur on previously disturbed land;
- there is no potential for an impact on navigation;
- the land acquisition process is complete and landowner concerns have been addressed, or the project work is confined to company owned or leased land;
- there are no residents near the proposed project;
- no other land uses or waterway uses or interests would be affected;
- there is no potential for traditional use activities to be affected by the project;
- there is no potential for the rights of Indigenous Peoples to be affected by the project;
- there is no potential for cumulative environmental effects;

- there would be negligible environmental effects associated with construction and operation of the project;
- there is no increase in the storage or disposal of toxic substances;
- there is no increase in noise emissions;
- there is no increased emissions in air contaminants; and
- there is no potential for local nuisance, including potential for increased dust or traffic.

Because the identification of potential impacts may depend on engagement with those people potentially affected and because an impact assessment may not yet be completed, applicants should generally be conservative when contemplating the possibility that engagement may not be necessary. When and where recent previous project assessments or engagements are relied on, relevant details of these should be cited in the submission to the CER.

Facilities within Company Owned or Leased Lands

If the application is for a facility within company owned or leased land, engagement activities might be unnecessary. This may be the case where the application is a facilities application that relates to work contained within the confines of land the applicant owns or leases (as distinct from land upon which the applicant holds an easement only), except where those facilities or activities:

- relate to an increase in the storage or disposal of toxic substances;
- could result in impacts to traditional land and resource use;
- could result in increased noise emissions;
- could result in increased emissions of air contaminants; or
- could result in local nuisance, including the potential for increased dust or traffic.

5.5 Notification of Physically Affected Third Parties

Notification of physically affected third parties is normally required when the outcome of the application might produce physical impacts to their systems or facilities, including:

- reliability or safety of other provinces' power systems or the regional bulk power system;
- reliability or safety of electrical service to other local Canadian system users;
- interference with the operation of others' systems or facilities;
- unintended/unwanted voltages or currents; and
- audible noise or TV/Radio/Wireless communications interference.

The Commission should be assured that all such third parties who could be affected by the decision are aware of the application and have had the opportunity to comment should they wish to do so.

Goal

The application provides sufficient information to demonstrate that all third parties whose systems or facilities could potentially be physically affected by the outcome of the application,

have been provided with an opportunity to comment on the project and that any such comments have been considered.

Filing Requirements

1. The application should confirm that all third parties whose systems or facilities could potentially be physically affected by the outcome of the application have been notified and should include:
    - the method used to notify those parties; and
    - when the parties were notified.
2. The application should provide details regarding the concerns of third parties. This might include:
    - confirmation that no concerns were raised;
    - confirmation that concerns raised have been resolved; or
    - a list of the third parties who have outstanding concerns and a discussion of their unresolved concerns.
3. The application should list the self-identified interested third parties and confirm they have been notified.
4. The application should provide an explanation in the event that notification of such third parties was considered unnecessary.

Guidance

Identifying Appropriate Physically Affected Third Parties

Third parties who should be included are those whose systems or facilities could potentially be physically affected by the outcome of an application. The following are examples of when you should consider certain third parties to be affected by an application:

- Consider the appropriate NERC Regional Reliability Corporation as affected when the IPL will interconnect networked transmission-level system elements and i) be energized at 100 kV or greater or ii) would be considered a “critical facility” pursuant to NERC’s policies and guidelines;
- Consider any pipelines, other power lines, railway or other utility facilities as potentially affected if they cross over or under the IPL, or parallel it in any appreciable manner for any appreciable distance;
- Consider any TV/radio/wireless communications facilities, including individuals’ antennae, as potentially affected when they are within reasonable proximity – for conditions as well as IPL design voltage and current – of the proposed line; and
- Consider any fencing, buildings or other facilities in close enough proximity to the IPL that may experience stray voltage or current induced from the IPL.

Third parties involved in physical construction activities (e.g., contractors, material vendors, consultants) or that supply food and accommodation would not normally be considered to be affected third parties.

Notification

You should inform the physically affected third parties that an application has been, or will be, submitted to the CER and provide a brief description. Notification should normally be done no later than the filing date of the application with the CER. A copy of the application may be provided with the notification upon request or may constitute notification.

When determining the level of detail in the notification, you should consider the:

- scope of the project;
- potential impact on the third parties;
- nature of any concerns raised by the third parties; and
- resolution of concerns raised.

In general, the greater the scope of the project and the potential impact on these third parties the more information should be required. Further, more detailed information should normally be required when concerns have been raised by these third parties and remain unresolved at the time of filing.

Concerns

Where concerns have been raised and resolved, the application should include a discussion of the resolution when it would assist the Commission in making a decision. When providing a list of unresolved concerns, the application should provide any other information that would assist the Commission to understand the issues, including a discussion of any attempts to reach agreement, such as a summary of the engagement process that was used prior to filing the application.

Self-identified, Interested Third Parties

Self-identified, interested third parties refers to third parties who have indicated to the applicant that they have an interest in the application or one or more types of applications filed with the CER.

Whether any third parties could be affected by the application or not, the CER expects that the applicant will notify all self-identified interested third parties.

When Notification is Not Required

Notification might not be required if the outcome of the application is not expected to result in any significant physical impacts on third parties' systems or facilities. For example:

- The proposed IPL will be energized at a voltage insufficient to produce TV/radio/wireless communications interference;
- The proposed IPL will be operated at a voltage and at power levels insufficient to produce stray voltages or currents on existing surrounding facilities or produce interference with systems associated with these facilities;
- The proposed IPL will be exempt from reliability standards set by NERC for bulk power system elements.

The requirements for engagement described in Chapter 5 continue to apply even if it is decided there are no additional third parties to notify of an application.

Electricity Filing Manual – Chapter 6 – Environmental and Socio-economic Assessment

6.1 Introduction

This chapter describes the CER's environmental and socio-economic assessment responsibilities and process and outlines the information required in a complete application. Chapter 6 consists of two broad parts.

Sections 6.2 to 6.4 will assist an applicant in understanding how a project is evaluated and how an applicant should provide information:

6.2 – The CER's Approach to Environmental and Socio-economic Assessment;

6.3 – Scope of Environmental and Socio-economic Assessment; and

6.4 – Level of Detail.

The applicant should carefully review the information in sections 6.2 through 6.4 to properly understand the requirements outlined in the sections that follow.

The second part of the chapter, sections 6.5 to 6.8, describes the information applicants should include in a project-specific Environmental and Socio-economic Assessment (ESA):

6.5 – Description of the Environmental and Socio-economic Setting;

6.6 – Effects Assessment;

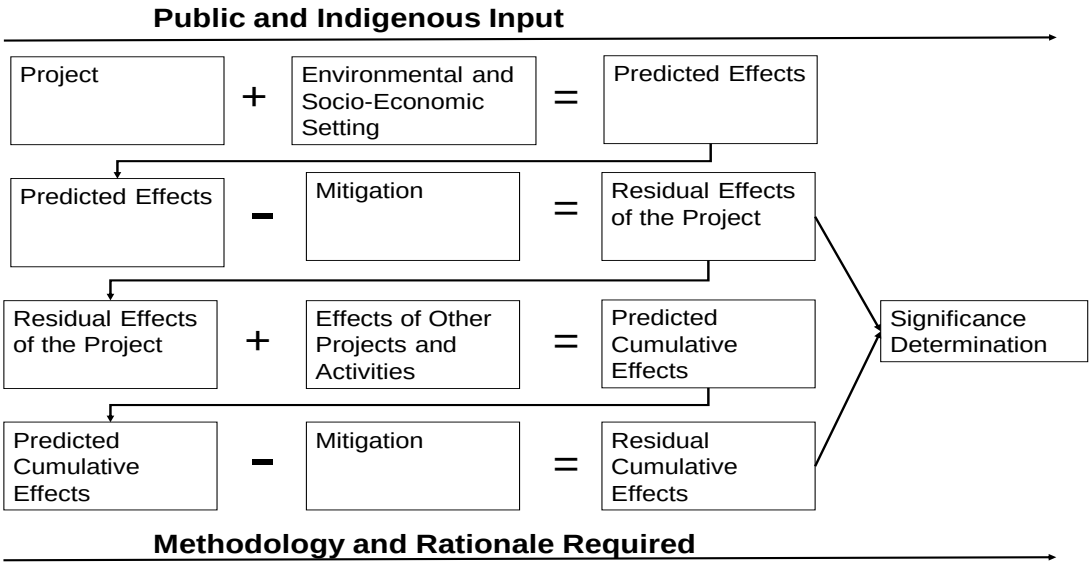
6.7 – Cumulative Effects Assessment; and

6.8 – Inspection, Monitoring and Follow-up.

In addition to the description of the project (discussed in Chapter 3 and Chapter 4 of this Manual), the applicant should describe:

- the environmental and socio-economic baseline setting;
- the predicted beneficial and adverse effects of the proposed project on the socio-economic and biophysical environment over the life of the project;
- the methods used for effects analysis, and the rationale for selecting the methods chosen;
- the proposed mitigation measures; and
- the predicted significance of residual project effects and residual cumulative effects.

Figure 6-1: The Applicant's ESA process



Graphic Description

Figure 6-1 above provides an illustrative summary of the ESA process described in this chapter as a whole.

The level of detail the CER requires in an application will vary with:

- the nature and scale of the project;
- the predicted effects of the project; and
- the level of public interest in the project.

The applicant must provide a defensible line of reasoning, supported by facts, to support the analysis and conclusions on identified issues and the environmental and socio-economic effects of the project.

Table 6-1 in section 6.4 identifies circumstances that trigger the need for detailed information on specific biophysical or socio-economic components and considers all phases of an applied for project (construction, operation, maintenance and abandonment), including the potential for accidents and malfunctions during each phase. Table 6-2 and Table 6-3 identify those specific information requirements.

6.2 The CER's Approach to Environmental and Socio-economic Assessment

The Commission has a broad mandate under the CER Act and it may consider matters that appear to the Commission to be directly related to the international powerlines (IPL) and relevant to its decisions or recommendations. The Commission's environmental and socio-economic assessment responsibilities cover four distinct phases:

- evaluating potential effects of constructing and operating proposed projects;
- monitoring and enforcing terms and conditions before, during and after construction;

- monitoring and regulating ongoing operations, including decommissioning; and
- evaluating potential effects of abandonment.

The Commission's objective for environmental and socio-economic assessment are that:

- the potential effects of projects receive thorough consideration before any decisions on the project are made allowing a project to proceed;
- projects are not likely to cause significant adverse effects or contribute to significant adverse cumulative effects;
- there is an opportunity for meaningful participation with the public and Indigenous Peoples; and
- the Commission's process and its decisions or recommendations are transparent and reflect the input received from those participating in the impact assessment and regulatory review process.

6.3 Scope of the Environmental and Socio-economic Assessment

6.3.1 What is Scoping?

Appropriate scoping is the foundation upon which an efficient and effective environmental and socio-economic assessment is built.

The scope ensures that the assessment focuses on relevant issues and concerns, and assists in determining the appropriate level of detail to include in the assessment. Proper scoping reduces the risk of including unimportant or irrelevant information in the assessment or excluding factors that should be assessed. Scoping is the process of identifying:

- the physical facilities and activities to include within the ESA; and
- what biophysical and socio-economic elements are likely to be affected.

FYI – See also...

Scoping information for cumulative effects assessment is provided in section 6.7.1.

6.3.2 The Applicant's Role in Scoping

The applicant's role in scoping includes:

- providing sufficient information for the Commission to fully understand the nature of the project it is to assess;
- ensuring the applicant's ESA focuses on relevant issues and concerns, including those identified by affected parties, and that an appropriate level of detail is included in the ESA; and
- considering the factors set out in subsection 183 (2) of the CER Act. The CER expects a complete ESA from an applicant.

To assist an applicant in scoping before filing an application, the CER encourages the applicant to:

- request a meeting with CER staff to discuss process-related matters and be guided to examples of complete ESAs filed previously with the CER (see section 1.6 Pre-application Meetings – Guidance Notes);
- consult any relevant IAAC guidance documents and if appropriate, discuss scoping with any other relevant federal authorities; and
- where appropriate, consult with other regulatory bodies at the provincial, territorial, regional, municipal or Indigenous levels of government.

An application must clearly identify, describe and substantiate:

- the scope of the applied for project;
- other physical facilities and activities necessary to enable the project to proceed, including directly-related ancillary facilities, such as access roads including temporary and permanent bridge crossings, or construction camps; and
- other physical facilities and activities likely to occur if the applied for project is approved and proceeds, which may include other power lines and works directly related to the proposed project.

6.3.3 Scope of the assessment and the CER

The scope of the project includes the physical facilities and activities making up the project and enabling it to proceed as applied for by the applicant. It may also include other physical facilities and activities that would be undertaken if the applied for project is approved and proceeds.

The Commission determines the scope of the project by considering relevant case law, IAAC guidance and any other relevant commentary.

The Commission will review and assess the scope of the ESA based on the evidence before it. Although elements of the project or the scope of factors to be considered may change over the course of a proceeding (e.g., as a result of public or Indigenous input, or changes to the project), the application is usually the prime source of information and starting point for establishing what the Commission will consider in the impact assessment of a project.

For projects subject to a public hearing, the Commission will release a List of Issues that sets out the issues it will consider in the hearing. Within the List of Issues, environmental matters are usually identified at a sufficiently broad level that all relevant environmental effects may be considered. It is important to note the requirements within this Filing Manual amount to a standing scoping document in lieu of the CER preparing a project-specific scoping document for every project.

FYI – Reminder...

The requirements contained within this Filing Manual are essentially a generic scope of the assessment document applicable to any facility project. The description of the project within the applicant's application sets out the scope of the project. If the information submitted is not sufficient for the Commission to be clear on scope, the Commission will request more information, which could lengthen the assessment process.

Guidance

Scope of the Project
In evaluating whether to include other physical facilities and activities directly related to the proposed project, but which may be outside of the CER's regulatory jurisdiction, the Commission may consider factors such as:

- Is the physical facility or activity within the control of the applicant for the primary project being applied for under the CER Act?
- Are mitigation measures and follow-up activities enforceable by the CER, another federal or provincial department or agency, or person or body that will ensure implementation?
- Are effects from the other physical facilities and activities relevant to the Commission's decision or recommendation under the CER Act?

Impact Assessment Act Designated Physical Activities

Physical activities regulated by the CER and designated by the *Physical Activities Regulations*, are subject to the IA Act, and the IAAC will conduct an integrated impact assessment with support from the CER. Subsection 22(1) of the IA Act sets out the factors to be considered by a review panel in an impact assessment of a designated project.

6.4 Level of Detail

The nature of the project, together with the environmental and socio-economic setting, establish the extent of interactions between the project and the environment. Those interactions form the basis on which effects are predicted, and for understanding the appropriate level of detail needed about the setting, interactions, and predicted effects. The extent of public interest may also guide the applicant in determining the level of detail necessary.

Where the project may impact Indigenous Nations and affect the use of traditional territory or potential or established treaty or Indigenous rights, applicants must identify the potentially-affected Indigenous Peoples and carry out effective engagement with them to determine their views and concerns. If there are potential impacts, applicants must file information about the Indigenous Nations affected, the concerns they have raised, how the applicant will address the concerns and identify any outstanding concerns. The level of detail provided should reflect the nature and extent of the impacts, the nature of the rights or interests affected and the degree of concern expressed by Indigenous Peoples.

Applicants must apply gender-based analysis plus (GBA+) to identify the potential for the project to impact diverse groups of people, including groups identified by gender, in different ways, and to design engagement processes to facilitate the effective involvement of such groups. If there are potential impacts, applicants must file information about how such groups were identified, the engagement methods employed to facilitate their involvement, as well as the concerns raised and how they will be addressed. The amount of detail and depth of all information should be commensurate with the scale and scope of the project, including its potential effects, and the degree of concern expressed. Projects that are smaller in scale, or have the potential for limited, low magnitude effects may not require highly detailed information.

The information provided by an applicant in its ESA must be of sufficient detail to allow the Commission to:

- identify the spatial and temporal extent of interactions between the project and the biophysical and human environments;
- identify the potential effects of the project;
- identify the potential for the environment to affect the project; and
- determine the significance of those effects.

FYI – Example...

As an example, a project crossing a small and ephemeral watercourse during the dry period, with no activities or physical works within the fisheries sensitive zone, would likely require less detail of effects on fish and fish habitat than a project requiring in-stream construction work in a fish-bearing watercourse during spawning periods.

The applicant must clearly rationalize the level of detail provided. This is typically reflected through the following:

- Description of the project: information describing how the project would cross the watercourse, (primary and alternative methods) and whether any physical works or construction would be required in or immediately adjacent to the watercourse, and if so, what these could be and how they might take place;
- Environmental setting: information on the nature of the watercourse, shores, riparian zones, erosive features, its fisheries and fish habitat potential;
- Interactions: information detailing the proposed timing of construction, the spatial extent of interactions, any loss of riparian or fish habitat, and extent of any potential release of a deleterious substance into the watercourse;
- Predicted effects: information on any direct and indirect effects on water quality, habitat, fish and on which life stage, or any effects on other wildlife; and
- Results of consultation with other regulators: information detailing the results of any consultation with Fisheries and Oceans Canada, or the measures that will be taken to ensure compliance with the *Fisheries Act* with respect to fisheries protection.

The ESA must include both quantitative and qualitative information. Applicants must consider the extent to which detailed maps, survey and trend data, or diagrams or figures relating to specific areas of biophysical or socio-economic elements of interest or concern may enhance the assessment. The number and nature of biophysical and socio-economic elements considered within an ESA, and the supporting level of detail necessary, will vary depending on the setting and issues raised about the project.

Table 6-1 below provides examples of the range of circumstances that may lead to the need for detailed information and considers all phases of an applied for project (construction, operation, maintenance and abandonment), including the potential for accidents and malfunctions during each phase. Where circumstances described in Table 6-1 exist, Table 6-2 and Table 6-3 describe the specific details to include in the assessment.

Table 6-1: Circumstances and Interactions Requiring Detailed Biophysical and Socio-economic Information

Biophysical and Socio-economic Elements	Circumstances and Interactions Requiring Detailed Information (considering all phases of the project including potential accidents and malfunctions during each phase)
Physical and meteorological environment	• The project may affect the morphology of unique physical features (such as physiography, bedrock, permafrost, topography, geology or other local conditions). • The project may be affected by local or regional physical features, meteorological conditions or extremes, or other natural hazards. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Soil and soil productivity	• Any portion of the project would be located outside a previously developed fenced or gravelled facility site. • Any portion of the project is to be buried underground. • The project may result in a reduction in soil productivity or integrity. • Historical land use suggests soils or sediments may contain contaminants or the project may result in the contamination of soils. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Vegetation	• Any portion of the project would be located outside a previously developed fenced or gravelled facility site. • Any portion of the project would cross through an area that may require ongoing vegetation control to protect conductors or towers. • The project may result in the proliferation of invasive species. • The project may result in the damage or destruction of vegetative communities. • The project may affect vegetation of specific concern to an Indigenous Nation. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Water quality and quantity	• The project would be within 30 m of a water body. • The project may reduce the quality or quantity of water.

	• The project would involve the likely release or leaching of a polluting substance into a water body or groundwater. • The project may result in a change in groundwater flows. • The project may result in the inter-basin transfer of water. • The project may affect a water body of specific concern to an Indigenous Nation. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Fish and fish habitat	• The project is within 30 m of a fish-bearing water body or its tributaries. • The project may result in the deposit of a polluting or harmful substance into a fish-bearing water body. • Local fisheries exist that may be affected by the project. • The project may affect fish or fish habitat of specific concern to an Indigenous Nation. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Wetlands	• The project would include physical facilities or activities within 30 m of a wetland. • The project would include activities or physical facilities within regionally, provincially, territorially or federally-established limits of a wetland with provincial, territorial, regional or federal status. • The project may result in loss of wetland functions. • The project may affect wetlands of specific concern to an Indigenous Nation. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Wildlife and wildlife habitat	• The project would be located on or near lands that might constitute sensitive habitat for wildlife (e.g., nesting, denning, overwintering, migratory/staging, movement corridors, forest interior habitat, mineral licks). • The project would be located on or near an area of environmental significance or of natural or scientific interest such as a National Park, a Migratory Bird Sanctuary, a National Wildlife Area, an Important Bird Area, World Biosphere Reserve, or a designated Environmental Sensitive Area. • The project may create new human access opportunities to important wildlife habitat.

	• The project may result in a loss or change to wildlife habitat function (e.g., nesting, foraging, migration). • The project may result in increased mortality or disturbance of wildlife. • The project may affect wildlife of specific concern to an Indigenous Nation. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Species at Risk or Species of Special Status and related habitat	• The study area includes lands within the identified range of a species at risk or species of special status, and includes habitat that could support these species. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Greenhouse gas (GHG) emissions and climate change	The CER Act requires, for applications for certain projects, that the Commission take into account a number of specified factors to consider including: "The extent to which the effects of the project/pipeline hinder or contribute to the Government of Canada's ability to meet its environmental obligations and its commitments in respect of climate change." This requirement expressly applies to pipelines [paragraph 183(2)(j)], certificates for power lines [paragraph 262(2)(f)], and authorizations for offshore renewable energy projects or offshore power lines [paragraph 298(3)(f)]. This factor consists of two separate considerations: climate change commitments and environmental obligations. This section addresses the climate change commitments, while environmental obligations are addressed below.
Air emissions	• There may be increased air emissions from operating or maintaining the project. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Acoustic environment	• The project may result in increased noise levels during construction, operation and maintenance (e.g., blasting, or noise from construction traffic). • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Electromagnetism and Corona Discharge	• The project may change the existing environmental setting related to electromagnetic fields.

	• The project will have the potential to result in radio and television interference.
Human occupancy and resource use	• The project will not be located entirely within a previously developed facility site, on company owned land, zoned for industrial purposes. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Heritage resources	• The project would include clearing of vegetation, grading, trenching, excavating or drilling. • The project would create new human access opportunities to areas with heritage resources or resource potential. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Navigation and navigation safety	• The project includes activities to be conducted or components to be located in, on, over, under, through or across a navigable waterway when the water is flowing (i.e., **not** seasonally dry or frozen). • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Traditional land and resource use	• The project would be located on, or traverse, Crown land or the traditional territory, reserve land or settlement area of an Indigenous Nation. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Social and cultural well-being	• The project may affect the social and cultural well-being of Indigenous Nations, local residents or communities. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Human health and aesthetics	• The project may affect local or regional water quality and quantity or air quality. • The project may change the existing environmental setting related to odours, visual aesthetics (beauty) or other sensory conditions. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Infrastructure and services	• The project may cause temporary or permanent damage, or require additions, modifications or repairs to local or regional infrastructure.

	• The project may result in increased demands on local and regional services. • The project may affect the usage of roadways during construction and operation. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Employment and economy	• The project may affect local and regional employment, procurement (ordering) and contracting conditions or government revenues. • There is outstanding concern about this element of the project, which has not been resolved through engagement.
Environmental Obligations	The CER Act requires, for applications for certain projects, that the Commission take into account a number of specified factors to consider. Among the factors to consider are: "The extent to which the effects of the project/pipeline hinder or contribute to the Government of Canada's ability to meet its environmental obligations and its commitments in respect of climate change." This requirement applies to, pipelines [paragraph 183(2)(j)], certificates for power lines [paragraph 262(2)(f)], and authorizations for offshore renewable energy projects or offshore power lines [paragraph 298(3)(f)]. This factor consists of two separate considerations: climate change commitments and environmental obligations. This section addresses environmental obligations, while climate change commitments are addressed above. **NOTE:** This section of the CER Act is consistent with paragraph 22(1)(i) of the IA Act. The IAAC has developed guidance related to the assessment of Canada's environmental obligations. Any future iterations of that guidance may influence future filing requirements for CER Act project applications.
Rights of Indigenous Peoples	The CER Act requires, for applications for certain projects, that the Commission take into account all considerations that appear to it to be relevant and directly related to the project, including a number of specified factors to consider. Among the factors to consider are: "The effects on the rights of the Indigenous Peoples of Canada recognized and affirmed by section 35 of the *Constitution Act*, 1982." This requirement applies to pipelines [paragraph 183(2)(e)], certificates for power lines [paragraph 262(2)(e)], and authorizations for offshore renewable energy projects or offshore power lines [paragraph 298(3)(e)].

	NOTE: The CER is aware that the IAAC is developing guidance documents that will include guidance related to the assessment of effects on the rights of Indigenous Peoples. That guidance may influence future filing requirements for CER Act project applications and assessment by the Commission.

6.5 Description of the Environmental and Socio-economic Setting

A description of the environmental and socio-economic setting within the study area (also known as “baseline information”) is necessary to predict the effects of a proposed project. This baseline information provides a backdrop against which a project’s effects are assessed, including cumulative effects of a project. The applicant is not expected to provide extensive descriptions of features of the environment or socio-economic components that would clearly not be impacted by a proposed project.

Goal

The application describes the biophysical and socio-economic setting with sufficient detail to:

- identify the elements of importance in the area;
- identify project-environment interactions;
- identify, predict and determine the significance of effects of the project;
- identify and predict the effects of the environment on the project; and
- formulate appropriate mitigation measures and monitoring programs.

Filing Requirements

1. Identify and describe the current biophysical and socio-economic setting of each element (i.e., baseline information) in the area where the project is to be carried out. Include both a map at an appropriate scale and describe:
    - the study area(s), and how the study area(s) were established;
    - the ecological land classification and key terrain features, such as mountains, rivers, lakes and other important features;
    - the locations of any nearby communities and residences (permanent and temporary) and significant landmarks;
    - current local economy and trends;
    - current land and resource uses, including traditional land and resource uses;
    - the potential to encounter heritage resources;
    - the areas of physical and environmental constraints (e.g., biophysical, land use or natural resource use);
    - navigable waterways that may be affected by project components (e.g., temporary and permanent bridges, marine terminals and loading facilities);
    - consistency between the project and any regional land use plans;

- any environmentally sensitive areas, sensitive habitats, or areas of special concern (e.g., existing and candidate protected areas), including those identified through engagement with the public or Indigenous Peoples, which influence facility routing or site locations;
- the locations of all proposed facilities; and
- a list of projects and/or activities in the project area.

FYI – Additional information...

Where the current state of the environment has been significantly altered from the past, the applicant must describe:

i. how far back in time past activities are relevant and

ii. the past activities or past state of the environment.

This may be particularly relevant for assessing cumulative effects or identifying a baseline for reclamation goals (e.g., for restoring native vegetation).

2. Describe which biophysical and socio-economic elements in the study area are of ecological, economic or human importance and require more detailed analysis taking into account the results of engagement (see Table 6-1 for examples). Where circumstances require more detailed information in an ESA, see:
    - Table 6-2, Information Requirements for Biophysical Elements; or
    - Table 6-3, Information Requirements for Socio-economic Elements.
3. Provide supporting evidence (e.g., references to scientific literature, field studies, local and traditional knowledge, previous impact assessment and monitoring reports) for:
    - information and data collected;
    - analysis completed;
    - conclusions reached; and
    - the extent of professional judgment or experience relied upon in meeting these information requirements, and the rationale for that extent of reliance.
4. Describe and substantiate the methods used for any surveys such as those pertaining to wildlife, fisheries, plants, species at risk or species of special status, soils, heritage resources or traditional land use and for establishing the baseline setting for the atmospheric and acoustic environment. If the season for a particular survey was not optimal, discuss the limitations of survey results or indicate when and how additional surveys will be conducted.
5. Applicants must consult with other expert federal, provincial or territorial departments and other relevant authorities on requirements for baseline information and methods.

Guidance

Study Area

The study area(s) must be of sufficient size to encompass the spatial boundaries of the project related facilities or activities (e.g., access roads, temporary and permanent bridges).

The study area must cover at least one kilometre on each side of the power line. It must also to be of sufficient size and orientation to encompass all areas where valued components may be affected by the project, for example:

- areas downstream and immediately upstream;
- areas in which the project may be within the range of vision;
- species' home ranges and migratory patterns;
- affected communities and known or asserted areas of Indigenous traditional land and resource use; and
- areas in which infrastructure is affected or new or enhanced infrastructure would be needed.

Typically, the study area encompassing the above-noted areas extends beyond a narrow corridor or project site. Section 6.7 provides additional guidance on the study area for a cumulative effects assessment.

Source of Baseline Information

Baseline information must include both scientific information and local and traditional knowledge.

Information sources and data collection methods used for describing the baseline environmental and socio-economic setting may consist of:

- field studies, including site-specific survey methods;
- database searches, including of federal, provincial, territorial and local data banks;
- sailing directions, recreational waterway guides, etc.
- field measurements to gather data on ambient or background levels for air quality or acoustic environment;
- remote sensing information;
- literature reviews;
- literature produced by government agencies and academic institutions;
- renewable resource harvest data;
- expert, community and traditional knowledge interviews (e.g., with regulatory agencies, Indigenous Peoples, community and nature conservation groups, local outfitters and recreational organizations including navigation user groups, as well as with local residents, landowners and land users); and
- statistical surveys, as applicable;

The validity and accuracy of the baseline information used in the ESA must be supported by:

- describing and substantiating the sampling, survey and research protocols or techniques followed for each information source or data collection method used;
- indicating that proper record-keeping practices have been implemented to maintain survey results for future reference, including measures to respect confidentiality of sensitive information contained in Indigenous traditional land and resource use studies; and

- wherever appropriate, quantifying and analyzing any statistical survey data obtained.

FYI – See also...

Additional guidance on baseline information for a cumulative effects assessment is provided in section 6.7.1.

6.5.1 Identifying the Need for Detailed Biophysical and Socio-economic Information

Additional biophysical and socio-economic information must be included with the application if there is evidence of public concern, or if any of the circumstances identified in Table 6-1 exist. Table 6-2 and Table 6-3 describe the specific details that should be included.

Applicants are reminded that detailed information is only required for the elements that are identified as having potential environmental or socio-economic effects. Further, a clear and defensible explanation should be provided as to why any element in Table 6-1 is not addressed.

Gender-based analysis plus (GBA+)

The CER Act requires, for applications for certain projects, the Commission take into account a number of specified factors to consider. Among the factors to consider are:

- "The health, social and economic effects, including with respect to the intersection of sex and gender with other identity factors."

This requirement applies to, pipelines [subsection 183(2)(c)], certificates for power lines [paragraph 262(2)(c)], and authorizations for offshore renewable energy projects or offshore power lines [paragraph 298(3)(c)].

NOTE: These sections of the CER Act are consistent with paragraph 22(1)(s) of the IA Act. The CER is aware that the IAAC has developed guidance documents related to the intersection of sex and gender[2]. That guidance may influence future filing requirements for CER Act project applications and assessments by the Commission.

Gender-based analysis plus (GBA+) is a means of identifying and analyzing how sex, gender and other identity factors might result in different groups of people being affected by a pipeline or power line project in different ways. Individual and social identity factors can include sex, gender, religion, race, social position, income, age, ability, and education. By working through a GBA+ analysis, the Commission can better understand the possible disproportionate effects of a project on distinct groups of people, including on vulnerable populations and populations identified by gender.

Gender-based analysis is not new to impact assessment at the CER; however, the CER is making the following changes to guide companies in identifying and predicting a project's socio-cultural effects on communities. This includes guidance on how to address GBA+ in the CER Early Engagement Guide.

[2] See Practitioner's Guide to Federal Impact Assessments

6.6 Effects Assessment

Goal

The application includes information on the potential biophysical and socio-economic effects of the project, with sufficient detail to:

- predict and analyze the nature and extent those effects;
- identify mitigation options to protect the biophysical and socio-economic environment and analyze their effectiveness; and
- determine the significance of any effects remaining following mitigation, including the significance of cumulative effects.

6.6.1 Identification and Analysis of Effects

Filing Requirements

1. Describe the methods used to predict the potential effects of the project on the biophysical and socio-economic elements, and the effects of the environment on the project.

   This Manual assumes a valued component based approach to effects assessment where the application focuses on those biophysical or socio-economic elements, or a subset of those elements (see guidance below), that may be affected by a project and are of concern or value to the public and Indigenous Peoples. Applicants must identify valued components for which effects are predicted and explain why and how the valued components were identified.

   If another method is used to assess potential effects on, the biophysical and socio-economic elements described in Table 6-1, Table 6-2, and Table 6-3, then provide the details and rationale on the that method.

   Provide the details of any important aspects of uncertainty associated with the analysis.

   Where professional knowledge or experience is cited, describe the extent of professional judgment or experience relied upon, the rationale for that extent of reliance and how the resulting conclusions or decisions were reached.

2. Predict the effects associated with the proposed project, including those that could be caused by construction, operations, decommissioning or abandonment, as well as accidents and malfunctions. Also include effects the environment could have on the project.

FYI – Reminder...

If there are no predicted interactions between project activities and a biophysical or socio-economic element, then no further analysis is necessary for the element. Instead, provide sufficient description of the project or setting to demonstrate why no interactions are predicted.

For those biophysical and socio-economic elements, or their valued component that require further analysis (see Table 6-1), provide the detailed information outlined in Table 6-2 and Table 6-3. This must include, but is not limited to, a description and quantification of:

- spatial and temporal boundaries for the effects analysis of each biophysical or socio-economic element or valued component associated with the project;
- local and regional conditions of each biophysical or socio-economic element or valued component (i.e., location, distribution, abundance, status, sensitivity to the project, ability to recover, and natural variation of valued components, as appropriate), including how this is expected to change from baseline if the project were to proceed;
- factors influencing change, the limiting factors, and the natural variation for each valued component, if known;
- magnitude and reversibility of any predicted change from baseline conditions;
- local, regional and federal management objectives (e.g., recovery strategies, action plans, management plans and land use plans) and thresholds, and identify how the effects of the project relate to such strategies, plans, objectives or thresholds;
- methods used for any modeling, including the assumptions used and limitations of the models; and
- information about reporting requirements for all levels of government (e.g., for GHGs), if applicable.

For each valued component, provide or reference any supporting information used in the project effects analysis, such as:

- public comments;
- consultations with other regulators and departments or agencies;
- scientific literature;
- local and traditional knowledge;
- status reports;
- approved recovery strategies, action plans and management plans for species at risk; and
- follow-up studies and case studies from other projects.

Guidance

The identification and analysis of project effects builds directly on scoping, the description of the environmental and socio-economic setting, and the level of detail considerations described above.

Typically, applicants use a valued component approach to focus the effects analysis on practical and representative components of the biophysical and socio-economic environment. Valued components could be the broad elements described in Table 6-1, Table 6-2 and Table 6-3 or a representative subset of those elements. In that way, the analysis of potential effects focuses on the components of those biophysical or socio-economic elements where project-environment interactions are more readily assessable, and on the interactions that may be of concern to the public or Indigenous Peoples (often termed Valued Environmental Components [VECs] or Valued Socio-economic Components [VSCs]). The valued components selected must:

- be indicative of predicted effects that could result from the project over time;
- have baseline data available in order to determine the significance of effects;
- be able to reflect measurable changes that result from the project effects over time.
- be sufficient to identify different effects on diverse groups of people, including groups identified by sex and gender, as identified through gender-based analysis plus (GBA+); and
- be sufficient to identify potential effects on the exercise of Indigenous rights, including effects on the resources involved in or required for the exercise of those rights, specific locations of cultural importance where those rights are exercised, and an Indigenous Nation's cultural traditions, laws and governance systems and how those systems inform the manner in which they exercise their rights.

The analysis should result in an understanding of where uncertainty about project-environment interactions may exist, or where information gaps necessary to predict effects may remain.

Spatial and Temporal Boundaries

The spatial and temporal boundaries should:

- be provided for each valued component, along with a rationale for selecting those boundaries;
- include the area over which effects on valued components may occur. This area could include a population boundary, home range, airshed, watershed, Indigenous traditional land and resource use area, or municipal or regional planning district;
- include the duration that each valued component may be affected;
- consider the effects of the project on the valued component and the extent to which those effects are measurable;
- include all phases of the project; and
- not be constrained by jurisdictional boundaries.

Analysis

The analysis methods must be fully disclosed and meet the study needs. In addition to meeting the requirements of other regulations (e.g., *Species at Risk Act* [SARA], Migratory Bird Convention Act [MBCA], *Fisheries Act*, etc.), the analysis of project effects must take into account local, regional and federal policy or management objectives (e.g., recovery strategies, action plans, management plans and land use plans) and thresholds. Where there are no management objectives or thresholds, include information on the current state of knowledge on the valued component. After a review of the available literature, if the state of knowledge is incomplete or there is substantial uncertainty, identify any information gaps, and indicate if and how they will be filled. Where uncertainty exists about the project effects on a valued component, describe how the inspection and monitoring program will reduce the uncertainty.

Where there is applicable local and traditional knowledge, it must be included in the ESA. See section 5.3 Outcomes of Project-specific Engagement Activities, for further details on engaging with Indigenous persons and communities and gathering traditional knowledge.

Effects Assessment for Accidents and Malfunctions

The prevention of any accidents and malfunctions associated with CER-regulated projects is the CER's goal. In the event an accident or malfunction does occur, the CER will hold its regulated

companies accountable for an appropriate response under their Emergency Management Program.

The applicant's ESA must identify and assess the effects on workers, the public, and biophysical and socio-economic elements of all potential accidents and malfunctions.

Accidents and malfunctions and associated emergencies can result from numerous events, including equipment failure, human error, natural perils such as tornadoes, hurricanes, floods, or earthquakes, and terrorism or other criminal activities. Multi-hazard emergencies, such as an earthquake, may cause facility damage, fires and explosions, which result in injury and further property damage.

The level of detail provided on potential effects of accidents and malfunctions will depend on the:

- type, scale, and location of the proposed project;
- environmental and socio-economic sensitivities within potentially affected areas; and
- extent to which an applicant's existing Emergency Management Program and other plans and manuals address the issues and concerns about the proposed project.

Abandonment

The abandonment of an IPL requires an application to the CER.

For an application to construct and operate an IPL, the level of detail provided may be constrained by the uncertainties inherent with forecasting a phase of the project that may be several decades in the future. However, an abandonment application should outline what project components would be removed and how the right of way would be returned to a state comparable with the surrounding environment.

6.6.2 Mitigation Measures

Filing Requirements

1. Describe the standard and project specific mitigation measures and their adequacy for addressing the project effects, or clearly reference specific sections of company manuals that provide mitigation measures. Ensure that referenced manuals are current and filed with the CER.

FYI – Reminder...

See section 1.5 Previously Filed Material, for guidelines on referring to information already filed with the CER.

- If more than one mitigation measure is proposed as a possibility for any particular effect, provide the applicable criteria for selecting the mitigation to use, or describe how measures would be combined to mitigate against a single effect.
- If new mitigation measures are to be used, provide any test results or a technically based rationale for their use and describe how their effectiveness will be evaluated.
- Ensure mitigation measures are appropriate for the scale of impacts predicted.
- If project effects cannot be avoided, mitigation must reduce or compensate for them.

- Where an applicant hires a third party to prepare its ESA, provide a statement committing to adopting and implementing all mitigation recommendations included in the ESA. Explain any mitigation recommendations not adopted and provide alternative approaches, as appropriate.
- Identify the conditions of approvals or permits required by other regulatory bodies related to the mitigation of environmental or socio-economic effects.

2. Ensure that commitments about mitigative measures will be communicated to field staff for implementation through an Environmental Protection Plan (EPP). An EPP might be simple and concise for smaller, less complex projects but for certain projects (see guidance below), the CER may require a comprehensive EPP. An EPP must include all environmental commitments specific to the project and include or cross-reference other plans and programs relied on. Describe any plans or programs that may be used to mitigate potential effects (e.g., waste management plans, invasive species plans, horizontal directional drill contingency plans, heritage resource discovery contingency plans, etc.).
3. Describe plans and measures to address potential effects of accidents and malfunctions during construction and operation of the project (see guidance under Identification and Analysis of Effects, Accidents and Malfunctions in section 6.6.1).

Guidance

Mitigation Measures

Mitigation measures are:

- developed during a project's feasibility study;
- developed during project design;
- defined in the project plan;
- refined as the ESA progresses and the project's predicted environmental and socio-economic effects become more certain, and
- may be standard or project-specific measures.

The identification and analysis of effects and mitigation measures may be presented together.

Mitigation Options

At the application stage of the proposed project many mitigation measures may still be tentative, subject to further detailed design and to site specific environmental conditions. For these cases the ESA should describe:

- the different mitigative options available and being considered; and
- the criteria that will be used for selecting the actual mitigation to be implemented.

Including the options and selection criteria for contingency measures in an EPP may avoid having to submit variance applications to the CER if changes in field conditions require use of construction alternatives.

FYI – Reminder...

In some cases, the proposed route or site, route segments, facility design or construction methods may themselves be forms of environmental mitigation when compared to alternative

routing, design or construction methods. This may be demonstrated in the application's discussion of alternatives (see section 4.5) by:

- identifying which design features and construction methods are considered to be mitigation;
- identifying any alternatives that were considered to these features or methods and the proposed routing; and
- providing a comparative analysis of the mitigation measures considered.

Environmental Protection Plan (EPP)

Although the CER expects an EPP to be prepared for all projects, the size and scope of an EPP will vary. An EPP is specific to a project and is a tool to communicate a company's environmental protection procedures and mitigation measures to employees, contractors, and regulators. The purpose of an EPP is to document and communicate all project-specific environmental commitments made by an applicant and the associated mitigation measures in a clear and user-friendly format.

The Commission may request a comprehensive EPP during the examination of an application, or as a condition of approval to be complied with before construction. The Commission may expect a comprehensive EPP to be filed under the following circumstances:

- when the applicant does not have up-to-date company manuals on file with the CER that document its environmental protection procedures;
- if site-specific or project-specific mitigation or protection measures are provided by the applicant as commitments to avoid or address predicted adverse environmental effects in the application; or
- if the application and assessment process is lengthy or complex, and environmental protection measures and commitments are contained in several different places or documents (e.g., responses to information requests).

Comprehensive EPP are typically required for larger facility applications. In these circumstances, the CER encourages companies to submit a draft EPP containing all preliminary environmental protection and mitigation measures with their application to assist the Commission in assessing the application. Should the project be approved, the CER often requires the company to file an updated EPP before starting construction.

When preparing its EPP, an applicant should consider:

- identifying specific goals for protecting environmental elements and addressing socio-economic elements;
- describing the environmental protection objective for each goal, and providing mitigative options to meet those objectives based on site-specific conditions; and
- providing decision-making criteria for choosing which measures and procedures to implement and under what circumstances for each objective.

Draft EPP

If a draft EPP is filed with the application, it should contain:

- the purpose of the EPP, a summary of the project with a map, and a description of how environmental compliance would be achieved for the project;

- the resource-specific mitigation to be applied for the project, and the general environmental protection measures for each phase of construction;
- relevant construction specifications and drawings to execute environmental mitigation measures, and the corresponding environmental alignment sheets;
- other more detailed plans as applicable (e.g., waste management plan, emergency and security management plans, contingency plans, and other element-specific management plans and programs);
- the assignment of accountabilities and responsibilities for carrying out practices and procedures, making criteria-based decisions and confirming compliance with the Environmental Protection Program; and
- a table of contacts for reporting environmental incidents as required by other regulators.

Final EPP

A final comprehensive EPP must:

- include all items required in a draft EPP;
- if relevant, include an amendment or concordance table detailing changes from the draft to final version of the EPP;
- incorporate all environmental commitments made during the CER application assessment process, including all requirements set out in permits, certificates, or any other authorizations;
- include a copy of any CER discussion or assessment of environmental matters as set out in or attached to the CER certificate or permit;
- include additional requirements as a result of season-specific field surveys conducted before construction;
- include the GPS locations for environmentally-sensitive areas identified in the surveys; and
- include updated environmental alignment sheets summarizing all pertinent environmental issues and the corresponding mitigation measures that will be implemented during construction.

Variances to the EPP

It is the responsibility of the company to apply to the CER for variances to the commitments made in the application, in the application assessment process or as required in the project approval conditions. It is therefore of benefit to the applicant to incorporate decision making criteria for choosing which measures and procedures to implement and under what circumstances. Where this is done, there may be sufficient flexibility to respond to changes that result in the field without filing a variance application.

Further information about variation applications can be obtained from the CER Operations Project Manager assigned to the project or activity.

Waste Management Plan

A waste management plan for the control of contaminated and non-contaminated waste from the project is required. The plan must describe the purpose of the plan, the types of waste anticipated, the resulting prevention and mitigation measures to be applied to manage that waste, and how any relevant reporting requirements will be met. The plan must also include a reporting structure, contact list and reference to other applicable legislation.

Mitigation for Potential Effects of Accidents and Malfunctions

An applicant's programs, plans and manuals should be considered as part of its mitigation of potential effects of accidents and malfunctions.

There may also be project-specific plans and commitments an applicant should consider as part of its mitigation of potential effects of accidents and malfunctions. As noted in section 6.1, these must also be incorporated into a company's programs as appropriate.

6.6.3 Evaluation of Significance

Filing Requirements

1. After taking into account any appropriate mitigation measures, identify any remaining residual effects from the project.
2. Describe the methods and criteria used to determine the significance of adverse effects, including defining the point at which any particular effect on a valued component is considered "significant".
3. Evaluate the significance of residual adverse environmental and socio-economic effects against the defined criteria.
4. Evaluate the likelihood of significant residual adverse environmental and socio-economic occurring and substantiate the conclusion made.

Guidance

Evaluating environmental and socio-economic effects consists of assessing:

- whether the effects are adverse;
- whether the adverse effects are significant; and
- whether the significant adverse effects are likely.

A common way for an applicant to assess a project's effects is to compare the quality of the existing environment with the predicted quality of the environment if the project is approved and built. The direction of change to the environment may be adverse, neutral or beneficial.

The following criteria may be useful in assessing the significance of a project's adverse effects:

- magnitude;
- duration;
- frequency;
- geographic extent;

- ecological context; and
- reversibility or degree of permanence.

In applying these criteria to each residual effect, an applicant must define each criteria and the range considered within each criteria. To help evaluate the significance of a particular effect and define the point at which it becomes “significant”, consider providing rating attributes (e.g., low / moderate / high) for each significance criteria and defining the range of each attribute. An applicant must also describe how each criterion or combination of criteria was used to reach the applicant’s significance conclusion.

Definitions for rating criteria are expected to be quantitative and based on standards, guidelines, objectives or other established and accepted ecological thresholds. In the absence of any such references or regulatory guidance, or where these are not quantitative (e.g., it may not be appropriate to set thresholds to determine “acceptable levels of change”, in relation to all socio-economic effects), then rating attribute definitions must be qualitative and based on available research literature. Applicants must also consider the level and nature of concerns raised by the public and address issues of concern to Indigenous Nations potentially affected by the project.

The significance of adverse effects could also be assessed by comparing effects to conformity requirements within approved land use plans or conducting a quantitative risk assessment.

Where professional judgement is used to determine the significance of adverse effects, the extent of reliance on professional judgement must be described and rationale for the extent of the reliance must be provided. An applicant’s ESA must provide an evaluation of the likelihood and significance of any adverse environmental effects, for consideration by the Commission.

Assessing the likelihood of significant adverse effects must be based on the probability of occurrence and state the level of scientific uncertainty. If a qualitative determination of the likelihood of significant adverse effects is used, provide a clear rationale and supporting information.

6.7 Cumulative Effects Assessment

Goal

The application must include information about the interaction between predicted residual environmental and socio-economic effects of the project and effects from other projects or activities that have been or will be carried out. This information must provide enough detail to:

- identify and analyze cumulative environmental and socio-economic effects;
- identify proposed mitigation measures to protect the environment and address socio-economic effects, and to analyze their effectiveness; and
- evaluate the significance of any predicted cumulative effects.

6.7.1 Scoping and Analysis of Cumulative Effects

Filing Requirements

1. Identify the valued components for which residual effects are predicted, and describe and justify the methods used to predict any residual effects.

FYI – Additional Information...

Both significant and non-significant residual effects may contribute to cumulative effects and must be considered. Residual effects are those effects remaining after implementing the applicant's mitigation measures. If the applicant can clearly demonstrate that no residual effects are predicted, further analysis of cumulative effects is not required.

2. For each valued component where residual effects have been identified, describe and justify the spatial and temporal boundaries used to assess the potential cumulative effects.
3. Identify other physical facilities or activities that have been or will be carried out within the identified spatial and temporal boundaries for the cumulative effects assessment.
4. Identify whether the effects those physical facilities or activities that have been or will be carried out would be likely to produce effects on the valued components within the identified spatial or temporal boundaries.
5. Where other physical facilities or activities may affect the valued components for which residual effects from the applicant's proposed project are predicted, continue the cumulative effects assessment as follows:
    - Consider the various components, phases and activities associated with the applicant's project that could interact with other physical facilities or activities.
    - Provide a description of the extent of the cumulative effects on valued components.
    - Where professional knowledge or experience is cited, explain the extent to which professional knowledge or experience was relied upon and justify how the resulting conclusions or decisions were reached.

Guidance

Cumulative Effects Assessment

Assessing cumulative effects typically requires the same method of analysis as described in the project-specific effects assessment. As discussed in sections 6.3 to 6.6, the baseline information, project description and project-specific mitigation measures already captured in the application must be provided in enough detail to characterize the extent of the residual effects of the project.

Section 6.6, Table 6-2, and Table 6-3 outline the type of information required for a project-specific effects assessment. Although the tables also make specific note of information required for a cumulative effects assessment for valued components, all information requirements contained in the tables should be evaluated, as appropriate, as a guide for applicants in completing a cumulative effects assessment.

A cumulative effects assessment differs from a conventional project-specific effects assessment in that it typically includes:

- larger geographic study areas;
- longer time frames;
- environmental and socio-economic effects associated with physical facilities or activities that may not be directly related to the applied for project (e.g., upstream or downstream facilities not within the CER's jurisdiction, a proposed highway project or residential sub-division in the study area, ongoing forestry or agricultural activities); and

- spatial boundaries that are generally not constrained by jurisdictional boundaries.

The level of effort and scale of the cumulative effects assessment should be appropriate to:

- the nature and context of the project under assessment;
- its potential residual effects; and
- the environmental and socio-economic setting (e.g., an increased level of detail may be required when rapid or intensive development of the region has occurred or is anticipated, or particular environmental or socio-economic sensitivities or risks are involved, such as significant Indigenous traditional use).

Applicants should also consult the IAAC's "Operational Policy Statement – Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012".

Other Physical Facilities or Activities

Provide clear reasoning, with supporting rationale, for selecting the other existing and future physical facilities or activities to be included within the cumulative effects assessment. When identifying other physical facilities or activities, include those physical facilities or activities likely to take place as opposed to those not reasonably foreseeable or hypothetical.

Consideration of other physical facilities or activities that have been or will be carried out within the defined spatial and temporal boundaries must, at a minimum, include:

- existing projects and activities;
- those physical facilities or activities for which formal plans or applications have been made or are likely to occur; and
- other related project or activity development assumptions that support and are consistent with the long-term economic or financial assumptions (Chapter 7) and engineering assumptions (Chapter 4) made in the application, even if formal plans or applications have not yet been made.

The Courts have said that the decisions of responsible authorities are not required to "consider fanciful projects by imagined parties producing purely hypothetical effects".[3] However, the Commission does have discretion to consider future development scenarios if it is reasonable to anticipate that the applied for project could contribute to the potential cumulative effects resulting from such future development (i.e., if the economic feasibility of the applied for project is contingent upon the future development). The extent to which an applicant must consider the effects associated with other future physical facilities and activities and the associated depth of analysis will depend upon the relative contribution of the applied for project to the predicted cumulative effects.

Where intensive or expansive development of the region is occurring or anticipated, details regarding the flexibility of project-specific mitigation and monitoring strategies become particularly important and should also be provided with the application to demonstrate the ability of the applicant to adapt its plans in the future should the resulting cumulative effects differ from those predicted (further Filing Requirements and Guidance for project related monitoring are provided in section 6.8 below).

The CER recognizes that an applicant's depth of analysis in assessing the effects associated with other future physical facilities and activities will depend on the feasibility and practicality of

[3] *Bow Valley Naturalists Society v. Canada* (Minister of Canadian Heritage), [2001] F.C.J. No. 18 (F.C.A.) at para. 75

assessing those effects. For example, future effects associated with projects not within the direct control of the applicant and for which there is limited information, or which are still in early planning stages, are inherently more challenging to assess. Despite this, an applicant should use the best available information or undertake additional work to assess these potential effects. Any uncertainties associated with the information used and any assumptions or limitations associated with the analysis must be explained.

6.7.2 Mitigation Measures for Cumulative Effects

Filing Requirements

1. Describe the general and specific mitigation measures beyond project-specific mitigation already considered, that are technically and economically feasible to address any cumulative effects.
    - If appropriate, provide any additional mitigation measures being considered as alternatives to the preferred cumulative effects-specific measures (e.g., adaptive or contingency measures).
    - If more than one mitigation measure is available for any particular cumulative effect, then provide the criteria that would be applied to select the mitigation to use (e.g., for the application of contingency plans).
    - If new or unproven mitigation measures are to be used, provide any test results or a technically based rationale for their use and describe how their effectiveness would be evaluated.
    - Indicate the likelihood of success in reducing or avoiding cumulative effects by the application of the mitigation measures identified.

Guidance

Mitigation of cumulative effects may include broader-scale planning measures or initiatives to reduce interactions and effects from multiple projects or activities. Potentially effective mitigation of cumulative effects may not be within the direct control of, or undertaken by, the applicant. For example, operators may have cooperation plans in place to prevent simultaneous occurrence of activities or projects, or multiple operators may cooperatively make use of existing disturbed areas to prevent new disturbances. Further, regional-level multi-stakeholder planning initiatives may also be evaluated as a means to mitigate cumulative effects. Where such measures or initiatives are in place, an applicant should clearly explain why the identified mitigation would be appropriate to mitigate any cumulative effects. If the mitigation is not within the direct control of the applicant, it should state who would implement the mitigation and how that responsible party intends to monitor implementation of the mitigation.

Various forms of compensation (e.g., habitat offsets) should also be considered as part of an applicant’s proposed mitigation, as appropriate.

If monitoring or research programs are identified as a means to adaptively manage cumulative effects, the applicant should explicitly identify how those programs will be used to avoid or reduce effects (i.e., which management actions will be triggered when certain ecological or socio-economic effects are identified, or thresholds reached).

6.7.3 Applicant's Evaluation of Significance of Cumulative Effects

Filing Requirements

1. After taking into account any appropriate mitigation measures for cumulative effects, identify the remaining residual cumulative effects.
2. Describe the methods and criteria used to determine the significance of remaining adverse cumulative effects, including defining the point at which each identified cumulative effect on a valued component is considered "significant".
3. Evaluate the significance of adverse residual cumulative effects against the defined criteria. If the total cumulative effect on a given valued component is considered significant, describe the incremental increase in total cumulative effects caused by the project.
4. Evaluate the likelihood of significant, residual adverse cumulative environmental and socio-economic effects occurring and substantiate the conclusions.

Guidance

Refer to section 6.6.3 for guidance on evaluating the likelihood and significance of adverse residual environmental and socio-economic effects on a project-specific basis. The key difference between determining the significance of project-specific effects versus cumulative effects is the consideration of other physical facilities and activities. The evaluation of significance must focus on the total cumulative effect that may be created from all physical facilities and activities considered in combination with the proposed project. The definition of significance must be clearly explained and take into account local, regional and federal policy and management objectives (e.g., recovery strategies, action plans, management plans and land-use plans) and thresholds.

6.8 Inspection, Monitoring and Follow-up

Goal

The application describes the environmental protection plans and programs that will be in place to anticipate, prevent, mitigate and manage potentially adverse environmental effects over the life of the project.

Filing Requirements

1. Describe inspection plans to ensure compliance with biophysical and socio-economic commitments in sufficient detail to demonstrate adequacy and effectiveness. Plans must:
    - identify those positions accountable and responsible for monitoring and ensuring environmental compliance;
    - reference inspection procedures, and describe any accountability and reporting structure for environmental inspectors; and
    - describe minimum qualifications and experience, including training requirements of individuals who will be undertaking inspection and monitoring responsibilities.

2. Describe the surveillance and monitoring program for the protection of the IPL, the public and the environment. The monitoring program must be sufficiently detailed to demonstrate its adequacy and effectiveness and must include
    - methods for:
        i. identifying and tracking environmental and socio-economic issues;
        ii. resolving any environmental and socio-economic issues specific to the project, including any sampling programs or site-specific investigations as appropriate; and
        iii. monitoring the effectiveness of mitigation and reclamation, based on established reclamation criteria (see requirements of individual elements in Table 6-2) as well as the applicant's performance measures and targets for each mitigation measure;
    - a description of the frequency or schedule for implementing the procedures listed above; and
    - the criteria for assigning specific monitoring procedures to certain environmental and socio-economic issues.
3. Consider any particular elements in the Application that are of greater concern and evaluate the need for a more in-depth monitoring program for those elements.

Guidance

The CER recognizes three categories of verification conducted by the applicant. These apply both during and upon completion of construction through the life of the facility:

- Inspections to confirm both implementation of commitments made during the application process and fulfillment of CER -approval conditions to promote safety, security and environmental protection;
- Monitoring to confirm if mitigation objectives for a specific project, program, or the continued operation of the project have been met; and
- Identify and address any potential short term and long-term issues or effects experienced, but not predicted.

A more rigorous type of monitoring program to confirm the effectiveness of an element-specific program may be appropriate when:

- the project or activity is contributing to regional issues of concern;
- the project involves new or unproven technology or is not routine in nature;
- the project involves uncertain effects;
- the project involves new or unproven mitigation measures whose effectiveness is uncertain;
- a familiar or routine project is proposed in a new or unfamiliar environmental and socio-economic setting;
- there is some uncertainty about the conclusions of the ESA.

A condition on the project certificate or order may be imposed to require the applicant to file post-construction monitoring reports after the completion of construction. The time period for

required reporting can vary, but typically ranges from one to five years following the commencement of project operations. Projects requiring a longer period of time to reach reclamation goals (e.g., work in areas difficult to revegetate, such as native prairie) or requiring an in-depth, element-specific program may be required to submit monitoring reports of greater scientific rigour or over a longer time period.

- For IA Act designated physical activities, follow-up on identified elements or issues of concern to:
    - verify the accuracy of the impact assessment; and
    - determine the effectiveness of any measures taken to mitigate the adverse effects of the project.

Follow-up would generally be an in-depth, scientifically rigorous program.

Revisions to Applicant Plans and Programs

The CER encourages applicants to use its current and relevant plans and programs to support the inspection, monitoring and follow-up components of its application. If these plans or programs have been previously filed with the CER, provide the document title, version number, latest revision date, date of filing and the CER file number. Refer to section 1.5 for more information regarding these documents. If a project is approved, applicants must file any updates required to incorporate the approved project.

Economic and financial information is advised in an application when the applied-for facilities would result in one or more of the following:

- the construction of a new transmission line; or
- an increase in the capacity of an existing CER regulated transmission line.

FYI – Reminder...

Filing Requirements for an effects assessment are described in section 6.5 and section 6.6.

Table 6-1 in Subsection 6-4 provides examples of the circumstances and interactions that lead to the need for detailed information and considers all phases of an applied for project (construction, operation, maintenance and abandonment), including the potential for accidents and malfunctions during each phase.

Table 6-2 was designed to assist applicants in identifying the required information specific to individual biophysical elements. The elements and circumstances described in the tables are not exhaustive.

Applicants must adapt the framework below to logically present the detail and analysis of their particular projects. Where project effects may overlap different element categories, it may be appropriate to define a more suitable or specific element or valued component. For example, where there is a risk of soil contamination reaching groundwater, then “groundwater contamination” might be an appropriate element to assess. This could more accurately focus on the issue of concern, avoid repeating information under both soils and water categories, and provide a more focused assessment.

Table 6-2: Filing Requirements for Biophysical Elements

Physical and Meteorological Environment	
Filing Requirements	**Guidance**
1. Describe the general topography of the project area and any particular physical features crossed by the project or which may affect the project. 2. Identify any areas of ground instability. 3. Identify areas of potential wind or water erosion. 4. Describe the local and regional climate. Also identify the potential for extreme weather events such as wind, precipitation, and temperature extremes. 5. Identify any areas with potential for acid-generating rock and describe the effects if exposed as a result of the project. 6. Identify and describe any areas with permafrost conditions. 7. Describe how local or regional physical and meteorological conditions could affect the project including how changing conditions may affect the project over the lifetime of the project.	This section provides information on factors or elements of importance that may affect project design. Give special consideration to the following components which may be either directly or indirectly affected by the project or which may impact project design: • unstable slopes or other unfavourable geotechnical conditions including areas with the potential for landslides, mudflows, slumping, subsidence. • seismicity; • flooding, migrating watercourses and eroding banks; • extreme weather events; • seasonal and peak flow regime at stream crossings; • river ice processes and potential ice jams; • permafrost; and • areas with acid rock. Local and regional climate should be described in terms of the range of its variability and the severity (i.e., frequency and durations of maximums and minimums) as well as its averages. In regions with potential for extreme weather events, describe and assess these events terms of: • their frequency and intensity; • the maximum expected loading (ice or wind) on the proposed facility; and • extreme heat and any resulting conductor sag should also be considered. Describe how any applicable design standards reduce the potential threat (also

	see the Filing Requirements contained in section 4.2.1 Engineering Design Details.
	
	Meteorological impacts must be considered in the context of:
	• climate variability and trends (including changes in extreme weather events);
	• winter ground conditions; and
	• areas where warming trends may influence hydrologic conditions such as runoff.
	
	In areas where permafrost regimes exist:
	• identify and quantify permafrost conditions, including:
	  ○ discontinuous permafrost;
	  ○ high ice content soils;
	  ○ thaw sensitive slopes; and
	  ○ riparian areas;
	• develop baselines for:
	  ○ near-surface ground temperatures;
	  ○ active-layer conditions;
	  ○ slope stability; and
	  ○ movement potential on the approaches to river crossings.
	• describe how any changes in the permafrost regime may affect the project over its lifetime.

Soil and Soil Productivity	
Filing Requirements	**Guidance**
1. Describe general soil characteristics and the current level of disturbance associated with soils. 2. For agricultural lands or forested lands with agricultural capability, describe: • the soil classification, including the order, group, family, series and type of	Soil profile descriptions for dominant soil types must consider: • soil horizons; • thickness of horizons; • texture; • colour;

soil prior to construction and quantify the soil classification;
• the productivity of land and the type of agricultural resource;
• the soil types in the study area that are highly susceptible to:
  ○ wind and water erosion;
  ○ soil compaction; and
  ○ loss of structure and tilth;
• any other soil types needing specific management or mitigation measures; and
• soil conservation and protection measures.
 	
3. Describe any contaminants of concern potentially associated with the project that may affect soil.
 	
4. Describe the historical land use to determine the potential for contamination of soils or sediments. Describe any known or suspected soil contamination within the study area that could be re-suspended, released or otherwise disturbed as a result of the project.
 	
5. If sediments or soils are contaminated, describe the applicable regulatory standards and all remediation, mitigation and monitoring measures that will be undertaken.
 	
6. Describe the criteria for evaluating reclamation success. Explain how this evaluation would be undertaken and documented. Reclamation measures could include, where applicable:
• erosion control, other than re-vegetation;
• soil reclamation;
• drainage tile repair;
• soil compaction alleviation; and
• soil salinity reduction.
 	
7. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and
	• chemical properties; and
	• organic content.
	
	The soils assessment and mitigative plan must consider:
	• soil salvage techniques (e.g., soil stripping including proposed width, grubbing, and alternative soil handling techniques);
	• soil separation maintenance measures;
	• erosion control measures, including drawings of proposed techniques, particularly at watercourse crossings;
	• wind erosion and wet soil shutdown procedures; and
	• soil compaction prevention measures.
	
	Where there is a potential for human health effects see Table 6-3.
	
	Where soil contamination is suspected or may be present, consider the guidance provided in the Canadian Standards Association's (CSA) Z768-01 and Z769-00 standards for Phase I and II Environmental Site Assessments. In addition, the CER's Remediation Process Guide (2020) may also be of value.
	
	Additional guidance:
	• The Canadian Soil Information Service (under Agriculture and Agri-Food Canada) provides access to soils information, including the Canadian System of Soil Classification, which describes current accepted standards for soil classification in Canada.
	• The Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (including Soil Quality).

expand on the matters described above as appropriate.	
Vegetation	
Filing Requirements	**Guidance**
1. For lands where vegetation may affect or be affected by the project, describe: • the pre-project diversity, relative abundance and distribution of vegetation species and communities of ecological, economic or human importance (e.g., traditional use, tame pasture, native prairie, wetland or old growth), prior to construction; • the conservation status applicable to any particular species or communities; • the current level of disturbance associated with vegetation; and • the amount, merchantability and location of any merchantable timber to be removed during project construction. 2. Describe any weed infestations and other invasive and introduced species of concern. 3. Describe re-vegetation procedures to be implemented as part of the project including: • re-vegetation techniques and the locations where they would be implemented; • seed mixes to be used, their application rates, and the locations for their application, or the criteria for determining these specifications, and a discussion of the use of seed certificates; • any fertilizers to be used, their application rates and locations, or the criteria for determining these specifications; and • contingency planting and seeding plans that include a description of any species of vegetation to be replanted, the locations for replanting, or the	The description of vegetated lands does not include industrial lands. Vegetation community must apply the most relevant and up to date ecological classification or mapping system. Reference any available provincial or territorial inventory and mapping standards and guidelines. Engagement with potentially affected Indigenous Nations may provide further information. Conservation status (provincial and COSEWIC) of ecological communities as well as plant species must be noted. Explain how communities in the study area were delineated (i.e., existing mapping, remote sensing interpretation, or field mapping). Indicate the date of spatial data collection. Provide justification if field work was not carried out. The effects analysis on vegetation must consider: • change in vegetation cover caused by the project; • alternatives to clearing the entire ROW (include options and decision criteria for retaining vegetation in order to break lines of sight, control access, maintain wildlife corridors, maintain habitat connectivity, reduce fragmentation and reducing overall cumulative effects); • weed control measures (e.g., prevention, treatment); • avoidance of any sensitive or rare communities and important individuals (e.g., vegetation important to wildlife); and

criteria for determining these specifications. 4. Describe the condition(s) to which the RoW and temporary work space will be reclaimed and maintained once construction has been completed. Explain the extent to which the RoW needs to be kept cleared or could be left to grow and provide the criteria relied on to determine this. 5. Describe the vegetation standards and control to be implemented while constructing and operating the project. Describe any integrated vegetation management program including: • the criteria and circumstances for applying chemical, biological or mechanical control methods; • the selection of plant species to be kept and planted to promote naturally low growing plant communities; and • the use of herbicides, tree growth regulators or other chemicals, their application rates and protocols. 6. Describe criteria for evaluating reclamation success related to vegetation and how this evaluation would be undertaken and documented. 7. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	• seed mixes and replanting for re-vegetation purposes. Native and indigenous species adapted to local conditions should be used when the goal of revegetation is to naturalize or regenerate the area. Vegetation management standards should consider: • maximum conductor sag; • minimum clearance requirements between conductors and the ground and adjacent trees; • terrain and built features; and • the wire area directly under the conductors, the adjacent border area within the RoW and vegetation adjacent to the RoW. Vegetation control programs, including the frequency of work, monitoring and inspection of RoW vegetation conditions, and control procedures, must consider: • the nature of the vegetation cover (e.g., species mix, characteristics) occurring along the RoW, and variations over different biogeographical areas; • the promotion or inhibition of different plant communities (naturally low or slow growing plant species versus predominantly tall or fast growing species); and • the application of other integrated vegetation management practices. If herbicides or other chemicals may be used, consider: • the criteria for their use; • the concentrations, rates and methods of application; • their specificity and potential adverse environmental effects; and • referring to material safety data sheets.

Water Quality and Quantity	
Filing Requirements	**Guidance**
1. Provide a project-specific water use assessment identifying and describing the water resources and the quality of those resources potentially affected by the project, including: any need for water withdrawn from local waterbodies, the purpose, the quantities required, the waterbodies used as a supply source, the flow rate or volume of water available in the waterbody and how and where waste water would be discharged. 2. Describe any interactions between the project and groundwater. Where there is interaction: • describe any potential changes in groundwater flows and any subsequent effects from the changes; and • identify any wells nearby, providing criteria for the spatial boundary considered, and describe the potential for well water quantity and quality to be affected. 3. Describe any contaminants of concern potentially associated with the project that may affect water quality. 4. Describe mitigation for any potential effects on surface-, ground- or well-water quantity and quality, including the need for any specific pre- and post-construction monitoring. 5. Describe any applicable water management plans. 6. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	The effects analysis regarding quality or quantity of ground or surface water (e.g., lakes, watercourses, riparian areas or man-made water bodies or structures) must consider: • withdrawal or discharge needs for the proposed project, and • any potential inter-basin transfers that might introduce undesirable biota. Project interactions with groundwater may result from crossing a shallow water table or specific project activities (e.g., blasting). In these cases, consider the spatial extent and depth levels as well as water characteristics (e.g., salinity). Consider and describe whether the project may affect evaporation and transpiration rates and therefore affect surface land use, especially in agricultural areas. If there is potential for contaminants affecting water resources, consider sediment or groundwater sampling for assessment of contaminants. Where there is a potential for human health effects see Table 6-3. Additional guidance: • The CCME's Canadian Environmental Quality Guidelines (including Water Quality). • Health Canada's Guidelines for Canadian Drinking Water Quality.
Fish and Fish Habitat	
Filing Requirements	**Guidance**

1. Identify fish species and their life stages in the study area, as well as their contribution to local fisheries or to ecological importance. 2. Describe the seasonal ranges, seasonal sensitive periods, habitat use, movements, and general population status of fish species identified above. 3. Identify any fisheries avoidance measures, mitigation, or other measures to protect and enhance fish and fish habitat, including protected areas in and near the study area. 4. Identify the need for an authorization under subsection 35(2) of the *Fisheries Act*. 5. Describe, in detail, sensitive areas and sensitive habitats, including wetlands and riparian habitat. 6. Where fish-bearing watercourses would not be crossed by trenchless methods, either describe and justify the watercourse-crossing techniques to be used or the criteria for determining the techniques proposed for each watercourse crossing. 7. Describe the timing of any instream work, including restricted activity periods and windows. 8. Describe the condition(s) to which the water crossings and riparian zones would be reclaimed and maintained once construction has been completed. 9. Describe criteria for evaluating success of reclamation of fish-bearing water bodies and their banks as well as riparian areas. Describe how and when this evaluation would be undertaken and documented. 10. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	Applicants should work with the relevant fisheries authorities to identify issues and appropriate mitigative measures and, where appropriate, Indigenous Nations. Where an authorization for serious harm to fish is required from DFO, outline any appropriate offsetting and monitoring. Where effects on fish and fish habitat may affect human health effects, see Table 6-3. DFO has several guidance documents and information pieces that could be useful in dealing with fish and fish habitat. Please refer to the DFO National website for applicable materials and guidance.
Wetlands	
Filing Requirements	**Guidance**

1. Quantify delineate and describe wetlands in the context of: • wetland class, ecological community type and conservation status; • abundance at local, regional and provincial scales; • distribution; and • current level of disturbance. 2. Identify and describe wetland capacities to perform hydrological, water quality, habitat, or other ecological functions. 3. Identify a regional study area of sufficient size to capture effects on wetlands within the larger drainage area. Include wetlands located outside of the local study area that may be affected by hydrological changes as a result of cumulative effects. 4. Detail the efforts to be taken to avoid impacting wetlands, mitigation, monitoring and any applicable compensation measures, for potentially affected wetlands. 5. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	Wetlands include bogs, fens, marshes, swamps and shallow waters as defined in the Canadian Wetland Classification System (National Wetlands Working Group, 1997). The effects analysis regarding wetlands must consider any potential loss of wetland function. A higher level of assessment may be required for provincially or territorially significant wetlands for wetlands of significance to Indigenous Nations or for features of significance. Discuss any applicable provincial or territorial classification schemes, and protection policies and requirements. Applicants should consult with Environment and Climate Change Canada regarding mitigation for wetlands. Additional guidance: Useful information sources accessible from Environment and Climate Change Canada include: • The Federal Policy on Wetland Conservation; • The Federal Policy on Wetland Conservation Implementation Guide; • Wetland Ecological Functional Assessment: An Overview of Approaches; and • Wetlands Environmental Assessment Guideline.
Wildlife and Wildlife Habitat	
Filing Requirements	**Guidance**
1. Identify wildlife species of ecological, economic or human importance in the study area. Also describe the: • diversity, distribution and location; • abundance and population status; • life cycle; • seasonal ranges (e.g., migration); • habitat requirements;	The identification and description of wildlife presence in the area must include, but not be limited to, resident, temporary (e.g., migratory) unique species or populations, and umbrella and keystone species. Mammals, birds, amphibians, reptiles and invertebrates may be relevant. The identification and description of wildlife of human importance must also consider consumptive (e.g., hunting, harvesting) and non-consumptive (e.g., bird-watching) values, as well as

• movements (e.g., wildlife corridors); and • sensitive periods (e.g., seasonal, diurnal and nocturnal). 2. With respect to birds in the area, describe: • the species' vulnerability to collisions with overhead conductors; • any monitoring of bird strikes with existing nearby powerlines and the findings from this; • the findings from studies on the effectiveness of diverters or other proposed mitigations for the particular birds of relevance; • the design with respect to the risk of electrocution of birds; • any proposed mitigation and monitoring, and the rationale for these; and • any comments received from the Canadian Wildlife Service and any local birding group. 3. For the wildlife identified, describe and quantify the habitat type including its: • function; • location; • suitability; • structure; • diversity; • relative use; and • abundance as it exists prior to project construction. 4. Describe any lands in the study area that might constitute sensitive areas and habitat for wildlife, or nearby environmentally-significant areas such as National Parks, areas of natural or scientific interest, Migratory Bird Sanctuaries or other important bird areas or sanctuaries, National Wildlife Areas, or World Biosphere Reserves.	species of importance to potentially affected Indigenous Nations. The identification, description and quantification of habitat must include, but not be limited to: • breeding or rutting grounds, • nesting and denning sites; • wintering grounds; • hibernation or hibernaculum sites; • moulting, migration and staging areas; • movement corridors; • mineral licks; and • trees important to wildlife (e.g., bat trees). Other sensitive areas and habitats include: • wetlands (and associated upland habitats); • riparian habitat; • forest interior habitat; • old growth ; and • grassland / native prairie. The effects analysis regarding wildlife and wildlife habitat must consider factors such as: • ecosystem functions; • the timing of construction activities in relation to sensitive periods for wildlife (e.g., migratory bird breeding season); • varying degrees of wildlife habitat loss; • changes in habitat quality (e.g., fragmentation, edge effects); • changes in human access; • disturbance to wildlife, including sensory (light and noise) disturbance from operation of above-ground facilities, including on birds and nocturnal species; and, • direct and indirect wildlife mortality. Ensure spatial boundaries for the study area and assessment are specific to the valued

5. Identify wildlife management areas and established or proposed sanctuaries or other areas in or near the study area. 6. Describe the levels of disturbance currently affecting wildlife and habitat, such as habitat fragmentation and the extent of human access and use. 7. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate. 8. Further, with respect to cumulative effects: • describe the cumulative disturbance footprint of proposed and future physical facilities and activities within known key habitats (e.g., migration corridors, denning or calving areas, feeding areas) and distribution of that footprint, quantitatively where possible. Describe the effects on the connectivity of key habitats. • describe the cumulative effects on wildlife that could occur as a result of the timing of the proposed project in combination with other physical facilities or activities. • describe how cumulative changes in access would affect wildlife mortality risk or habitat quantity and quality. • compare the cumulative effect on each species assessed to any available species-specific thresholds or policies, and indicate to what degree a threshold is approached or exceeded.	component and ecologically defensible (e.g., winter range boundaries, migration routes, fawning and calving areas). When calculating the disturbance footprint or linear disturbance density, remember to include the total avoidance area experienced by the valued component, which may be considerably larger than the physical footprint itself depending on the valued component. Temporal considerations are also relevant. For example, effects on wildlife from noise and sensory disturbance, water usage or divergence, or waste stream emissions to air, land or water can be exacerbated by having a number of projects taking place simultaneously (or continuously over more than one season) in a watershed, breeding area or migratory pathway. Increased access to project areas, whether temporary or permanent, affects wildlife habitat, populations, distribution and interactions. Access may include not only human access but increased ease of access by predators or competing species. Examples of tools that may be used to assess cumulative effects on valued components include scenario-based models, spatial analysis using a geographic information system, and landscape level indicators of change (e.g., linear density) (see the CEA Agency's Cumulative Effects Assessment Practitioners Guide, 1999). Applicants should note the requirements of applicable provincial, territorial and federal regulations (e.g., the federal *Migratory Birds Regulations*). Additional guidance: Environment and Climate Change Canada and its Divisions (e.g., Canadian Wildlife Service) are sources of relevant information on: • wildlife and wildlife habitat; • Acts and Regulations, including the *Migratory Birds Convention Act*;

	• locations of National Wildlife Areas and Migratory Bird Sanctuaries; and
	• environmental assessment guides, including:
	  ○ Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada; and
	  ○ relevant Canadian Wildlife Service Technical Report Series publications.
	The Important Bird Areas database may be accessed through Bird Studies Canada or Nature Canada.

Species at Risk or Species of Special Status	
Filing Requirements	**Guidance**

1. For effects related to wildlife, fish and plant species at risk or species of special status:
• identify the species and their status;
• provide the appropriate references to the SARA Schedules, or Committee on the Status of Endangered Wildlife in Canada (COSEWIC), provincial or territorial listing;
• identify their habitat(s), including any critical habitat(s) identified in a Recovery Strategy or an Action Plan listed on the SARA public registry;
• determine whether the species, its critical habitat, or the residences of those species could be affected by project activities;
  ○ if no, explain why not;
  ○ if yes, describe any potential effects;
  ○ identify any critical timing windows (e.g., denning, rutting or spawning) setback distances, or restrictions;
  ○ identify if a provincial, territorial or federal (e.g., SARA) permit will be required; and
	Many rare species (e.g., endangered or threatened species under the SARA) are at risk in large part as a result of the past cumulative effects on their population or habitat. Their inclusion on official lists reflects their status as having crossed a threshold requiring special actions for their protection and recovery. Any additional residual effects have the potential to further contribute to this existing situation. Consequently, proposed projects must preferably avoid, or fully mitigate or compensate for any residual project contribution to cumulative effects.
	Status refers to designation under federal, provincial or territorial legislation or guidelines (e.g., extirpated, endangered, threatened or of special concern).
	Consult the SARA public registry for Schedule 1, the List of Wildlife Species at Risk, and Schedules 2 and 3. Consult with Environment and Climate Change Canada (Canadian Wildlife Service), Fisheries and Oceans Canada, or Parks Canada on Species at Risk or their critical habitat in the study area.
	Where critical habitat has not been defined, field studies may be necessary, as well as identifying, with federal, provincial or territorial authorities, mitigation measures that

○ identify any proposed mitigative measures (e.g., improved project design or construction timing or comprehensive plan). 2. Where the project may result in the destruction of any part of the critical habitat of a wildlife species listed on Schedule 1 of SARA, describe: • any discussions with the appropriate Federal Authority (Environment and Climate Change Canada, Fisheries and Oceans Canada, Parks Canada) on obtaining a permit under section 73 of the SARA; • all reasonable alternatives to the project that would avoid the effect on the species' critical habitat; and • all feasible measures that will be taken to minimize the effect of the work or activity on the species' critical habitat. 3. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical works or activities and expand on the matters described above as appropriate.	effectively avoid sensitive interaction periods or activities. Field surveys may be useful in identifying mitigation needs or locally common populations not substantially affected. For species at risk listed on Schedule 1 of SARA, the proposed mitigative measures must be consistent with any applicable Recovery Strategies and Action Plans listed on the SARA public registry. Consult with appropriate provincial or territorial authorities on species listed under those jurisdictions. For species at risk with no recovery strategy or action plan, applicants should use the best available information, such as COSEWIC status reports, draft recovery strategies or action plans, existing plans or input from the recovery team and specific advice (or management plans) from any jurisdiction that manages the species. Describe how measures to avoid, fully mitigate or compensate project effects would align with the best available information. When relying on compensation plans, describe the details of consultation with relevant experts, the options available, and criteria for selecting the options relied on, and for assessing the adequacy (sufficiency and validity) of any compensation measures or offsets. Applicants should conduct a thorough inventory of all areas potentially affected by the project that are expected to support any species at risk or species of special status. Consult federal, provincial, territorial, regional and local databases (e.g., conservation data centres) and any other information associated with species of special status. Species data in existing databases may not be systematically collected or updated and, therefore, a database search may not be sufficient to support a conclusion about the absence of a species in the area. Additional guidance, including direction to relevant federal, provincial, territorial and other related information, is available from the COSEWIC and Environment and Climate Change Canada.

Air Quality	
Filing Requirements	**Guidance**
1. For effects, or public concerns, associated with dust or emissions from construction activities: • provide an overview of concern; and • provide a qualitative assessment.	Where there is a potential for effects on aesthetics or human health see Table 6-3.
GHG Emissions and Climate Change	
Filing Requirements	**Guidance**
1. **Direct emissions** – for project construction and for project operations (including maintenance): • describe the sources of GHG emissions; • provide a quantitative estimate of total GHG emissions and net GHG emissions [a]; • identify and explain which climate change laws, regulations and policies apply to the GHG emissions and to what extent; • provide a comparison of the project's predicted GHG emissions to total national sector-based GHG emissions, total provincial GHG emissions, and to Canada's GHG reduction targets; and • describe the mitigation measures to be implemented for GHG emissions reduction and for continuous improvement of GHG emissions management. 2. **Credible plan to achieve net zero** – for projects with a lifetime beyond 2050, applications must include a credible plan to achieve net-zero emissions by 2050 (hereafter referred to as "net-zero plan").	The guidance around GHG Emissions and Climate Change considers the principles and objectives of Environment and Climate Change Canada's (ECCC) *Strategic Assessment of Climate Change*. As noted in section 6.4, the level of detail and analysis should be commensurate with the nature of the project and the potential for effects. A scalable approach, as provided in Figures 6-2 to 6-5, should inform the level of information an applicant may file. Refer to section 6.9 for further guidance around whether a project's effects could hinder or contribute to the Government of Canada's ability to meet climate change commitments. **Quantification of direct and acquired GHG emissions** The GHG emissions assessment should, as appropriate: • include point and area sources; • include other sources, including emissions from changes in land use and burning of vegetation during land clearing; • include a description and justification of the methods (including emission factors used) and assumptions used in the estimation; and • clarify the approach to determine avoided domestic emissions, including what project-specific mitigation and offset measures have been accounted for in the

3. **Climate change resilience** – provide an assessment of the resilience of the project to climate change impacts. 4. **Impact of the project on Canada's efforts to reduce GHG emissions** – discuss how the project may hinder or contribute to Canada's efforts to reduce GHG emissions.	quantitative estimate of GHG emissions, and describe the criteria used for this. In addition, quantitative estimates should, as appropriate: • be provided as quantities of individual gases, and in terms of carbon dioxide equivalent for both project GHG emissions and net GHG emissions; • for project operations, be provided on an absolute annual basis and in emissions intensity terms; and • describe engineering design assumptions to reduce or avoid GHG emissions during operations and maintenance activities. Applicants may consider using appropriate industry-wide estimates for their assessment of GHG emissions, insofar as these are currently up to date. If project operations depend on electrical or other energy requirements (e.g., to supply power for facility stations) that must be acquired from a third party or other corporate entity, these must be included in the project's GHG emissions assessment. For guidance on avoided emissions and offset measures, see ECCC's Draft technical guide related to the strategic assessment of climate change: *Guidance on quantification of net greenhouse gas (GHG) emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment*. **Mitigation measures (including offset measures) and net-zero plan** Discussion of mitigation measures, including the use of best available technologies/best environmental practices, should include the alternative means considered to reduce GHG emissions and justification for why the preferred option was chosen, such as technical and economic feasibility. Offset measures (such as carbon dioxide captured and stored, corporate-level initiatives, and use of offset credits) should generally be considered a last resort when reasonable efforts at avoiding and mitigating

	the GHG emissions have been exhausted. The appropriateness and potential of offsets for residual emissions, including timing and implementation of these offsets, should be explained. Further mitigation can also be included in the net-zero plan. All projects will be assumed to have lifetimes beyond 2050, unless otherwise demonstrated. A net-zero plan should be based on the principles outlined in the SACC and related Technical Guides. The plan should include: • actions that will be taken to achieve net-zero emissions by 2050, including an implementation schedule for the actions (such as a timeline for technology upgrades or replacements); • a description of the approach to determining avoided emissions and using offset credits; • any additional project-specific mitigation and offset measures that will be implemented for the project to achieve net-zero emissions by 2050; • a description of the process that will be followed in order to make the decisions and investments needed; • supporting information and/or assumptions for each action or measure, including a discussion of factors such as associated costs, potential impacts on tolls, technical challenges, risks, infrastructure requirements, and any other relevant considerations; and • periodic project milestones that demonstrate GHG reductions towards net-zero. The periodic milestones should incorporate assumptions and emissions intensities and account for evolving regulatory measures and policies. Consistent with the requirements contained in Chapter 5 of this manual around engagement, applicants should engage with potentially

	affected Indigenous Peoples on the GHG mitigation and net-zero plans. **Climate resilience** The GHG emissions assessment should undertake an assessment of the resilience of the project to climate change impacts. This assessment should, as appropriate, include: • methods used to identify, evaluate and manage the climate risks that could affect the project itself and the surrounding environment; and • the project's vulnerabilities to climate change, for example impacts of extreme weather events on project infrastructure, on water quality and availability, etc. See Table 6-2 Physical and Meteorological Environment for further requirements and guidance. **Impact of the project on Canada's efforts to reduce GHG emissions** The discussion of laws, regulations, and policies should cover those at relevant regional, provincial, federal, and international levels. Examples might include targets, carbon pricing, mandatory reductions or offsets, and reporting programs. In assessing the extent of emissions, consider relevant national sector-based totals as well as provincial emissions for comparison. Regional airshed-based studies may also be applicable. Discuss how the project's predicted GHG emissions impact Canada's GHG reduction targets. **Reference documents** The GHG emissions assessment should consider relevant estimating, reporting, and other applicable technical guidance, such as: • ECCC's *Strategic Assessment of Climate Change* and related Technical Guides (as released and updated) • ECCC's Reporting greenhouse gas emissions

	• Greenhouse Gas Pollution Pricing Act
	• ECCC's sector-specific tools to calculate emissions
	• Impact Assessment Agency of Canada's Policy Context: Considering Environmental Obligations and Commitments in Respect of Climate Change under the *Impact Assessment Act*
	• The GHG Protocol Corporate Accounting and Reporting Standard (World Resources Institute and World Business Council for Sustainable Development)
	• International Standards Organization standards:
	  ○ ISO-14064:1
	  ○ ISO-14064:2

GHG Emissions and Climate Change – Assessment of Upstream GHG Emissions Projects	
Filing Requirements	**Guidance**
1. **Upstream GHG emissions** • Applicants should indicate if the upstream emissions associated with the project are likely to be above or below the applicable threshold presented in section 3.2 of ECCC's *Strategic Assessment of Climate Change.* • If above the identified threshold, provide an assessment of upstream GHG emissions based on currently available ECCC guidance.	In accordance with the SACC guidance, the assessment of upstream GHG emissions should describe the methodology, data, and assumptions used and explain how the assessment is consistent with the supply forecast and analysis of the need for the project. The net-zero plan does not apply to upstream GHG emissions, even if an upstream GHG emissions assessment is conducted. Further guidance and practice for upstream GHG emissions estimation can be found in ECCC's *Strategic Assessment of Climate Change* and related Technical Guides (as released and updated).
Acoustic Environment	
Filing Requirements	**Guidance**
1. Where there is a public concern associated with an increase in noise levels during	The effects assessment must consider:

construction, provide a noise impact assessment, including an overview of the concerns. 2. For projects that result or may result in an increase in noise emissions during operations or maintenance: • describe existing ambient noise levels in the area, including the methods and data sources used to determine the ambient levels; • identify the potentially affected receptors and permissible sound levels for each receptor; • quantify noise levels at appropriate distances from the facility (e.g., at edges of RoW/facility and at the affected receptors) and describe the frequency, duration and character of noise; • provide the predicted sound levels from the project alone and predicted cumulative sound levels in combination with other existing and future physical facilities and activities in the area, including an assessment of low frequency noise; • describe engagement with regulators, stakeholders, community groups, landowners and Indigenous Nations about potential effects of the project on the acoustic environment; • identify and justify the applicable guidelines used to determine the significance of the effects of the predicted emissions associated with the project; • provide a noise management plan, including identification of noise sources, an assessment of current noise mitigation measures, performance effectiveness of noise control devices, best practices programs and continuous improvement programs; and • identify the need for a follow-up monitoring for the purposes of	• any effects from inaudible noise (e.g., low frequency noise); and • the effects of noise on wildlife. Noise management plans must consider: • notification of nearby residences and local authorities of plans and procedures for preventing and managing noise. Where there is a potential for human health effects see Table 6-3. Additional guidance: • AER's Directive 038: Noise Control • Alberta Utilities Commission's Rule 012 – Noise Control (AUC Rule 012) • BC Energy Regulator's British Columbia Noise Control Best Practices Guideline For projects in provinces with no guidelines, please refer to AER Directive 038 or AUC Rule 012, whichever is the most appropriate.

validation of the model or as a result of any concerns raised by the public. 3. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	
Electromagnetism and Corona Discharge	
Filing Requirements	**Guidance**
1. For operating voltages above 240 kV, describe: • the levels of noise, • ozone concentration, • electric field gradient and magnetic field strength expected at the edge of the right-of-way at maximum loading of the international power line, • the predicted electromagnetic field levels; and • any relevant standards. 2. Identify the potential for any electromagnetic interference with radio and television signals and reception, under fair and foul weather conditions at maximum load. Describe the area potentially affected, the frequency and duration of occurrence, and any applicable standards. 3. Describe potential induction effects on other infrastructure operators. Where this could affect existing operations describe any authorizations required and engagement with potentially affected infrastructure operators and how any concerns raised will be addressed.	Where there is a potential for human health effects see Table 6-3. Describe noise associated with corona discharge from power lines during periods of foul weather, describe: • the frequency of foul weather periods and how these are defined; and • predicted audible noise levels for both fair and foul weather periods, at appropriate distances from the facility (e.g., at edges of RoW and at nearest or most affected receptors). With respect to electromagnetic field levels, describe quantitatively: • ambient conditions; • distances to edge of RoW, nearest residences, schools and other public institutions; • modeling and prediction of environmental conditions during construction and operations at the above distances; and • distance to where predicted conditions would meet any applicable standards, and populations within that radius.
Environmental Obligations	
Filing Requirements	**Guidance**

1. Provide a listing of Government of Canada environmental obligations that may potentially be relevant to the project. 2. Provide an appropriate summary or concordance table summarizing where in the application each of the Government of Canada environmental obligations identified and listed have been considered. 3. Where the environmental obligations are addressed in the application, this must be part of an appropriate assessment of potential effects and applicable mitigation. The assessment should include discussion of how the project may hinder or contribute to Canada's efforts to meet any relevant environmental obligations.	As noted in section 6.4 Level of Detail, the depth of analysis should be commensurate with the nature of the project and the potential for effects. As noted in both the existing Filing Manual guidance on Engagement (section 3.4.2) and in the CER Early Engagement Guide, applicants should also consult with appropriate federal government agencies for assistance in identifying federal environmental obligations relevant to the project. • Canada's environmental obligations may cover a range of environmental issues and refer to the obligations of Canada in domestic and international law in relation to the protection of the natural environment. Environmental obligations are set out in domestic instruments such as federal legislation and regulations, with which compliance is a requirement. • In addition to obligations implemented in Canadian law and regulation, other domestic instruments developed to implement federal environmental obligations may include policy documents, plans, frameworks, and targets or quantitative goals. • Legal requirements, policy direction, plans, frameworks, and targets or quantitative goals will often be specific to a particular environmental issue and should inherently be covered in an applicant's environmental and socio-economic assessment. In the applicant's assessment of potential effects on any particular valued component, applicants should relate this to any relevant requirements or standards being met. From this, applicants should also identify any related Canadian environmental obligations. • The listing of environmental obligations may be organized by biophysical element or valued environmental component, or be

	organized by any other alternative method of categorization that is systematic in approach. Consider also including the associated domestic instruments. • Project routing, design features and proposed mitigation measures may limit or reduce the extent to which a project hinders Canada's ability to meet its environmental obligations. In some instances they may also result in contributing to meeting those obligations. Example – the Federal Wetland Policy would typically be referenced and inform an applicant's environmental assessment of wetlands. In addition to the policy being considered in the assessment of project impacts on wetlands, it should also be cited in the listing of Government of Canada environmental obligations and the assessment should be referenced.
[a] Net GHG emissions = Direct GHG emissions + Acquired energy GHG emissions – Avoided domestic GHG emissions – Offset measures (see section 3 of SACC).	

Figure 6-2: Scalable approach to climate change factor assessment

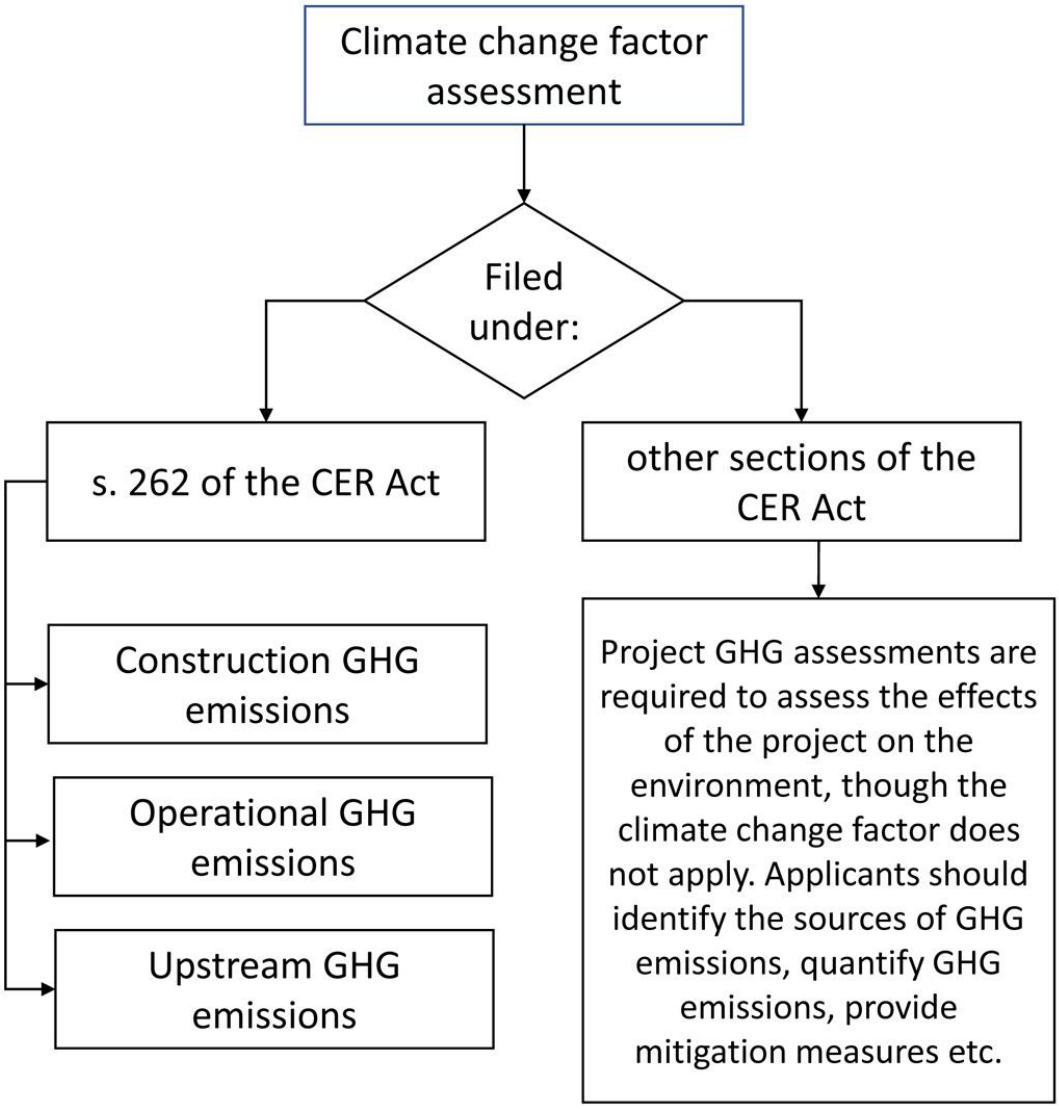


Figure 6-3: Scalable approach – construction GHG emissions

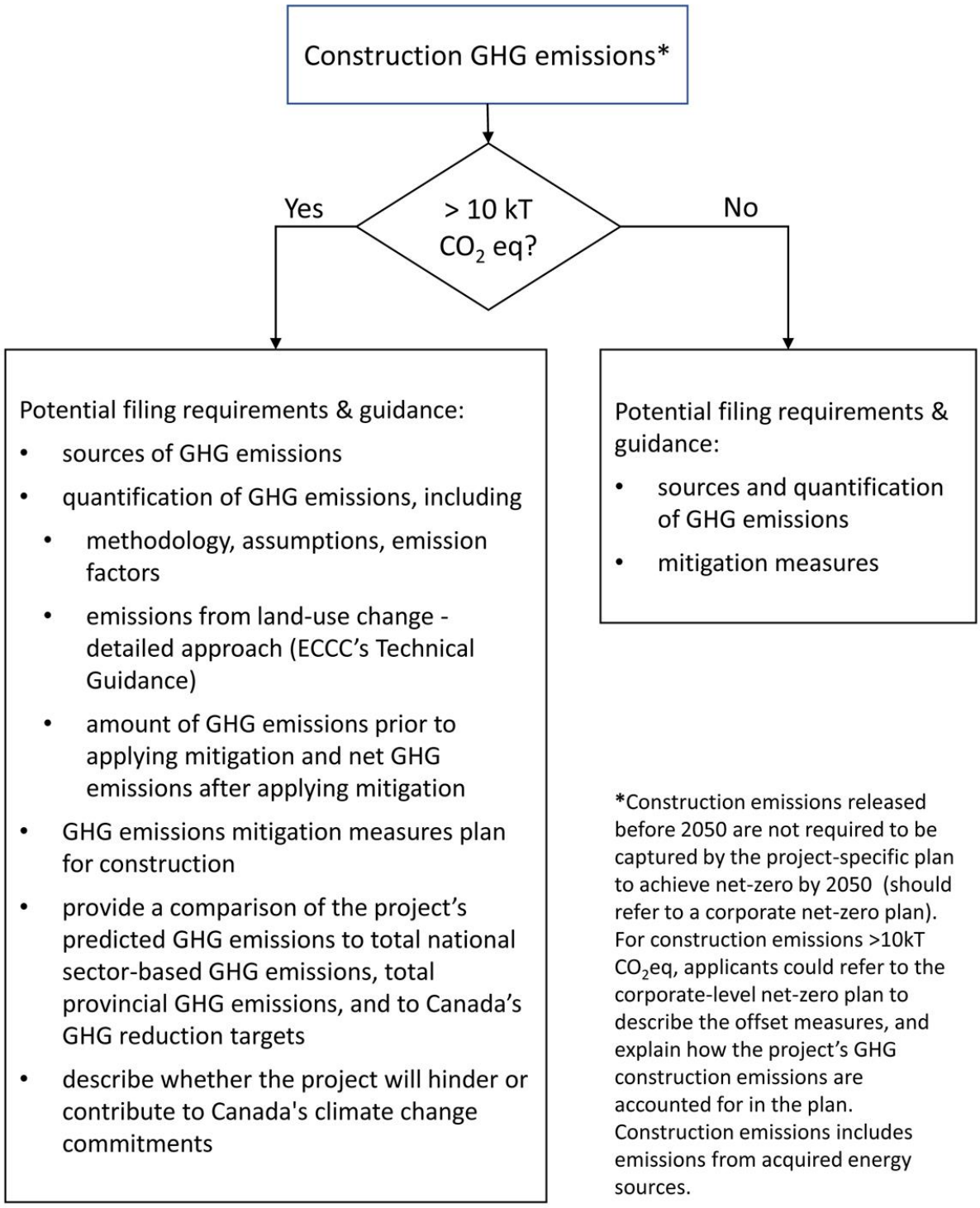


Figure 6-4: Scalable approach – operational GHG emissions

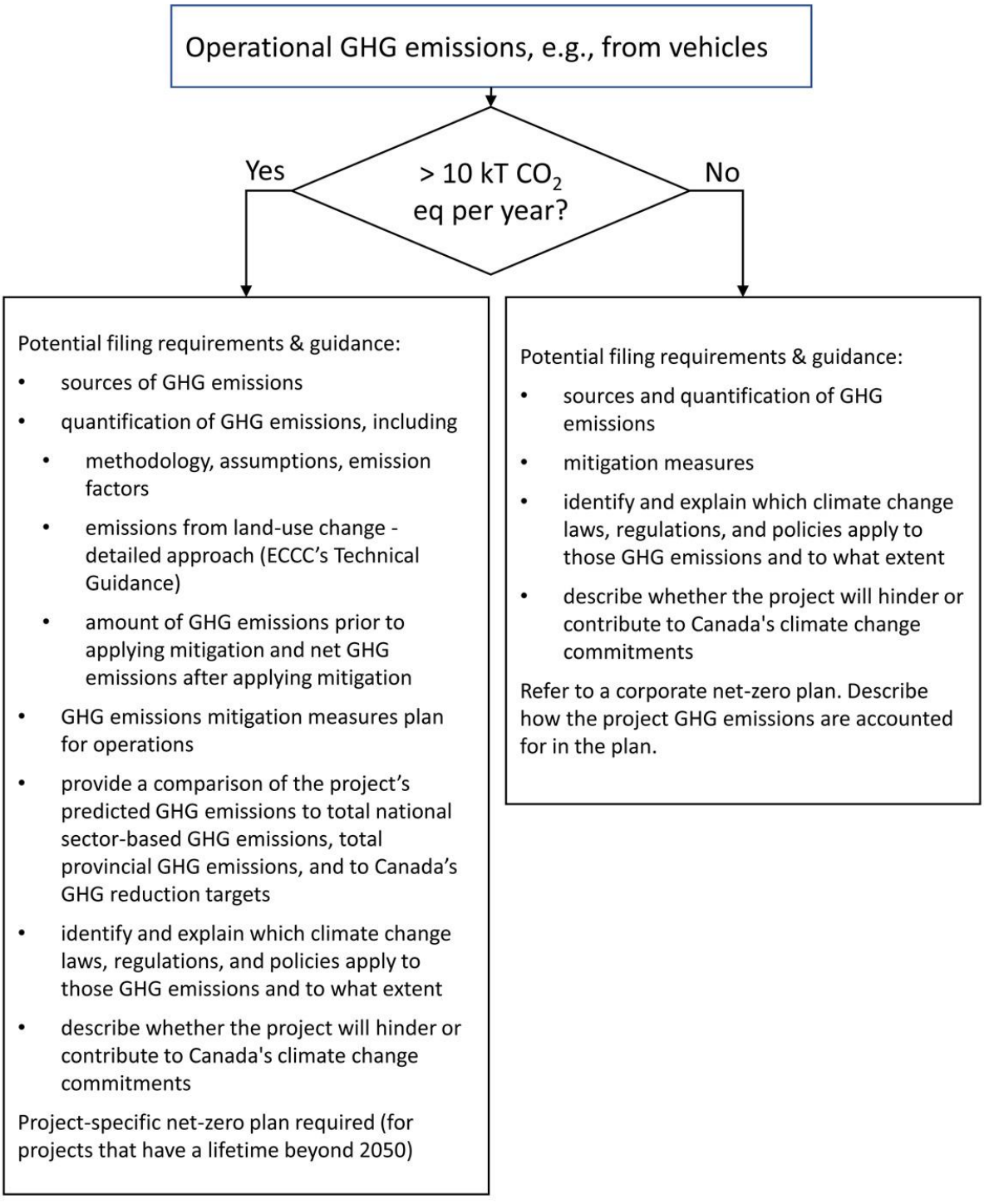
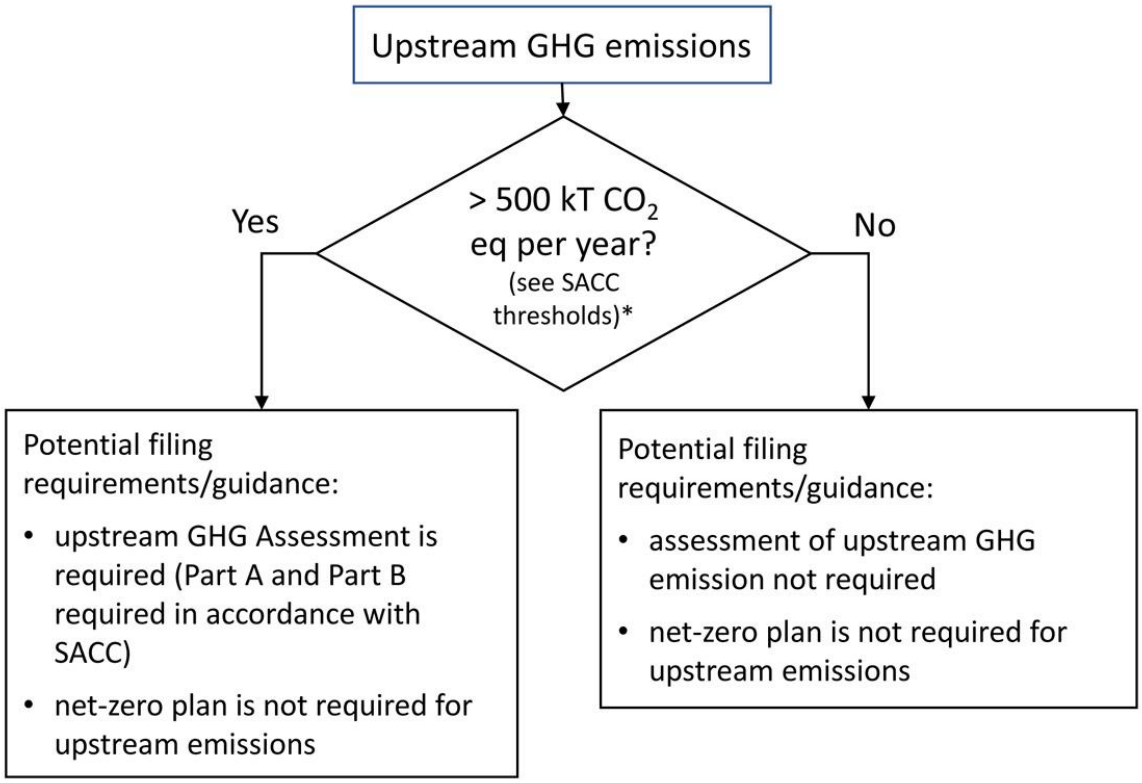


Figure 6-5: Scalable approach – upstream GHG emissions



*thresholds decline over time, as set out in the SACC

6.9 Supplemental guidance on Greenhouse Gas Emissions and Climate Change

The GHG emissions and Climate Change factor is one of several factors that the Commission considers when making certain public interest decisions or recommendations for proposed projects. The information provided in an application and related submissions addressing the GHG emissions and climate change factor will support the Commission in determining the extent to which the effects of the project may hinder or contribute to Canada's climate change commitments.

The following sections provide additional context for applicants on GHG emissions and climate change assessments in relation to CER-regulated projects. This guidance is intended to be considered along with other filing requirements and guidance in Chapter 6 of this manual.

Considerations for assessing the effects of a project on Government of Canada's climate change commitments

Key elements that the Commission may consider on a project's potential hindrance or contribution to Canada's climate change commitments include:

1. Magnitude of GHG emissions;
2. Mitigation measures for GHG emissions;
3. Applicability of relevant laws, regulations and policies;
4. Net-zero plan;
5. Impact of the project on Canada's efforts to reduce GHG emissions;
6. Climate change resilience; and
7. Upstream emissions.

The following sections expand on each element above. Guiding questions for each element are also provided.

1. Magnitude of GHG emissions

In assessing the magnitude of emissions, the Commission considers the sources of direct GHG emissions that would be expected throughout the entire lifecycle of a project. The potential GHG emission sources for a proposed project or activity will vary, depending on the type of facility and planned activities.

GHG emissions associated with **project construction** generally stem from sources such as operation of construction equipment, land-use change (e.g., clearing), and biomass burning. These sources illustrate some examples and could include other sources as well. Emissions from construction equipment are dependent on variables such as terrain complexity and season.

GHG emissions associated with **project operation** for power lines are project-dependent but are generally very small arising from vehicle or equipment emissions from maintenance and inspection activities.

As explained in Table 6-2 of this manual, applicants are expected to provide the methods and assumptions used to quantify project-related GHG emissions. Applicants are expected to use

recent scientifically recognized emissions estimate equations and emission factors. Applicants are also encouraged to use the most current annually released ECCC's National Inventory Report's emission factors when calculating estimated vehicle and equipment emissions.

Applicants should provide a comparison of the project's predicted GHG emission intensity to the emissions intensity of projects similar in nature, scope, and scale. Applicants should also provide a comparison of the project's magnitude of predicted project emissions with national sector-based GHG emissions, provincial GHG emissions, as well as to Canada's GHG reduction targets (discussed below).

Magnitude of GHG emissions: Guiding Questions that the Commission may consider in its assessment

- *Is the project likely to generate high, medium, or low volumes of GHG emissions during any phase of the project when compared to similar projects in nature, scope, and scale?*
- *How does the GHG emissions intensity for the proposed facility compare to projects similar in nature, scope, and scale?*
- *Are the methods, data sources, rationale for the chosen method, and assumptions to estimate the project emissions appropriate?*
- *How does the project's predicted emissions compare to national sector-based GHG emissions,* total provincial GHG emissions, *and to Canada's GHG reduction targets?*

2. Mitigation measures for GHG emissions

Applicants are expected to undertake a comprehensive assessment of the various mitigation measures and best available technologies and environmental practices to minimize GHG emissions in each phase of the lifecycle, from clearing through to abandonment. Considering potential mitigation measures early in the design and planning phase offers opportunities to identify and plan GHG reductions. For example, in a project application, an applicant may propose situating a project in a location that requires less biomass removal.

Efforts to mitigate GHG emissions continue to evolve and improve. As such, applicants are encouraged to include a discussion of alternative measures or means that were considered and the rationale for selecting or eliminating certain measures.

Where GHG emissions cannot be avoided or reduced, the additional measures above and beyond standard mitigation (i.e., offset measures) to further reduce GHG emissions may be considered.

Section 5.1.4 of the SACC outlines information requirements for mitigation measures. Section 3 of the Draft technical guide related to the strategic assessment of climate change: *Guidance on quantification of net greenhouse gas (GHG) emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment* provides further details on principles and on how applicants can follow the best available technologies/best environmental practices determination process to mitigate the project's GHG emissions.

Mitigation Measures: Guiding Questions that the Commission may consider in its assessment

- *How were GHG emissions considered in the project design?*
- *What mitigation measures are proposed to avoid, reduce or capture GHG emissions from the project and how do these compare to current best practices?*
- *Were innovative approaches proposed for managing emissions over the life of the project?*
- *Are there any additional measures (e.g., offset measures) being implemented for the project?*

3. Applicability of relevant climate change laws, regulations, and policies

The Electricity Filing Manual sets out that applicants are expected to provide a list of the federal, provincial, or territorial GHG legislation, regulations, and policies that will apply to the project, and explain any implications for the project.

Given the rapidly evolving space of climate change policy within Canada and internationally, applicants are encouraged to plan for how further changes to laws, regulations, and policies may potentially impact the economic feasibility of a project. Potential risks of changes to the regulatory environment that could require adaptive management by the applicant could include a project's available supply, market demand, utilization, costs, and financing.

Relevant Climate Change Laws, Regulations, and Policies: Guiding Questions that the Commission may consider in its assessment

- *How are the applicable provincial or federal carbon pricing requirements (including reporting) being managed for the project?*
- *How have the potential risks associated with future changes to climate change laws, regulations, and policies been quantified and planned for? Are there adaptive management plans in place for these risks?*

4. Net-zero plan

Unless clearly articulated in a project application, the Commission assumes that all new project applications will have a lifetime beyond 2050. As such, applicants are expected to provide a net-zero plan for projects beyond 2050. Both the SACC and the Filing Manual specify that applicants may submit either a project-specific or a corporate net-zero plan, depending on the nature, scope, and scale of the project.

The level of detail that the Commission expects in a net-zero plan will depend on the nature of the project. For projects where the primary GHG emission sources are driven by the system of which it is a part (such as maintenance inspections, aerial patrols) or are managed at a corporate level, adherence to a corporate plan for achieving net-zero emissions by 2050 may be more appropriate.

Section 5.3 of the SACC and section 3.5 of the ECCC's Draft technical guide related to the strategic assessment of climate change: *Guidance on quantification of net greenhouse gas (GHG) emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment* provides further details on the principles, development, and contents of a net-zero plan. The plan will complement and be informed by the GHG mitigation measures planned by the applicant.

Net-zero plan: Guiding Questions that the Commission may consider in its assessment

- *What specific actions or measures will be undertaken to achieve net-zero emissions by 2050?*
- *What are the associated costs of implementing each action or measure; potential impacts on tolls, technical challenges, risks, infrastructure requirements, and any other relevant considerations?*
- *Has the applicant committed to providing periodic project milestones that demonstrate progress in GHG reductions towards net zero?*
- *How does the net-zero plan impact the economic feasibility of the project?*

5. Impact of the project on Canada's efforts to reduce GHG emissions

In recent years, there has been a substantial evolution in Canada's climate policy environment, shaping the future context for Canadian energy supply, demand, trade, and infrastructure. Among these commitments are the Paris Agreement, Canada's 2030 target, the goal of Canada achieving net-zero emissions by 2050[4], and other obligations. Given the magnitude of change required for Canada and the world to reach net-zero emissions by 2050, future policy, market, and technology changes will continue to shape energy in Canada over the next three decades. Examples of key developments include the 2016 Pan-Canadian Framework on Clean Growth and Climate Change, the *Canadian Net-Zero Emissions Accountability Act* (including the 2030 Emissions Reduction Plan.)[5], A Healthy Environment and a Healthy Economy, and Canada's National Adaptation Strategy.

The Commission recognizes that displacing high emission intensity projects with lower emission intensity projects or facilitating GHG removals can contribute to Canada's climate change commitments.

Impact of the project on Canada's efforts to reduce GHG emissions: Guiding Question that the Commission may consider in its assessment

- *Is the project contributing to the Government of Canada's ability to meet its commitments in respect of climate change by reducing or eliminating GHG emissions or by facilitating GHG removals?*

[4] See Strategic Assessment of Climate Change

[5] For additional and updated information, please see ECCC's Canada's climate plans and targets - Canada.ca.

6. Climate change resilience

Applicants are expected to undertake an assessment of the resilience of the project to climate change impacts. The scope and scale of an assessment of a project's climate related-risks and development of a risk treatment plan should be tailored to the individual project, depending on the potential vulnerabilities and complexity of interactions.

The Draft technical guide related to the strategic assessment of climate change: *Assessing Climate Change Resilience* sets out an approach to assessing how a project is resilient to, and at risk from, both the current and future impacts of a changing climate.

Climate change resilience: Guiding Questions that the Commission may consider in its assessment

- *How is the project at risk from climate change impacts?*
- *Has the applicant considered the magnitude and probability of these climate-related risks and identified appropriate risk treatments and adaptive management measures (as necessary) in the project design?*

7. Upstream emissions

The Electricity Filing Manual sets out when applicants are required to provide an estimate of upstream emissions – such as those from a generating facility – and the extent to which those emissions would be incremental as a result of the project. The SACC provides guidance on the thresholds for consideration of upstream emissions, and these thresholds are applied in the context of CER-regulated projects. Consideration of upstream emissions will typically include quantitative estimates of emissions, as well as a qualitative discussion about the incrementality of these emissions. The qualitative discussion provides context in which the project will be operating, and whether the estimated upstream emissions would occur with or without the project.

Upstream emission assessments may also be a key element in considering the overall cumulative effects of any proposed project. The Commission expects that the scope of the upstream assessment be consistent with the development assumptions that support a given project (see section 6.7). Further, the Commission expects the assessment to be consistent with the long-term economic, financial, and engineering assumptions made in an application.

Sections 3.2 and 3.3 of the SACC outline information requirements for an upstream GHG emissions and uncertainty assessment. Further guidance on upstream GHG assessment is provided in section 5 of the Draft technical guide related to the strategic assessment of climate change: *Guidance on quantification of net greenhouse gas (GHG) emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment*.

Upstream Emissions: Guiding Questions that the Commission may consider in its assessment

- *Are the project-related upstream emissions above the thresholds outlined in the SACC? If yes, did the applicant undertake a quantitative assessment of upstream GHG emissions associated with the project?*
- *Did the applicant follow the methodology outlined in ECCC's draft Technical Guides?*
- *Will the project result in incremental upstream GHG emissions? Has the applicant appropriately addressed the impact of cumulative and incremental emissions on Canada's climate change commitments?*
- *How have the potential risks associated with future changes to climate change laws, regulations, and policies applicable to upstream emissions been quantified and planned for?*

Decision making and conditions

The information contained in the application, and any additional information provided through the adjudicative process, will inform the Commission's assessment of the GHG emissions and climate change factor. The Commission may impose conditions related to this factor. These conditions would vary based on the scope, scale, and nature of projects under review. Conditions may refer to additional mitigation measures and other requirements to avoid or reduce a project's GHG emissions. Conditions may also include a reporting requirement in which the applicant would be expected to demonstrate progress toward implementing these mitigation measures as well as the plan for reaching net-zero emissions by 2050 (for projects with a lifetime beyond 2050).

Table 6-3: Filing Requirements for Socio-economic Elements

GBA+ throughout

Both the adverse effects of the project, as well as project benefits, can impact people in different ways depending on a variety of identity factors, such as sex, gender, age, culture, Indigeneity, and ability. Gender-based analysis plus (GBA+) can help to consider such differences. In the context of assessing the effects of a proposed project, this includes asking questions such as:

- What are the relevant identity factors that might determine the extent to which someone is positively or negatively affected by the project?
- How are adverse effects and benefits of a project expected to vary according to these relevant identity factors?
- Are tailored mitigation measures available to address the expected differences in the impact of adverse effects and distribution of benefits?
- Are such measures practical for the project, and can effectiveness be monitored over time?

GBA+ should be applied when considering each of the socio-economic elements in the following tables. In addition, where project impacts may have specific or adverse effects on

Indigenous women within potentially affected Indigenous Nations, these potential impacts and the measures proposed to mitigate such impacts should be discussed. Note that differing identity factors might be relevant within different elements – for example, the group of people that may be differentially affected by project impacts on resource use might differ from the group of people that may be differentially affected by project impacts on human health or project-related employment. Where any issues relating to the privacy of individuals are raised, or where information is considered confidential or is otherwise unavailable, a rationale for the approach taken should be provided.

Further discussion on GBA+ is available via the Women and Gender Equality Canada federal government website. Specific guidance on the application of GBA+ to impact assessments has been developed by IAAC and should also be consulted.[6]

Human Occupancy and Resource Use	
Filing Requirements	**Guidance**
1. Describe the general patterns of human occupancy and resource use in the study area. 2. Describe the potential interactions of the project with local and regional human occupancy and resource development activities. Include effects the project may have on the maintenance of those activities and on the livelihood of local workers, business owners and operators. 3. Describe the goals of any applicable local or regional land use plans or local or regional development plans and the extent with which the project aligned with such plans. 4. Identify predicted impacts of the project on the quality and quantity of ground or surface water used for domestic, commercial, agricultural or recreational uses. 5. Identify any predicted visual or other aesthetic effects of the project on existing land use in the study area. 6. Identify any predicted effects of the project on livestock health and productivity. 7. Describe any site specific and project wide mitigation to address identified effects. 8. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and	The assessment of potential impacts on human occupancy and resource use must evaluate: • rural and urban residential areas (includes both year-round and seasonally occupied facilities), lands in a reserve within the meaning of subsection 2(1) of the *Indian Act*, Indigenous Nations and Indigenous traditional territories; • agricultural areas (including specialty crops, orchards and vineyards); • health and productivity of livestock; agricultural areas (including specialty crops, orchards and vineyards); • recreation and park areas (including local and provincial or territorial parks and recognized scenic areas); • lands under Parks Canada's jurisdiction, conservation areas, International Biological Program Sites or other ecological reserves or preserves; • industrial and commercial areas; • controlled or managed forest areas (including agreement forests and timber sales areas);

[6] See Practitioner's Guide to Federal Impact Assessments

expand on the matters described above as appropriate.	• registered or recognized hunting, trapping or guiding areas and commercial and sport fishing areas; • water reserves and licences, and water supply sources or intakes for agricultural, industrial, commercial, residential and municipal users; and • transportation infrastructure which, in addition to road and rail infrastructure, would also include navigable waterways. The project should be assessed for compatibility with local and regional land use and development plans. Where “multiple-use” is permitted, it should also be assessed for compatibility with existing uses. If there is a predicted effect on the use of traditional territory or potential or established treaty or Indigenous rights, refer to the Traditional Land and Resource Use element within this table. If there is a predicted effect on a biophysical component (e.g., Water Quality and Quantity, Acoustic Environment,) that could affect Human Occupancy and Resource Use, refer to that biophysical component in Table 6-2. If there is a predicted effect on visual or other aesthetic qualities, refer to the guidance under the Human Health element within this table.
Heritage Resources	
Filing Requirements	**Guidance**
1. Describe any known heritage resources in the study area. 2. Determine the potential for any undiscovered heritage resources in the study area. 3. Describe what contingency plans and field measures would be undertaken should a heritage resource be discovered during construction. 4. Provide copies of correspondence from provincial or territorial authorities responsible	Applicants must be aware of any federal, provincial or territorial legislation or guidelines for identifying and protecting heritage resources. Applicants must engage with Indigenous Nations with concerns about heritage resources in the project area. Although lands may be previously disturbed, an archaeological and paleontological assessment may still be required.

for heritage resources with comments respecting any heritage resource impact assessment and proposed mitigation measures. 5. Provide a statement indicating whether the company will implement the recommendations of the provincial or territorial heritage resource authorities. 6. If a previous heritage resource assessment has been completed in the study area, a summary should be filed along with any additional mitigation measures specific to the applied-for project.	The heritage resources assessment must be completed by a qualified archaeologist or paleontologist and include details of the field methodology used in the study. Where there is potential for discovery of heritage resources during construction or operations activities, a heritage resources contingency plan must be submitted. The plan must state at a minimum, who would be contacted and under what conditions work would stop and resume.
Traditional Land and Resource Use	
Filing Requirements	**Guidance**
1. Describe how lands and resources in the study area are currently used by Indigenous persons or communities for traditional purposes. 2. Identify the Indigenous persons or communities currently carrying out traditional land and resource use activities, the spatial and temporal extent of use, and how the project would impact on this use. 3. Describe all reasonable alternatives to the project considered that would avoid the impact on the Indigenous traditional land and resource use considered during project development. 4. Describe all feasible measures that would be taken to mitigate the impact of the activity on Indigenous traditional land and resource use. 5. Describe the methodology used to collect the Indigenous land and resource use information and provide a listing, and the rationale for the listing, of all Indigenous persons and communities contacted. 6. Demonstrate that those Indigenous persons and communities participating in collecting traditional use information have had the opportunity to review the information and proposed mitigation. Include any comments	An assessment of impacts on current use of lands and resources for traditional purposes by Indigenous people is required for the ESA. Indigenous people may use lands for various traditional activities such as hunting, fishing, trapping, berry picking, and plant gathering, for medicinal, cultural or household use, as well as cultural or spiritual ceremonies. In assessing the temporal aspects of traditional land and resource use, note the frequency, duration and seasonal aspects of each activity. In assessing the spatial aspects of traditional land and resource use, note that some activities could be site specific (e.g., berry-picking areas) but others may not (e.g., hunting may extend over a broad area and temporal considerations may be more relevant). Applicants must also refer to the assessment of the applicable biophysical element (wildlife and wildlife habitat, vegetation, and fish and fish habitat) when considering traditional land and resource use. Where confidentiality of the traditional land and resource information is a concern, this information may be provided in the following manner: • a traditional land use study in which the information is provided using a

from the Indigenous participants on the information and proposed mitigation. 7. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	system of data classification to protect the confidentiality of site-specific details; • a traditional land use study including the methodology and proposed mitigation; or • alternatively, applicants may ask permission to file the study confidentially, in accordance with the criteria set out in section 60 of the CER Act.
Social and Cultural Well-Being	
Filing Requirements	**Guidance**
1. Describe the socio-cultural setting of the study area, indicating the: • predominant cultural communities and Indigenous Nations; • demographic features of the local population and workforce; and • prevalent socio-cultural concerns of residents, families and workers in the study area. 2. Provide an overview of the predicted socio-cultural effects on the local community from the project. 3. Describe the interactions of project construction, operations, and maintenance workforces with the local community, residents and businesses. 4. Describe any mitigative measures to address identified effects. 5. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	Socio-cultural effects on local communities may arise from various sources and may include: • an increase in temporary or permanent residents to an area; • location of construction camps within, beside or near local communities; • a significant increase to, or uneven distribution of, personal income at the community level; and • disruptions to cultural traditions and institutions. The potential effects from the sources listed above may include: • stresses on community, family and household cohesion; • alcohol and substance abuse; or • illegal or other potentially disruptive activities. The identification and evaluation of potential effects must: • be conducted at the community level rather than the individual level to protect the privacy of individuals; and • include engagement with local, regional and Indigenous social and

	cultural service providers, agencies and institutions as appropriate. The local community could include: • more than one inhabited area within the study area; and • more than one cultural group within an inhabited area.
Human Health	
Filing Requirements	**Guidance**
1. Describe and quantify: • the project related activities, toxic components, nuisances and environmental changes that could potentially be sources of adverse human health effects; and • the potential human receptors of these effects. 2. Where the project could create air, water or noise emissions or effluent discharge levels that meet local, provincial, territorial or federal guidelines (e.g., CCME Guidelines, AER Directive 038, AUC Rule 012), yet public concerns regarding human health effects have been raised, provide a description of the public concerns and how they would be addressed. 3. Where the project could create health effects, summarize how these effects would be mitigated. 4. Where it is reasonable to assume there could be a potentially high or significant risk to human health from the project, provide a human health risk assessment. 5. Provide a description of any predicted visual or other aesthetic effects of the project on residents or other potentially affected persons or users in the study area. 6. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	Applicants must consider the potential for effects to human health to determine the level of assessment required. For example, where the project may cause nuisance-related health concerns, applicants must summarize the effect, outline mitigation measures to minimize the effect, and give appropriate details of analytical procedures used (e.g., a source and release assessment, exposure assessment, dose-response assessment or risk characterization). Identifying and evaluating potential human health effects must include engagement with local, regional, Indigenous, provincial or territorial, and federal health service providers, agencies and institutions, as appropriate. Applicants must consider the potential effects of the project on the health of susceptible groups such as: • local residents, landowners and tenants; • the elderly and children; and • others who may regularly use the study area such as recreationalists, hunters and trappers. Applicants must also consider how the project may impact the health of those using traditional areas for hunting, trapping, fishing, berry picking, and medicinal plant collection. This consideration must be linked with the applicant's assessment of traditional land and resource use.

	As the definition of human health includes consideration of mental and social well-being, applicants must also consider any adverse emotional or social stressors potentially resulting from the project including: • concern for public safety from construction or operations-related accidents or malfunctions; or • disruption of normal, daily living activities. Where a particular project emission or effluent discharge level falls below or within applicable limits, additional mitigation may not be required. However, where the change may be substantial, even if within set limits, due to local or regional circumstances or the extent of the change, the applicant must provide any other additional mitigation to minimize pollution and future human health risks. A visual impact assessment must consider and describe factors such as, but not limited to: • how landforms, vegetation cover and other landscape features may or may not screen or visually absorb the project; • how the project will compare with other adjacent or nearby built features; • identification of view points and areas from which the project will be visible • identification of views affected by the project; • the depth of view to any project obstruction of views; and • the width of angle of vision obstructed by the project. Where visual impacts are a concern the assessment should consider using methods such as photographic superimposition, mapping or GIS modeling of viewsheds. Applicants must clearly link this portion of their assessment to those sections of their assessment that consider the biophysical elements affecting human health (e.g.,

	Acoustic Environment or Water Quality and Quantity). Consult Health Canada for information on human health impact assessments and to access The Canadian Handbook on Health Impact Assessment. Health indicator data is available from Statistics Canada.
Infrastructure and Services	
Filing Requirements	**Guidance**
1. Describe the existing local and regional infrastructure in the study area, including: • railways; • roads, highways and their traffic usage levels and patterns; • pipelines, water mains and sewage lines; • navigable waterways; • existing power lines; and • any other potentially affected facilities. 2. Describe the existing local and regional services in the study and the predicted effects on those services. Include an assessment of effects to: • accommodation, including camping facilities; • recreation; • waste disposal; • police; • fire-fighting; • ambulance; and • health care services. 3. Describe potential induction effects on other infrastructure operators. Where this could affect existing operations describe any authorizations required and consultations with potentially affected infrastructure operators	The assessment must consider, and where possible quantify, how project construction and operation activities may affect local or regional infrastructure and services, such as: • housing; • educational facilities; • essential and emergency services (fire, police, ambulance, hospital) including the standard of service provided (e.g., response time); • recreational requirements; • transportation; and • utilities including water, sewer, waste disposal, electricity. Effects related to the above-noted factors must be assessed from the perspectives of both: • the project's needs for infrastructure and services (e.g., to meet workers' needs for housing or transportation); and • the project's effects on local infrastructure and services, and consequent effects on local residents (e.g., project effects on availability of housing for local residents or on traffic flows and delays to the local population). Applicants must consider any local and provincial or territorial guidelines regarding emergency services or requirements for

and how any concerns raised will be addressed. 4. Describe any need for government and applicant expenditures for new or expanded services or infrastructure, arising out of project-related effects. 5. Describe any mitigative measures, including applicable plans, to address identified effects. 6. Where residual effects have been predicted, identify whether those residual effects would be likely to act in combination with the effects of other physical facilities or activities and expand on the matters described above as appropriate.	heavy load vehicles and construction access permits.
Navigation and Navigation Safety	
Filing Requirements	**Guidance**
1. Provide a listing of navigable waterways that the proposed power line corridor will pass in, on, under, over, through or across and the proposed crossing methodology. 2. Provide a listing of ancillary project components that will be constructed in, on, under, over, through, or across navigable waterways to support the power line project (e.g., temporary and permanent bridges). 3. Provide a listing of potentially affected waterway users and describe consultation conducted with waterway users and Indigenous Nations regarding navigational use, issues raised, and how issues have been addressed. 4. Describe project effects on navigation and navigation safety. 5. Describe proposed mitigation measures to address project effects on navigation and navigation safety.	Where there are waterways which are considered navigable and there are project effects on navigation and navigation safety, Applicants must assess who navigates the affected waterways (e.g., tourism groups, guide outfitters, anglers, kayaking organizations), the type of craft, the ability to notify waterway users of impediments, the project effects / impacts on safe and reliable navigation, and identify mitigation measures to minimize or eliminate project effects on navigation and navigation safety. Applicable codes such as CSA 22.3 Overhead Systems are to be adhered to.
Employment and Economy	
Filing Requirements	**Guidance**
1. Describe the local and regional employment situation in the study area.	The assessment should include a quantitative and qualitative review of:

2. Describe any local or regional training and employment development plans. 3. Describe the ability of local and Indigenous residents and businesses to provide labour services, equipment, supplies and other contracting needs during construction, operation and maintenance of the project. 4. Describe plans to encourage local and Indigenous employment, procurement and contracting opportunities. 5. Describe any training programs the applicant is supporting to enhance employment opportunities for local and Indigenous residents. 6. Provide an estimate of the anticipated levels of local and regional economic participation in the project in comparison to the total project requirements (e.g., number of workers and total dollar value of contracts). 7. If the project has the potential to directly affect local, regional, provincial, territorial or federal government revenues from tax levees or other means during construction and operation, provide a quantitative assessment of the potential impacts.	• local and regional employment and unemployment levels; • education and skill levels; • local and regional economic conditions; and • direct government revenues expected to be generated by the project. Construction and operations workforce numbers and contract values must be provided, where possible, on a month-to-month basis through the construction phase of the project and on a yearly basis for the operations phase of the project. For smaller projects, only an estimate of the construction workforce and the full-time operations workforce is required. The assessment must describe those situations when the project may directly or indirectly create economic hardship or the displacement of workers or businesses, including any mitigative measures to address these effects. If the applicant has prepared an economic benefits plan or has entered into specific cooperation agreements with communities or Indigenous Nations, the applicant should provide a summary of the employment, training and business commitments that were made.
Rights of Indigenous Peoples	
Filing Requirements	**Guidance**
1. Describe the Indigenous and Treaty rights of the potentially affected Indigenous Peoples in the project area.	Applicants should describe for each potentially impacted Indigenous Nation, to the extent known or based on information that is available, the Indigenous and Treaty rights of the Indigenous Peoples in the project area that may be impacted by the proposed project. The information provided on the Indigenous rights in the project area should be sufficiently detailed to allow the Commission to understand and assess the potential effects of the proposed project on the Indigenous rights

	and, as appropriate, consider relevant mitigation measures. The amount of detail and depth of information relating to potential project effects on Indigenous rights should be commensurate with the scale and scope of the project, including its potential effects. Projects that are smaller in scale, have the potential for limited, low magnitude effects or do not require new lands may not require highly detailed information. Applicants should engage with potentially impacted Indigenous Nations to seek to understand the Indigenous rights as they are asserted by rights-bearing communities. Applicants should review the CER Early Engagement Guide, and should engage with potentially impacted Indigenous Nations as soon as is practicable in the project's development in order to allow adequate time to discuss and understand each community's understandings, practices and assertions related to their rights. Where one or more Indigenous Nations have not provided information, or where information is considered confidential, applicants should provide a rationale for the approach taken. Where Indigenous Nations do not wish to provide information, applicants are encouraged to continue sharing information and analysis with the Indigenous Nations on the potential effects of the project, and to use available public sources of information to support the assessment. Applicants may also wish to consult other relevant government departments or Indigenous organizations that may have information or expertise. Applicants are encouraged to discuss with Indigenous Nations their views on how to reflect the assessment of impacts on rights in their application.
2. Describe how Indigenous and Treaty rights are exercised or practiced in the project area.	In describing the ways in which Indigenous rights are exercised, applicants should engage directly with Indigenous Peoples to seek to understand and document the values, practices, activities, customs or traditions that

	are connected to and are undertaken in relation to the rights identified. Applicants may also wish to consult and document any relevant secondary information sources that may assist in describing the exercise of Indigenous rights in the project area. When engaging with Indigenous Nations, or based on any secondary information sources, applicants should provide sufficient detail to describe how general or specific rights are being exercised, such as: • the quality, quantity or distribution of resources involved in or required for exercise of the rights (for example, any preferred wildlife or plant species utilized, the cultural, ceremonial or nutritional uses or importance of resources, and perception of quality, cultural connections to a particular species); • access to the resources used or required to exercise the rights (for example, physical access or travel ways to access culturally important or harvesting locations, and distance from communities of residence); • locations or areas of cultural importance where Indigenous rights are exercised. Applicants should identify and incorporate within their effects assessment, preferably beginning at the assessment design phase, those valued components that are most relevant for an assessment of the project's potential effects on the exercise of Indigenous rights. Applicants should also engage with Indigenous Nations to ascertain whether any Indigenous knowledge is being provided in confidence, and if so, ensure that confidential Indigenous knowledge can be appropriately protected from unauthorized disclosure. Applicants should strive to reach agreements or utilize existing community protocols with respect to Indigenous knowledge. Applicants should also describe how other information in their application, including

	information about traditional land and resource uses, effects on heritage resources, or environmental, health, social and economic conditions in the project area, are relevant to and have been used to describe the practice of Indigenous rights. Applicants may therefore, as appropriate, refer to information throughout their application or consolidate required information in order to adequately describe how rights are exercised in the project area, to reduce duplication of information.
3. Describe the context in which the Indigenous and Treaty rights are exercised or practiced in the project area.	When describing the rights exercised in the project area, and the ways in which they are being exercised, consider the cultural, social, and biophysical context in which the exercise of the right occurs. Applicants should engage with Indigenous Nations to seek to understand, document and address wherever possible, the underlying values, traditions and cultural practices associated with the exercise of rights that may be affected by the project, where such information has been provided or is not considered confidential. This context may consider, as appropriate to the project, matters such as: • relevant circumstances that may affect traditional Indigenous practices, such as the availability of lands or resources for the exercise of rights in the project area; or, • how the Indigenous Nation's cultural traditions, laws and governance systems inform the manner in which they exercise their Indigenous rights.
4. Describe the project's potential effects on the exercise or practice of Indigenous and Treaty rights in the project area.	Applicants should, based on available information, describe the potential adverse effects of the project's components and physical activities on the exercise or practice of Indigenous rights of each of the potentially impacted Indigenous Nations, including (but not limited to): • effects on the quality, quantity or distribution of resources involved in or required for exercise of the right;

	• effects on access to the resources used or required to exercise the right; • effects relating to timing and seasonality of the exercise of rights; • effects on specific areas of cultural importance where Indigenous rights are exercised; • effects on an Indigenous Nation's cultural traditions, laws and governance systems that inform the manner in which they exercise their Indigenous rights. Where communities have identified or provided thresholds or criteria that describe levels or conditions relating to their ability to meaningfully exercise Indigenous rights, applicants should, as applicable: • describe the threshold or criteria, including quantitative or qualitative measures; and • describe how those thresholds or criteria have been used, as applicable or appropriate, in the assessment.
5. Describe the measures to be implemented by the applicant to avoid, reduce or eliminate potential adverse effects of the project on the exercise of Indigenous and Treaty rights. Also describe any measures that would enhance or support the exercise or practice of Indigenous rights in the project area. 6. Where there may be any residual effects, after mitigation measures are implemented and that are related to the project, describe the nature and extent of these, including their contribution to any potential cumulative effects.	Describe those measures that, when implemented for the project, would avoid, reduce or eliminate the potential adverse impacts of the project on the exercise of Indigenous rights. These measures must clearly describe how the applicant intends to implement them. Applicants should ensure that they describe: • how the measures directly address the project's potential effects on the exercise of rights; • the extent to which the measures will avoid, reduce or eliminate the potential adverse impacts of the project on the exercise of Indigenous rights; and • whether any residual effects of the project on the exercise of rights would remain after the measures are implemented.

	Where provided, applicants should include specific mitigation suggestions or recommendations raised by potentially impacted Indigenous Nations regarding the measures for the project that would address such impacts. Applicants should also describe any responses, as applicable, to the views provided by potentially impacted Indigenous Nations. Applicants should also consider measures that can be implemented in relation to the project that would support, improve or provide benefit to the exercise of Indigenous rights. Where such measures are described elsewhere in an application (such as measures relating to employment, procurement, or monitoring), this should be referenced or consolidated. Where such measures are proposed, applicants should describe how these measures have been discussed with potentially impacted Indigenous Nations, including any comments or recommendations made by Indigenous Nations, or any agreements entered into that specify benefits or compensation measures relating to the project.

Electricity Filing Manual – Chapter 7 – Economics

7.1 Economics

Goal

The application provides sufficient economic information to demonstrate that the applied-for facilities will be used, will be useful, and that the project will contribute to Canadians benefiting from efficient energy infrastructure and markets.

Filing Requirements

1. The application could include the following economic information:
    - a description of the supply, demand and load conditions of the markets at the origin and terminus points of the proposed IPL and any other markets that the proposed IPL would service.

The Commission must be satisfied that there is, or will be, an adequate supply and markets available to the IPL that the applied-for facilities could be expected to be used at a reasonable level over their economic life and would contribute to Canadians benefiting from efficient energy infrastructure and markets. Information should include demonstration that the capacity of the applied-for facilities is appropriate for the volumes that would be transported on the IPL.

7.2 Finance

Goal

The application provides sufficient financial information to demonstrate that the applicant has the capability to finance the project.

Filing Requirements

1. The application could include the following financial information:
    - an overview of the company and a description of its financial strength;
    - a copy of the most recent annual report or financial statements of the owner and the operator of the international power line;
    - a description of the intended methods and sources of financing for the proposed facilities; and
    - any changes to the financial risk of the company associated with its intended methods of financing the facilities.

The overall purpose for filing information on facility economics is to demonstrate that the applied-for facilities will be used, will be useful, and that demand charges will be paid and that sufficient funds will be available for abandonment requirements.

Meeting climate change commitments could influence the market, supply, and economic conditions in which the project will operate. Climate change laws, regulations and policies enacted to meet Canada’s commitments may affect markets and consequently may influence

the need for the project and its economic feasibility. Therefore, in addition to the filing guidance below, the following information is also requested.

Table 7-1: Economics and Financing

Economics and Financing	
Filing Requirements	**Guidance**
1. Provide an explanation of how current climate change laws, regulations and policies, and financial risks or other uncertainties around commitments and future changes have been incorporated in the economic analysis of the project.	As noted in section 6.4 Level of Detail, the depth of analysis should be commensurate with the nature of the project and the potential for effects. For all projects, the applicant should, at a minimum, describe how current climate change laws, regulations, and policies have been considered in assessing the expected utilization of the project, and discuss if and how the economic feasibility of the project may be impacted by financial risks and other uncertainties around changes to such climate change laws, regulations, and policies. For a larger project, the applicant should also describe how existing climate change laws, regulations, and policies have been included in relevant economic analysis and assumptions. Also include those laws and regulations that are reasonably expected to come into force, and policies reasonably expected to come into place, which have been drafted and tabled at a provincial or federal level and are not purely speculative. Discuss implications of these laws, regulations, and policies for supply and markets in any scenario analysis or risk assessment of these factors (e.g., applicant may consider doing a sensitivity analysis of supply and markets based on carbon pricing levels). Applicants should also describe the extent to which climate change commitments have been considered. ECCC's *Strategic Assessment of Climate Change* should be consulted for its project requirements and the potential implications for the project's economic analysis. Applicants should describe how the net-zero plan may impact the economic feasibility of the project.

7.3 Level of Detail

In order for the Commission and interested parties to properly evaluate the proposed facilities, sufficient and clear information is required from the Applicant. However, the amount of

information and its level of detail required from the Applicant to describe the economics and financing of proposed facilities may vary. This could depend upon:

- whether the Applicant is a well-established entity;
- the magnitude of the proposed project, and;
- the extent of public interest in the proposed project.

FYI – Example...

For comparison, a project such as the replacement of an existing power line by a long-established utility might only require the submission of an annual report. In contrast, a project by a new consortium, and for which significant public interest in the project has been identified, may require more information and detail about its economics and financing.

Electricity Filing Manual – Chapter 8 – Lands Information

When an applicant elects for federal laws to apply certain sections of the CER Act which are normally reserved for pipelines, also apply to IPLs pursuant to subsections 266(1) and 266(2) of the CER Act. These sections are described below.

Goal

The application includes accurate documentation regarding land requirements, land rights, service of notices and the land acquisition process, which demonstrates compliance with legislative requirements and respects the rights of affected parties.

Note that, under the CER Act, detailed routing and land acquisition in respect of IPLs will be carried out under provincial laws for permits or designated order certificates unless the applicant elects, pursuant to section 259 of the CER Act, to have federal laws apply (i.e., an Election Certificate). Therefore, the applicant is advised to consider the following filing requirements in relation to filing an application for a Certificate.

8.1 Land Areas

Filing Requirements

1. The land area documentation should include the following:
    - the width of the RoW including the locations where the width varies;
    - the locations and dimensions of known temporary work space required for the project or, if locations are not known, a drawing showing the typical dimensions of the temporary work space required for road, watercourse and other crossings, storage areas and camps; and
    - the locations and dimensions of any new lands required for all associated facilities.

Guidance

Provide a description of the requirements and rationale for both temporary and permanent lands which would allow the Commission to assess the appropriateness of the land areas. The description should include the dimensions of the:

- RoW;
- temporary work space;
- access roads; and
- ancillary facilities.

Describe the location and distance of any changes to the RoW width and the reasons for the change. Where new lands under any type of agreement are not required for the project, this should be clearly stated in the application and no further land area information needs to be filed. As well, where GPS information is known it should be filed with the CER.

8.2 Land Rights

Filing Requirements

1. Provide a description of the type of land rights proposed to be acquired for the project and related facilities.
2. Provide a description of the nature and relative proportions of land ownership along the proposed route (i.e., freehold, Crown or public lands).
3. Where no new land rights are required, provide a description of the existing land rights that allow for the project.

Guidance

The description of the land rights will inform the Commission and landowners of the different types of land rights needed for the project (e.g., option, easement, fee simple, statutory RoW, temporary work space, permit or licence, etc.) and the areas where existing land rights allow for the project.

A description of the land ownership informs the Commission of the land acquisition areas and agreements required for the project.

8.3 Lands Acquisition Process

Filing Requirements

1. Provide a description of the proposed process for acquiring the lands required for the project.
2. Provide the timing of acquisition and the current status of acquisition.
3. Provide the status of service of notices on all owners of lands to be acquired pursuant to subsection 322(1) of the CER Act.

Guidance

Upon filing an election, the application should describe the land acquisition process to be implemented. This will allow the Commission to assess the process, to be aware of the timing of acquisition and to verify compliance with the CER Act.

The land acquisition information should describe the:

- number of landowners and tenants;
- number of option or easement agreements signed;
- number of notices served; and
- timing of service of remaining notices.

This information may be provided in a table.

8.4 Land Acquisition Agreements

Filing Requirements

1. Provide a sample copy of each form of land acquisition agreement proposed to be used (includes option and easement). The agreement shall be in the form required by subsection 321(2) of the CER Act:

> **321 (2)** A company must not acquire or lease lands for a pipeline[7] under an agreement referred to in subsection (1) unless the agreement includes provision for
>
> **(a)** compensation for the acquisition or lease of lands to be made, at the option of the owner of the lands, by one lump sum payment or by periodic payments of equal or different amounts over a specified period of time;
>
> **(b)** review every five years of the amount of any compensation payable in respect of which periodic payments have been selected;
>
> **(c)** compensation for damages caused by the company's operations, pipelines or abandoned pipelines;
>
> **(d)** indemnification from all liabilities, damages, claims, suits and actions resulting from the company's operations, pipelines or abandoned pipelines, other than liabilities, damages, claims, suits and actions resulting from
>
> **(i)** in Quebec, the gross or intentional fault of the owner of the lands, and
>
> **(ii)** elsewhere in Canada, the gross negligence or willful misconduct of the owner of the lands;
>
> **(e)** restriction of the use of the lands to the line of pipe or other facility for which the lands are, by the agreement, specified to be required unless the owner of the lands consents to any proposed additional use at the time of the proposed additional use;
>
> **(f)** compensation to the owner of the lands if the use of those lands is restricted by the operation of section 335;
>
> **(g)** compensation to the owner of the lands for any adverse effect on the remaining lands of the owner, including the restriction of their use by the operation of section 335; and
>
> **(h)** any additional terms that are, at the time the agreement is entered into, required to be included in it by any regulations made under subsection 333(d).

2. Provide a sample copy of any proposed agreements for:

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[7] For electricity certificates, sections 321 and 322 apply and reference to the word "pipeline" which should be read as a reference to IPL. See section 266 of the CER Act.

- fee simple ownership;
- temporary work space;
- an access road; or
- other agreements for the lands required for the project.

Guidance

Upon filing an election, the application should be accompanied with a sample copy of the acquisition agreement(s) to enable the Commission to verify that the agreement complies with the requirements of subsection 321(2) of the CER Act and that landowner rights are protected.

8.5 Section 322 Notices

Filing Requirements

1. Provide a sample copy of the notice proposed to be served on all owners of land pursuant to subsection 322(1) of the CER Act:

   322 (1) If a company has determined the lands that may be required for the purposes of a section or part of a pipeline, the company must serve a notice on all owners of the lands, to the extent that they can be ascertained, which notice must set out or be accompanied by

   (a) a description of the lands of the owner that are required by the company for that section or part;

   (b) details of the compensation offered by the company for the lands required;

   (c) a detailed statement made by the company of the value of the lands required in respect of which compensation is offered;

   (d) a description of the procedure for approval of the detailed route of the pipeline;

   (e) a description of the procedure available under this Part in the event that the owner of the lands and the company are unable to agree on any matter respecting the compensation payable; and

   (f) any prescribed information.

Guidance

Notice

Viewing a sample copy of the notice assists the Commission in verifying that the notice complies with the requirements of subsection 322(1) of the CER Act and that landowners and others persons are adequately notified.

Exemption from section 199 of the CER Act

The procedure for approval of the detailed route of the power line, as described in sections 201 to 206 of the CER Act, may not apply. In this situation, the subsection 322(1) notice will describe the procedure for approval of the detailed route of the pipeline and will also include a statement that sections 201 to 206 of the CER Act will not apply in respect to the procedure for approval of the detailed route of the power line.

Lands not Acquired

In the event that an election certificate is issued, pursuant to section 262 of the CER Act the applicant would file the Plans, Profiles and Books of Reference (PPBoR) for the power line and serve notices pursuant to the requirements of subsection 201(1) of the CER Act on those landowners from which land rights have not been acquired. The Commission may allow construction of the project for those portions where the lands have been acquired, with the exception of a buffer zone near the lands not yet acquired pending the applicant demonstrating to the Commission that either the lands have been acquired, or the rights of the landowners have not been prejudiced.

8.6 Application to Address a Complaint

Where an applicant proposes work or construction to address a landowner or public complaint that has been filed with the CER, the application should include:

- a statement that the purpose of the work or construction proposed by the applicant is in response to a complaint that has been filed with the CER;
- the name and location of the complainant;
- the nature and date of the complaint; and
- how the activities proposed will address the complaint.

Electricity Filing Manual – Guide A – Information Filed Respecting Plan, Profile, Book of Reference and Notices (CER Act section 199 and section 201)

When an applicant elects for federal laws to apply, certain sections of the CER Act which are normally reserved for pipelines, also apply to IPLs pursuant to subsections 266(1) and 266(2) of the CER Act.

A reference to the word:

(a) a “company” were a reference to the applicant for or holder of the certificate issued in respect of the line;

(b) a “pipeline” or “line” were a reference to the international or interprovincial power line; and

(c) “hydrocarbons” were a reference to electricity.

Goal

The application for approval of PPBoRs includes accurate documentation regarding the detailed route of the electricity facility and related ownership, which demonstrates compliance with legislative requirements and respects the rights of potentially affected landowners.

The application for approval of notices includes accurate sample notices, which demonstrates compliance with legislative requirements, respects the rights of potentially affected landowners and other persons and provides the required regulatory information that may engage these parties in a CER regulatory process.

A.1 Plan, Profile, Book of Reference (PPBoR)

Filing Requirements

Section 199 of the CER Act requires that:

199 (1) The company must submit the plan, profile and book of reference referred to in paragraph 198(c) to the Regulator[8].

(2) The plan and profile must include any details that the Commission may require.

(3) The book of reference must describe the portion of land proposed to be taken in each parcel of land to be traversed, giving the numbers of the parcels, and the area, length and width of the

[8] For electricity certificates, sections 321 and 322 apply and reference to the word “pipeline” which should be read as a reference to IPL. See section 266 of the CER Act.

portion of each parcel to be taken, and the names of the owners and occupiers in so far as they can be ascertained.

(4) The plan, profile and book of reference must be prepared to the satisfaction of the Commission, and the Commission may require the company to provide any additional information that the Commission considers necessary.

In addition, the plan and profile of the project should be drawn to a scale of 1:10 000 or larger and, if appropriate, should show:

1. the proposed route of the IPL;
2. property boundaries; and
3. the numbers of the parcels of land to be traversed (i.e., legal land descriptions).

Guidance

When the Commission releases a decision approving an application for an election certificate pursuant to section 262 of the CER Act, the company may provide a draft version of the PPBoR.

Upon receipt of the section 262 electricity certificate, the company shall file PPBoRs pursuant to section 199 of the CER Act for approval pursuant to section 203 of the CER Act. The applicant may consider using a photomosaic overlay for the final PPBoR. A photomosaic can provide a high level of visual information about the detailed route of the project. The PPBoR will allow landowners and other persons to examine the PPBoR to determine the precise location of the proposed detailed route, the lands that will be crossed, the type of land rights that will be required and the landowners who will be affected.

In the event the Commission approves the PPBoR for a project, the company is required to file the PPBoR with the registrar of deeds in the appropriate land titles or land registry office prior to the commencement of construction or other activities in respect of the approved PPBoR.

A.2 Section 201 Notices

When PPBoRs are filed with the CER (pursuant to subsection 199(1) of the CER Act), a sample notice shall be filed for Commission approval prior to service and publication. The notice will meet the requirements of section 201 of the CER Act, section 50 of the *National Energy Board Rules of Practice and Procedure, 1995* (Rules) and the *Official Languages Act*.

Filing Requirements

Section 201 of the CER Act states:

201 (1) If a company has submitted to the Regulator a plan, profile and book of reference under subsection 199(1), the company must, in the form and manner specified by the Commission,

> **(a)** serve a notice on all owners of lands proposed to be acquired, leased, taken or used, insofar as they can be ascertained; and
>
> **(b)** publish a notice in at least one issue of a publication, if any, in general circulation within the area in which the lands are situated.

(2) The notices mentioned in subsection (1) must describe the proposed detailed route of the pipeline, the location of the head office of the Regulator and the right of the owner and of persons referred to in subsection (4) to make, within the period referred to in subsection (3) or (4), as the case may be, representations to the Commission respecting the detailed route of the pipeline.

(2.1) The Regulator must publish on its website any notice that is published under paragraph (1)(b).

(3) If an owner of lands who has been served with a notice under subsection (1) wishes to oppose the proposed detailed route of a pipeline, the owner may, within 30 days after the day on which the notice is served, file with the Regulator a written statement setting out the nature of their interest and the grounds for their opposition to that route.

(4) A person who anticipates that their lands may be adversely affected by the proposed detailed route of a pipeline, other than an owner of lands referred to in subsection (3), may oppose the proposed detailed route by filing with the Regulator, within 30 days after the day on which the last notice referred to in subsection (1) is published, a written statement setting out the nature of their interest and the grounds for their opposition to that route[9].

Section 50 of the Rules states:

50 (1) Before any notice in respect of a plan, profile and book of reference of a pipeline or an international or interprovincial power line is served or published by an applicant under section [201 of the CER Act], the applicant shall

> **(a)** submit to the [Commission] for approval as to form a sample notice for service and a sample notice for publication, both of which shall include a sample description of the proposed detailed route of the pipeline or the international or interprovincial power line that is to be included in each notice; or
>
> **(b)** identify in writing, for the approval of the [Commission], one or more forms of notices previously approved by the [Commission] that the applicant proposes to serve or publish in relation to the plan, profile and book of reference.

(2) The submission required under paragraph (1)(a) shall include

> **(a)** a copy of any map that the applicant proposes to publish; and
>
> **(b)** a list of the titles and the number of issues of the publications in which the applicant proposes to publish the notice.

(3) Any notice served or published under section [201 of the CER Act] shall not depart in any material respect from the notice approved by the [Commission] under subsection (1).

In addition, the Applicant must provide the following information.

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[9] For electricity certificates, sections 321 and 322 apply and reference to the word “pipeline” which should be read as a reference to IPL. See section 266 of the CER Act.

1. File a copy of the notice that will be served on landowners. At a minimum, the notice should include:
    - a map of the proposed detailed route of the IPL;
    - a plan of the lands proposed to be acquired, which:
        - includes reference to legal survey points, if such points are available; and
        - is of a scale sufficient to identify, with reasonable accuracy, the location, dimensions and area of lands in relation to the remaining adjacent lands of the owner, if any.
2. Provide a copy of the notice, in both official languages, that will be included in local publications. At a minimum, the notice should include:
    - a description of the requirements described within sections 202 to 206 of the CER Act;
    - a description of the proposed detailed route of the IPL;
    - a plan of a scale sufficient to identify, with reasonable accuracy, the location of the proposed detailed route in relation to:
        - topographical features;
        - population centres;
        - highways;
        - utilities; and
        - other such prominent local landmarks;
    - a schedule that lists sequentially the names of each registered fee simple owner of the land that is proposed to be acquired within the area covered by the plan and identifies the lands of each owner by legal description, including the:
        - municipal address;
        - parcel number;
        - registered plan number;
        - lot;
        - concession;
        - township;
        - parish;
        - range;
        - county; or
        - other equivalent land divisions, as are sufficient to identify the lands of each such owner;
    - the location within or near the area covered by the plan where the PPBoR for that area are available for public inspection.
3. The list of the publications that will be used should include:
    - proposed dates of publication;

- submission deadlines;
- frequency (daily, weekly, monthly) of publication; and
- language of publication (French, English or both).

4. Where the applicant completes the service and publication of notice under section 201 of the CER Act, it shall forthwith notify the CER in writing of the dates of the last service and publication. The company shall file a tear sheet of the newspapers.

Guidance

After the Commission has issued an election certificate and the PPBoRs have been filed with the CER pursuant to section 199 of the CER Act, the company must provide a sample notice, in both English and French, of the proposed section 201 notices, or identify notices previously approved by the Commission that the applicant proposes to serve or publish. CER staff can provide assistance in order to ensure that the notices comply with the CER Act requirements. Once Commission approval has been obtained, the company can serve and publish its section 201 notices.

When publishing notices, consider the availability of English and French newspapers and their respective regional coverage. In the event that newspapers in the region are published in only one official language, publish both the French and English versions side by side in compliance with the *Official Languages Act*.

The Rules require that where an applicant completes the service and publication of any notice under section 201 of the CER Act, the company shall forthwith notify the CER in writing of the dates of the last service and publication. This allows the Commission to determine when the notices were served and published which commences the comment period set out in subsections 201(3) and 201(4) of the CER Act. The Commission will not approve any PPBoR prior to the expiry of the comment period.

Detailed Route Hearing

If an objection is received by the CER pursuant to subsection 201(3) or 201(4) of the CER Act, the Commission will, pursuant to subsection 202(1) of the CER Act, order a public hearing be conducted with respect to the detailed route and method and timing of construction of the IPL.

Following the issuance of a Hearing Order by the Commission, consider filing the following information:

- a description of all landowner concerns with respect to the detailed route;
- the methods and timing of construction of the project; and
- comments on the potential for using the CER's Alternative Dispute Resolution (ADR) services.

A.3 Application to Correct a PPBoR Error (CER Act section 208)

Goal

The application for a permit to correct an omission, misstatement or error in a registered PPBoR includes accurate documentation regarding the error and will address all land matters, which

demonstrates compliance with legislative requirements and respects the rights of the affected landowner(s).

Filing Requirements

1. An application pursuant to subsection 208(1) of the CER Act should include:
    - the Order number and date of the original PPBoR approval;
    - the nature and description of the error in the PPBoR;
    - the accurate information (i.e., related to the plan, profile or book of reference); and
    - confirmation that, pursuant to subsection 208(3), copies of the permit will be provided to the offices of the registrars or appropriate land title offices.

Guidance

Section 208 of the CER Act provides a company with the means to correct an omission, misstatement or error in its registered PPBoR.

Pursuant to subsection 208(2) of the CER Act, the Commission may, at its discretion, issue a permit setting out the nature of the omission, misstatement or error and the correction allowed.

Subsection 208(3) of the CER Act provides that the permit and supporting documentation are considered to be corrected once registered at the appropriate land titles office.

Electricity Filing Manual – Guide B – Application for Right of Entry (CER Act section 324)

Goal

The application contains documentation with respect to the right-of-entry process. The documentation addresses all matters related to the request for an immediate right-of-entry order demonstrating that landowners and other persons have been notified and their rights have been protected.

Section 324 of the CER Act states:

Immediate right of entry

324(1) Subject to subsection 317(1), if the Commission considers it appropriate to do so, the Commission may, by order, on application to the Regulator in writing by a company, grant to the company an immediate right to enter any lands on any conditions specified by the Commission in the order.

Notice

(2) The Commission is not authorized to make an order under subsection (1) unless the Commission is satisfied that the owner of the lands in question has, not less than 30 days and not more than 60 days before the date of the application, been served with a notice setting out:

(a) the purpose of the right of entry referred to in subsection (1);

(b) the date on which the company intends to make its application to the Regulator under subsection (1);

(c) the date on which the company intends to enter the lands and the period during which the company intends to have access to the lands;

(d) the address of the Regulator to which any objection in writing that the owner may make concerning the issuance of the order may be sent; and

(e) a description of the right of the owner to an advance of compensation under section 325 if the order is issued and the amount of the advance that the company is prepared to make.

Filing Requirements

In accordance with the CER Act and the Rules, in order to apply for a right-of-entry order under section 324 of the Act, a company shall:

1. File an application with the CER not less than 30 days and not more than 60 days after the date of service of the notice on the owner of the lands, as set out in subsection 324(2) of the Act.

2. The application must be served on the owner of the lands on the same day that the application is filed with the CER.
3. The application must contain:
    a. a copy of the notice described in subsection 324(2) of the Act;
    b. evidence that the notice has been served on the owner of the lands
        i. not less than 30 days and not more than 60 days prior to filing the application with the CER, and
        ii. in accordance with subsection 8(8) of the Rules, or in any manner ordered by the Commission;
    c. a schedule that is proposed to be made part of the order sought and that contains, in a form suitable for depositing or registering in the appropriate land registry or land titles office, a description of
        i. the lands in respect of which the order is sought,
        ii. the rights, titles or interests applied for in respect of the lands, and
        iii. any rights, obligations, restrictions or terms and conditions that are proposed to attach to:
            A. the rights, titles or interests applied for in respect of the lands,
            B. any remaining interest or interests, or
            C. any adjacent lands of the owner;
    d. a current abstract of title to the lands, a certified copy of the certificate of title to the lands or a certified statement of rights registered with the appropriate land registrar;
    e. a copy of the relevant provisions of the Rules, outlining how an objection may be made to the Commission; and
    f. evidence that the application, including the information set out in sections a. to e., has been served on the owner of the lands.

In addition to the requirements of section 324 of the CER Act and the Rules, applications shall also include the following information:

1. A summary of the land negotiation process conducted between the applicant and the owner of the lands for which a right-of-entry order is sought, including the dates of meetings held between the applicant and the owner of the lands;
2. The date of service of notice on the landowner pursuant to subsection 322(1) of the CER Act;
3. If applicable, the date of service of notice on the landowner pursuant to section 201 of the CER Act; and
4. A discussion of outstanding issues and the reason(s) that a voluntary agreement could not be reached.

Guidance

Pursuant to the Rules, the landowner may file a written objection with the CER any time after receipt of the notice up to 10 days after the date the company files the right-of-entry application.

In the event the Commission approves the right-of-entry order, the order must be deposited in the appropriate land registry or land titles office, pursuant to section 326 of the CER Act.

The date of service of notice on the landowner pursuant to section 201 of the CER Act will provide the CER with confirmation that, where the lands that are the subject of the right-of-entry application are required for the detailed route of a project, the landowner was served notice of the filing of the plan, profile and book of reference for the detailed route.

Electricity Filing Manual – Guide C – Requirements For Substituted Service Applications

When an applicant elects for federal law, certain sections of the CER Act which are normally reserved for pipelines, also apply to IPLs pursuant to subsections 266(1) and 266(2) of the CER Act. A reference to the word:

(a) a “company” were a reference to the applicant for or holder of the certificate issued in respect of the line;

(b) a “pipeline” or “line” were a reference to the international or interprovincial power line; and

(c) “hydrocarbons” were a reference to electricity.

Goal

The applicant provides sufficient information to demonstrate that they have attempted to locate and serve notices on the potentially affected landowner(s), in compliance with legislative requirements.

Filing Requirements

Sections 3 to 5 of the *National Energy Board Substituted Service Regulations* state:

3 (1) Subject to subsection (2), where a company has been unable to effect personal service of a notice on a person after having made reasonable attempts to do so, the [Commission] may, on application by the company, order substituted service of the notice on the person by one or more of the methods referred to in subsection 5(1).

(2) The [Commission] shall not order substituted service of a notice on a person unless

(a) the [Commission] is satisfied that personal service of the notice on the person is impractical in the circumstances; and

(b) the information provided in accordance with section 4(c) discloses that there is a reasonable possibility that substituted service of the notice on the person will bring the notice to the attention of that person.

4 An application for an order under section 3 shall be made by filing with the [CER] five copies of a written application, with evidence by affidavit disclosing

(a) the efforts made to effect personal service;

(b) the prejudice to any person that would result from further attempts at personal service; and

(c) the last known address of the person on whom a notice is required to be served, the address of the residence or place of business of the person or any other place thought to

be frequented by the person, the names and addresses of any persons who may be in communication with the person, or any other information respecting where the person might be found.

5 (1) Substituted service of a notice may be effected by one or more of the following methods:

(a) leaving the notice with an adult person at the residence or place of business of the person or at any other place thought to be frequented by the person;

(b) leaving the notice with any other adult person who may be in communication with the person;

(c) sending the notice by registered mail to the last known address of the person;

(d) publishing the notice in one or more publications in general circulation in the area where the person was last known to be or is thought to be; or

(e) any other method that appears to the [Commission] more likely to bring the notice to the attention of the person.

Guidance

This section applies to the service of notices pursuant to sections 201 and 322, and subsection 324(2) of the CER Act which would only apply to elections pursuant to sections 259 and 271, and subsections 266(1) and 266(2) of the CER Act. Personal service is defined in the *National Energy Board Substituted Service Regulations* as any manner permitted by the general rules of practice in the Federal Court of Canada and in a manner determined by the Commission.

Where a company is required to complete personal service of a notice on a person and has made reasonable attempts to do so, without success, the company would apply to the CER for approval of substituted service and the sample notice to be used. This may be the case where the whereabouts of a landowner is unknown and the company has made reasonable attempts to locate the landowner.

Electricity Filing Manual – Guide D – Protection of International or Interprovincial Power Lines From Facility Construction, Ground Disturbance and Crossings (CER Act section 273 and section 275)

Goal

The application includes information with respect to:

- a facility proposed for construction across, on, along or under an international or interprovincial power line described in subsection 271(1) of the CER Act;
- a proposed activity that causes a ground disturbance[10] within the prescribed area. The prescribed area means the strip of land on which an international or interprovincial power line is located and that corresponds to the right of way of that line. If there is no right of way for the international or interprovincial power line, the prescribed area is the strip of land 30 m on each side from the centre of the line (*International and Interprovincial Power Line Damage Prevention Regulations – Authorizations*) (IPLDPR–A); or
- vehicle or mobile equipment proposed to operate across an international or interprovincial power line described in subsection 271(1) of the CER Act outside the travel portion of a highway or public road; or
- a facility across, on, along or under the pipeline that is to be reconstructed, altered or removed.

Filing Requirements

Construction of facilities across, on, along or under an interprovincial or international power line and activities causing ground disturbance within the prescribed area

1. For an application to construct a facility across, on, along or under an interprovincial or international power line outlined in the IPLDPR –Authorizations cannot be met, provide:
    - the purpose and location of the proposed facility;
    - a description of the proposed facility; and

[10] CER Act, section 2:

ground disturbance means a ground disturbance other than one that

(a) is caused by any activity that is specified in the orders or regulations made in respect of pipelines under section 335 or made in respect of international or interprovincial power lines under section 275;

IPLDPR – Authorizations, section 3: Activities not included:

3 For the purposes of paragraph (a) of the definition *ground disturbance* in section 2 of the CER Act, in respect of an international or interprovincial power line, the following activities are specified:

(a) cultivation to a depth of less than 45 cm below the surface of the ground; or

(b) any other activity to a depth of less than 30 cm and that does not result in a reduction of the earth cover over any underground portion of a line.

- the rationale for seeking approval from the Commission.

2. For an application to conduct an activity causing a ground disturbance in the prescribed area where consent has not been obtained from the pipeline company or measures outlined in the DPR – Authorizations cannot be met, provide:
    - the purpose and location of the activity;
    - a description of the activity(s) resulting in a ground disturbance; and
    - the rationale for seeking approval from the Commission.
3. For applications to construct a facility or to conduct an activity causing a ground disturbance in the prescribed area, provide an ESA (see section A.2).

Crossing an interprovincial or international power line with vehicles and mobile equipment outside the travelled portion of a highway or public road.

4. For an application to operate a vehicle or mobile equipment across an interprovincial or international power line, provide:
    - the purpose and location of the activity;
    - a description of the vehicle or equipment; and
    - the rationale for seeking approval from the Commission.

Guidance

Construction of facilities across, on, along or under an interprovincial or international power line and activities causing ground disturbance

- An application is not required for activities (construction of facilities, activities causing ground disturbance, crossings) for which the requirements outlined in the IPLDPR – Authorizations have been met[11].
- An application for activities causing a ground disturbance is not required where the activity is:
    - cultivation to a depth that is less than 45 cm below the surface of the ground.
    - any other activity to a depth of less than 30 cm and that does not result in a reduction of the earth cover over any underground portion of an interprovincial or international power line.

Crossing an interprovincial or international power line with vehicles and mobile equipment

- Crossing along a travelled portion of a highway or public road
    - An application for a mobile equipment or vehicle crossing is not required if the crossing is to occur along the travelled portion of a highway or public road.

[11] International and Interprovincial Power Line Damage Prevention Regulations – Authorizations, SOR/2019-347 (IPLDPR–A), section 3, **Activities not included**

Multiple Activities

Where multiple activities are proposed (e.g., both a crossing and ground disturbance), an application may be required for one of the activities even though the other activity may fall within one of the above-mentioned categories that do not require an application.

Filing an Application

- The information required for this application can be filed with the CER in the form of a letter. A copy of the letter should be sent to all affected parties (including the holder of the permit or certificate for an international or interprovincial power line) so they can review the information and forward any comments they may have to the CER.
- Provide as much information as possible about the efforts made to obtain the holder's authorization for the activity prior to making the application to the CER including the reasons given by the holder of a permit or certificate for an international or interprovincial power line for withholding its authorization. If applicable, please provide an explanation why certain measures outlined in the IPLDPR – Authorizations cannot be met.
- This may include copies of letters exchanged with all affected parties or minutes of meetings.
- The CER may request additional information when an application is filed, depending on the circumstances of the project.
- Applicants can refer to Chapter 6 for guidance with respect to the ESA process. CER staff can provide assistance in determining whether the project requires an ESA. In general, smaller projects that landowners may want to carry out may result in a less extensive ESA.

Electricity Filing Manual – Guide E – Early Engagement Guide

Early Engagement Guide

Electricity Filing Manual – Appendix 1 – General Order for Electricity Reliability Standards

(Note that regulations, orders and other authorizations made under the NEB Act remain in force under the CER Act until they are repealed or others made in their stead, as per the *Interpretation Act*.)

General Order for Electricity Reliability Standards [Filing A49626]