
Chapter 4 Physical Projects

An applicant must:

- complete the common application requirements outlined in Chapter 3;
- confirm that the application is for a physical project;
- address sections 4.1 – Project Description and 4.2 – Economic Feasibility, Alternatives and Justification; and
- identify which Guides within Chapter 4 are applicable (see Figure 2-1) and provide the required information.

4.1 Project Description

Goal

The application will include a clear description of the project, including:

- project components, activities and location;
- cost information;
- construction schedules; and
- related undertakings.

Filing Requirements

1. Identify and describe the project components, activities and related undertakings (e.g., pipe, valves, compressors, pumps, access roads and construction camps).
2. Describe the project location and the criteria used to determine the proposed route or site.
3. Describe how and when the project will be carried out.
4. Provide a description of any facilities to be constructed by others which are required to accommodate the proposed facilities.
5. Provide an estimate of the total capital costs and incremental operating costs, if applicable, for the following categories:
 - pipelines;
 - compression or pumps;
 - metering and regulating;
 - tankage;

- other facilities;
- allowance for funds used during construction (AFUDC) including rates used; and
- capitalized overhead, showing a separate breakdown of the main cost elements such as materials, installation, land and land rights.

6. Indicate the expected in-service date.

Guidance

Description of Project Components

- The description of the project components should address the following:
 - what the project is, including:
 - a complete list and thorough description of the project components and activities, including any components or activities required for the project to proceed (e.g., construction camps, means of access, electrical grid connections);
 - the location and size of any temporary work space;
 - 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.
 - where the project is located, including:
 - a general description of the route or facility location, including identification of:
 - general land tenure;
 - current land uses;
 - nearest residences and communities;
 - unique features;
 - the positioning of project endpoints for linear developments;
 - the location of any alternate routes or sites considered; and
 - preliminary drawings, if available.
 - how the project will be carried out, including:
 - a thorough description of how project activities (e.g., clearing, hydrostatic testing, watercourse crossings, inspection, monitoring and surveillance programs) would be carried out during the construction and operations phases;

- the anticipated workforce (i.e., person days and skills required for construction and operations activities); and
- a list of other permits, licences, or authorizations that will be required before part or all of the project can proceed.
- when the project would likely be carried out, including:
 - a breakdown of all construction and operations activities by major activity;
 - construction and operations schedules;
 - a description of how any changes to schedules can affect the project; and
 - a description of when proposed decommissioning and abandonment of the project might take place.

4.2 Economic Feasibility, Alternatives and Justification

Goal

The application includes an integrated discussion that demonstrates the economic feasibility and justification for the proposed project, including a description of any alternatives considered.

4.2.1 Filing Requirement – Economic Feasibility

Describe the economic feasibility of the project.

Guidance – Economic Feasibility

The discussion of economic feasibility should combine evidence provided elsewhere in the application with evidence provided according to Guide A, Section A.3 - Economics, to show that the applied-for facilities are economically feasible.

In general, the greater the potential impact an application may have on third parties, the greater the detail on economic feasibility will be required.

4.2.2 Filing Requirements – Alternatives

1. Describe other alternatives that were examined in the context of economic feasibility 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 the selection criteria.
3. For projects for which alternatives to the project has been identified as a relevant factor to consider in the scope of the ESA under the CEA Act, describe the alternatives to the project.
4. For a comprehensive study, an assessment by a review panel or for projects for which alternative means of carrying out the project has been identified as a relevant factor to

consider in the scope of the ESA under the CEA Act, describe alternative means of carrying out the project. Where no alternative means of carrying out the project are available, explicitly state this.

Guidance - Alternatives

Alternatives can be considered in the context of:

- engineering design;
- environmental and socio-economic assessment;
- consultation; and
- economic feasibility.

The level of detail provided should be consistent with the scope of the project and the potential impact on third parties or the environment.

Alternatives in the Context of Economic Feasibility

In the context of economic feasibility, alternatives would be other means of meeting the need for the project, such as an alternative:

- design;
- route;
- transportation mode; or
- transmission system that could achieve the same purpose as the proposed facilities.

Route and Site Alternatives

Although a full assessment of all routing options is not required, where alternative routes or sites are considered, applicants should justify the selection of the proposed option by comparing the options using a suite of criteria. When selecting the criteria to compare alternative routes or sites, consider factors that:

- are related to engineering design;
- are related to economics;
- are not easily mitigated or incur residual effects;
- have greater ecological value due to their rare nature or importance in the ecosystem;
- are of demonstrated public concern; or
- are of regional concern from a cumulative effects standpoint.

Alternatives in the Context of Environmental Assessment under the CEA Act

In the context of environmental and socio-economic assessment under the CEA Act, consideration of alternatives may include:

- alternatives to the project, and
- alternative means of carrying out the project.

Alternatives to the project are functionally different ways to meet the project need and achieve the project purpose. Alternatives to the project might be considered in the ESA. When providing alternatives to the project, include an analysis of the alternatives and describe the process used to determine that the project is viable and is the preferred alternative (i.e., technically, economically or environmentally). At this stage, the level of assessment should reflect the more conceptual nature of the alternatives. The evaluation of the alternatives should include:

- relative costs;
- benefits; and
- environmental effects.

Alternative means are the various ways that are technically and economically feasible to implement and carry out the project. This could include alternative:

- locations;
- routes; and
- methods of development, implementation and mitigation.

Alternative means must be considered for comprehensive studies and assessment by a review panel, and may be considered for screenings (e.g., when the project involves the selection of a new site or route that is not adjacent to an existing right of way or facility site). Consideration of alternative means should include, at a minimum:

- a description of the alternatives and how or why they are technically, economically and environmentally feasible;
- identification of the environmental effects of the feasible alternatives; and
- the rationale for selecting the preferred alternative.

4.2.3 Filing Requirement – Justification

Provide a justification for the proposed project.

Guidance - Justification

Describe the needs that would be satisfied by the project and demonstrate that, taking into consideration all viable alternatives available, the proposed project is the most appropriate option to meet the needs while serving the public interest.

Next Steps....

Determine which of the Guides included within this chapter are applicable to the application being filed and complete the necessary filing requirements.