



**AUC**  
Alberta Utilities Commission

# Transmission/substation facility application

Date:

Company name (if applicable):

## Project description

### Transmission/substation facility application requirement (TS1)

Provide a description of the proposed project:

### Transmission/substation facility application requirement (TS2)

Confirm if the application is for a customer project or an application related to a proposal under Section 24.31 of the *Transmission Regulation*.

### Transmission/substation facility application requirement (TS3)

Provide details of the ownership structure, including the names of all companies having an ownership interest in the project and their ownership share, and if applicable, the name of the operator of the facilities that is seeking to acquire the permit or license. Confirm that the applicant is a qualified owner:

### Transmission/substation facility application requirement (TS4)

Provide a list of existing approvals for facilities directly affected by this project, if any:

**Transmission/substation facility application requirement (TS5)**

Provide a copy of the independent system operator (ISO) direct assignment letter pursuant to the *Electric Utilities Act*. Alternatively, if a needs identification document was not required, provide a copy of the ISO approval letter pursuant to the abbreviated needs approval process, or provide a statement in the application that the project was exempt pursuant to subsection 7.1 of this rule. [Please submit along with your application].

**Transmission/substation facility application requirement (TS6)**

Provide the most up-to-date functional specification issued by the ISO:

**Transmission/substation facility application requirement (TS7)**

Describe the design and ratings of the transmission line and major elements of the substation:

**Transmission/substation facility application requirement (TS8)**

If the ISO requires the facility applicant to determine the choice of conductors, describe the conductor size and arrangement selected and the basis for the conductor selection:

**Transmission/substation facility application requirement (TS9)**

If the application is not direct assigned by the ISO, provide the rationale for the rating/size of any proposed conductor or piece of major substation equipment:

**Transmission/substation facility application requirement (TS10)**

Describe the proposed transmission line structure type, including height and spacing; if more than one type of structure is proposed, state where each type will be used:

**Transmission/substation facility application requirement (TS11)**

State the right-of-way width and the basis for determining the width:

**Transmission/substation facility application requirement (TS12)**

Describe all major substation equipment being applied for, including the height of any telecommunications structure, and provide a list of the final major equipment that would be in the substation:

**Transmission/substation facility application requirement (TS13)**

Describe the switching and protection features of the proposed transmission facilities:

**Transmission/substation facility application requirement (TS14)**

Describe the electrical interaction of proposed transmission facilities with other facilities, such as pipelines, railways, telephone, radio and television transmission facilities, and other surface structures:

**Transmission/substation facility application requirement (TS15)**

Describe the changes to existing facilities required to accommodate the proposed facilities:

**Transmission/substation facility application requirement (TS16)**

Describe any transmission line routing alternatives to the proposal, and compare the relative effects (environmental, social and economic, including any associated distribution costs) of these alternatives with the proposal:

If the alternatives are segmented, include a comparison of the effects of each segment to the effects of its corresponding alternative segments:

**Transmission/substation facility application requirement (TS17)**

Provide an electric single-line diagram or switching map showing new facilities in place in the system. In the case of a substation, provide an electric single-line diagram and a substation layout diagram, including major items of equipment and the fenced boundaries of the station, with units of measure/scale. [Please submit along with your application].

**Transmission/substation facility application requirement (TS18)**

Discuss the construction schedule, equipment and method of construction, and method of eventual right-of-way maintenance:

**Transmission/substation facility application requirement (TS19)**

Provide the requested approval date, the expected construction start date, the expected in-service date of the project and the requested construction completion date to be stipulated in the project permit and licence:

**Transmission/substation facility application requirement (TS20)**

If available, provide the location of any required temporary or permanent workspace areas and access roads, and state whether these locations are requested to be listed in the permit and licence:

**Transmission/substation facility application requirement (TS21)**

Provide the following drawings and maps with units of measure/scale and north specified:

- i. A legible map defining the study area and state the reasons for the chosen area.
- ii. Legible maps of the proposed facilities showing:
  - i. The preferred transmission line route and any alternative routes or segments.
  - ii. Right-of-way widths.
  - iii. Location of the transmission line on the right-of-way.
  - iv. Location of the transmission line relative to property lines.
  - v. Kilometre points along each transmission line route.
- iii. Legible maps and air photo mosaics upon which the proposed transmission line route(s) and/or substation have been imposed and showing the residences, landowner names, and major land use and resource features along the routes and/or adjacent to the substation (e.g. agricultural crops or pasture, topography, soil type, existing land use, existing rights-of-way, existing or potential historical, archaeological or paleontological sites, and superficial and mineable resources).
- iv. Legible maps showing the most relevant environmental features, wildlife and aquatic habitat, ecological communities, environmentally sensitive areas, protected areas and designations present in the local study area.

[Please submit along with your application].

**Transmission/substation facility application requirement (TS22)**

Provide a Keyhole Markup Language (.kml/.kmz) file that contains the geographic data of the transmission line centerlines for all applied for transmission route options and substation locations. This file should reflect the information shown on the drawings and maps submitted to address transmission/substation facility application information requirement TS21. [Please submit along with your application].

### **Transmission/substation facility application requirement (TS23)**

If applicable, describe the measures proposed to minimize potential visual effects of the proposed development, including the identification of project components and locations that require screening and the screening measures (e.g., fences, earth berms, painting, landscaping) to be used:

## **Environmental information**

### **Transmission/substation facility application requirement (TS24)**

Submit an environmental evaluation of the project. The environmental evaluation must:

- Describe the present (pre-project) environmental and land-use conditions for the proposed route, substation location and any alternatives.
- Identify and describe the potential effects of construction and operation of the project on the environment. In particular, describe any potential adverse effects on soils, terrain, vegetation species and communities, wetlands, wildlife species and habitat, aquatic species and habitat, groundwater, surface water bodies and hydrology, environmentally sensitive areas, and land use within the local study area, following and referencing published Alberta Environment and Parks (AEP) guidelines if applicable.
- Describe the methodology used and any field surveys conducted to identify, evaluate, and rate any potential environmental effects and determine their significance, along with an explanation of the scientific rationale for choosing this methodology.
- Describe the mitigation measures the applicant proposes to implement during the life of the project to reduce the potential adverse effects.
- Describe the predicted residual adverse effects of the project and their significance after implementation of the proposed mitigation.
- Describe any monitoring activities the applicant proposes to implement during the life of the project to verify the effectiveness of the proposed mitigation.
- List the qualifications of the individual(s) who conducted or oversaw the environmental evaluation.
- Present an overall comparison of the proposed routes, in particular, identify the environmental features and any potential environmental effects (e.g., on native vegetation communities, rare plants, wetlands, topography, unique terrain features, sensitive soils, wildlife species setbacks and wildlife habitat, and environmentally significant areas), and identify land use and resource features (e.g., agricultural, residential, recreational, forestry, trapping and hunting areas, protective notations, and existing or potential archaeological sites) for each route in a table with stated units (kilometre, total number, etc.).
- Summarize the compatibility of the proposed facility with various municipal services if a proposed transmission line passes through or immediately adjacent to an urban centre.
- If the project crosses agricultural describe any plans to prevent the spread of weeds and pests on agricultural land.
- If the project involves the modification or repair of an existing substation, describe any current or past on-site use of polychlorinated biphenyls (PCB) and summarize any site-specific incident spill records. Where soil disturbance will occur on or immediately adjacent to the substation site, describe any soil sampling or contamination assessment to be undertaken and describe any plans to safely manage, transport and dispose of contaminated soils.

[Please submit along with your application].

**Transmission/substation facility application requirement (TS25)**

For projects wholly or partially located on federal lands (First Nation reserves, national parks or military bases), provide a copy of the environmental impact analysis completed for the corresponding federal government department. [Please submit along with your application].

Indicate whether the project has the potential to cause effects that may cross into another jurisdiction. Environmental effects that originate on federal lands, but cross into another jurisdiction, must be addressed as part of the environmental review process. Projects on federal lands may be subject to provincial laws, standards and permits.

The applicant must address how it has considered AUC Rule 007 and Rule 012 and describe the steps taken, if any, to address specific requirements set out in these rules.

**Transmission/substation facility application requirement (TS26)**

Submit a stand-alone, project-specific environmental protection plan (or environmental management plan) that itemizes and summarizes all of the mitigation measures and monitoring activities that the applicant is committed to implementing during construction and operation to minimize any adverse effects of the project on the environment. [Please submit along with your application].

**Transmission/substation facility application requirement (TS27)**

Describe any decommissioning of existing transmission facilities and describe the reclamation plan that will be carried out, including for any temporary workspace areas and temporary access roads following commissioning:

**Environmental information****Transmission/substation facility application requirement (TS28)**

Provide a noise impact assessment in accordance with Rule 012 for new substations and transformer additions within an existing substation, clearly indicating the impact of the new substation and/or transformer addition. [Please submit along with your application].

**Approvals from other agencies****Transmission/substation facility application requirement (TS29)**

Identify any other acts (e.g. *Environmental Protection and Enhancement Act*, *Water Act*, *Public Lands Act*, and *Wildlife Act*) that may apply to the project, identify approvals the project may require, and provide the status of each of these approvals:

**Transmission/substation facility application requirement (TS30)**

For preferred route and possible alternatives, applicants must provide a summary of feedback received to date from Alberta Environment and Parks (AEP) (including the local wildlife biologist of AEP) addressing the environmental aspects of the project, and confirmation that AEP is satisfied with any proposed mitigation measures and monitoring activities, or identify any unresolved project aspects where agreement with AEP was not achieved. [Please submit along with your application].

**Transmission/substation facility application requirement (TS31)**

Confirm that a *Historical Resources Act* approval has been obtained or has been applied for:

If a historic resource impact assessment is required, briefly describe any known historical, archaeological sites, palaeontological sites, or traditional use sites of a historic resource nature:

If a *Historical Resources Act* approval has been obtained, provide a copy of it. [Please submit along with your application].

**Participant involvement program**

**Transmission/substation facility application requirement (TS32)**

Summarize the participant involvement information, including a description of the activities undertaken and include any engagement materials provided. (See Appendix A1 – Participant involvement program guidelines and Appendix A1-B – Participant involvement program guidelines for Indigenous groups):

**Transmission/substation facility application requirement (TS33)**

List all occupants, residents and landowners within the appropriate notification radius as determined using Appendix A1 – Participant involvement program guidelines, as well as other interested persons that were notified or consulted as part of the participant involvement program:

**Transmission/substation facility application requirement (TS34)**

Supply a list of contact information for all persons who had been contacted as part of the participant involvement program in a spreadsheet in accordance with the template included in Appendix A1 – Participant involvement program guidelines. [Please submit along with your application].

**Transmission/substation facility application requirement (TS35)**

Summarize consultation with local jurisdictions (e.g., municipal districts, counties):

**Transmission/substation facility application requirement (TS36)**

Identify all persons who expressed a concern(s) about the project. For each person include the following information:

- The specifics of the concern(s).
- Steps taken to resolve the concern(s).
- Whether the concern(s) was resolved.

**Economic assessment****Transmission/substation facility application requirement (TS37)**

Provide an AACE Class 3 cost estimate for the preferred route and all alternatives on a common basis, in accordance with the requirements in ISO Rules Section 504.5 and the AESO Information Document #2015-002R, Service Proposals and Cost Estimating. The format of the cost estimate provided must take the form of the estimate summary that is obtained by completing the AESO's cost estimate template (available on the AESO web page). Where identifiable, include costs to be borne by persons other than the applicant and the applicant's customer(s) in the comparison. This information requirement may not be applicable to market participant and merchant line applications.

[Please submit along with your application].



### **Transmission/substation facility application requirement (TS38)**

In addition to the above, if the applicant is a market participant applying under section 24.31 of the *Transmission Regulation*, the applicant must also:

- Provide confirmation that all required agreements are in place with the transmission facility owner (TFO) including the asset transfer agreement, the written agreement with the TFO for the temporary operation of the transmission facility, if available, and confirmation of ISO approval of the connection proposal. [Please submit along with your application].
- Specify the temporary period for which the market participant expects to hold the operating licence, which may not exceed the term specified in the written agreement with the TFO for the temporary operation of the transmission facility: