

Rule 007

Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments

This rule as amended was approved by the Alberta Utilities Commission on July 22, 2014, and is effective on July 25, 2014.

Contents

1	Definitions and application	4
1.1	Application	4
1.2	Definitions	4
1.3	Application required	4
1.4	Exemptions	5
1.5	Application process	6
1.6	Electronic application structure	8
2	Utilities - Schedule 1: Applicant general information	9
3	Power plant applications one megawatt (MW) or greater	11
3.1	Application requirements	11
3.2	Information requirements:	11
3.3	Power plant application	15
3.4	Power plant application attachments	17
3.5	Wind power plant applications	17
3.5.1	Application requirements for the different types of wind power plants	18
3.5.2	Application where changes in turbines or layout are anticipated after the filing of the application	18
3.5.3	Application which indicates more turbine locations than are needed for the wind power plant	18
3.5.4	Buildable area applications.....	18
3.6	Amendments to approved wind power plant	21
4	Small power plant applications less than one megawatt (MW)	22
4.1	Small power plant applications information requirements	22
4.2	Small power plant application	23
4.3	Small power plant application attachments	27
5	Interconnection applications	28
5.1	Information requirements	28
5.1.1	Connection at voltage level less than 69 kV	28
5.1.2	Connection to the transmission system – voltage level 69 kV or greater	28
5.2	Interconnection application schedule	29
5.3	Interconnection application attachments	30
6	Needs identification document applications to construct or alter a substation or transmission line	31
6.1	ISO needs identification document application information requirements	31
6.2	ISO needs identification document application schedule	34
6.3	ISO needs identification document application attachments	34

7	Transmission line / substation applications	34
	7.1 Information requirements	34
	7.1.1 Environmental and land use information.....	36
	7.1.2 Economic assessment	38
	7.2 Transmission line/substation applications	39
	7.3 Transmission line application attachments.....	41
	7.4 Substation application attachments.....	42
8	Industrial system designation (ISD) applications	43
	8.1 ISD information requirements	43
	8.2 ISD application schedule	45
	8.3 ISD application attachments	45
9	Hydro developments	46
	9.1 Information requirements	46
10	Other applications	47
	10.1 Information requirements	47
	10.2 Other application attachments	48
	Appendix A - Participant involvement program requirements	49
	Appendix B1 - Cost breakdown formats – requirements TS43	55
	Appendix B2 - Cost breakdown formats – requirements NID11 and NID12	56

List of abbreviations

AESRD	Alberta Environment and Sustainable Resource Development
AESO	Alberta Electric System Operator
BA Code	Business associate code
DDS	Digital data submission
DFO	Distribution facility owner
eFiling	Electronic filing system
ISD	Industrial system designation
ISO	Independent System Operator
Kg/MWh	Kilograms per megawatt-hour
kV	Kilovolt
kVA	Kilovolt-ampere
kW	Kilowatt
kWh	Kilowatt-hour
LSD	Legal subdivision
MVA	Megavolt-ampere
MW	Megawatt
MWh	Megawatt-hour
NO _x	Nitrogen oxides
SO ₂	Sulphur dioxide
TFO	Transmission facility owner

1 Definitions and application

1.1 Application

This rule applies to applications for the construction, alteration, operation, and the discontinuation, dismantling and removal of hydro developments, power plants, substations, transmission lines and industrial system designations, pursuant to the *Hydro and Electric Energy Act*, and for approvals of a needs identification document, pursuant to the *Electric Utilities Act* and *Transmission Regulation*.

1.2 Definitions

In this rule:

- (a) “Commission” means the Alberta Utilities Commission.
- (b) “regional land use plan” means a regional plan adopted and in force pursuant to the *Alberta Land Stewardship Act*.

1.3 Application required

Any person intending to construct, connect, operate, or alter hydro developments, power plants, substations, transmission lines or industrial system designations, including ownership changes, must file an application with the Commission in accordance with this rule, unless otherwise directed by the Commission.

Hydro development applications must be made pursuant to sections 9 and 10 of the *Hydro and Electric Energy Act*.

Power plant applications must be made pursuant to Section 11 of the *Hydro and Electric Energy Act*.

Transmission line applications must be made pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act*. Pursuant to the definition of transmission line found in the *Hydro and Electric Energy Act*, any reference to transmission line in this rule shall be as defined except where the context of the particular provision of the rule makes it clear that the Commission is only referencing a component of the transmission line (e.g. the transmission circuit or substation).

Connection applications for power plants, substations and transmission lines must be made pursuant to Section 18 of the *Hydro and Electric Energy Act*.

Applications for a time extension to complete the construction or alteration of a power plant, hydro development, substation or transmission line must be made pursuant to Section 19 of the *Hydro and Electric Energy Act*.

Applications, or notification, as the case may be, to discontinue the operation of, or dismantle or remove any work or installation forming part of an approval, permit or licence with respect to a hydro development, power plant, substation or transmission line must be made pursuant to sections 21 and 22 of the *Hydro and Electric Energy Act*.

Needs identification document applications by the Independent System Operator (ISO) must be made pursuant to Section 34 of the *Electric Utilities Act* and the *Transmission Regulation*.

For the Commission to consider a new transmission facility application by a transmission facility owner (TFO) or market participant, the ISO is required to have prior Commission approval for the needs identification document or the needs identification document application

has to be submitted concurrently with the facility application under Section 15.4 of the *Hydro and Electric Energy Act*.

Before making an application to the Commission for electric facilities, an applicant must have regard for the following provisions in the *Electric Utilities Act*:

- (a) Pursuant to Section 101(1) of the *Electric Utilities Act*, if the applicant wishes to obtain electricity for use on a property, the applicant must make arrangements for the purchase of distribution access service from the owner of the electric distribution system in whose service area the property is located.
- (b) Pursuant to Section 101(2) of the *Electric Utilities Act*, if the applicant wants to receive electricity directly from the transmission system, the applicant may enter into an arrangement directly with the ISO, provided that the applicant can obtain approval from the ISO and the owner of the electric distribution system, in whose service area the property is located.

When the ISO direct assigns a project to a TFO or market participant, a written confirmation of the direct assignment from the ISO must accompany the application.

1.4 Exemptions

If an applicant is proposing alterations to existing electric facilities and considers the alterations to be minor, the applicant must comply with sections 11, 12 and 18.2 of the *Hydro and Electric Energy Regulation*. The Commission's guidance is provided in the [Electric Power Plant Facilities Process Guidelines – July 25, 2014](#), as amended, and in the [Electric Transmission Facilities Process Guidelines – June 12, 2013](#), as amended.

The guidelines provide direction whether:

- (a) The approval holder may proceed with the alterations without an application.
- (b) The approval holder must file an enquiry proposal application in which case the proposal would proceed by letter of enquiry.
- (c) The approval holder must file an application for a new approval, permit or licence to carry out the proposed alterations.

If an applicant plans to generate electric energy solely for the applicant's own use, and the power plant rating is 10 megawatts or greater, the applicant must file information to demonstrate that no person is directly and adversely affected, the power plant complies with AUC Rule 012: *Noise Control* (AUC Rule 012) and there is no material impact on the environment, thereby meeting the requirements for exemption. The Commission will determine whether an approval must be issued or whether the plant is exempt.

If an applicant plans to generate electric energy solely for the applicant's own use, and the power plant rating is less than 10 megawatts, the applicant may proceed without filing an application if no person is directly and adversely affected, the power plant complies with AUC Rule 012, there is no material impact on the environment, and if the unit is connected to the distribution or transmission system, the owner must contact the wire owner to determine if adequate protection has been installed to isolate the unit from the wire owner's system or obtain an operating agreement with the wire owner, thereby meeting the requirements for an exemption.

If the power plant is less than one megawatt and the applicant is not planning to generate electric energy solely for the applicant's own use, the applicant must also enter into an

operating agreement with the owner or operator of the transmission line or electric distribution system to which the small power plant is or is to be connected relating to the connection.

If none of the three exemptions, described above, for power plants are applicable or the planned use of the power plant has changed such that the exemption is no longer applicable, the applicant must file a power plant application containing all the information required by these rules. The Commission's guidance with respect to power plant exemptions pursuant to Section 13 of the *Hydro and Electric Energy Act* and Section 18.1 of the *Hydro and Electric Energy Regulation* is provided in the [Electric Power Plant Facilities Process Guidelines – July 25, 2014](#), as amended.

If a power plant is exempt from filing an application with the Commission, the Commission retains the jurisdiction to investigate issues in relation to compliance with this rule and AUC Rule 012 and to confirm that the requirements for exemption are and continue to be satisfied.

If an applicant is proposing a micro-generation generating unit, the applicant must refer to AUC Rule 024: *Rules Respecting Micro-Generation* for application guidelines.

If an applicant plans to transmit electric energy over the applicant's own land and solely for the applicant's own use or within an industrial system that has been designated by Commission approval, the applicant must contact the Commission and explain the nature of the proposal. The Commission determines whether the applicant must file an application for a permit and licence or whether the facilities can be exempted.

If an applicant plans to distribute electric energy over the applicant's own land and solely for the applicant's own use, and applies to the Commission for exemption from Part 3 of the *Hydro and Electric Energy Act*, the applicant must, prior to filing the application, contact the electric distribution utility in whose service area the applicant is proposing to distribute electric energy and explain the nature of the proposal.

If the requested exemption relates to a proposed or anticipated industrial system designation (ISD), the distribution facilities constructed pursuant to the exemption may be subject to transfer to the distribution facility owner (DFO) at a later date, if the ISD is not perfected in a reasonable period of time.

1.5 Application process

An applicant must follow these steps set out below.

Step 1: Preparation of an application

Prior to filing an application, an applicant must complete the participant involvement program. (See [Appendix A](#) – Participant involvement program requirements). An applicant must include documentation describing its notification and consultation program in its application.

For certain electric facilities the applicant must also obtain specific approvals or sign-offs from other entities prior to filing its application, as these are to be submitted as attachments to the Commission application. Once the applicant has completed and documented the participant involvement program, obtained all other approvals and sign-offs, and compiled all the information required, it may proceed to file its application with the Commission. Alternatively, if certain approvals and sign-offs have not been obtained, the applicant must clearly identify them and provide details regarding their status to assist the Commission in deciding how to proceed with its consideration of the application.

In addition to other requirements, the applicant must identify any emergency orders issued by Environment Canada which apply to the project area (e.g. the Emergency Order for the

Protection of the Greater Sage Grouse). The applicant must include as part of its application, information regarding the emergency order, the impacts the emergency order has on the application, discussions the applicant has had with Environment Canada and Alberta Environment and Sustainable Resource Development (AESRD) regarding the emergency order including any mitigation required and information addressing actions that will be taken by the applicant to ensure compliance with the emergency order.

The Commission no longer processes any application that contains major deficiencies. If the application contains major deficiencies, it will be closed and the applicant will receive an explanation via electronic mail. An example of a major deficiency is the omission of key information, such as neglecting to include participant involvement information or a noise impact assessment when applying to build a power plant in proximity to residences.

If the application has minor deficiencies, the Commission may request further information from the applicant. Failure to respond in the stated time frame may result in the Commission closing the application with written notification of the reason for the rejection.

If the applicant is proposing a major development, such as a large power plant, with a capacity of 100 megawatts or greater, that uses a non-gaseous fuel or hydroelectric energy, the information requirements in this rule may not be sufficient to assess the full impact of the project. In that case, the applicant should consult with AESRD to determine if an environmental impact assessment is required. For other projects not requiring an environmental impact assessment, the applicant can contact the Commission in the initial stages of preparing the application to determine the level of detail required.

The Commission requires applicants to address all concerns raised by potentially directly and adversely affected persons.

If the applicant concludes that further discussion is unlikely to resolve issues, it should inform the Commission, outlining the concerns and the steps it has taken to resolve issues.

Under the *Alberta Land Stewardship Act* and the Alberta Land Use Framework, the province of Alberta is divided into seven land use regions and for each region a regional land use plan has or will be adopted.

If the project site occurs within the plan boundaries of a regional land use plan which is in force, the applicants for transmission lines and power plants must include information confirming the project is being developed in accordance with the regional land use plan and any impacts on the management frameworks developed pursuant to the applicable regional land use plan.

Step 2: Filing

An applicant must file its application electronically using the electronic filing (eFiling) system that is accessible via the Commission website www.auc.ab.ca. Please refer to the [Electronic Filing System User Guide](#) for instruction on how to obtain a digital data submission (DDS) log-in and how to submit applications electronically.

If an applicant's electronic application contains maps or drawings that are difficult to view on a computer screen, the applicant may be required to provide paper copies of these documents. If the application proceeds to a hearing or is otherwise complex, the applicant may be asked to provide additional paper copies.

The Commission may choose to hold an electronic hearing. Any party wishing to intervene in an electronic proceeding would register to participate through the proceeding submission system available through the Commission DDS quick link on the Commission's website

www.auc.ab.ca. Parties wishing to participate must have a valid DDS log-in ID with the DDS role of “Participate in a Proceeding”.

Pursuant to AUC Rule 001: *Rules of Practice* (available on the Commission’s website www.auc.ab.ca), all documents filed in respect of a proceeding, including any application submissions or other documents filed prior to the commencement of the proceeding, must be placed on the public record unless otherwise ordered by the Commission. Please ensure that all application submissions are free of information that the applicant does not want to appear on a public record.

1.6 Electronic application structure

Electronic applications are structured as a set of electronic schedules that the applicant should fill out directly in the Commission web-based eFiling system, together with a set of electronic attachments that the applicant should upload into the eFiling system. Some of the required information is to be entered directly into the schedules. However, the bulk of the information must be placed into the associated electronic attachments. The following sections of this rule have been arranged to indicate, for each type of electric facility application, not only the information that is required, but also where the information needs to be placed.

All applicants must complete [Utilities – Schedule 1: Applicant general information](#), which is required for all application types covered in this rule.

There are additional schedules for the power plant, interconnection, transmission line and substation application types, respectively. In addition, for each application type there is a set of mandatory electronic attachments that must be uploaded before the application can be submitted to the Commission. The information requirements, schedules and attachments for each application type are outlined in each section of this rule.

2 Utilities - Schedule 1: Applicant general information

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Alberta Utilities Commission	Utilities - Schedule 1 Applicant General Information APPLICANT'S FILE NUMBER	
DAY-MONTH-YEAR 12-Dec-2007	<input type="text"/>	
The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Utilities Commission.		
Submission Status <input type="text" value="New"/>	Submission Id <input type="text"/>	Creation Date <input type="text"/>

1. APPLICANT INFORMATION	<input type="button" value="Add Applicant"/>	Help
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Click "Add Applicant" to include applicant information (click "View" to view/edit or "Delete" to remove).

View	Delete	Applicant Type	BA Code	Contact Name
<input type="button" value="View"/>	<input type="button" value="Delete"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2. PROJECT OVERVIEW	Help
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1. **Application Description:**

2. **Are there other AUC applications directly related to this application?** YES NO

Click "Add Related Applications" to include related applications (click "View" to view/edit or "Delete" to remove).

View	Delete	Application Category	Application Type	Application Number
<input type="button" value="View"/>	<input type="button" value="Delete"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

3. APPLICATION TYPES	<input type="button" value="Add"/>	<input type="button" value="Open"/>	<input type="button" value="Delete"/>	Help
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1. Identify what this application is for:

Application Category

Application Type

2. Is this application for a power plant less than 1 MW? YES NO

APPLICATION TYPES INCLUDED ON CURRENT SUBMISSION
(Select the schedule and click 'Open' to view/edit, or 'Delete' to remove)

If you have any questions or comments, please contact the [EAS Administrator](#).
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Schedule 1 – guide

When to use Schedule 1

Utility - Schedule 1: Applicant general information is required for all application types covered in this rule.

Schedule 1 provides information identifying the applicants, consultants or law firms submitting the application. It allows the applicant to define the application types, such as electric power plant, transmission line, substation, industrial system designation, etc. The applicant may include several application types using a single Schedule 1. (Please consult the [Electronic Filing \(E-Filing\) System User Guide](#) for instruction on how to use the control buttons and menus in this schedule.)

Part 1: Applicant information

Applicant type

Select Primary Applicant, Co-applicant, Law firm, or Consultant. An application must have one primary applicant.

Company name

Enter the company name and Business Associate (BA) Code.

Contact name

As applicant, the company is responsible for the accuracy and completeness of this application and all supporting technical information.

Enter the name of the person responsible for preparing this application. The Commission will direct correspondence and questions about the application to this person.

Telephone/fax

Enter the telephone number and facsimile number of the contact person, including area code.

Email address

Enter the email address of the contact person. Any correspondence from the Commission will be sent to this e-mail address.

Mailing address

Enter the company's complete mailing address, including postal code.

Part 2: Project overview

1. Application description

Describe what this application is for and the reasons for the application (for example, a transmission line to provide electric supply for an industrial complex).

2. Are there other AUC applications directly related to this application?

If "Yes": Provide the application type and application number of other directly related applications.

Part 3: Application types

1. Identify what this application is for.

Select: Electric – Power Plant, Interconnection, ISO Needs Identification Document, Transmission Line, Substation or Industrial System Designation. Note: The applicant can add multiple applications types.

2. Is this application for a power plant less than 1 MW?

Check "Yes" or "No", whichever is applicable.

If "Yes" is checked the eFiling system will require the Small Power Plant Application Schedule to be filled out.

If "No" is checked the eFiling system will require the Power Plant Application Schedule to be filled out.

3 Power plant applications one megawatt (MW) or greater

3.1 Application requirements

If an applicant is applying to construct and operate a new power plant or to alter an approved plant, the application must include the requirements outlined below.

If an applicant is applying to discontinue, dismantle or remove an approved power plant, the application must include the relevant information requirements outlined below. The information requirements do not apply to a notice of discontinuance of operations.

For power plants with a capability of one megawatt or greater and of less than 10 megawatts, an application is only required if the applicant does not satisfy the requirements for exemption under Section 13 of the *Hydro and Electric Energy Act*.

If an applicant is applying for an exemption with respect to a power plant that has a capability of 10 megawatts or greater, the application must include the relevant information requirements outlined below to demonstrate that the applicant plans to generate electric energy solely for the applicant's own use, no person is directly and adversely affected, the power plant complies with AUC Rule 012, and there is no effect on the environment. The Commission will determine whether an approval must be issued or whether the plant is exempt.

For an application to construct and operate a wind power plant or to alter an approved wind power plant, see Section 3.5 of this rule. This section specifies which of the power plant requirements outlined in Section 3.2 of this rule apply to wind power plant applications. Also, Section 3.5 sets out different application approaches available for a wind power plant application.

Fill out the power plant application schedule and upload the required power plant attachments.

3.2 Information requirements:

- PP1) Identify the sections of the *Hydro and Electric Energy Act* under which the application is made.
- PP2) Identify any other acts (e.g., *Environmental Protection and Enhancement Act*) that may affect the project.
- PP3) State the approvals that are being applied for from the Commission, and provide a draft of the approval being requested.
- PP4) Provide a list of existing approvals for facilities directly affected by this project, if any.
- PP5) Provide details and outcome of consultation with local jurisdictions (e.g., municipal districts, counties).
- PP6) Provide a list of parties that may be affected by the project, confirm that these parties have no concerns regarding the application, and indicate which other agreements are necessary to carry out the project.
- PP7) For wind power plants, provide a copy of approval from Transport Canada for any structures 20 metres or taller and an evaluation from NAV Canada.
- PP8) Provide a copy of the approval from Alberta Transportation if a wind power plant that is within 300 metres of a numbered highway is being applied for.

- PP9) Confirm that an application to AESRD has been made, if applicable, and list all other government departments and agencies from which approval is required.
- For all power plant applications, an AESRD wildlife biologist must be included on the referral list, unless the project is located within an urban area. The Commission requires a sign-off from AESRD prior to processing any new wind power applications.
- PP10) With respect to new facilities or alterations, that may have archaeological or historical impacts, confirm that a *Historical Resources Act* clearance has been obtained or is being applied for. If a historical or archaeological impact assessment is required, briefly describe any historical or archaeological sites close to the power plant site. Please ensure that any summary provided protects the confidential location of any historical resources.
- PP11) Provide the ISO assigned asset identification code, if available.
- PP12) Provide the legal description of the proposed power plant site (legal subdivision [LSD], Section, Township, Range, Meridian) and connection point, if applicable.
- PP13) For wind power plant applications, provide the longitude and latitude coordinates for the centre of each structure supporting a wind-powered generator. If, after approval is granted, the location of any supporting structure has to be relocated more than 50 metres from the coordinates stated in the application, the power plant proponent must reapply to the Commission for approval to relocate the structure prior to construction. For movement less than 50 metres, the applicant is not required to reapply unless there is an adverse impact on the permissible sound level or wildlife setback distances.
- PP14) Describe the number of generating units and the total capacity (kilovolt-ampere [kVA], or megavolt-ampere [MVA]) for the project.
- PP15) Describe the existing environmental and land use conditions on the project site, and discuss potential siting and land use issues. Also, describe the regional setting of the development including regional land use plans in force (e.g., the Lower Athabasca Regional Plan). If applicable, include maps showing important environmental features and sensitive areas on or near the project site.
- PP16) At a level of detail commensurate with the size and type of potential impact(s) of the project, describe how the project is predicted to adversely affect the environment (such as soils, terrain, vegetation, wetlands, wildlife and wildlife habitat, fish and fish habitat, groundwater, surface water, air quality, and land use), and visual aesthetics. Describe how the environmental and visual aesthetic effects of the project will be mitigated and any monitoring proposed to evaluate the efficacy of the mitigation.
- PP17) If the project site occurs within the plan boundaries of a regional land use plan in force:
- i. Confirm that the proposed project is being developed in accordance with the applicable regional land use plan.
 - ii. Confirm if the proposed project is in a conservation area or provincial recreation area established in the applicable regional land use plan. Provide submissions describing how the activity may be considered incidental to a previously approved activity.
 - iii. Indicate what, if any, management frameworks in place under the applicable regional land use plan are applicable to the project, the reason why any management frameworks are not applicable to the project and summarize discussions held with AESRD and any other government department required to be consulted under the management frameworks regarding the project and its impacts

in terms of the management frameworks. Include details on any actions or mitigation measures recommended as a result of the discussions and describe how these actions or mitigation measures will be incorporated into the project.

- PP18) Describe the participant involvement information. (See [Appendix A](#) – Participant involvement program requirements).
- PP19) List all occupants, residents and landowners on lands within 2,000 metres of the project area, as well as other interested persons that were consulted as part of the participant involvement program. If there are populated areas just outside the 2,000 metre limit, applicants should consider including those areas in the participant involvement program.
- PP20) Supply a list of mailing addresses, with corresponding land locations and two sets of printed mailing labels of those parties mentioned in PP19, above.
- PP21) Identify any persons who expressed concerns about the project and the specifics of their concerns.
- PP22) Summarize discussions held with potentially directly and adversely affected persons.
- PP23) If potentially directly and adversely affected persons raised any concerns, describe how they were dealt with or are being dealt with.
- PP24) For those potentially directly and adversely affected persons identified above, include a confirmation of resolution of the concerns, if applicable.
- PP25) If the power plant is to be located within an oil and gas facility, confirm the power plant will comply with the standards outlined in Section 8.090 of the *Oil and Gas Conservation Rules*.
- PP26) Provide a noise impact assessment, in accordance with the current AUC Rule 012.
- PP27) For an application where no changes to the major components of the power generating equipment are contemplated after filing of the application, provide details of the power generating equipment and associated facilities, such as make, model and nominal capacity.
- PP28) For an application where vendors to supply the major components of the power generating equipment have not been selected, provide the nominal capacity of the applied-for power plant and the design and maximum operating parameters, and characteristics specified for the power generating equipment and associated facilities.
- PP29) Present the estimated power plant heat rates, efficiency of the power plant and details of the cooling system for the power plant.
- PP30) State the fuel requirements of the power plant, including type, source, method of handling, transportation and environmental effects.
- PP31) Provide a legible plant site drawing showing all major equipment components.
- PP32) Provide a legible map showing the power plant site boundaries and land ownership, including any residences and dwellings within 2,000 metres of the boundaries, as well as any additional energy-related facilities within the project area.
- PP33) Provide a legible map of the project area suitable for use in a public notice.

- PP34) Supply the expected in-service dates, and describe ramifications if the approval date cannot be met.
- PP35) Indicate the plant's emission rates, in kilograms per megawatt-hour (kg/MWh) of nitrogen oxides (NO_x), sulphur dioxide (SO₂), and primary particulate matter, and state whether the emissions will comply with the current Alberta Source Emission Standards and any other emission rate standards or guidelines that are applicable to the proposed project.
- PP36) State whether the proposed plant will comply with the Alberta Ambient Air Quality Objectives and Guidelines Summary and any other standards or guidelines that are applicable to the proposed project for ground-level concentrations of pollutants.
- PP37) Provide the environmental impact assessment as an appendix to the application, if one has been conducted.

The applicant must obtain approval from AESRD for thermal power plant facilities greater than one megawatt in total capacity at one site. An environmental impact assessment is mandatory for thermal power plant facilities that use non-gaseous fuel and are greater than 100 megawatts in total capacity; an environmental impact assessment may be required for other power plant facilities regardless of total capacity. When an environmental impact assessment is not mandatory, AESRD will determine if it is necessary, based on the specific nature of the project. The applicant should consult with the Commission and AESRD in the initial stages of preparing its application to determine the level of detail required.

- PP38) If the power plant is to be connected to the transmission system of the Alberta Interconnected Electric System, irrespective of voltage level, provide the following information:
- An electrical single-line diagram obtained from the ISO or sanctioned by the ISO showing the transmission development plan for the interconnection.
 - A map with one or more conceptual layouts showing possible routes and general land locations for facilities that would be used to interconnect the power plant to the Alberta Interconnected Electric System.
- PP39) If the power plant is to be connected at distribution voltage level to the Alberta Interconnected Electric System (generally less than 69 kV), the applicant must provide a statement from the distribution facility owner indicating that it is willing to connect the generating facilities.
- PP40) For a municipality or a subsidiary of a municipality to hold an interest in a generating unit, documentation confirming compliance with Section 95 of the *Electric Utilities Act* is required.
- PP41) For a wind power application, provide legible maps and/or air photo mosaics upon which the proposed collector power line route or routes have been imposed and showing the residences, landowner names, and major land use and resource features (e.g., vegetation, topography, soil type, existing land use, existing rights-of-way, and superficial and mineable resources).

3.3 Power plant application

MENU	<input type="button" value="Print"/>	<input type="button" value="Save"/>	<input type="button" value="Sched 1"/>	<input type="button" value="Close"/>	Help
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Alberta Utilities Commission	Rule 007
DAY-MONTH-YEAR 12-Dec-2007	Power Plant Application APPLICANT'S FILE NUMBER
The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Utilities Commission.	
Submission Status <input type="text" value="Incomplete"/>	Submission Id <input type="text" value="217778"/>
Creation Date <input type="text" value="12-Dec-2007"/>	

4. POWER PLANT Help

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Click "Add Company" to include project ownership information (click "View" to view/edit or "Delete" to remove).

View	Delete	Company Name	Percentage	Details
<input type="button" value="View"/>	<input type="button" value="Delete"/>			

Total Other Ownership: %
2. What is the energy source of the power plant?
3. Select type of generator used at the power plant:
4. Have you conducted a participant involvement program? YES NO

If No, explain:
5. Are there outstanding public or industry objections and/or concerns? YES NO
6. Have you completed a noise impact assessment, as required by Rule 012: Noise Control? YES NO
7. Please provide the AESO Pool Participant Asset ID Number(s)
8. Is there an application for connection accompanying this power plant application? YES NO
- 8a. At what level is the connection:

Distribution Level Transmission Level
9. Provide the legal description of the proposed plant site:
(Provide latitude and longitude for each wind generating unit, if applicable.)
(Provide latitude and longitude coordinates in decimal degrees.)

Lot# <input style="width: 50px;" type="text"/>	Block# <input style="width: 50px;" type="text"/>	Plan# <input style="width: 100px;" type="text"/>
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Click "Add Location" to include location information (click "View" to view/edit or "Delete" to remove).

View	Delete	Unit#	Lsd	Sec	Twp	Rge	Mer	Lat	Long
<input type="button" value="View"/>	<input type="button" value="Delete"/>								

If you have any questions or comments, please contact the [EAS Administrator](#).
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Power plant application schedule – guide

The power plant application schedule is for construction, operation, or alteration of a power plant one megawatt or greater. All the questions must be answered and all required information included. Once the applicant has completed this schedule, it may proceed to upload the attachments using eFiling in DDS on the Commission’s website (www.auc.ab.ca).

- 1) Provide the names of all **other** companies having ownership in the project, details of their incorporation and the share in the project that each would have. (Note: Do not answer this question if the applicant is the sole owner of the project).
- 2) What is the energy source of the power plant?
- 3) Select type of generator used at the power plant.
- 4) Has the applicant conducted a participant involvement program? If the answer is “No”, reasons must be provided. If the answer is “Yes”, details about the program must be provided in the participant involvement program attachment.
- 5) Are there outstanding public or industry objections and/or concerns?
- 6) Has a noise impact assessment been completed, as required by the current AUC Rule 012?
- 7) Provide Electric Facility ID Number(s) (Power Pool-Assigned Asset ID Code).
- 8) Is there an application for connection accompanying this power plant application?

If “Yes”: the applicant must include an interconnection application type together with the power plant application type in Schedule 1.

If “No”: the applicant must then answer Question 8a: “At what voltage level is the connection” and select either distribution level or transmission level.

- 9) Provide the legal description of the proposed plant site (and latitude and longitude for each wind generating unit, if applicable). Note: for wind power plant applications, provide the longitude and latitude coordinates for the centre of each structure supporting a wind-powered generator. For all other power plant types, provide the longitude and latitude coordinates of the powerhouse.

3.4 Power plant application attachments

The eFiling process requires an applicant for power plant approval to upload each section as a separate attachment. Information requirements for each attachment are combinations of those described in previous sections and grouped in the following tables:

Attachment	Information requirements
Application	Requirement Nos. (PP1), (PP2), (PP3), (PP4), (PP9), (PP10), (PP11), (PP12), (PP13), (PP14), (PP15), (PP16), (PP17),(PP25),(PP27), (PP28), (PP29), (PP30), (PP34), (PP35), (PP36) and (PP40)
Development permit	Requirement No. (PP5)
Participant involvement program	Requirement Nos. (PP6), (PP18), (PP19), (PP20), (PP21), (PP22), (PP23) and (PP24)
Mailing labels	Requirement No. (PP20)
Noise impact assessment	Requirement No. (PP26)
Alberta Transportation approval	Requirement No. (PP8) (For wind power plant applications)
NAV Canada evaluation	Requirement No. (PP7) (For wind power plant applications)
Transport Canada approval	Requirement No. (PP7) (For wind power plant applications)
Project area map	Requirement Nos. (PP33), (PP38) and (PP41)
Plant site boundary map	Requirement No. (PP32)
Plant site drawing	Requirement No. (PP31)
Environmental impact assessment	Requirement No. (PP37)

Additional attachments for power plant applications without an accompanying application for connection (e.g., if the answer is “No” to Question 8 on the power plant schedule)

If the power plant is to be connected at transmission voltage level (generally 69 kV or greater), the following information must be provided in the attachments indicated below:

Electric single-line diagram	Requirement No. (PP38)
Project area map	Requirement No. (PP38)

If the power plant is to be connected to a distribution system (generally less than 69 kV), the following information must be provided in the attachments indicated below.

Connection agreement	Requirement No. (PP39)
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For power plant applications that request interconnection (e.g., if the answer was “Yes” to Question 8 on the power plant form and the interconnection application type was selected on Schedule 1), the applicant must upload the interconnection application attachments as explained in this rule.

3.5 Wind power plant applications

An applicant may submit one of the following types of applications to construct and operate a wind power plant. These are:

- An application where no changes are anticipated after the filing of an application and the applicant has identified a specific wind turbine including type and model, and proposes a specific layout or a specific location for each turbine.

- An application where changes in turbines or layout are anticipated after the filing of the application.
- An application which indicates more turbine locations than are needed for the wind power plant which may be removed from the application, prior to a decision of the Commission on the application.
- Buildable area applications; a phase 1 application and a phase 2 application where an approval for phase 1 has been issued.

3.5.1 Application requirements for the different types of wind power plants

Application requirements PP1 to PP28, PP31 to PP35 and PP37 to PP41, set out in Section 3.2 of this rule, apply to wind power plant applications, other than the buildable area applications.

For buildable area applications, application requirements PP1 to PP11, PP14 to PP26, PP32 to PP34 and PP37 to PP41 apply to an application for a buildable area phase 1 application. Additional requirements are set out below for this type of application. Application requirements PP1 to PP28, PP31 to PP35 and PP37 to PP41 apply to a phase 2 buildable area application. Additional requirements are set out below.

3.5.2 Application where changes in turbines or layout are anticipated after the filing of the application

In this case, the applicant proposes a layout with a specific wind turbine, make, model and type, in the application. After filing the application, the applicant may amend its application to change its choice of wind turbine, make, model, type, or to change the layout or any other related aspect of the application related to the change in wind turbine.

The applicant must update its consultation and resubmit a revised project proposal and inform other agencies from whom it has obtained an approval or sign-off in relation to the proposed wind power plant about any major amendments.

However, if the amendments during the application process are minor, the applicant must describe the proposed changes and explain why it considers the changes to be minor and why consultation is not needed.

3.5.3 Application which indicates more turbine locations than are needed for the wind power plant

In this case, the applicant proposes more wind turbine locations than are required for the wind power plant for a specific wind turbine, model, make or type. Because the proposed layout has more turbine locations than required, during the application process, the applicant may remove proposed turbine locations before the Commission makes a decision on the application.

3.5.4 Buildable area applications

An applicant may identify an area in which it proposes to construct a wind power plant and applies for approval of that area as a phase 1 application. In the application, the buildable area is identified, along with specified thresholds for turbine size, noise levels and other factors. The buildable area concept allows developers to have flexibility to change turbine type, within a specific physical dimension, e.g. maximum turbine height, maximum rotor length, maximum number of turbines, maximum noise level, without requiring an amendment application. Individual buildable areas may vary in size with most expected to be several acres. A noise impact assessment under AUC Rule 012 is not required for a phase 1 application.

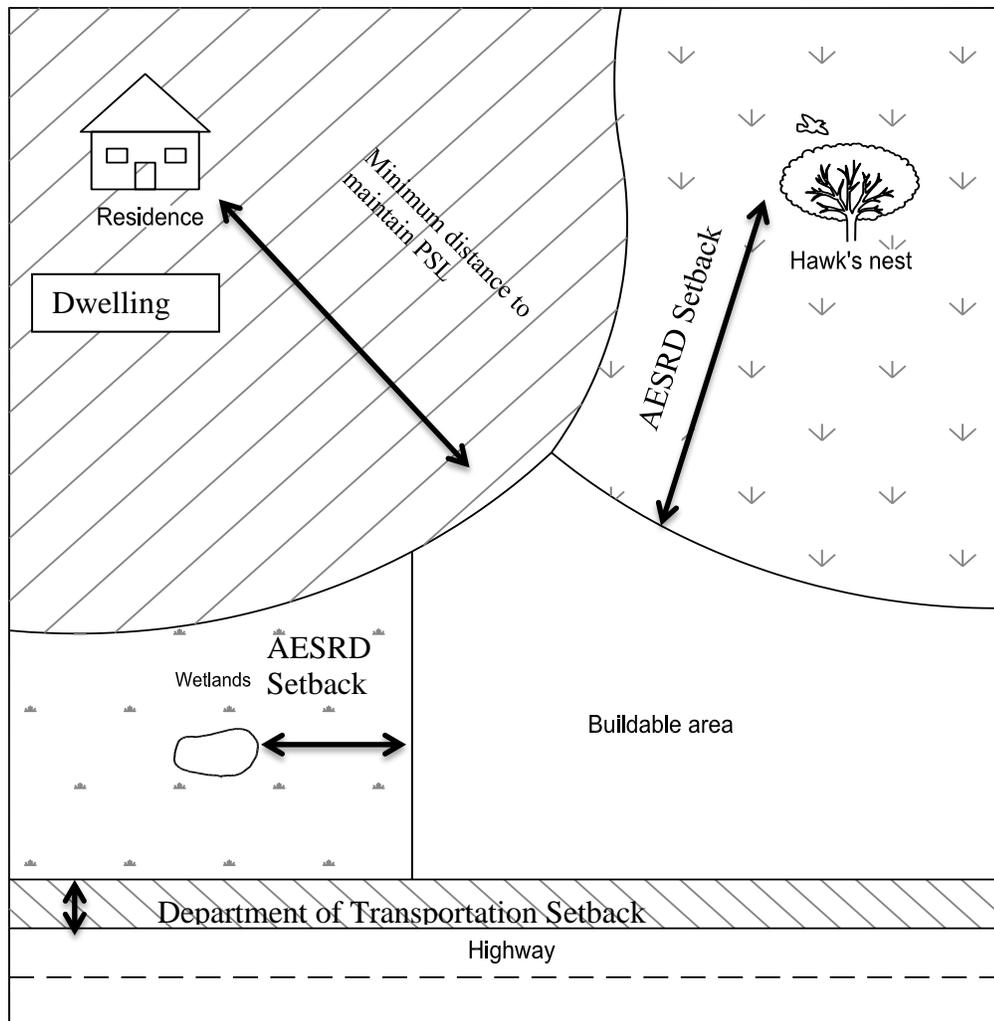
If a phase 1 application is approved, an applicant may file a phase 2 application for an approval to construct and operate a wind power plant on the approved buildable area. A final turbine layout is required as well as final sign-off or approval with respect to a specific wind turbine from other agencies and stakeholders (e.g. NAV Canada, Transport Canada, Alberta Culture, and AESRD).

Buildable area phase 1 application – additional requirements

An applicant for a buildable area phase 1 application must file the following information in addition to the power plant requirements identified in Section 3.5.1:

- BA1) Explain whether the proposed buildable area meets the requirements of other government departments, municipal governments and agencies in relation to wind power plants, including applicable setback distances and the status of any approvals or comments received from other government departments, municipal governments and agencies or persons who may be directly and adversely affected by the proposed application.
- BA2) Illustrate the unconstrained buildable areas on maps of the project area as conceptually illustrated below.
- BA3) List the potential size and height range of the type of turbines anticipated to be installed.
- BA4) An applicant must include in its public consultation program the potential size and height range of the type of turbines anticipated to be installed, in conjunction with the approximate tower locations within the buildable area space. As part of its consultation program, an applicant must identify potentially directly and adversely affected persons, and maintain a record of discussions with them regarding any concerns respecting the buildable area.

Conceptual illustration of buildable area



Buildable area phase 2 application

An applicant for a buildable area phase 2 application must file the following information in addition to the power plant requirements identified in Section 3.5.1. A phase 2 application must be filed within 36 months, of the issuance of the phase 1 approval, unless an extension is approved by the Commission.

- BA5) Indicate the date and approval number of the phase 1 application.
- BA6) If the phase 1 approval includes conditions that are contingent upon final turbine locations, explain in the phase 2 application how these conditions have been met.
- BA7) Specify the turbine selected and provide a drawing with specific locations. The specific locations must fall within the buildable areas established in the phase 1 approval.
- BA8) Complete and file a noise impact assessment in accordance with AUC Rule 012.
- BA9) Public consultation must be conducted with persons notified and consulted during the public consultation for the phase 1 application and any other persons that may be directly and adversely affected that have moved into the area, in accordance with the public consultation requirements set out in [Appendix A](#) of this rule.
- BA10) Update any environmental or wildlife studies as required by AESRD.

3.6 Amendments to approved wind power plant

A licensee may apply for an amendment to an approved wind power plant. Except for minor amendments, the licensee must initiate public consultation if the amendment requested has the potential to directly and adversely affect a person initially consulted about the wind power plant and must file information relevant to the request set out in Section 3.5.2.

A licensee may file a letter of enquiry for minor amendments which are those that:

- Have no adverse environmental impact.
- Do not have the potential to directly and adversely affect persons in the vicinity of the approved wind power plant.
- Do not materially impact conditions imposed by the Commission in the approval, or approvals or sign-offs from other agencies.

4 Small power plant applications less than one megawatt (MW)

4.1 Small power plant applications information requirements

An application is only required if the applicant does not satisfy the criteria for an exemption under Section 13 of the *Hydro and Electric Energy Act* or Section 18.1 of the *Hydro and Electric Energy Regulation*.

If the applicant is applying for construction, operation or alteration of a small power plant (less than one megawatt) the small power plant application schedule must be completed. All the questions must be answered and include all the information required. Once this schedule is completed, the applicant may proceed to upload the attachments. The information requirements for small power plant applications are presented in the small power plant application schedule as well as in the following small power application attachments.

Note: when submitting an application using the small power plant application schedule, an application is made pursuant to sections 11 and 18 of the *Hydro and Electric Energy Act*. Therefore, an accompanying interconnection application is not required.

Also note that for a municipality or a subsidiary of a municipality to hold an interest in a generating unit, documentation confirming compliance with Section 95 of the *Electric Utilities Act* is required.

4.2 Small power plant application

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Alberta Utilities Commission	Rule 007
DAY-MONTH-YEAR 12-Dec-2007	Small Power Plant Application APPLICANT'S FILE NUMBER <input style="width: 100%;" type="text"/>
The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Utilities Commission.	

Submission Status: <input type="text" value="Incomplete"/>	Submission Id: <input type="text" value="217778"/>	Creation Date: <input type="text" value="12-Dec-2007"/>
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4. SMALL POWER PLANT Help

AESO Pool Participant Asset ID Number:

- Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

 Click "Add Company" to include project ownership information (click "View" to view/edit or "Delete" to remove).

View	Delete	Company Name	Percentage	Details
<input type="button" value="View"/>	<input type="button" value="Delete"/>			

Total Other Ownership: %
- What is the energy source of the power plant?
- Select type of generator used at the power plant:
- Power Plant Operator/Owner (If different from applicant):
- Provide the legal description of the proposed plant site:
(Provide latitude and longitude for each wind generating unit, if applicable.)
(Provide latitude and longitude coordinates in decimal degrees.)

Lot#	Block#	Plan#
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>

 Click "Add Location" to include location information (click "View" to view/edit or "Delete" to remove).

View	Delete	Unit#	Lsd	Sec	Twp	Rge	Mer	Lat	Long
<input type="button" value="View"/>	<input type="button" value="Delete"/>								
- Name plate capacity (kW)
- Number of units
- Projected annual electric production (kWh)
- Expected plant-in-service date(dd-mmm-yy)
- Utility company to be connected to
- Agreement from utility company for connection: Yes No
- 11a. If Yes, legal description of the connection point is: (Provide latitude and longitude coordinates in decimal degrees)

Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)	Lot#	Block#	Plan#
<input style="width: 100%;" type="text"/>									
- 11b. If No, state how you will achieve connection to the Alberta Electric System
- Voltage level of connection: Volts
- Is the energy produced to be used solely by the power plant owner? Yes No

14. If the power plant owner does not use all the energy produced, will the surplus be sold to the Alberta Power Pool? Yes No
- If No, elaborate on how you will manage the surplus energy produced:
-
15. Will the plant meet the Alberta Ambient Air Quality Guidelines (thermal plants only)? Yes No
16. Will you attach a noise impact assessment, as per Rule 012: Noise Control? Yes No
- If No, State why not:
-
17. Have you conducted a participant involvement program? Yes No
- If No, State why not:
-
- 17a. Are there public objections? Yes No
18. Will you attach a copy of an approval for a development permit from the appropriate municipal district or county? Yes No
- If No, State why not:
-
19. Will you attach a copy of an approval from NAV CANADA and Transport Canada if the application is for the approval of a wind power plant? Yes No
- If No, State why not:
-
20. Does the proposed plant comply with Fencing Standards as described in Sections 8.170 and 8.090 of the Oil and Gas Conservation Regulations? Yes No
- If No, State why not:
-
21. Will you attach a copy of Alberta Transportation Approval for a wind plant located within 300 meters from a numbered highway? Yes No
- If No, State why not:
-

If you have any questions or comments, please contact the [EAS Administrator](#).
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Small power plant application schedule – guide

An applicant must provide the following information, and answer the following questions, in the small power plant schedule:

- 1) Provide the Power Pool-Assigned Asset ID code (applicable only for a power plant proposed to be connected to the local utilities system).
- 2) Provide the name(s) of all **other** companies having ownership in the project, details of their incorporation and the share in the project that each would have. (Note: do not answer this question if the applicant is the sole owner of the project.)
- 3) What is the energy source of the power plant?
- 4) Select type of generator used at the power plant.
- 5) Power plant operator/owner (if different from applicant).
- 6) Provide the legal description of the proposed plant site (and latitude and longitude for each wind generating unit, if applicable). Note: for wind power plant applications, provide the longitude and latitude coordinates for the centre of each structure supporting a wind-powered generator. If, after approval is granted, the location of any supporting structure has to be relocated more than 50 metres from the coordinates stated in the application, the power plant proponent must reapply to the Commission for approval to relocate the structure prior to construction. For movement less than 50 metres, the applicant is not required to reapply unless there is an adverse impact on the permissible sound level or wildlife setback distances. For all other power plant types, provide the longitude and latitude coordinates of the powerhouse.
- 7) Name plate capacity (kW).
- 8) Number of units.
- 9) Projected annual electric production (kWh).
- 10) Expected plant in-service date.
- 11) Utility company to be connected to.
- 12) Agreement with utility company for connection? Yes or No:
 - (a) If the answer is “Yes”, then Question 11a must be answered by providing the legal description of the connection point location.
 - (b) If the answer is “No”, how a connection to the Alberta Interconnected Electric System will be achieved must be explained. (Note: if “No” is answered because the negotiation and agreement with the utility company is still in progress, the applicant should say so; and should also provide the utility person contact information.)
- 13) Voltage level of the connection.
- 14) Is the energy produced to be used solely by the power plant owner? Yes or No:

Note: If the answer is “No” the Commission will assess whether an approval pursuant to Section 11 of the *Hydro and Electric Energy Act* will be issued or whether the proposal will be exempted pursuant to Section 13 of the *Hydro and Electric Energy Act*.

15) If the power plant owner does not use all the energy produced, will the surplus be sold to the Alberta Power Pool? Yes or No:

Note: If the answer is “No”, then elaborate on how the surplus energy produced will be managed.

16) Will the plant meet the Alberta Ambient Air Quality Objectives and Guidelines Summary (thermal plants only)? Yes or No.

17) Will a noise impact assessment, or summary form (if applicable), be attached, as per the current AUC Rule 012? Yes or No:

(a) If the answer is “No”, why a noise impact assessment is not required must be explained.

(b) If the answer is “Yes”, the noise impact assessment attachment must be uploaded.

18) Has a participant involvement program been conducted? Yes or No:

(a) If the answer is “No”, reasons must be provided.

(b) If the answer is “Yes”, details about the program must be provided in the participant involvement program attachment.

Answer Question 17a: Are there objections from the public? Yes or No.

19) Will a copy of a development permit approval from the appropriate municipality be attached? Yes or No:

(a) If the answer is “No”, reasons must be provided.

(b) If the answer is “Yes”, the development permit attachment must be uploaded.

20) Will a copy of an evaluation from NAV Canada and approval from Transport Canada be attached if the application is for the approval of a wind power plant? Yes or No:

(a) If the answer is “No”, reasons must be provided.

(b) If the answer is “Yes”, both the NAV Canada evaluation attachment and the Transport Canada approval attachment must be uploaded.

21) If the proposed power plant is to be located within an oil and gas facility, does the proposed plant comply with Fencing Standards as described in sections 8.090 and 8.170 of the *Oil and Gas Conservation Rules*? Yes or No:

(a) If the answer is “No”, reasons must be provided.

22) Will a copy of Alberta Transportation approval for a wind plant located within 300 metres from a numbered highway be attached? Yes or No:

(a) If the answer is “No”, reasons must be provided.

(b) If the answer is “Yes”, the Alberta Transportation approval attachment must be uploaded.

4.3 Small power plant application attachments

The eFiling process requires an applicant for small power plant approval to upload each section as a separate attachment. Information requirements for each attachment are grouped in the following tables.

Attachment	Information requirements
Development permit	Confirmation that the applicant has submitted an application for a development permit from the appropriate municipality. (Required if the answer was "Yes" to Question 18 on the small power plant schedule)
Participant involvement program	Details of the participant involvement program or a statement that the applicant has conducted the participant involvement program as detailed in participant involvement program requirements (Appendix A) and that there are no participant objections and/or concerns. (Required if the answer was "Yes" to Question 17 on the small power plant schedule)
Objection summary	A description of the nature of the objection(s) with the names, addresses and telephone numbers of the objecting parties. (Required if the answer was "Yes" to Question 17a on the small power plant schedule)
Noise impact assessment	Provide a noise impact assessment, in accordance with the AUC Rule 012. (Required if the answer was "Yes" to Question 16 on the small power plant schedule)
Alberta Transportation approval	Confirmation that an application has been submitted for approval from Alberta Transportation if applying for a wind power plant that is within 300 metres of a numbered highway. (Required if the answer was "Yes" to Question 21 on the small power plant schedule)
NAV Canada approval	Confirmation that an application has been submitted for evaluation from NAV Canada if submitting an application for a wind power plant. (Required if the answer was "Yes" to Question 19 on the small power plant schedule)
Transport Canada approval	Confirmation that an application has been submitted for approval from Transport Canada if submitting an application for a wind power plant. (Required if the answer was "Yes" to Question 19 on the small power plant schedule)
Plant site drawing	Provide a legible plant site drawing showing all major equipment components.
Electric single-line diagram	Provide an electric single-line diagram showing the power plant and the interconnection point with the Alberta electric system.

5 Interconnection applications

If an applicant is applying for interconnection (pursuant to Section 18 of the *Hydro and Electric Energy Act*) of a power plant to the Alberta Interconnected Electric System or for interconnection of two transmission elements owned by different parties, the applicant must include all the information requirements outlined below in the interconnection application schedule and upload the required interconnection attachments.

5.1 Information requirements

5.1.1 Connection at voltage level less than 69 kV

IC1) Provide a statement that the local distribution company has agreed to interconnection, the LSD of the interconnection point, and an electric single-line diagram showing the interconnection point with the company. This agreement must reflect that the interest of current customers of the distribution company are served, that provision for future customer load has been made, and that both parties (generator and wire owner) are satisfied with the arrangement and its implications.

5.1.2 Connection to the transmission system – voltage level 69 kV or greater

The power plant proponent has to obtain the information required for this section from the ISO or provide the same done by qualified in-house personnel or consultants and endorsed by the ISO.

IC2) Provide local area load flow studies, including contingency analysis, with sufficient detail to demonstrate that the proposed interconnection would conform with current accepted planning criteria. Present the report of these studies with sufficient graphical outputs, which should be labelled and indexed to provide clarity as to what was studied.

IC3) For connection of power plants with total capacity of 70 MW or larger, provide dynamic studies to determine the impact of the new generation on the transient and dynamic stability of the Alberta Interconnected Electric System. These dynamic studies should include system response to close-in and worst-case three-phase faults with and without the new plant addition to show the relative system performance. Study results should include macro-system quantities, such as machine angles, major bus voltages, major line active and reactive power flows, and system frequency. Present the report for the studies with sufficient graphical outputs labelled and indexed to provide clarity as to what was studied. For power plants with total capacity over 10 MW but less than 70 MW, the Commission, in consultation with the ISO, will assess the need for dynamic studies.

IC4) For connection of wind farms, provide details of how dynamic voltage control and “Low Voltage Ride Through” are able to conform with the current accepted standard at the point of interconnection. Details should include control block diagrams of the voltage control system and time domain responses to illustrate dynamics and stability of the voltage control system.

IC5) Provide short-circuit levels at substations near the proposed connection.

IC6) Provide the most up-to-date functional specifications when the application is filed and the final functional specification before construction of the project begins.

IC7) Include a cost estimate for the connection and required system upgrades.

IC8) Explain proponent’s contribution, if any, toward the capital cost of the interconnection.

5.2 Interconnection application schedule

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Alberta Utilities Commission	Rule 007
DAY-MONTH-YEAR	Interconnection Application
12-Dec-2007	APPLICANT'S FILE NUMBER
<p>The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Utilities Commission.</p>	

Submission Status	<input type="text" value="Incomplete"/>	Submission Id	<input type="text" value="217778"/>	Creation Date	<input type="text" value="12-Dec-2007"/>
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4. INTERCONNECTION **Help**

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Click "Add Company" to include project ownership information (click "View" to view/edit or "Delete" to remove).

View	Delete	Company Name	Percentage	Details
<input type="button" value="View"/>	<input type="button" value="Delete"/>			

Total Other Ownership: %
2. **Have you conducted a participant involvement program?** YES NO

If No, explain:
3. **Are there outstanding public or industry objections and/or concerns?** YES NO
4. **Is this application to connect a power plant or two transmission elements of different ownership?**

Power Plant Transmission Elements
5. **Is this application for connection at the distribution voltage level (generally below 69kV) or transmission voltage level (generally 69kV or greater)?**

Distribution Level Transmission Level
6. **If this application is for connection of a power plant at the transmission voltage level, what is the capacity of the plant?**

Less than 70 MW More than 70 MW
7. Provide the legal description, latitude and longitude of the interconnection point of the power plant with the AIES.

Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)
<input type="text"/>						

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Interconnection application schedule – guide

- 1) Provide the names of all **other** companies having ownership in the project, details of their incorporation and the share in the project that each would have. (Note: do not answer this question if the applicant is the sole owner of the project.)
- 2) Has the applicant conducted a participant involvement program? Yes or No:
 - (a) If the answer is “No”, reasons must be provided.
 - (b) If the answer is “Yes”, details about the program must be provided in the participant involvement program attachment.
- 3) Are there outstanding public or industry objections or concerns?
- 4) Is this application to connect a power plant or two transmission elements of different ownership?
- 5) Is this application for connection at the distribution voltage level (generally below 69 kV) or transmission voltage level (generally 69 kV or greater)?
- 6) If this application is for connection of a power plant at the transmission voltage level, what is the capacity of the plants? Select either “Less than 70 MW” or “More than 70 MW”.
- 7) Provide the legal description, latitude and longitude of the interconnection point of the power plant with the Alberta Interconnected Electric System.

5.3 Interconnection application attachments

If the power plant is to be connected at transmission voltage level (generally 69 kV or greater), the following information must be provided in the attachments indicated below:

Application	Requirement Nos. (IC4), (IC7) and (IC8)
Load flow studies	Requirement No. (IC2)
Functional specifications	Requirement No. (IC6)
Dynamic studies	Requirement No. (IC3) for plants 70-MW or more
Short-circuit studies	Requirement No. (IC5)

If the power plant is to be connected to a distribution system (generally below 69 kV), the following information must be provided in the attachments indicated below.

Application	Requirement No. (IC1)
Connection agreement	Requirement No. (IC1)
Interconnection point diagram	Requirement No. (IC1)

6 Needs identification document applications to construct or alter a substation or transmission line

The ISO is responsible for determining the need for the construction of new projects or alterations to existing facilities. This obligation is set out in Section 34 of the *Electric Utilities Act* and is further clarified in the *Transmission Regulation*. That obligation is referred to in this rule as the needs identification document application.

Section 34 of the *Electric Utilities Act* outlines the process, the *Transmission Regulation* outlines the required elements of the needs identification document application and this rule sets out the details of the information to be included in a needs identification document application.

Pursuant to the *Transmission Regulation*, needs identification documents are not required for maintenance upgrades, enhancements or other modifications to a transmission facility proposed by a TFO if the maintenance upgrade, enhancement or other modification improves the efficiency or operation of the transmission facility, but does not materially affect transmission facility capacity.

The *Transmission Regulation* provides for an abbreviated needs identification document approval process. The abbreviated needs identification document process can be found in AUC Rule 008: *Rules Respecting Use of Abbreviated Needs Process* (AUC Rule 008).

Other than an application submitted for approval pursuant to AUC Rule 008, the application process for generation and load system access service requests and system projects is detailed below.

- (a) Where a new transmission facility is required, the ISO will normally prepare the needs identification document which can be submitted either as a stand-alone application or jointly with the TFO's facility application.
- (b) Interconnection proposals for generator and industrial customers may also be submitted as stand-alone applications or jointly with the TFO's facility application.
- (c) In a joint application, the two documents will be dealt with in a single Commission process. However, the ISO will remain responsible for any concerns raised with the need or proposed method of interconnection. A needs identification document approval will be issued to the ISO at the same time as a permit and licence to the TFO.
- (d) When a TFO is delegated by the ISO to provide the project need information, it will submit as part of its facility application to the Commission, the needs identification document and interconnection proposal. The ISO will submit an endorsement letter to the Commission endorsing both the needs identification document and the interconnection proposal presented by the TFO.

6.1 ISO needs identification document application information requirements

Needs identification document applications, regardless of who prepares them, should address the requirements listed in the *Transmission Regulation* and the following background and technical information requirements. The information requirements set out below may not be applicable in all cases; they will vary with the complexity and size of the project.

With respect to the current and future operation of the existing transmission system:

NID1) Last five-year summer and winter peak substation loads recorded.

NID2) Short-circuit levels of all substations in the area under consideration before and after the proposed expansion or enhancements are completed.

NID3) Transmission system losses before and after the proposed expansion or enhancements are completed.

With respect to the nature of constraints and conditions affecting the operation of the existing transmission system:

NID4) The method to determine, and the magnitude of, the transfer-in and/or transfer-out capability of the transmission system prior to and subsequent to the addition of the proposed transmission expansion or enhancement and for any alternatives assessed.

With respect to comparison between options considered:

NID5) Comparison of the options in detail (including the preferred option), including:

- economic assessment
- capital costs
- flexibility in terms of how the preferred option or the alternative options would contribute to overall system development

NID6) Rating of the new substation and/or transmission lines(s) for the spectrum of operating conditions expected.

NID7) Expected reductions in transmission system losses.

NID8) System performance by way of load flow studies, stability studies, reactive and other necessary studies.

NID9) Substation configuration or single-line diagram.

NID10) Transmission circuit configuration and the rationale for the choice of conductor size and arrangement, or MVA rating.

With respect to cost breakdown:

NID11) For expansions to existing facilities or new transmission facility additions, a detailed cost breakdown for the applied-for option and all other options considered with an accuracy tolerance within plus or minus 30 per cent. This cost breakdown must be provided in the format shown in Appendix B2.

NID12) For industrial interconnections, a detailed cost breakdown for both the applied for option and all other options with an accuracy tolerance within plus or minus 30 per cent. This cost breakdown must be provided in the format shown in Appendix B2.

NID13) In those cases where the ISO is identifying, as part of its application, a particular area in which the TFO should attempt to ultimately locate the proposed transmission facilities (e.g., a preferred “corridor”), the ISO is expected to examine options, and elaborate on the rationale for recommending the preferred option, having regard for the following major aspects, where applicable:

1) Agricultural impact:

- (a) Loss of crops. This would include short-term loss caused by construction; longer-term losses possible from soil erosion, rutting, drainage, disturbance, and soil mixing; and permanent loss of crop under or adjacent to the tower base.
- (b) Short-term disruption of farming and livestock grazing resulting from construction.
- (c) Reduced efficiency of field operations.

- (d) Restrictions on use of aircraft and high-pressure irrigation systems.
 - (e) Risk of collision with tower; damage to equipment, lost time, liability for damage to tower and secondary liabilities.
 - (f) Reduction in yield adjacent to towers due to overlapping farming operations and added soil compaction.
 - (g) Added cost and inconvenience of weed control under towers.
 - (h) Impact of height restrictions on equipment during field operations.
 - (i) Psychological impact of line.
 - (j) Loss of shelter belts.
 - (k) Shared use with other utilities and transmission lines.
 - (l) Interference with citizen band radios.
- 2) Residential impact:
- (a) Decrease of property values.
 - (b) Loss of developable lands and constraints on development.
 - (c) Relocation or removal of residence.
 - (d) Psychological impact of the line.
 - (e) Noise and television interference.
 - (f) Windbreak and other vegetation removal.
 - (g) Conflict with recreational use of land holdings.
 - (h) Public versus private land.
- 3) Environmental impact:
- (a) Increased public accessibility to wildlife areas.
 - (b) Alteration of natural areas and interference with outdoor educational opportunities.
 - (c) Use of the Restricted Development Area.
 - (d) Effect on erosion.
 - (e) Unique ecological areas.
- 4) Cost:
- (a) Construction cost.
 - (b) Land acquisition costs.
- 5) Electrical considerations:
- (a) Ease of connections to future load areas.
 - (b) Reliability and reparability of the line.
 - (c) Access for construction and maintenance of the line.
- 6) Visual impact:
- (a) Visual impact of tree removal as seen from roads and recreational installations.

- (b) Visual impact on dispersed recreational users such as hikers, fishermen, hunters, scenic viewers and cross-country skiers.
 - (c) Visual impact of towers and lines as seen from residences, farms, roads and recreational installations.
- 7) Special constraints:
- (a) Electrical interference with radio transmitting stations and other telecommunications equipment.
- NID14) Describe the participant involvement program conducted by the ISO for the needs identification document application, the rationale used to develop the participant involvement program and determine the extent of participant involvement (See [Appendix A](#) – Participant involvement program requirements). If reasonable due to the nature of the participant involvement, a summary of how the ISO addressed those issues raised by participants should be included in the needs identification document application.

6.2 ISO needs identification document application schedule

Please note that Schedule 1 is required for ISO needs identification document applications.

6.3 ISO needs identification document application attachments

The eFiling process requires the ISO or the delegated TFO to upload the application containing information requirements grouped in the following table.

Application	Section 11(3) and Section 11(4) of the <i>Transmission Regulation</i> and Requirement Nos. (NID1) to (NID14).
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7 Transmission line / substation applications

If an applicant is applying to construct or alter a substation or transmission line, the applicant must include the following background and technical requirements outlined below.

If an applicant is applying to discontinue, dismantle or remove an approved substation or transmission line, the application must include the relevant requirements outlined below.

Fill out the transmission line and/or substation application schedule, and upload the required transmission line and/or substation attachments.

7.1 Information requirements

- TS1) Identify the sections of the *Hydro and Electric Energy Act* under which the application is made.
- TS2) Identify any other acts (e.g., *Environmental Protection and Enhancement Act*) that may affect the proposed project.
- TS3) State the approvals that are being applied for from the Commission, and provide a draft of the permit(s) and licence(s) being sought.
- TS4) Where existing facilities are being altered, discontinued, dismantled or removed state the existing order/authority (e.g., approvals, permits and licences) for each facility.
- TS5) Provide details and outcome of consultation with local jurisdictions (e.g., municipal districts, counties).

- TS6) Provide a list of companies that may be affected by the project, confirm that these companies have no concerns regarding the application, and indicate which other agreements are necessary to carry out the project.
- TS7) Provide a description of the proposed project.
- TS8) Provide a copy of the ISO Direct Assignment letter pursuant to the *Electric Utilities Act*.
- TS9) Give the dates by which both the approval and the proposed facilities are required; state the ramifications if they are not available at that time.
- TS10) Describe any transmission line routing alternatives to the proposal and compare the relative impacts (environmental, social and economic) of these alternatives with the proposal.
- TS11) Describe the participant involvement program that you have conducted (see [Appendix A](#) – Participant involvement program requirements). The public notification should include all occupants, residents and landowners within 800 metres measured from the edge of the proposed right-of-way for the transmission line and/or proposed substation site boundary. The personal consultation should include all occupants, residents and landowners on or directly adjacent to the proposed right-of-way for the transmission line and/or proposed substation site location.
- TS12) List all occupants, residents and landowners, as well as other interested parties that were contacted as part of the participant involvement program, with corresponding land locations.
- TS13) Supply a list of mailing addresses, and two sets of printed mailing labels of those parties mentioned in TS12 above.
- TS14) Identify any persons who expressed concerns about the project and the specifics of their concerns.
- TS15) Summarize discussions held with potentially directly and adversely affected persons.
- TS16) If potentially directly and adversely affected persons raised any concerns, describe how the concerns were dealt with or will be dealt with.
- TS17) For those potentially directly and adversely affected persons identified above, include a confirmation of resolution of the concerns, if applicable.
- TS18) Describe the design and operating voltage of the transmission line and/or substations.
- TS19) Provide the continuous and maximum ratings of the transmission line for the various operating conditions as stipulated by the ISO and the expected transmission line losses. Describe changes, if any, proposed by the TFO.
- TS20) If the ISO requires the TFO, who has been directly assigned for the proposed project, to determine the choice of conductors, describe conductor size and arrangement selected and the basis for conductor selection.
- TS21) 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.

- TS22) State the right-of-way width and the basis for determining the width.
- TS23) Describe all major substation equipment being applied for and list the final major equipment in the substation.
- TS24) Describe the switching and protection features of the proposed transmission facilities.
- TS25) Describe the electrical interaction of proposed lines with other facilities, such as pipelines, telephone, radio and television transmission facilities, and other surface structures.
- TS26) Describe the changes to existing facilities that would be required to accommodate the proposed facilities.
- TS27) Provide a legible map defining the study area and state the reasons for the chosen area.
- TS28) Provide legible maps and drawings of the proposed facilities showing:
- the preferred transmission line route and any alternative routes
 - right-of-way widths
 - location of the transmission line on the right-of-way
 - location of the transmission line relative to property lines
 - mile (kilometre) points along each transmission line route
- TS29) Provide legible maps and/or air photo mosaics upon which the proposed transmission line route or routes have been imposed and showing the residences, landowner names, and major land use and resource features (e.g., vegetation, topography, soil type, existing land use, existing rights-of-way, existing or potential archaeological sites, and superficial and mineable resources).
- TS30) Provide a legible map of the project area suitable for use in a public notice.
- TS31) 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, including major items of equipment and the fenced boundaries of the station.
- TS32) Discuss the construction schedule, equipment and method of construction, and method of eventual right-of-way maintenance.
- TS33) Provide the most up-to-date functional specifications when the application is filed and the final functional specification before construction of the project begins.
- TS34) Provide a noise impact assessment in accordance with the current AUC Rule 012 for new substations and transformer additions within an existing substation, clearly indicating the impact of the new substation and/or transformer addition.

7.1.1 Environmental and land use information

Approval from AESRD may be required. The applicant should contact AESRD directly to ascertain if AESRD approval is required. All applications must state that the applicants will comply with AESRD's *Environmental Protection Guidelines for Transmission Lines*, pursuant to the *Environmental Protection and Enhancement Act* and the *Environmental Protection and Enhancement Regulations*.

Each application must include environmental and land use information, with the level of detail needed to describe the impacts created by the project. The Commission will determine the detail on a project-by-project basis. The Commission expects applications for higher-voltage transmission lines of significant length will be more detailed. In some instances, an environmental impact assessment may be required. If the ISO has provided information in the related needs identification document, the TFO should expand on that information by way of route site-specific information for the applied-for route and alternatives, if any.

Notwithstanding, the information listed in TS35 through TS42 below must be provided.

- TS35) For right-of-way clearing and maintenance, provide a copy of the Conservation and Reclamation Plan, as required by AESRD (if applicable).
- TS36) Landscape plan – indicate those areas that require screening or landscaping and the measures to be used.
- TS37) Visual aesthetics – indicate those areas that have been identified as significant viewpoints, the predicted impact, and describe the measures proposed to minimize the impact of towers and rights-of-way within the view area.
- TS38) Tower location – indicate the flexibility available in locating towers to reduce the inconvenience to residents and their day-to-day activities.
- TS39) Confirm that a *Historical Resources Act* clearance has been obtained or is being applied for. If a historical and/or archaeological impact assessment is required, briefly describe any historical or archaeological sites along the routes, with emphasis on major features close to or traversed by the route. Please ensure that any historical resources summary provided excludes confidential site location, type and content information.
- TS40) For proposed route(s) and possible alternatives that will result in material environmental impacts, provide the following information to a level of detail commensurate with the size and type of the potential impacts:
- i) Describe the existing environmental and land use conditions of the study area. Describe the regional setting of the study area, including any regional land use plans and policies that apply to the development.
 - ii) Describe how the proposed route(s) and possible alternatives and/or proposed substation are predicted to adversely affect the environment. Evaluate any potential impacts related to soils, terrain, vegetation, wetlands, wildlife and wildlife habitat, fish and fish habitat, groundwater, surface water, and land use following published AESRD guidelines. Describe how the environmental effects of the project will be mitigated and any monitoring proposed to evaluate the efficacy of the mitigation.
 - iii) Show the major environmental features (e.g., vegetation communities, rare plants, wetlands, topography, unique terrain features, sensitive soils, wildlife species setbacks and habitat, and environmentally significant areas), 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 in the correct units (by kilometre, total number, etc.). Provide supporting written discussion showing the significance of impacts upon each major environmental, land use and resource feature for each route.
 - iv) Present an overall comparison of the environmental impacts and costs associated with the alternative routes and proposed route and identify the environmentally preferred route.

- v) Summarize any discussions held with municipalities to ensure compatibility of the proposed facility with various municipal services if a proposed transmission line passes through or immediately adjacent to an urban centre.

TS41) If the project site occurs within the plan boundaries of a regional land use plan in force:

- i) Confirm that the proposed project is being developed in accordance with the applicable regional land use plan.
- ii) Confirm if the proposed project is in a conservation area or provincial recreation area established in the applicable regional land use plan. Provide submissions describing how the activity may be considered incidental to a previously approved activity.
- iii) Indicate what, if any, management frameworks in place under the applicable regional land use plan are applicable to the project, the reason why any management frameworks are not applicable to the project and summarize discussions held with AESRD and any other government department required to be consulted under the management frameworks regarding the project and its impacts in terms of the management frameworks. Include details on any actions or mitigation measures recommended as a result of the discussions and describe how these actions or mitigation measures will be incorporated into the project.

TS42) For applications to discontinue service, dismantle or remove a transmission line provide information regarding: the salvage, remediation and reclamation work to be performed; assessment of contamination; legislative requirements or other published guidelines that will be adhered to or considered.

7.1.2 Economic assessment

TS43) Provide a detailed cost breakdown of all alternatives on a common basis with an accuracy tolerance within plus 20 per cent minus 10 per cent. This cost breakdown must be provided in the format shown in Appendix B1. 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 merchant line applications.

7.2 Transmission line/substation applications

MENU	Print	Save	Sched 1	Close	Help
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Alberta Utilities Commission	Rule 007
DAY-MONTH-YEAR	Transmission Line Application
12-Dec-2007	APPLICANT'S FILE NUMBER
<p>The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Utilities Commission.</p>	
Submission Status Incomplete	Submission Id 217778
Creation Date 12-Dec-2007	

4. TRANSMISSION LINE **Help**

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Click "Add Company" to include project ownership information (click "View" to view/edit or "Delete" to remove).

View	Delete	Company Name	Percentage	Details
<input type="button" value="View"/>	<input type="button" value="Delete"/>			

Total Other Ownership: %

2. **Have you conducted a participant involvement program?** YES NO

If No, explain:

3. **Are there outstanding public or industry objections and/or concerns?** YES NO

4. **Provide Electric Facility ID Number(s):**

5. Provide legal descriptions, including latitudes and longitudes of start and end points of the transmission line. (Provide latitude and longitude coordinates in decimal degrees)

Start Point of Transmission Line						
Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
End Point of Transmission Line						
Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

If you have any questions or comments, please contact the [EAS Administrator](#).
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Alberta Utilities Commission

Rule 007

DAY-MONTH-YEAR

12-Dec-2007

Substation Application

APPLICANT'S FILE NUMBER

The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Utilities Commission.

Submission Status Submission Id Creation Date

4. SUBSTATION

Help

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Click "Add Company" to include project ownership information (click "View" to view/edit or "Delete" to remove).

View	Delete	Company Name	Percentage	Details
<input type="button" value="View"/>	<input type="button" value="Delete"/>			

Total Other Ownership: %

2. Have you conducted a participant involvement program?

YES NO

If No, explain:

3. Are there outstanding public or industry objections and/or concerns?

YES NO

4. Provide Electric Facility ID Number(s):

5. Provide legal description, latitude and longitude of the substation.
(Provide latitude and longitude coordinates in decimal degrees.)

Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)
<input type="text"/>						

If you have any questions or comments, please contact the [EAS Administrator](#).
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Transmission line and substation application schedule – guide

Please note that one transmission line application schedule must be filled out for each transmission line being applied for. As well, one substation application schedule must be filled out for each substation being applied for.

- 1) Provide the names of all **other** companies having ownership in the project, details of their incorporation, and the share in the project that each would have. (Note: do not answer this question if the applicant is the sole owner of the project).
- 2) Has a participant involvement program been conducted? Yes or No:
 - (a) If the answer is “No”, reasons must be provided.
 - (b) If the answer is “Yes”, details about the program must be provided in the participant involvement program attachment.
- 3) Are there outstanding public or industry objections and/or concerns?
- 4) Provide Electric Facility ID Number(s).
- 5) Provide the legal description, including latitude and longitude of start and end points of the transmission line or the location of the substation, whichever is the case.

7.3 Transmission line application attachments

The eFiling process requires an applicant to upload each section as a separate attachment. Information requirements for each attachment are combinations of those described in previous sections and grouped in the following tables:

Attachments	Information requirements
Application	Requirement Nos. (TS1), (TS2), (TS3), (TS4), (TS5), (TS6), (TS7), (TS9), (TS10), (TS18), (TS19), (TS20), (TS21), (TS22), (TS24), (TS25), (TS26), (TS31), (TS32), (TS41), (TS42) and (TS43)
ISO direct assign letter	Requirement No. (TS8)
Air photo mosaics	Requirement No. (TS29)
Conservation and reclamation plan	Requirement No. (TS35)
Project area map	Requirement No. (TS30)
Route map	Requirement No. (TS28)
Transmission line map	Requirement No. (TS27)
Participant involvement program	Requirement Nos. (TS11), (TS12), (TS13), (TS14), (TS15), (TS16) and (TS17)
Environmental impact	Requirements No. (TS36), (TS37), (TS38), (TS39) and (TS40)
Functional specification	Requirement No. (TS33)

7.4 Substation application attachments

After completing a substation application schedule, the applicant must upload the following attachments containing the information as indicated below:

Attachment	Information requirements
Application	Requirement Nos. (TS1), (TS2), (TS3), (TS4), (TS5), (TS6), (TS7), (TS9), (TS18), (TS23), (TS24), (TS26), (TS32), (TS41), (TS42) and (TS43)
ISO direct assign letter	Requirement No. (TS8)
Project area map	Requirements No. (TS27) and (TS30)
Substation single-line diagram	Requirement No. (TS31)
Participant involvement program	Requirement Nos. (TS11), (TS12), (TS13), (TS14), (TS15), (TS16) and (TS17)
Environmental impact	Requirement Nos. (TS36), (TS37), (TS39) and (TS40)
Functional specification	Requirement No. (TS33)
Noise impact assessment	Requirement No. (TS34)

8 Industrial system designation (ISD) applications

If an applicant is applying for an ISD, the applicant must include the following background and technical information. Schedule 1 must be attached with the application.

8.1 ISD information requirements

- ISD1) Identify the sections of the *Hydro and Electric Energy Act* under which the application is made.
- ISD2) State the approvals that are being applied for from the Commission.
- ISD3) Provide a list of existing approvals for facilities directly affected by this project, if any.
- ISD4) Provide a list of companies that may be affected by the project, confirm that these companies have no concerns regarding the application, and indicate which other agreements are necessary to carry out the project.
- ISD5) Provide a detailed description of the overall industrial process, and include a list of the companies that own or operate different aspects of the industrial process.
- ISD6) Explain how the industrial operations process a feedstock, produce a primary product, or manufacture a product. Describe the integration of the industrial system, showing how the output of each component within the industrial operation is used by that operation and is necessary to constitute its final products.
- ISD7) Demonstrate that there is a high degree of integration of the electric system with one or more industrial operations that the electric system forms part of and serves.
- ISD8) Explain the degree of integration of the management of the components and processes of the industrial operations.
- ISD9) Provide block diagrams showing electrical, natural gas, steam, water and feedstock flows between the different blocks representing processes. Correct units of measurement should indicate flows (e.g., megawatts for electric flows, and cubic metres per second for gas and water flows). Also include in these diagrams the volumes consumed or produced by each process block.
- ISD10) Provide a complete list of all electric facilities and equipment of 25-kV or more to be included in the industrial system designation.
- ISD11) Provide an electrical single-line diagram of the entire industrial complex. This diagram should clearly show existing facilities, future facilities and their ownership.
- ISD12) Verify that the electric system includes at least one generating unit that has substantial capacity in comparison with the on-site load and is located on the property of one or more industrial operations it is intended to serve.
- ISD13) Explain how the designation supports both (a) the development of the economical supply of generation to meet the requirements of integrated industrial processes and (b) the efficient exchange with the interconnected electric system of electric energy that is in excess of the industrial system's own requirements.

- ISD14) Demonstrate, by way of an economic comparison, that the internal supply through on-site generation is the most economic source of power for the industrial complex. For example, if the industrial complex uses cogeneration to produce electric and thermal energy, the applicant should provide a comparison of the costs of the internal supply of electricity and process heat with the alternative of contracting electrical supply from the Alberta Interconnected Electric System and installing in situ heat exchangers or boilers to satisfy the thermal requirements of the industrial process.
- ISD15) Explain how the proposal meets the principle that the designation supports the location of generation and consumption so that the efficiency of the interconnected electric system is improved, including improved voltage stability and reduction of losses and congestion on transmission. Elaborate on how the application achieves this principle and provide an assessment of losses and congestion on transmission lines due to the electric power that the industrial complex would supply to the Alberta Interconnected Electric System. The assessment should also take into account other existing generation and generation under construction.
- ISD16) Provide a thermal energy balance to demonstrate that there is significant and sustained increase in efficiency in the process of the industrial operation or in the production and consumption of electric energy by the industrial operation as a result of the integration of the electric system with the industrial operations the electric system forms part of and serves.
- ISD17) Demonstrate that the designation does not facilitate the development of independent electric systems that attempt to avoid costs associated with the interconnected electric system, and does not facilitate uneconomical bypass of the interconnected electric system.
- ISD18) Demonstrate that the designation would not result in duplication of the interconnected electric system where it is more economical to use the transmission facilities or electric distribution system owned by persons in whose service area the industrial system is or will be located.
- ISD19) Demonstrate that there is significant investment in either the expansion or extension of the industrial operations processes and the development of the electricity supply.
- ISD20) If the industrial operation extends beyond the contiguous property of the industrial complex, provide information to satisfy the Commission that the overall cost of providing the owner's own distribution or transmission facilities to interconnect the integral parts of the industrial operation is equal to or less than the tariffs applicable for distribution or transmission in the service area where the industrial operation is located.
- ISD21) Describe the participant involvement program that has been conducted (see [Appendix A](#) – Participant involvement program requirements).
- ISD22) List all stakeholders that were contacted as part of the participant involvement program.
- ISD23) Supply a list of mailing addresses, with corresponding land locations and two sets of printed mailing labels of those parties mentioned in ISD22, above.
- ISD24) Identify any persons who expressed concerns about the application and the specifics of their concerns.
- ISD25) Summarize discussions held with potentially directly and adversely affected persons.

ISD26) If potentially directly and adversely affected persons raised any concerns, describe how the concerns were dealt with or will be dealt with.

ISD27) For those potentially directly and adversely affected persons identified above, include a confirmation of resolution of the concerns, if applicable.

ISD28) Provide a legible plant site drawing showing all major components of the industrial operation.

ISD29) Provide a legible map showing the location of major electric facilities, such as power plants, transmission lines and substations.

ISD30) Provide a legible map of the project area suitable for use in public notice.

8.2 ISD application schedule

Only Schedule 1 is required for ISD applications.

8.3 ISD application attachments

The eFiling process requires an applicant for an ISD to upload each section as a separate attachment. Information requirements for each attachment are combinations of those described in previous sections and grouped in the following table.

Attachment	Information requirements
Application	Requirement Nos. (ISD1), (ISD2), (ISD3), (ISD4), (ISD5), (ISD6), (ISD7), (ISD8), (ISD10), (ISD12), (ISD13), (ISD14), (ISD15), (ISD16), (ISD17), (ISD18), (ISD19), (ISD20), (ISD21), (ISD22), (ISD23), (ISD24), (ISD25), (ISD26), (ISD27), (ISD28), (ISD29) and (ISD30)
ISD single-line diagram	Requirement No. (ISD11)
Process flow diagram	Requirement No. (ISD9)

9 Hydro developments

If an applicant is applying to construct or alter a hydro development, or an associated hydroelectric power plant, the application must include the hydro development requirements outlined below in addition to the power plant requirements. Hydro developments and hydroelectric power plants are as defined in the *Hydro and Electric Energy Act*.

9.1 Information requirements

Application requirements PP1 to PP7, PP9 to PP12, PP14 to PP34, PP37 to PP40 and PP42 set out in Section 3.2 of this rule, apply when hydro development and associated hydroelectric power plant applications are filed jointly.

An applicant for a hydro development must also file the following information in addition to the power plant requirements identified above:

HE1) Describe and summarize consultation with First Nations, Métis, landowners, municipalities, non-government organizations and all other stakeholders. Since a hydro development may affect parties located at significant distances upstream and downstream of the facility, identifying directly and adversely affected parties may require a broader interpretation than other facility review processes.

HE2) Provide a summary of potential environmental impacts and advise if an environmental impact assessment will be required pursuant to the *Environmental Assessment (Mandatory and Exempted Activities) Regulation*. Hydroelectric plants with a capacity greater than 100 megawatts are not discretionary and will require an environmental impact assessment.

Note: a hydro development project for which an environmental impact assessment has been ordered classifies as a water management project and is a reviewable project by the Natural Resources Conservation Board (NRCB) under the *Natural Resources Conservation Board Act*. Submit proposed terms of reference and project information to AESRD and the public that will form the basis for the environmental impact assessment report, if required. The Commission, NRCB and AESRD will provide feedback on the proposed terms of reference to AESRD. If the project triggers federal involvement, other agencies including the Canadian Environmental Assessment Agency (CEAA), Fisheries and Oceans Canada and Transport Canada become involved in the review of the environmental impact assessment. Federal and provincial agencies work cooperatively through the Canada-Alberta Agreement for Environmental Assessment Cooperation. Due to its jurisdiction over areas such as fisheries, navigable waters and migratory birds, the federal government will likely be involved in any joint review process for significant hydro development projects in Alberta.

HE3) Prepare an environmental impact assessment or comprehensive study as required by AESRD and the CEAA. When the study is deemed complete by AESRD, it should form part of the Commission application.

HE4) Provide a noise impact assessment in accordance with the current AUC Rule 012 clearly identifying the impact of the hydro development.

HE5) Provide a description of the hydro development, including technical and engineering details relied on in the assessment of social, economic and environmental impacts.

HE6) Provide an assessment of the social and economic effects of the development and the effects of the development on the environment.

10 Other applications

If an applicant is applying for an ownership change or time extension with respect to a power plant, transmission facility or industrial system designation, or a minor alteration (pursuant to the letter of enquiry process set out in the *Hydro and Electric Energy Regulation* and the Commission's guidance provided in the [Electric Power Plant Facilities Process Guidelines – July 25, 2014](#), as amended, and in the [Electric Transmission Facilities Process Guidelines – June 12, 2013](#), as amended) the applicant must include the relevant information from the list below applicable to the approval being sought. For minor alterations, the applicant may submit a completed checklist as per the Commission's process guidelines.

Schedule 1 must be attached with the application.

10.1 Information requirements

The applicant should provide the following information as part of its application, as applicable:

OTH1) Identify the sections of the *Hydro and Electric Energy Act* and *Hydro and Electric Energy Regulation* under which the application is made.

OTH2) State the approvals that are being applied for from the Commission.

OTH3) Provide a list of existing approvals for facilities directly affected by the application, if any.

OTH4) For a minor alteration, provide details regarding the work being proposed.

OTH5) Provide a list of companies that may be affected by the project, confirm that these companies have no concerns regarding the application, and indicate which other agreements are necessary to carry out the project.

OTH6) Describe the participant involvement program that has been conducted, if any.

OTH7) List all occupants, residents and landowners, as well as other interested parties that were contacted as part of the participant involvement program, if any.

OTH8) If potentially directly and adversely affected persons raised any concerns, describe how the concerns were dealt with or will be dealt with.

OTH9) For a change of ownership application, the applicant shall provide details of the ownership structure, including providing the names of all companies having an ownership interest in the project and their ownership share, and if applicable, the name of the operator, for the facilities for which they are seeking to acquire the approval, permit or license. The details should include confirmation of whether and in which of the following category the owner, and if applicable, the operator falls:

- (a) Registered under the *Companies Act*.
- (b) Registered, incorporated or continued under the *Business Corporations Act*.
- (c) Registered, incorporated or continued under the *Cooperatives Act*.
- (d) Incorporated by an ordinance or an act of the legislature that empowers it to engage in the business of generation or transmission of electricity.
- (e) A bank.
- (f) A railway company incorporated under an act of the Parliament of Canada.

- (g) A loan corporation or trust corporation.
- (h) An insurer licensed under the *Insurance Act*.
- (i) A municipal corporation.
- (j) A co-operative association.

10.2 Other application attachments

The eFiling process requires an applicant to upload each section as a separate attachment.

Appendix A - Participant involvement program requirements

Purpose of the requirements

A participant involvement program must include the requirements set out in this Appendix. A participant involvement program must be conducted prior to submitting an electric facility application. The Commission cannot predetermine the precise extent and scope of your program, because every application is unique and each project may present circumstances that must be dealt with on an individual basis.

The Commission requires you, as the proponent, to assume responsibility for involving the public and to be aware of circumstances or applications where your participant involvement program should exceed the requirements and recommendations set out in this appendix.

These requirements apply to all new facilities and all modifications to existing facilities.

Electric facility development: a cooperative venture

The Commission considers it paramount that effective communication takes place among industry, government and the public so that concerns may be raised, properly addressed, and if possible, resolved. All persons whose rights may be directly and adversely affected by a proposed development must be informed of the application and have an opportunity to voice their concerns and to be heard.

Before you submit an application

“Participant involvement” is a term encompassing all aspects of public, local authority, and industry interactions and communications. It is recognized that other groups may also have a stake in electric facility developments.

The development and implementation of the participant involvement program must occur prior to the filing of an application with the Commission. This includes:

- i) The distribution of a project-specific information package.
- ii) Responding to questions and concerns.
- iii) Discussing options, alternatives and mitigation measures.

Applicants are required to develop an effective participant involvement program that includes persons whose rights may be directly and adversely affected by the nature and extent of a proposed application. Applicants are also expected to be sensitive to the timing constraints on the public (e.g., planting, harvesting, calving seasons and statutory holidays).

The public is strongly encouraged to participate in ongoing issue identification, problem solving and planning with respect to local electric facility developments. Early involvement in informal discussions with an applicant may lead to greater influence on project planning and mitigation of impacts. The applicant is expected to be proactive and ensure that technical information is conveyed in a manner understandable to the public. The project should be discussed with the widest possible audience as early in the planning stages as practical.

The applicant must make all reasonable attempts to contact persons, provide a written description of the project, discuss the project, and address any questions and concerns. If the applicant is unable to contact a party, you should provide sufficient documentation to illustrate your attempts to establish contact.

The development and creation of synergy groups at an early stage of the participant involvement program, especially in highly developed areas, will assist in fostering a collective and amenable approach to transmission line developments in the area.

The applicant must indicate any outstanding objections and/or concerns that they are aware of and must attach a written summary of the outstanding issues when submitting an application. If the issues are not resolved, the Commission may hold a hearing to consider the application.

The applicant must always close the participant involvement loop, even if the application is withdrawn. This means that all persons included in the participant involvement program must continue to be included in all correspondence and information updates during the development, implementation and outcome of the proposed project. The applicant must advise all persons (public and industry) if it has decided not to proceed with the proposed project after having initiated a participant involvement program.

If the scope of the project changes, such as a change to the surface location, the applicant must notify all persons included in the initial consultation program of the proposed change. If the project change results in the inclusion of new participants, the applicant must meet all participant involvement program requirements in regard to the new participants as well.

The applicant must provide notification to all persons (public, industry and local authorities as well as the Commission) when a change in circumstances does not allow previous commitments to be met.

Should a dispute arise, the Commission expects the parties to discuss the issues and options for resolution and encourages the use of third-party mediators.

Planning a participant involvement program

It is an applicant's responsibility to assess the area beyond the specified minimum to determine if the radius of notification recommended should be expanded. It may be necessary to increase the radius to include others who have expressed an interest in development in the area.

Local authorities and Alberta Environment and Sustainable Resource Development play an important part in the plan for orderly land use and should be involved at an early stage in planning a transmission line or substation development and the participant involvement program. Additionally, local authorities and the applicant's previous knowledge of the area may be helpful towards identifying needs in the community.

Who to include

For transmission line and substation developments, the applicant must provide public notification to all occupants, residents and landowners within 800 metres measured from the edge of the proposed right-of-way for the transmission line and/or the proposed substation site boundary. The applicant must provide personal consultation to all occupants, residents and landowners on or directly adjacent to the proposed right-of-way for the transmission line and/or proposed substation site location.

In an urban setting, the applicant must provide public notification and personal consultation to all occupants, residents and landowners within the first row of houses facing the proposed development, and hold at least one information session or public open house meeting in communities that would be traversed by the proposed development.

For power plant developments, the applicant must provide public notification to all occupants, residents and landowners within 2,000 metres measured from the edge of the proposed power plant site boundary. The applicant must provide personal consultation to all occupants, residents and landowners within 800 metres measured from the edge of the proposed power plant site boundary. For major power plant applications, if there are populated areas just outside the 2,000 metre limit, applicants should consider including those areas in the public notification.

For power plants less than one megawatt in an urban setting, the applicant must provide public notification to all occupants, residents and landowners within the first row of occupied properties surrounding the proposed development and should consider including areas beyond that, as the circumstances require. For power plants less than one megawatt in a rural setting, the applicant must provide notification to occupants, residents and landowners within a 1,500 metre radius of the proposed development, as the circumstances require.

For power plants one megawatt or greater and less than 10 megawatts where the electric energy is generated solely for the applicants own use in an urban setting, the applicant must provide public notification to all occupants, residents and landowners within the first row of occupied properties surrounding the proposed development and should consider including areas beyond that, as the circumstances require. For power plants one megawatt or greater and less than 10 megawatts where the electric energy is generated solely for the applicants own use in a rural setting, the applicant must provide notification to occupants, residents and landowners within a 1,500 metre radius of the proposed development, as the circumstances require.

For needs identification document applications, the ISO must provide public notification to all occupants, residents and landowners within the areas where facilities could be required to implement the ISO's preferred option and applied-for alternatives. The applicant must advertise the proposed needs identification document application in local newspapers in the area where facilities could be required to implement the ISO's preferred and applied-for alternatives. Where it considers it to be an appropriate component, the ISO should hold open houses or other forums where information can be provided to members of the public who may be directly affected by an application for facilities to implement the ISO's preferred option and applied-for alternative solutions.

The applicant must allow persons notified or consulted a minimum of 14 calendar days to receive, consider and respond to notification of the proposed development. The applicant is expected to document commitments made and have a process in place to monitor and follow up on commitments.

If the proposed development is part of a larger project, the applicant is expected to discuss the entire project and explain how it complements other development in the area.

During the planning of its participant involvement program, the applicant should assess its need to reach the broader public and may determine that an information session or public open house meeting is required. When holding such sessions, the applicant must disclose the same project-specific information as it would to those involved in personal consultation and notification. However, information sessions or public open houses may not be a substitute for meeting minimum consultation requirements.

What information to disclose

Information packages must be developed and distributed to all parties included in the participant involvement program. The applicant's project-specific information package must provide the specific details of the proposed project development. The applicant must use appropriate language and terminology in the written materials so that the participants can clearly understand the details of the proposed development and the impact(s) it may have upon them.

The following details must be included in the applicant's project-specific information package:

- i) Applicant name and contact numbers for further information.
- ii) Location of proposed facilities, including power plant, transmission line and/or substation development, including site specific map.
- iii) Need for the proposed transmission facilities and explanation of how it fits with existing and future plans.
- iv) Discussion of the potential restrictions regarding developing lands adjacent to the proposed development, such as setbacks.
- v) Description of proposed on-site equipment.
- vi) Proposed project schedule for Commission application, construction and start-up.
- vii) Commission brochure of application process.

The applicant is expected to include any other information that would assist the participant in understanding the proposed development.

Personal consultation – facility applications

Personal consultation is intended to inform parties where rights may be directly and adversely affected by the nature and extent of the proposed application. Questions raised during the discussion of the proposed development should alert the applicant to potential concerns/objections.

The applicant must conduct face-to-face visits or telephone conversations with occupants, residents and landowners of land that (a) would be on or directly adjacent to the right-of-way for the proposed transmission line and/or proposed substation site location or (b) would be within 800 metres measured from the edge of the proposed power plant site boundary. Where there is more than one landowner or occupant at an address, a face-to-face visit or telephone conversation with a responsible adult at that address will normally be sufficient, unless a request is made to meet with more than one landowner or occupant.

A company representative with full knowledge of the overall plans and direction of future development options must be available to answer questions either in person or by telephone. The applicant must use appropriate language and terminology both in conversations and written materials so that the persons consulted can clearly understand the details of the proposed development and the impact it may have upon them. The applicant must provide a copy of its project-specific information packages to those persons described in the “Who to include” section above. The required information packages may be distributed during the personal consultation meeting or forwarded later as follow-up to the personal consultation phone call/meeting. Packages may be forwarded by courier, mail, fax, email or other means as agreed upon by the applicant and persons consulted.

If the person does not want a copy of the required information package(s), the applicant must document the refusal for audit purposes. The applicant must keep a log of the dates that personal consultation occurred, when materials were distributed/received and to whom.

The applicant is accountable for the outcomes of personal consultation completed on its behalf by contracted personnel. Therefore, the applicant must ensure that individuals conducting personal consultation on its behalf:

- i) Possess a sound understanding of regulatory requirements and expectations for participant involvement.
- ii) Use appropriate language and terminology in the written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

Public notification – facility applications

Notification differs from personal consultation in that the initial communication may take place through written correspondence rather than face-to-face or in telephone conversations.

The applicant must notify all occupants, residents and landowners within 800 metres measured from the edge of the right-of-way for a proposed transmission line development or 800 metres measured from the boundary of the proposed substation. Distribution of project-specific information packages to postal code addresses is sufficient to satisfy this initial communication requirement.

The applicant must notify all occupants, residents and landowners within a 2,000 metre radius of a proposed power plant development. If there are populated areas just outside the 2,000 metre limit, the applicant should consider including those areas in the public notification. Distribution of project-specific information packages to postal code addresses is sufficient to satisfy this initial communication requirement.

For small power plants, under one megawatt, in an urban setting, the applicant must provide public notification to all occupants, residents and landowners within the first row of houses facing the proposed development, and should consider including areas beyond the first row of houses facing the power plant as the circumstances require.

The applicant must allow a minimum of 14 calendar days for the persons consulted to receive, consider and respond to the notification, and be prepared to discuss the project as necessary.

The applicant must use appropriate language and terminology in conversations and written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

The applicant is accountable for the outcome of notification completed on its behalf by contracted personnel. Therefore, the applicant must ensure that individuals conducting notification on its behalf:

- i) Possess a sound understanding of regulatory requirements and expectations for participant involvement.
- ii) Use appropriate language and terminology in the written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

Public notification – needs identification document applications

The applicant must notify all occupants, residents and landowners in areas where facilities could be installed to implement the ISO's preferred option and applied-for alternative solutions. The applicant must also notify industry stakeholders including all groups that participate in electric industry proceedings. Distribution of project-specific information packages to postal code addresses is sufficient to satisfy this initial communication requirement.

The applicant must advertise the proposed needs identification document application in local newspapers in the area where facilities could be installed to implement the preferred alternative or any other alternative solution in the needs identification document application. The advertisement should include a map of the area, a telephone number to contact for additional information and a website location where the needs identification document application may be downloaded.

The applicant is not required to initiate consultation with occupants, residents or landowners but, where it considers it to be an appropriate component, the ISO should hold open houses or other forums where information can be provided to members of the public who may be directly affected by an application for facilities to implement the ISO's preferred option and applied-for alternative solutions. In required cases, the ISO should hold additional open houses or forums to address any public issues or concerns.

The applicant must allow a minimum of 14 calendar days for the persons notified to receive, consider and respond to the notification and be prepared to discuss the project as necessary.

The applicant must use appropriate language and terminology in conversations and written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

The applicant is accountable for the outcome of notification completed on its behalf by contracted personnel. Therefore, the applicant must ensure that individuals conducting notification on its behalf:

- i) Possess a sound understanding of requirements and expectations for participant involvement.
- ii) Use appropriate language and terminology in the written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

Extended absences

In some instances occupants, residents and landowners may be away for extended periods, such as on vacation, or they may reside out of the province.

When the applicant must personally consult with participants and is unable to do so, the applicant is expected to use courier or registered mail to send letters and information packages to the address indicated on the most up-to-date land title documents.

If the applicant is unable to fulfill all participant involvement requirements, it must demonstrate the efforts made to contact all necessary participants.

Documenting the participant involvement program

It is in the applicant's best interest to understand the audit requirements for participant involvement. The applicant should develop an audit documentation package early and build it throughout the process. The applicant must retain communication logs, registered mail/courier tracking, and personal consultation and notification documents for audit purposes. The applicant must retain documentation of potential mitigations for concerns/objections that were received through the notification and consultation process prior to filing an application.

Appendix B1 - Cost breakdown formats – requirements TS43

Accuracy: +20/-10%

	System portion	Customer portion	Total	Capital maintenance
Transmission lines costs				
Material	\$ -	\$ -	\$ -	\$ -
Labour	\$ -	\$ -	\$ -	\$ -
Total-transmission line	\$ -	\$ -	\$ -	\$ -
Substation facilities costs				
Material	\$ -	\$ -	\$ -	\$ -
Labour	\$ -	\$ -	\$ -	\$ -
Total-substations	\$ -	\$ -	\$ -	\$ -
Telecommunication costs				
Material	\$ -	\$ -	\$ -	\$ -
Labour	\$ -	\$ -	\$ -	\$ -
Total-telecommunication	\$ -	\$ -	\$ -	\$ -
Owner costs				
Proposal to provide service	\$ -	\$ -	\$ -	\$ -
Facility applications	\$ -	\$ -	\$ -	\$ -
Right-of-way costs	\$ -	\$ -	\$ -	\$ -
Total-owners costs	\$ -	\$ -	\$ -	\$ -
Distributed costs				
Procurement	\$ -	\$ -	\$ -	\$ -
Project management	\$ -	\$ -	\$ -	\$ -
Construction management	\$ -	\$ -	\$ -	\$ -
Total-distributed costs	\$ -	\$ -	\$ -	\$ -
Total direct costs	\$ -	\$ -	\$ -	\$ -
Salvage costs				
Transmission line and substation labour, land remediation and reclamation	\$ -	\$ -	\$ -	\$ -
Total-salvage	\$ -	\$ -	\$ -	\$ -
Other costs				
AFUDC	\$ -	\$ -	\$ -	\$ -
E&S	\$ -	\$ -	\$ -	\$ -
Total-other costs	\$ -	\$ -	\$ -	\$ -
Total in-direct costs	\$ -	\$ -	\$ -	\$ -
Total Project Costs	\$ -	\$ -	\$ -	\$ -

Appendix B2 - Cost breakdown formats – requirements NID11 and NID12

Accuracy:

+/-30%

	System portion	Customer portion	Total	Capital maintenance
Transmission line	\$ -	\$ -	\$ -	\$ -
Substation facilities	\$ -	\$ -	\$ -	\$ -
Telecommunication	\$ -	\$ -	\$ -	\$ -
Total-facility costs	\$ -	\$ -	\$ -	\$ -
Owner costs	\$ -	\$ -	\$ -	\$ -
Distributed costs	\$ -	\$ -	\$ -	\$ -
Total-owners and dist. cost.	\$ -	\$ -	\$ -	\$ -
Total-direct costs	\$ -	\$ -	\$ -	\$ -
Salvage costs	\$ -	\$ -	\$ -	\$ -
E&S	\$ -	\$ -	\$ -	\$ -
AFUDC	\$ -	\$ -	\$ -	\$ -
Total-indirect costs	\$ -	\$ -	\$ -	\$ -
Total Project Costs	\$ -	\$ -	\$ -	\$ -