About the Project

TransAlta Corporation (TransAlta) is excited to introduce the Tempest Wind Project, a 90 to 110-megawatt (MW) wind development located approximately 22 km south of Taber and 32 km east of Lethbridge in Warner County (Figure 1).

The project will consist of up to 22 wind turbine generators, each with a capacity to generate between 4.5 to 6 MW of power. The final turbine technology will be confirmed as the project advances through the development process.

TransAlta has been conducting preliminary site investigations at this site since 2018 and are currently advancing the Project through permitting and regulatory processes with the goal of seeking all necessary permits and approvals to construct, own, interconnect and operate the wind project and wind project substation.

Who is TransAlta?

TransAlta is a power generation company and marketer of wholesale electricity. Beginning as a small, local power company in 1909, TransAlta has transformed over the last century to become an experienced and respected power generator and wholesale marketer of wind, solar, hydroelectric, natural gas, and coal electricity.

Today, we are one of Canada's leading clean energy companies with over 110 years of generation experience. With a fleet of 23 wind facilities generating 1,895 MW of clean, renewable power, TransAlta has extensive experience in planning, developing, constructing, and operating wind facilities across Canada and the U.S.

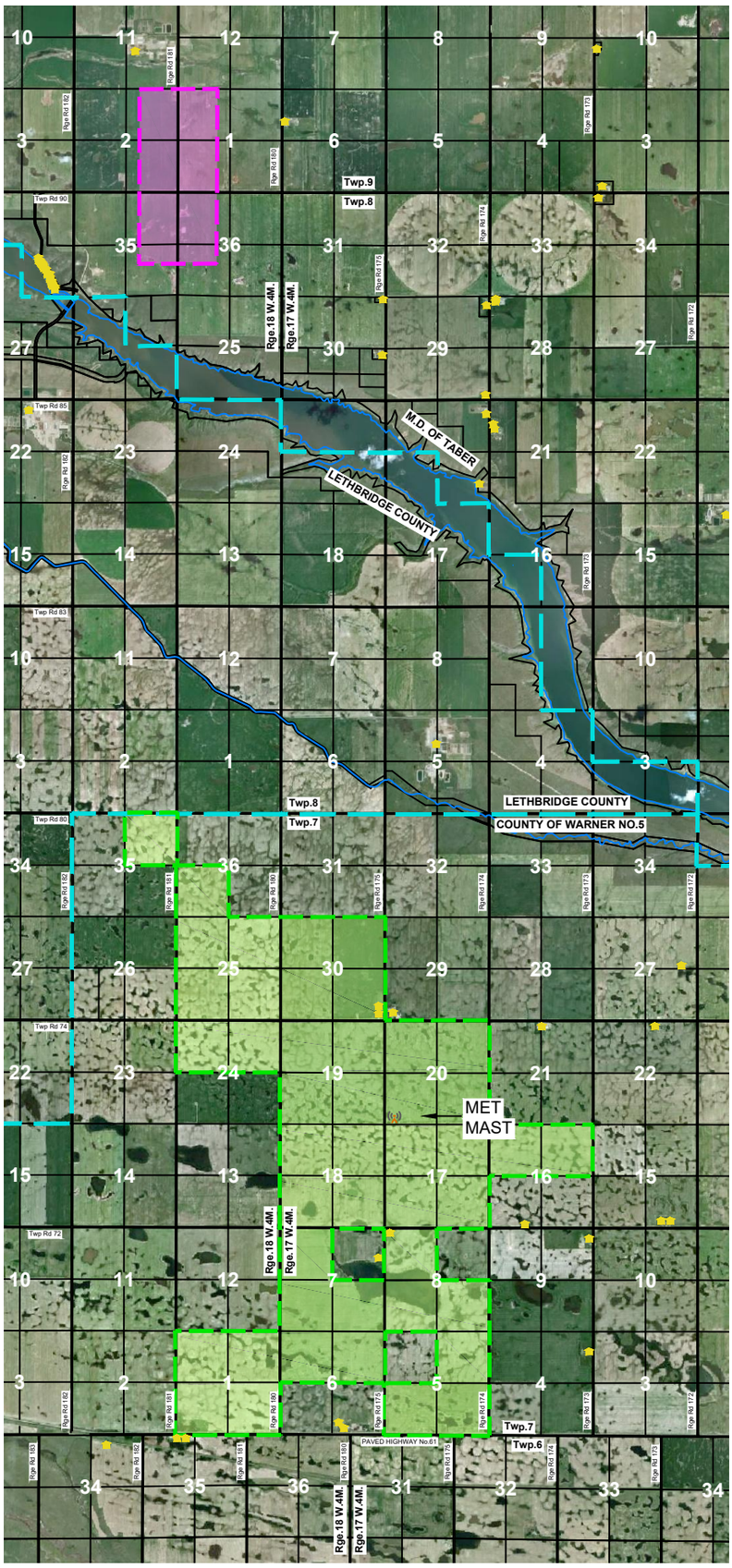
Recently, TransAlta completed construction of the 207 MW Windrise Wind project located in the Municipal District of Willow Creek, Alberta and is currently constructing the 130 MW Garden Plain Wind Project in Paintearth County and Special Area No. 2, Alberta.

NOTIFICATION SKETCH SHOWING:

TRANSALTA CORPORATION

Tempest Wind Project
and
Target Interconnection Area

M.D. of TABER



NOTES / LEGEND:

Proposed Project Boundary:
Target Interconnection Area:
Watercourse:
Met Mast:
Occupied Residence:
Abandoned Residence:

No Field visit performed.
Distances are ground and in metres and decimals thereof.

1000 500 0 1000 2000 3000 4000 5000

SCALE 1:100000

MIDWEST SURVEYS INC.
2827 SUNRIDGE BLVD NE
CALGARY, AB
T1Y 6G1
TEL: 403-244-7471

No.	DATE	REVISION / ISSUED	JOB No.
0	JUL 13, 2022	PLAN ISSUED	CA-0010-22
1	JUL 14, 2022	REVISED PLAN	CA-0010-22

Tempest Wind Project | SURVEYED BY: N/A | CALC'D BY: ER | DRAWN BY: CM | CA001022-DD-PLN-004

Project Components

The Project is located 22 km south of Taber and 32 km east of Lethbridge on approximately 7,000 acres of privately-owned land in Warner County.

Turbine Technology: The Project will host up to 22 wind turbines. Turbine technology has not been confirmed however, each turbine will have the capacity to produce 4.5 to 6 MW of electricity for an expected project nameplate capacity between 90 to 110 MW.

Underground Collector System and Substation: Each turbine will connect through a buried underground 34.5kV collector system which will feed into the Project substation. The Project substation will be located near the center of the Project site.

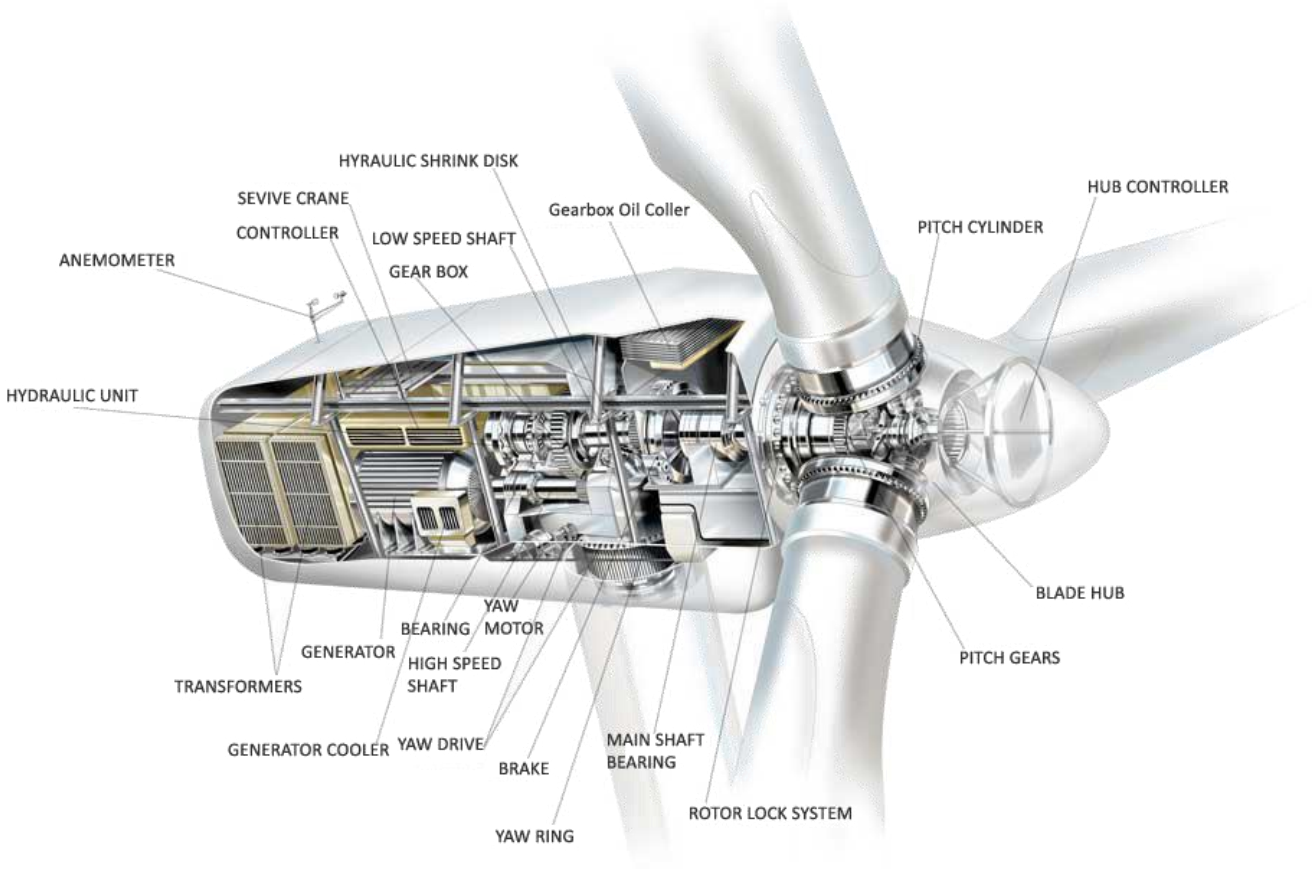
Transmission Interconnection: The Project will require the construction of roughly 15km of transmission line which will connect the Project to the Alberta Interconnected Electric System. The transmission line will enable power generated by the wind project to reach Alberta's electricity grid.

A separate and distinct regulatory, permitting and stakeholder engagement process will take place for the transmission interconnection project. To assist with this, TransAlta has contracted a third-party consultant to undertake work related to environmental evaluation, route selection and public and Indigenous engagement.

Information packages regarding the Project transmission interconnection will be sent out to those stakeholders over the coming months.

Meteorological Tower: TransAlta will install one permanent meteorological tower on-site used for the collection of weather data.

Roads and Access Points: TransAlta will endeavor to use existing roads and access points for accessing turbine locations during construction and operations of the Project. TransAlta will seek approval to use local County roads and may upgrade those under County standards to facilitate the delivery of turbine components to site.



Wind Project Benefits: Supporting Local Communities

Wind projects provide social and economic benefits to the local communities where they are hosted. The Tempest Wind Project will:

- **Create new employment opportunities,** during construction, for local tradespeople, contractors, and skilled laborers
- **Create long-term employment,** including permanent positions, for site technicians and maintenance personnel over the operating life of the wind project
- **Increase purchases of goods and services** which will directly impact local businesses
- **Generate an additional source of tax revenue** for Warner County
- **Provide supplemental income** from annual lease payments to project landowners during the life of the wind project

Environmental Considerations

The project has the potential to impact wildlife and wildlife habitat. As such, A full suite of environmental studies were completed, by a third-party consultant, in the Project area between 2018 and 2022. These studies were conducted in accordance with the Wildlife Directive for Wind Energy Projects in Alberta (Wildlife Directive) released by Alberta Environment and Parks in 2018 following the Sensitive Species Inventory Guidelines and other prescribed survey protocols (e.g., migratory bird surveys).

Fieldwork in the following environmental surveys were completed:

- **Wildlife:** Migratory birds, breeding birds, acoustic bats, sensitive raptors, sharp-tailed grouse, and burrowing owl
- **Vegetation:** Habitat mapping
- **Wetlands:** Mapping and classification
- **Historical Resources:** Archaeological and cultural features

The Tempest project lands are a good candidate for a wind project. The project is sited on all cultivated lands, which is in line with the Wildlife Directive (AEP). All project infrastructure has been sited outside of any environmental features (e.g., sharp-tailed grouse leks or raptor nests) that were identified during field surveys. There are several wetlands in the project area however, permanent project infrastructure has been sited outside of Class III and higher wetlands and their associated setback (100 m). If impacts to wetlands are expected as the project progresses, the appropriate approvals (i.e., Water Act) will be applied for.

Findings from these environmental studies have been incorporated into our final Project design and layout. In addition, a summary of the wildlife data collected will be submitted to AEP in July 2022 and their feedback, in the form of a Renewable Energy Referral Report, will be incorporated into our Environmental Evaluation and Environmental Protection Plan, both required for an AUC facility application (wind project) submission.

We will continue to collaborate with AEP through project development, and should the project be approved, construction, and operation to ensure that siting and any wildlife mitigation planning meets their expectations.

Visual Impacts

As part of project design, visual simulations using specialized software will be created at various locations in and around the Project site. These simulations will provide a representative depiction of the wind turbines on the landscape and will be displayed at our stakeholder engagement session.

TransAlta refers to Transport Canada's *Canadian Aviation Regulations (CARs) Standard 621* for the lighting and marking of wind turbines and wind projects. The wind turbines will be painted an off-white color which is studied to be the least reflective in the broadest range of lighting conditions.

TransAlta will submit a proposed lighting plan to Transport Canada prior to the start of construction, which will integrate best industry design practices to minimize visual impact on the landscape.

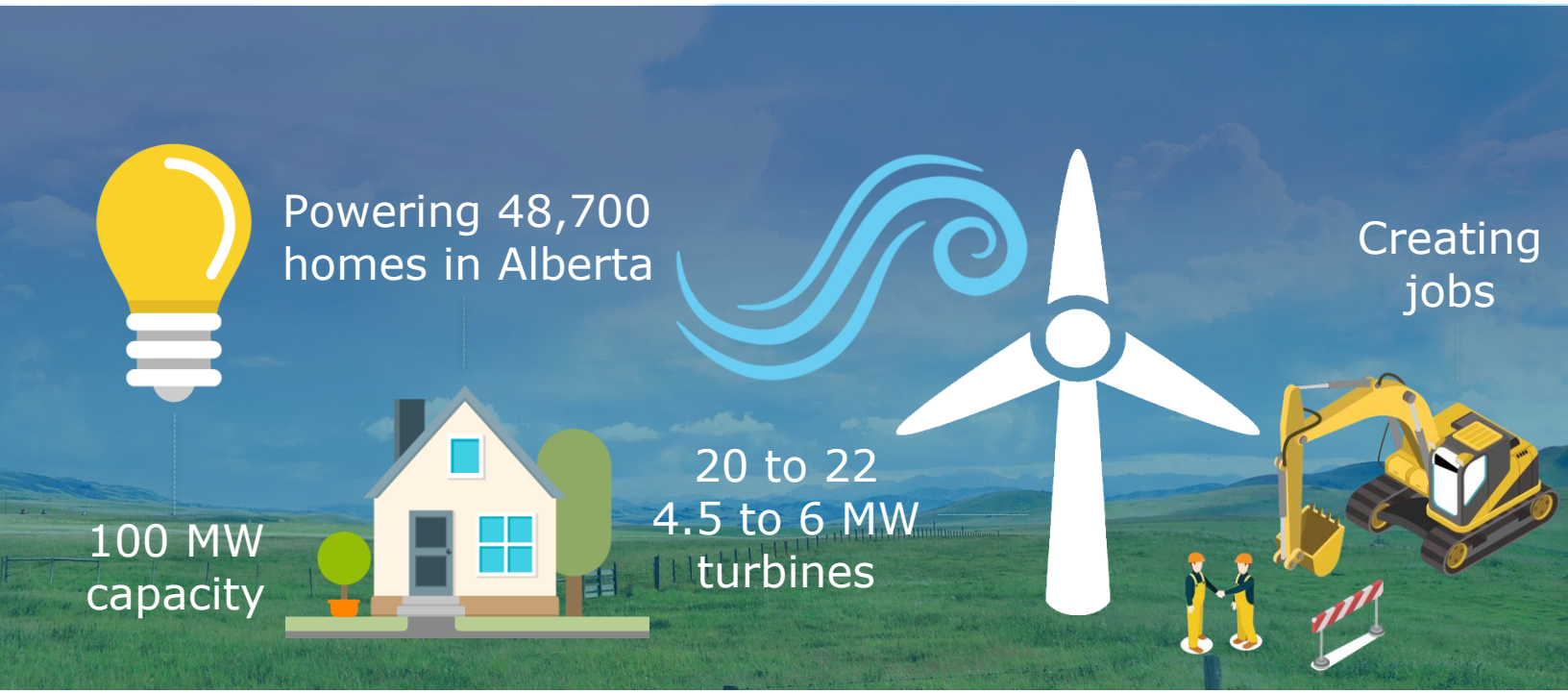
Radiocommunications and Radar

Wind turbine generators, like other large structures, may have the potential to disrupt the transmission of electromagnetic signals with the potential to interfere with radiocommunication systems.

As part of project design, TransAlta has commissioned an inventory and preliminary impact assessment of radiocommunication, and radar systems present in the vicinity of the Project in communication with related stakeholders and in accordance with guidelines developed for industry by the Radio Advisory Board of Canada and the Canadian Broadcasting Corporation.

There are a multitude of variables to consider when assessing systems and impacts including land topography, turbine composition, turbine siting, source signal strength, equipment type, etc.

Companies identified as having facilities within the range of our Project will be consulted as part of this impact assessment.



Sound

Wind turbines produce sound that can originate from either air flow or mechanical sources:

- **Air Flow:** As air passes over and between the wind blades, and when the wind blades pass by the tower
- **Mechanical:** Created by equipment components such as the gearbox and generator, located in the wind turbine nacelle

Sound from all wind projects must meet stringent requirements regulated by the Alberta Utilities Commission (AUC). These sound requirements are outlined in AUC Rule 012: Noise Control, which states that sound levels from a wind project, measured cumulatively with noise from other facilities and sources must not exceed the permissible sound level of 40 decibels (dBA) at night outside residences.

For comparison, 40dBA is what you would expect to measure in a quiet office or living room.

As part of project design, a Noise Impact Assessment (NIA) is underway for the Project to demonstrate that the wind project, including turbines and substation components, and cumulative impacts of other noise sources in the area comply with AUC Rule 012: Noise Control. Sound level maps will be displayed at our stakeholder engagement session.

The findings will be reported in our NIA and submitted as part of our AUC facility application for the project. The project will comply with all AUC Permissible Sound Level guidelines.

Health

In 2012 Health Canada announced its intention to undertake a large study in collaboration with Statistics Canada to provide federal advice and in acknowledgement of the community health concerns expressed in relation to wind turbines. The results of the study were published in 2014. The study concluded that the scientific evidence available to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects.

If you would like more information about health effects and wind turbines or would like additional reference material on this subject, please contact us.

Shadow Flicker

Shadow flicker is the effect of the sun shining through the blades of a wind turbine as they rotate, casting a moving shadow. It will be perceived as a "flicker" due to the rotating blades repeatedly casting the shadow.

A shadow flicker study is forthcoming and is conducted for the project as part of the AUC application. The results of the study will be available to stakeholders and if applicable, there will be a map identifying receptors and the expected duration of shadow flicker for each receptor. The project has been designed to ensure shadow flicker duration will fall within acceptable industry standard limits.

Decommissioning

The useful life for current technology wind turbines is approximately 30 to 35 years. Once a facility has reached the end of its useful life, TransAlta will assess options to repower the project or decommission. For decommissioning, renewable energy projects are required to comply with the Conservation and Reclamation Directive for Renewable Energy Projects (C&R Directive). C&R plans are created for each project which will aim to return the land to equivalent land capability.

C&R Plans address activities related to the restoration of any land impacted by the project. TransAlta works closely with project host landowners to ensure decommissioning is carried out to the satisfaction of our host landowners and complies the C&R Directive.

Permitting & Approval Requirements

Wind projects require multiple permits and approvals from all three levels of government, agencies, regulatory bodies, and other stakeholders, throughout the project lifecycle. The permits and approvals required for the Project include:

Federal

- **Transport Canada**
  - Aeronautical Obstruction Clearance
- **NavCanada**
  - Land Use and Air Navigation Services Assessment

Provincial

- **Alberta Environment and Parks**
  - Wildlife Referral Report
- **Alberta Culture and Status of Women**
  - Historical Resources Act Clearance
- **Alberta Utilities Commission**
  - Permit and License to construct, own and operate the wind project and substation
  - Connection Order – to connect the facility collector system to the collector substation
- **Alberta Transportation**
  - Roadside Development Permit

Municipal

- **Warner County**
  - Development Permit
  - Road Use Agreement
  - Utility Placement Permit
  - Right-of-Way Consent (if necessary)

Other

- **Utility Facility Owners**
  - Crossing Agreement or Right-of-Way Easements
- **RCMP/TV/Satellite/ Telecommunications**
  - Radio comms / radar interference

Project Timeline

Next Steps

TransAlta will continue to engage and consult with Indigenous and local communities, landowners, and other stakeholders throughout development of the project.

As part of our consultation and engagement plan, we are planning a stakeholder engagement session that will be held in a nearby community this fall – we are tentatively aiming for early to mid-September. A specific date, time, and location will be provided in a follow-up letter once it has been determined.

If you have questions, concerns, or general feedback, **we would appreciate receiving this information by August 5, 2022**, as part of our first round of consultation. TransAlta will be actively consulting with stakeholders as needed up to AUC submission and if the project is approved, through construction and operations.

More project details will be shared as the project advances.

Contact Us

For more information about TransAlta
or the Tempest Wind Project,
please contact us:

(877) 547-3365 Extension 1
projects@transalta.com
transalta.com

Please reference the Tempest Wind Project in the subject line of your email

Application review process

Step 1: Public consultation prior to applying to the AUC

Step 2: Application filed to the AUC

Step 3: Public notice

Step 4: Public submissions to the AUC

Step 5: Consultation and negotiation

Step 6: The public hearing process

Step 7: The decision

Step 8: Opportunity to appeal

Step 9: Construction, operation and compliance

www.auc.ab.ca

The AUC regulatory review process to consider facility applications for utility projects:

The AUC uses an established process to review social, economic and environmental impacts of facility projects to decide if approval of a project is in the public interest.

The AUC considers applications requesting approval of the need for transmission development and facilities applications seeking approval to construct, operate, alter and decommission electric and natural gas facilities. Applications, as specified in Rule 007, are required for:

- **The need for transmission upgrades.**
- **The route and location of transmission facilities.**
- **The siting of power plants.**
- **The construction of a battery storage system.**
- **The designation of an industrial system.**

Sometimes the Alberta Electric System Operator's needs identification document application is considered together with a facility application in a single proceeding; sometimes separate proceedings are held to consider each application.

Step 1: Public consultation prior to applying to the AUC

Prior to filing an application with the AUC for the approval of a proposed utility development project, the applicant is required to engage in a participant involvement program in the area of the proposed project, so that concerns may be raised, addressed and, if possible, resolved.

The application guidelines and requirements for facility applications can be found in AUC Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*.

Potentially affected parties are strongly encouraged to participate in the public consultation, also called a participant involvement program. Early, active and ongoing discussions with an applicant may lead to greater influence on project planning and what is submitted to the AUC for approval.

Step 2: Application filed to the AUC

When the applicant has concluded its consultation with potentially affected parties and the participant involvement requirements have been completed, the applicant files its application through the AUC online public filing system, called the eFiling System.

AUC staff members review each application submitted to verify that all of the application requirements in Rule 007 have been met before an application is deemed complete. If all of the required information is not provided, the application may be closed or missing information will be requested of the applicant. Rule 007 specifies, among other requirements, that applicants must submit a public involvement plan in its application that includes information about the public consultation program and identifying any unresolved objections and concerns about the project.

Step 3: Public notice

The AUC generally issues a notice by mail directly to those who live, operate a business or occupy land in the project area who may be directly and adversely affected if the AUC approves the application. The notice initiates the opportunity for formal intervention in the proceeding to consider an application or applications. The notice of application will also set out important dates and information about where to find the application and other items being considered. The five-digit eFiling System proceeding number in the notice is the most efficient way to find information about a proposed project through the AUC website.

Step 4: Public submissions to the AUC

Prior to the submission deadline provided in the notice, formal submissions of outstanding concerns and unresolved objections about a project may be submitted to the AUC. To submit a concern, participants will need to register to participate in the proceeding, which involves providing a brief written statement called a statement of intent to participate. Submissions are collected through the eFiling System. The information filed becomes part of the public record and is an important part of the process to ensure that outstanding concerns are heard, understood and considered.

The AUC uses the information gathered through statement of intent to participate submissions to decide whether to hold a hearing on the application(s). The AUC must hold a hearing if a person can demonstrate that they have rights that may be directly or adversely affected by the AUC's decision on the application. Such a person is said to have standing before the AUC. If the AUC decides to hold a hearing, the AUC will provide further opportunities for participants with standing to understand the application and present their position on the application either in writing or in person. Hearings may be held in writing, in person or virtually, through web-conference software.

Subject to some limited exceptions, all information and materials provided as part of an AUC proceeding will become part of the public record and will be available through the eFiling System. The AUC's treatment of some types of information as confidential is rare and only available under limited circumstances to ensure that the AUC's process is open and transparent.

AUC eFiling System

The eFiling System is the tool that the AUC uses to manage applications and submissions in its proceeding-based review. The eFiling System gives access to all public documents associated with an application and is how to provide your input to the AUC and monitor the related proceeding filings. Those who do not have access to the internet can send submissions, evidence and other material by mail and the AUC will upload the submission on their behalf.

Step 5: Consultation and negotiation (if applicable)

The AUC supports ongoing efforts to reach an agreeable outcome for the applicant and all affected parties. The AUC encourages the applicant and those who have filed a statement of intent to participate to continue to attempt to resolve any outstanding issues. If all concerns can be satisfactorily resolved this may eliminate the need for a formal hearing. However, if there continues to be unresolved issues, those matters will typically be addressed in an AUC hearing.

Step 6: The public hearing process

The AUC will issue a notice of hearing if there continues to be legitimate unresolved concerns with the application. The notice of hearing will provide a hearing date and location, or specify if the hearing will be held in writing or virtually. The AUC holds public hearings where registered parties can participate and where any member of the public can listen to the hearing. It is a formal, evidence-based hearing that operates similar to a court proceeding.

The public hearing process allows persons who have been granted standing and continue to have unresolved concerns about the application the opportunity to express their views directly to a panel of Commission members.

Participants in a hearing can either represent themselves or be represented by a lawyer. In addition, participants may hire experts to assist in preparing and presenting evidence to support their position.

Cost assistance

A person determined by the AUC to have standing or is considered to be a local intervener can apply for reimbursement of reasonable costs. Those who hire a lawyer or technical experts must be aware that while reimbursement for the costs of legal and technical assistance is available under AUC Rule 009: *Rules on Local Intervener Costs*, recovery of costs is subject to the AUC's assessment of the value of the contribution provided by the lawyer and technical experts in assisting the AUC to understand the specifics of the case. People with similar interests and positions are expected and encouraged to work together to ensure that expenditures for legal or technical assistance are minimized and costs are not duplicated.

Step 7: The decision

The AUC's goal is to issue its written application decision no more than 90 days after the close of record. The AUC can approve, or deny an application and can also make its approval conditional upon terms or conditions. AUC decisions are publicly available through the AUC website at www.auc.ab.ca.

Step 8: Opportunity to appeal

An applicant or dissatisfied participant may formally ask the Court of Appeal of Alberta for permission to appeal an AUC decision. An application for permission to appeal must be filed within 30 days from the date the decision is issued.

An applicant or dissatisfied participant can also ask the AUC to review its decision. An application to review a decision must be filed within 60 days from the date the decision is issued and satisfy the limited grounds described in AUC Rule 016: *Review of Commission Decisions*.

Step 9: Construction, operation and compliance

An applicant that receives approval to build and operate a facility from the AUC is expected to follow through on any commitments it has made to parties and must adhere to any conditions that were set out in that approval. If concerns about compliance with approval conditions and post-construction operations cannot be resolved with the applicant, they can be brought to the AUC's attention for consideration. The AUC has significant compliance and enforcement powers for all approved applications. Additional information is available on the AUC website.

The Alberta Utilities Commission is an independent, quasi-judicial agency of the government of Alberta that ensures the delivery of Alberta's utility services take place in a manner that is fair, responsible and in the public interest.

Contact us

Phone: 403-592-4500
Toll-free: 310-4282 or
1-833-511-4282 (outside Alberta)
Email: info@auc.ab.ca

Eau Claire Tower
1400, 600 Third Avenue S.W.
Calgary, Alberta T2P 0G5

The Alberta Utilities Commission is committed to ensuring that Albertans whose rights may be directly and adversely affected by a utility development project are informed of the application and have the opportunity to have their concerns heard, understood and considered.

AUC
Alberta Utilities Commission

Participating in the AUC's independent review process to consider facility applications