



Project Details

TransAlta Coaldale Wind L.P. by its General Partner TransAlta Coaldale Wind Inc., (the Proponent) proposes to construct and operate the Tempest Wind Power Project (the Project) pursuant to Sections 11 and 19 of the Hydro and Electric Energy Act, RSA 2000, c H-16 and the associated Project substation pursuant to Sections 14, 15 and 19 of the Hydro and Electric Energy Act, RSA 2000, c H-16.

TransAlta is excited to provide an update on the Project.

- Nameplate capacity: 100-megawatt (MW)
- Project size: approximately 7,200 acres
- Location: County of Warner No. 5
- Number of turbines: 18 to 22
- Turbine size: maximum of 180 m at tip height
 - Max of 81.5 m blade length
 - Max 98.5 m hub height

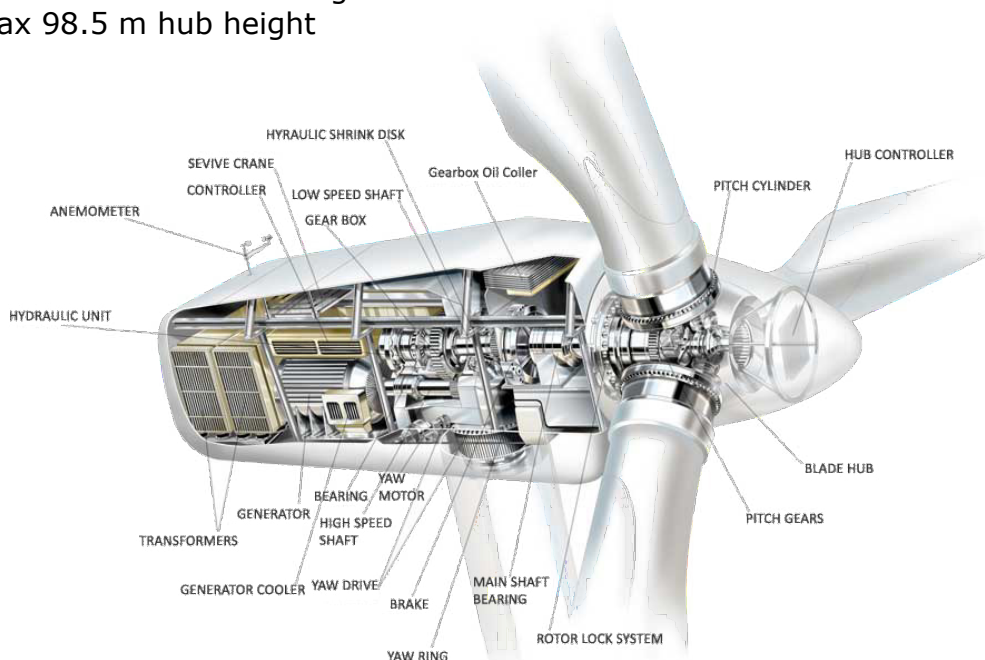
The final turbine technology will be confirmed by the time the Project is submitted to the Alberta Utilities Commission (AUC) in Q4 2022.

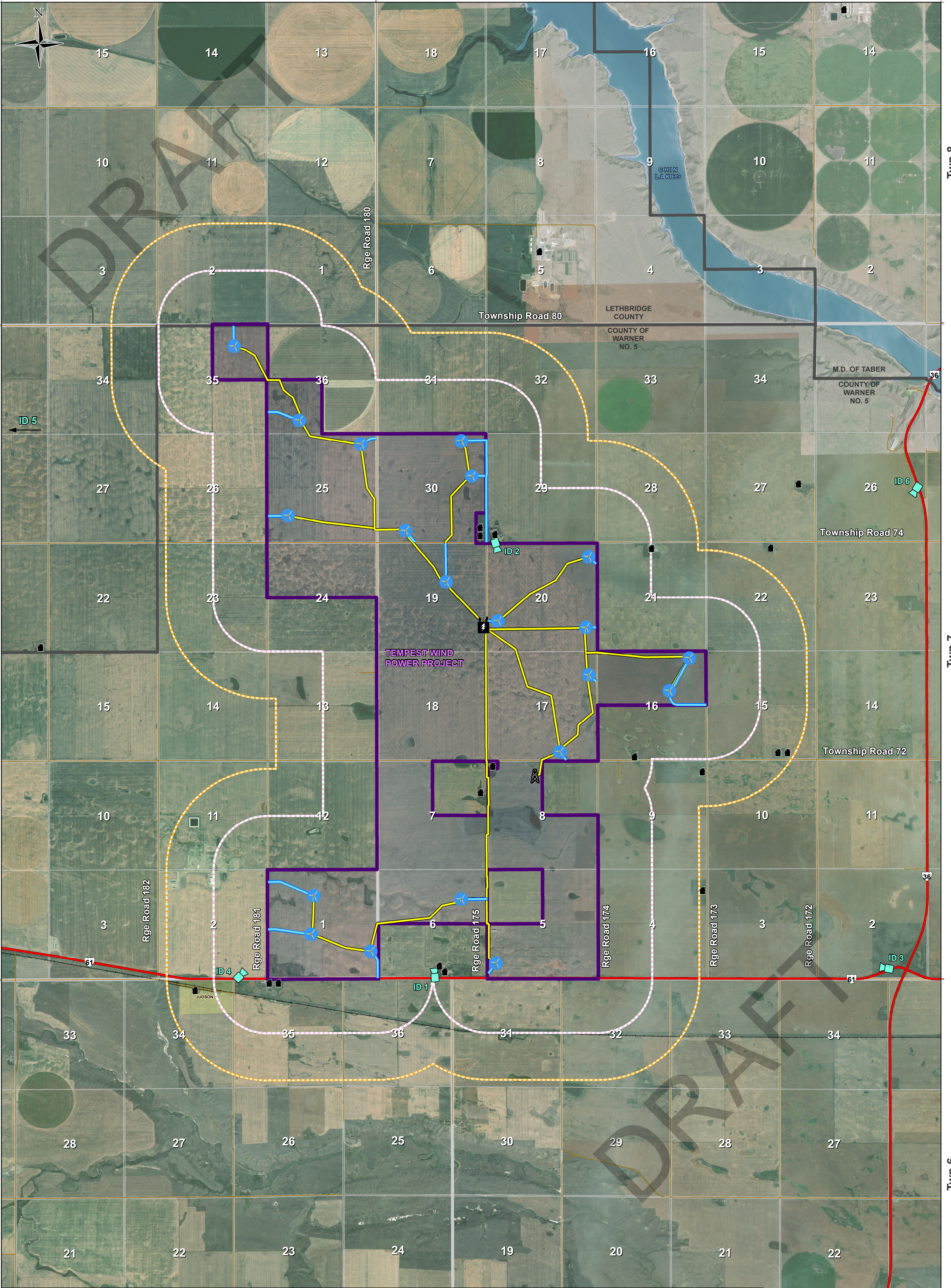
Studies / reports complete:

- Wildlife surveys
- Noise impact assessment
- Shadow flicker assessment
- Geotechnical investigation
- Micro siting project infrastructure and optimization

Studies / reports underway:

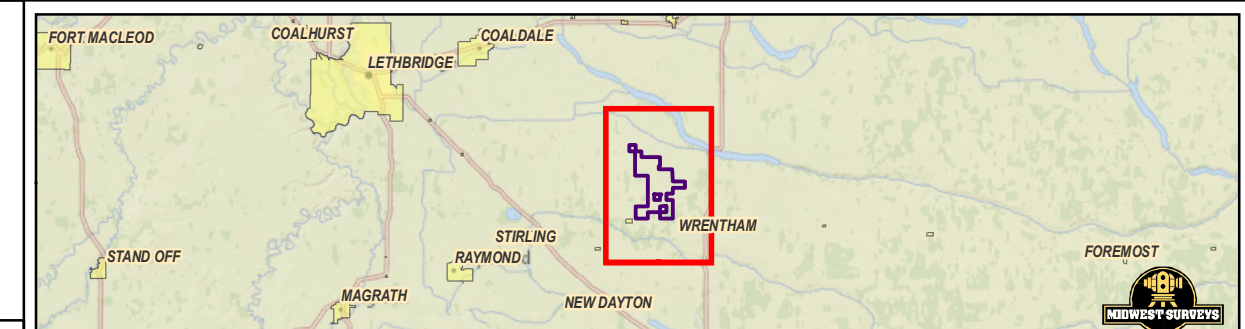
- Environmental evaluation
- Environmental protection plan
- Conservation and reclamation plan
- Emergency response plan
- Historical resources





Legend

- Turbine
- Residence
- Tempest Wind Project Boundary
- 800 m Notification Radius
- 1500 m Notification Radius
- Access Road
- Collector Line
- Primary Highway
- Minor Road
- Railways
- MET Tower
- Substation
- Visual Location



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TEMPEST WIND POWER PROJECT

Draft Overview Map

Route Reference: N/A	Sheet 1 of 1	REV
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Environmental Summary

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 (AEP) in 2018 following the Sensitive Species Inventory Guidelines and other prescribed survey protocols (e.g., migratory bird surveys).

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

Findings from these environmental studies have been incorporated into our final Project design and layout. In addition, a summary of the wildlife data collected was submitted to AEP on July 29, 2022, and their feedback, in the form of a Renewable Energy Referral Report, was received on September 15, 2022. Of the three options, low, moderate, and high, AEP ranked the overall project a moderate risk to wildlife and wildlife habitat. TransAlta will incorporate AEP feedback into the Environmental Evaluation and Environmental Protection Plan accompanying our AUC application.

A Historical Resource Act approval will be submitted in Q4 2022 and included in the AUC application.

The Project is sited on 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 most of their associated setback. If wetland impacts arise, the appropriate approvals (i.e., Water Act) will be applied for.

Should the project be approved by the AUC, we will continue to collaborate with AEP through construction, and operation to ensure that any wildlife mitigation planning meets their expectations, and we minimize our impact on wildlife and wildlife habitat.

Upon commercial operation, at least three years of post-construction monitoring will take place following AEPs Post-construction Survey Protocols for Wind and Solar Energy Projects (AEP 2020). This information will be used in collaboration with AEP to determine any required operational mitigation if impacts to wildlife and wildlife habitat do not meet regulatory requirements.

In addition, to comply with the Conservation and Reclamation Directive for Renewable Energy Projects (C&R Directive; AEP 2018), a C&R Plan will be submitted as part of the AUC application with subsequent interim monitoring being conducted following construction.

Sound

Sound from all wind projects must meet stringent requirements regulated by the 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 A-weighted 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) was completed 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.

The Noise Isocline figure on the following page provides a visual representation of how far out sound carries from the turbines. As you can see, noise levels in relation to the identified residences are below the permissible sound level of 40 dBA.

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.



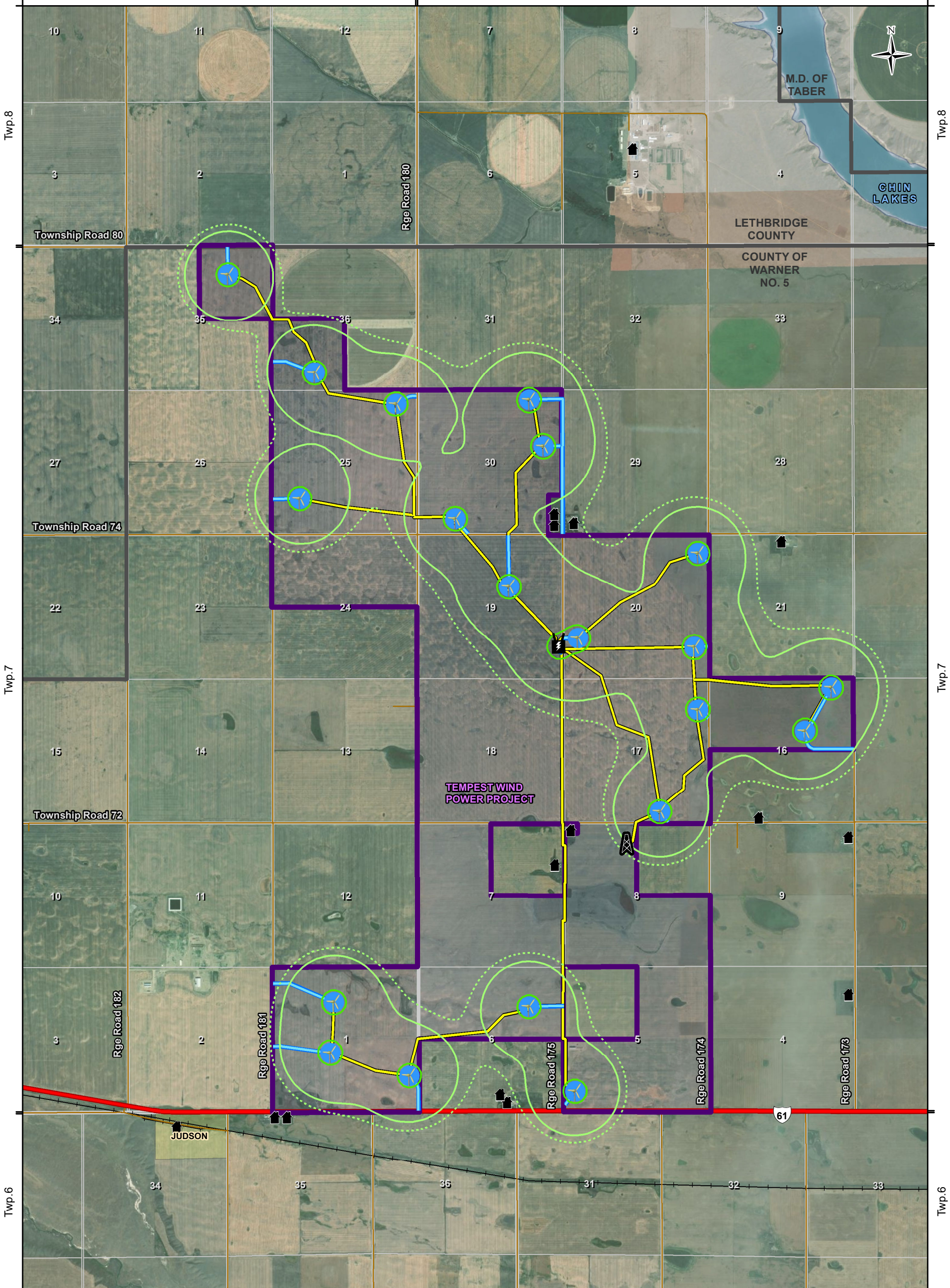
Shadow Flicker

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.

Industry best management practices limits annual theoretical shadow flicker at a receptor to a maximum of 30 hours per year or 30 minutes per day. The project has been designed to ensure shadow flicker duration will fall within acceptable industry standard limits.

A shadow flicker study was completed for the Project as part of the AUC application. Based on the results of the study, all the evaluated receptors (residences) within the project area are predicted to see less than 30 hours per year of shadow flicker. These results were based on an adjusted-case scenario (inclusion of statistical sunshine data for the region), which is more representative of what receptors may see in practice, but it is still a conservative prediction of the potential shadow flicker. A map summarizing the shadow flicker analysis is included in this package for reference.

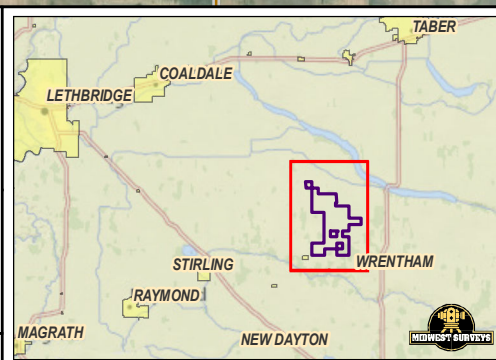




TEMPEST WIND POWER PROJECT

Legend

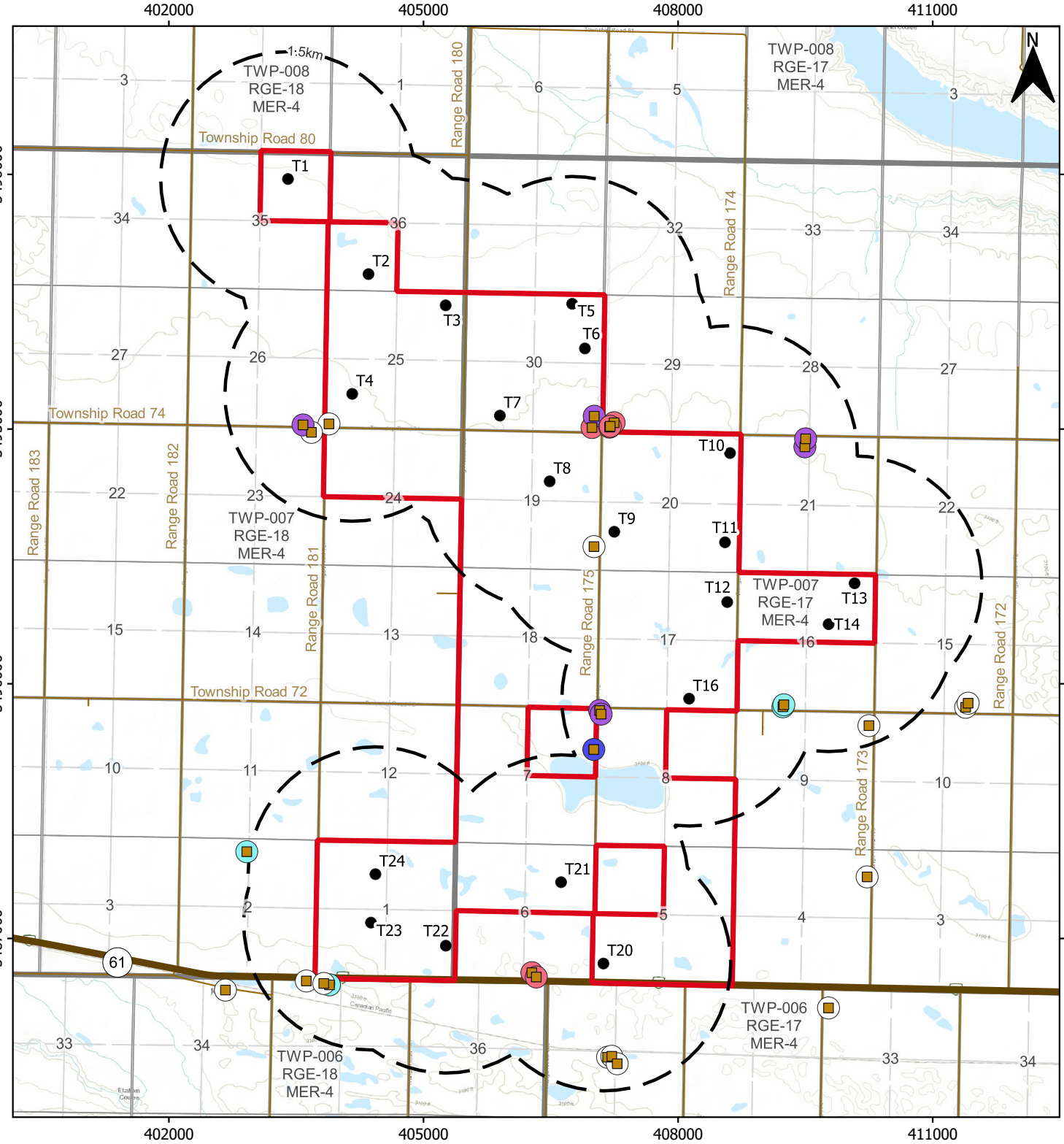
- Turbine
- MET Tower
- Substation
- Residence
- Tempest Wind Project Boundary
- Access Road
- Collector Line
- Primary Highway
- Minor Roads
- Railways
- Predicted Sound Level**
- 50dBA (Maximum Daytime Permissible Sound Level [PSL])
- 40dBA (Nighttime PSL) – 1 Storey House
- 40dBA (Nighttime PSL) – 2 Storey House



TEMPEST WIND POWER PROJECT

Noise Overview

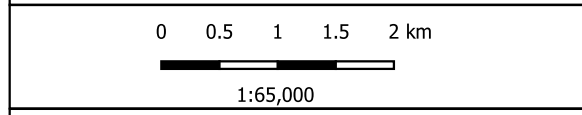
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Tempest Wind Power Project Shadow Flicker Impact Map

- Legend**
- Proposed Project Turbine
 - Residence
 - ⬭ 1.5km Shadow Flicker Radius
 - ▭ Project Area
 - Highway
 - Road

- Shadow Flicker Receptor
(Expected Hours per Year)**
- 0
 - Less than 5hrs
 - Less than 10hrs
 - Less than 15hrs
 - Less than 20hrs



Coordinate System: EPSG:26912 - NAD83 / UTM zone 12N
 Data Credits: TransAlta Corp., Green Cat Renewables Canada Corp., AltaLIS, ESRI

Client: TransAlta Corporation

Drawing by: Green Cat Renewables Canada Corp.

Doc Number: Tempest_SFImpact
 Version: 1.0
 Author: JS
 Checked by: SW
 Approved by: SW
 Date: 2022-9-23



Project Timeline



Next Steps

TransAlta will continue to engage and consult with Indigenous and local communities, landowners, and other stakeholders.

If you have questions, concerns, or general feedback, **we would appreciate receiving this information by October 11, 2022.**

Contact Us

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

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

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



The TransAlta logo, featuring the word "transalta" in a lowercase, sans-serif font. The "trans" part is white and the "alta" part is light blue. A small trademark symbol (TM) is located to the upper right of the "a". The logo is set against a dark blue rounded rectangular background.

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

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.



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