

Utility Distribution Systems

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June 19, 2024

MEDICINE HAT AND DISTRICT CHAMBER OF COMMERCE 413 6 AVE SE MEDICINE HAT, AB T1A 2S7

East Ring Enhancement Project: Preferred and alternate scenarios

The City of Medicine Hat (CoMH) has determined preferred and alternate scenarios for the East Ring Enhancement Project. This decision was made after careful consideration of environmental information, public feedback, engineering limitations, and route selection best practices.

While we present a preferred option, please note that this decision is not yet final. CoMH is committed to working with the community to understand your concerns and discuss proposed mitigation measures to lower potential project impacts.

Your input is important to us. We will consider ongoing feedback, mitigation ideas, and design considerations before making final decisions and submitting them as part of a Facility Application to the Alberta Utilities Commission.

For detailed mapping, drone footage, answers to frequently asked questions, and to sign up for project email notices, please visit www.MedicineHat.ca/EastRing. We encourage you to visit the website as you will find detailed information about each of the four project areas that outlines the different interests across the project footprint.

If you wish to meet with the project team to discuss the project, please contact us by phone or email to set up a time with the Project team.

We look forward to speaking with you as we progress with this important project to support the ongoing growth of our city.

Thank you.

Utility Distribution Systems City of Medicine Hat



EAST RING ENHANCEMENT PROJECT

Wired for what's next:

Strengthening Medicine Hat's electrical transmission network.

The City is proposing the upgrade of 24 kilometres of existing electrical transmission line to allow for a future increase in voltage from 69 kilovolts (kV) to 138 kV. The 40 year old transmission line requires upgrades to support projected growth in commercial and residential electricity use. The Project is slated for completion in 2029.

What's new?

The City has been working to identify the best possible route for the transmission line considering environmental interests, engineering, design, costs, and community feedback. We will be seeking further feedback on the proposed route with the aim to understand and address site specific concerns and reduce potential project impacts.



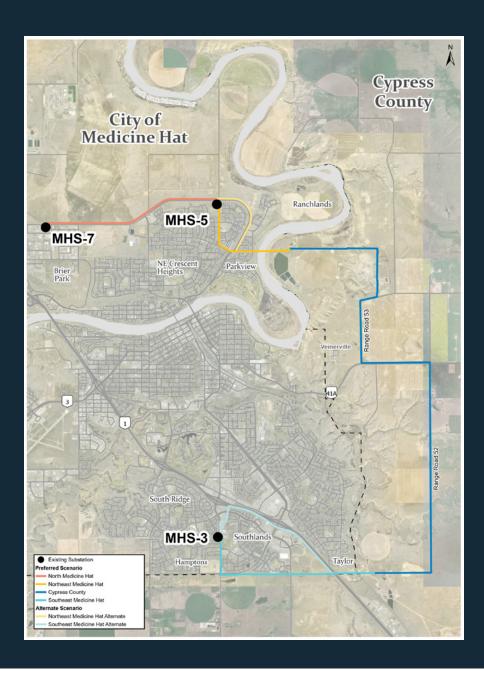
What will the regulatory review process look like?

Feedback received from the community and project assessments will be submitted to the Alberta Utilities Commission (AUC). This application will be available to the public and will include the following reports:

- Environmental Evaluation
- Routing process
- Environmental Protection Plans
- · Community Engagement
- Technical Designs

Participants will be notified by the City and the AUC at the time of filing. The process may involve a regulatory hearing and the project team will be available to assist you in navigating the process.

There will be two filings as part of this project: one for the North (MHS-7 to MHS-5) and the second for the transmission line from MHS-5 to MHS-3.



Why do some areas still have alternate options while others don't?

After a thorough review, certain route options have been retired from further consideration. Modifications were made to address concerns raised, but alternative comparable options were not found. While some options are no longer being considered, the remaining have yet to be finalized. The project team will continue to consider input prior to filing with the AUC.



Are the structures all going to be the same?

No. Different structure types will be used based on area-specific needs. These could include steel structures for double circuiting outside of the MHS-5 substation, 2-poled structures where there is a bend in the alignment, structures with guy-wires, or stronger structures used at 90° angles.

If you have questions about specific structure and their location, please reach out to the project team.

What do we mean by "impacts"?

"Project impacts" acknowledges that any major infrastructure project, will inevitably have effects on the surrounding community. These impacts vary and may include visual changes, issues related to proximity, and disruptions during construction. A "lower impact" designation considers the overall impact on the entire community. This designation does not negate the fact that there may still be impacts on certain individuals or groups. Instead, it signifies that, the chosen routes are deemed to have fewer and less severe effects on the overall project area.

What we've heard

The City thanks those who took the time to share their views with the Project team. Concerns have been documented, considered, and mitigation proposed where possible.

Scenario preference

Community members have shown a preference for an existing alignment, citing fewer environmental concerns, the right of way exists, and there would be limited visual or land use change.

Residential/ Visual concerns

During the engagement process, a common concern was the proximity of the transmission line to residences, as well as the number of residences in the surrounding communities along the alignment.

Safety

Safety is a top priority for the public and the City. Safety plans, including flaggers, signage, fencing, lighting, detour plans, will be developed and approved. The City will consider community feedback before implementing safety procedures.

Timelines





What role does City Council play in this project?

City Council plays a supervisory role in the East Ring Enhancement Project. The AUC has jurisdiction over decision-making regarding electrical infrastructure in Alberta. Council encourages residents to engage with the Project team and share their feedback before any submissions to the AUC. Council is in agreement that this project is crucial for the City's ongoing support and growth.

If approved, how will construction unfold?

When possible, construction would occur from March to May and September to November as these periods have lower demand on the electrical system.

Construction teams will utilize City lands including adjacent roadways. Areas for temporary workspace or permanent easement have been identified. The City is committed to working with affected landowners regarding temporary workspace, access points, and permanent easements to construct and operate the transmission line.

Pending the regulatory review and the procurement processes, construction could begin by 2027.

How do I stay informed or share my feedback?

Please visit our project website, MedicineHat.ca/EastRing to:

- · sign up for email updates,
- · see answers to frequently asked questions,
- see drone footage of the options, and
- review detailed mapping.

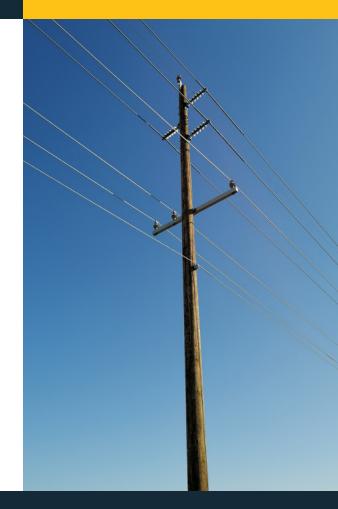
We value your input and encourage you to share your thoughts. Our team members will be available to have one-on-one discussions on a drop-in basis.

Big Marble Go Centre

Sage Boardroom, 2000 Division Ave N

11:00 a.m. to 7:00 p.m.

Tuesday, July 9 Wednesday, July 10 Thursday, July 11

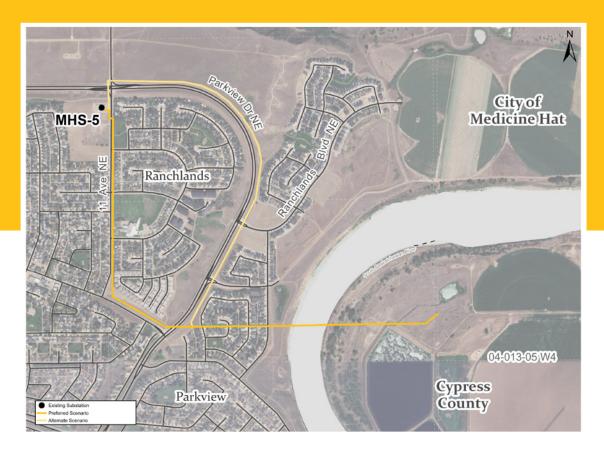




NORTHEAST MEDICINE HAT

Ranchlands, NE Crescent Heights, and Parkview

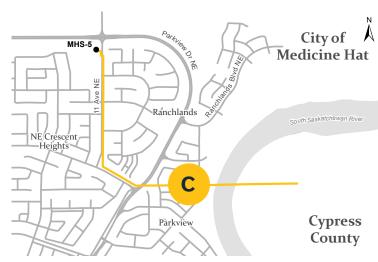
A preferred and alternate scenario has been determined for the northeast portion of the Project.



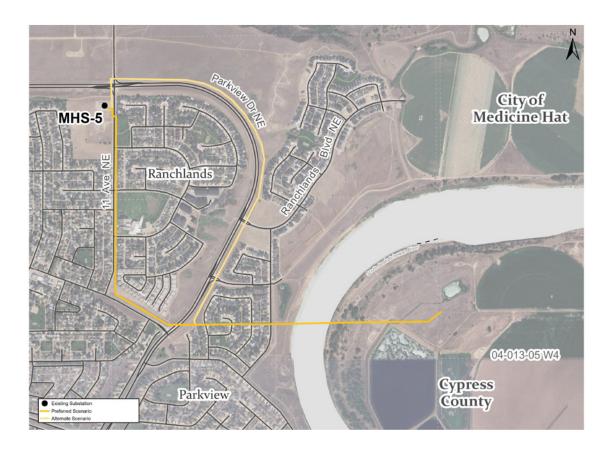
PREFERRED SCENARIO

The existing 11 Avenue NE alignment is preferred due to lower impact along the entire route.

- The existing line eliminates the need to create a new right-of-way.
- It has the lowest potential for environmental impacts compared to other options.
- Community feedback has been considered and much of what was received supports this option.
- Perceived impacts, such as safety concerns, can be addressed and mitigated.
- The existing line has become part of the visual aesthetic of the neighborhood.
- Private land easements will be required for electrical clearance.



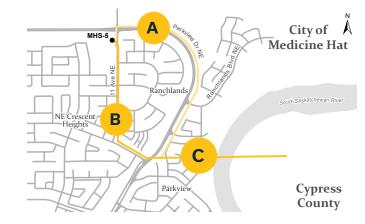




ALTERNATE SCENARIO

The alternate scenario involves placing the transmission line alongside Parkview Drive while keeping distribution along 11 Avenue NE. This alignment is considered comparable to the preferred scenario.

- The alignment follows an existing four-lane roadway.
- There are some residences with visual barriers, such as berms, along this route.
- The alignment follows an existing urban disturbance and does not require creating a new right-of-way.
- Best practices for siting transmission lines suggest co-locating them with existing landscape features, such as roadways.
- Alignment utilizes City of Medicine Hat lands and requires no private land easements.



POTENTIAL POWER POLE DESIGN





RELOCATION

A new transmission line will be installed and run at the existing voltage (69 kV) with future increase to 138 kV.



В

REMOVAL OF TRANSMISSION FROM THE POLES

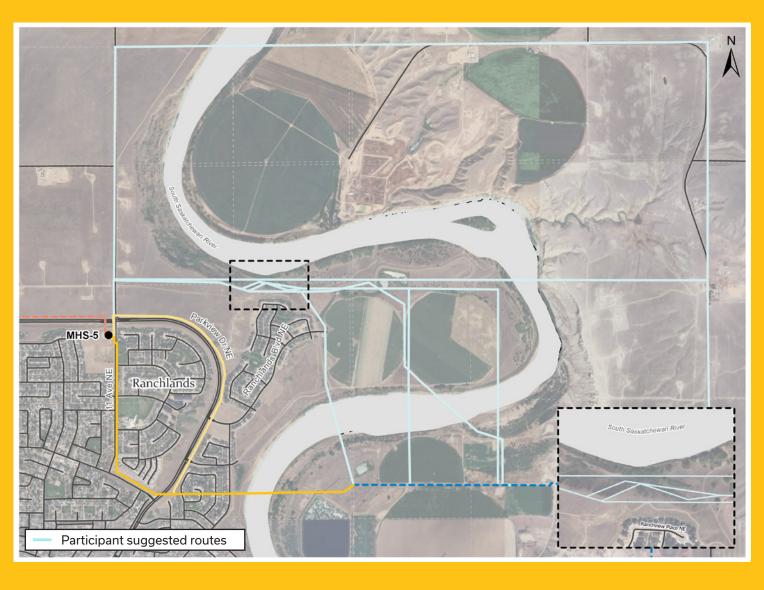
The existing structures will stay in place and will have the transmission line portion of the pole removed leaving only distribution.





POLE FOR POLE REPLACEMENT

There would be a pole for pole replacement along the alignment. The poles will appear similar to what is currently present yet will have an approximate increased height between 5.5-7 m (18-23 ft) in the transmission section of the pole.



WHAT OTHER OPTIONS WERE CONSIDERED IN THE NORTHEAST?

The project team received various options from community members to address specific concerns or perceived impacts. These options were optimized for constructability before being compared to existing options. In the Northeast, nine options were optimized and considered in the siting process.

Upon review, none of the suggested options were comparable to the preferred and alternative scenarios. Reasons for their retirement include, but are not limited to:

- Increased length and cost
- Slope stability
- Environmental concerns
- Design limitations
- Past AUC decisions and experience
- Construction, operation, and maintenance

HOW DO THE SCENARIOS COMPARE?

Understanding each scenario is an important aspect of route determination. Over 50 metrics are reviewed to gain insight into each scenario.

This comparison table provides our interpretation of the metrics reviewed and does not reflect the complete decision making process.

referred	Allering	
cenario Scenario 1)	Alternate Scenario (Scenario 2)	Scenario 3 (retired)
ower	Lower	Moderate
oderate	Moderate	Lower
ower	Higher	Moderate
ower	Moderate	Higher
ower	Lower	Higher
ower	Lower	Moderate
oderate	Lower	Higher
ower	Lower	Higher
ase	+1.150M	+1.305M
	700m	600m
	ower ower ower ower ower ower ower ower	cenario 1) (Scenario 2) ower Lower oderate Moderate ower Higher ower Lower cover Lower coderate Lower

WHAT HAPPENED TO SCENARIO 3?

Scenario 3 was retired from consideration following the route review process. The decision to retire the route was based on information gathered through design, public feedback, and environmental evaluation. This route:

- Does not follow existing infrastructure (transmission line or roadway).
- Has the highest potential for environmental impacts on native grasslands, vegetation, and snake hibernacula.
- · Interacts with the interpretive trail.
- Would create a new right-of-way in an undisturbed area.
- Has various difficulties for construction and operation due to terrain.

Although there were fewer residences along this alignment, these residences are not located adjacent to an existing linear feature, like 11 Avenue NE and Parkview Drive.



WHAT DO WE MEAN BY VISUAL IMPACTS?

Route selection must consider the entire alignment, and site-specific visual impacts can exist. Factors such as existing infrastructure and using linear features such as roadways have led to lower impact claims in locations where the line already exists or follows an existing disturbance.

WHAT ABOUT CONSTRUCTION AND OPERATION?

Construction will be done roadside and on City lands where possible. The City is committed to working with affected landowners regarding temporary workspace and permanent easements that have been identified to construct and operate the transmission line.

WILL THIS PROJECT AFFECT MY PROPERTY VALUE?

The City has heard concerns about property value and has engaged a land appraisal specialist. Property value analyses will be completed on the preferred and alternate route as part of the Facility Application. The uniqueness of individual properties and transmission line projects makes it difficult to predict impact based on other projects prior to expert analysis.

Review of past AUC decisions suggest that property value impacts may be mitigated when following best siting practices, such as using existing alignments or following linear infrastructure like roadways.

COULD IT JUST GO UNDERGROUND?

The City of Medicine Hat will not be constructing any part of this project underground. The options presented have appropriate electrical clearances, and the high costs associated with underground transmission are not warranted when there is adequate above ground spacing.

Additional information, mapping, drone footage, and frequently asked questions can be found on the project website MedicineHat.ca/EastRing or by contacting the project team.



NORTH MEDICINE HAT

NE Crescent Heights and Brier Park

The existing alignment located north of Rotary Centennial Drive (23 Street NW) has been identified as having the lowest potential impact on both people and the environment in this area. A pole-for-pole replacement avoids the need for new right-of-way on the landscape and lessens overall changes to the view along the roadway.





Power Pole Design

Pole for pole replacement

There would be a pole for pole replacement along the alignment. The poles will appear similar to what is currently present yet will have an approximate increased height between 5.5-7 m (18-23 ft) in the transmission section of the pole.



What other options were considered?

In response to feedback from residents and landowners, slight modifications were explored to assess whether alternative alignments could further reduce impacts. However, due to constraints including proposed development, existing wellheads, and pipelines, no viable alternative alignments outside of the existing were found to be comparable to the preferred scenario.

How will construction affect me?

The City anticipates minimal disruptions to traffic along the length of the transmission line. Most construction activities are planned to be conducted from the roadside with limited closures needed to complete the installation. Safety measures, including proper signage, reduced speeds, and flaggers when necessary, will be employed to manage any potential disruptions to traffic.

The City is committed to working with affected landowners regarding temporary workspace and permanent easements that have been identified to construct and operate the transmission line.



NORTH MEDICINE HAT

NE Crescent Heights and Brier Park

Are there environmental concerns?

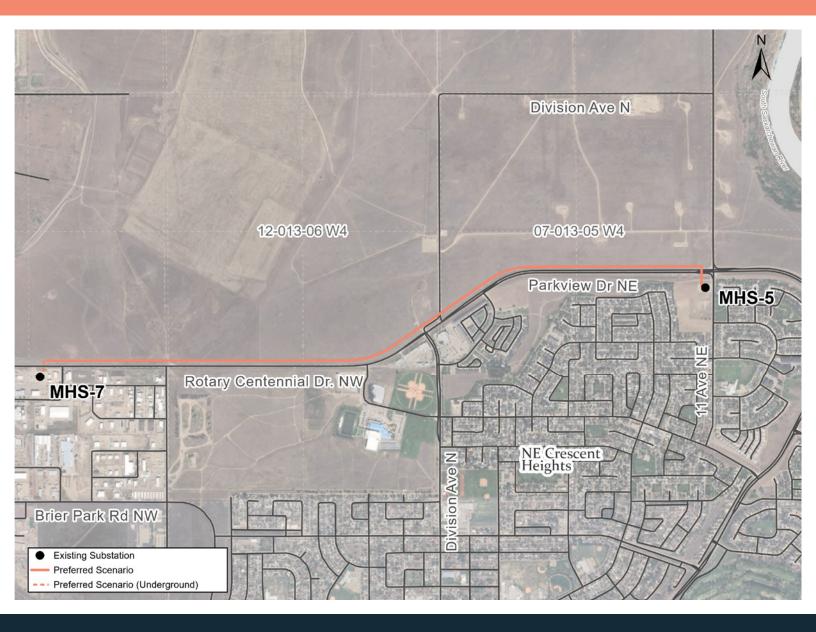
Limited environmental concerns exist with the preferred alignment. Due to the past industrial use of the area, precautions will be taken to avoid disturbing the soil in these areas. Construction activities will primarily occur within road allowances to minimize soil disruption.

Given that the existing transmission line is situated in an existing thoroughfare, there is limited potential impact to environmental features the area. Any potential impacts will be addressed in the Environment Protection Plan that will be submitted for regulatory review and approval.

What is the regulatory process?

This project will be filed under a separate application with the Alberta Utilities Commission due to the line being a connection between two substations. You will be notified by mail once the filing is submitted for regulatory review.

Additional information, mapping, drone footage, and frequently asked questions can be found on the project website MedicineHat.ca/EastRing or by contacting the project team.



CYPRESS COUNTY

Veinerville

The existing transmission line along Range Roads 52 and 53 is considered to have the lowest potential impact on both people and the environment. By using the existing alignment, we avoid creating a new right-of-way and creates minimal changes to the landscape.

The Project team worked with affected and adjacent landowners via email, a working session, and by phone to understand concerns, discuss options, and explore ways to reduce potential impacts to their land and operations. Those directly adjacent to the proposed route along Range Road 53 were generally supportive or indifferent to the line remaining in place.

In addition, we have adjusted our design to allow for structure spans to be 60m with distribution and up to 120m where no distribution is present. This design change effectively replaces nearly two structures with one in certain areas within Cypress County.



Commitments

Along Range Road 53, the City will construct the transmission line with the neutral wire (the wire closest to the ground) two (2) metres (6.6 feet) higher than the current height. This commitment addresses a concern raised by agricultural operators about the potential risk of contacting the wire with large farming equipment.

Working with Cypress County

Cypress County has provided the City with feedback from various internal departments that describes leaving the line in place as the least impactful option. The City will continue to work with the County throughout the planning and construction phases to meet the needs of both municipalities.

Accessing the Right-of-Way for Construction

Access to the right-of-way for construction will be done roadside where possible and will use the existing right-of-way to access areas where there is no road. The City is committed to working with affected landowners regarding temporary workspace, access points, and permanent easements that have been identified to construct and operate the transmission line.

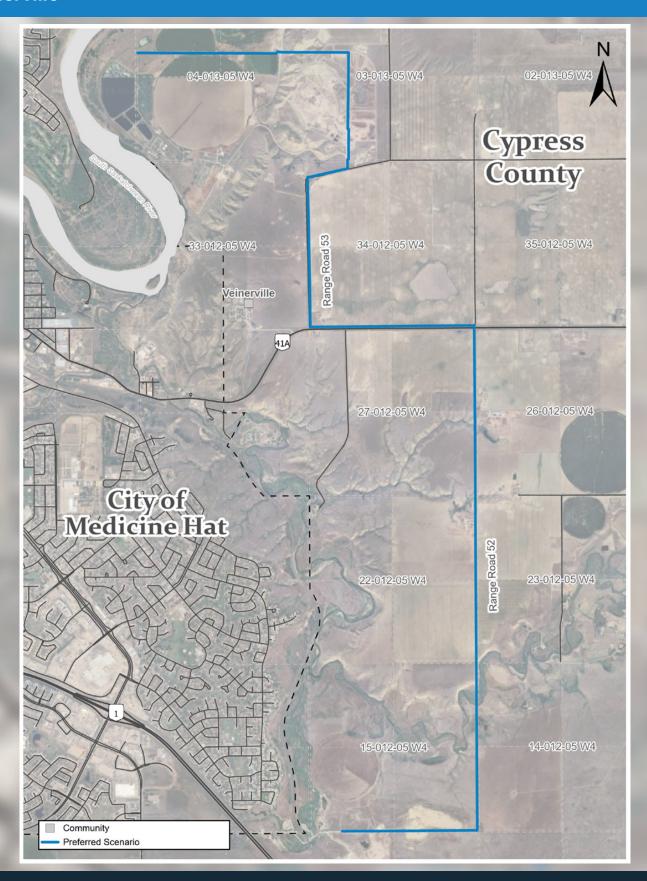
To address challenges in accessing some structures due to terrain, different structure types are being proposed in certain areas to minimize the need for additional structures.

Additional information, mapping, drone footage, and frequently asked questions can be found on the project website MedicineHat.ca/EastRing or by contacting the project team.



CYPRESS COUNTY

Veinerville



SOUTHEAST MEDICINE HAT

Southlands, Hamptons, and Southridge

A preferred and alternate scenario has been determined for the southeast portion of the Project.

The preferred scenario maintains the current alignment and replaces the current poles with new wood poles in order to minimize changes to the overall community and make use of the city-owned right-of-way. The alternate scenario proposes an alignment along Highway 1, is adjacent to commercial and residential properties, and crosses privately held lands.

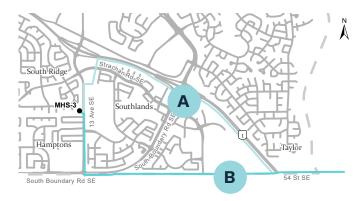
13 Avenue SE is a congested street with existing distribution lines, a roadway, and pipelines. While the preferred scenario avoids adding new infrastructure to this busy area, the alternate scenario would introduce a new alignment while keeping the distribution on the existing alignment.



PREFERRED SCENARIO



ALTERNATE SCENARIO



Potential Power Pole Design



A

RELOCATION

A new transmission line will be installed and run at the existing voltage (69 kV) with future increase to 138 kV.





REMOVAL OF TRANSMISSION FROM THE POLES

The existing structures will stay in place and will have the transmission line portion of the pole removed leaving only distribution.





POLE FOR POLE REPLACEMENT

There would be a pole for pole replacement along the alignment. The poles will appear similar to what is currently present yet will have an increased height of 3-4.5 m (10-15 ft) in the transmission section of the pole.



SOUTHEAST MEDICINE HAT

Southlands, Hamptons, and Southridge

Will roadways be affected by construction?

While construction details are not yet finalized, some lane closures are expected along 13 Avenue SE. Safety measures, including signage, flaggers, reduced speeds, and detours will be implemented to maintain a safe construction area.

Will I be able to use the existing pedestrian pathway during construction?

Pathway closures are expected during construction to ensure crew and community safety. Detours and closures will be clearly marked, with closures likely only impacting the alignment along 13 Avenue SE.

Will either scenario cross private lands or require any tree trimming?

Construction will be done roadside where possible. The City is committed to working with affected landowners regarding temporary workspace and permanent easements that have been identified to construct and operate the transmission line.

The alternative scenario will likely require some trimming of vegetation along the TransCanada Highway. The City will work with private landowners to address potential clearing/trimming needs while identifying possible mitigation measures to limit removal. The preferred scenario has no tree trimming requirements.

Additional information, mapping, drone footage, and frequently asked questions can be found on the project website MedicineHat.ca/EastRing or by contacting the project team.







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

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 AUC 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.
- The need for and siting of natural gas utility pipelines.

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.

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

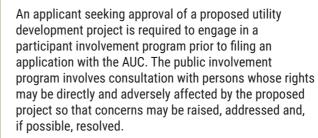
Step 7: The decision

Step 8: Opportunity to appeal

Step 9: Construction, operation and compliance

Application review process

Step 1: Public consultation prior to applying to the AUC



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.

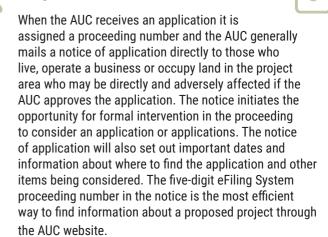
Potentially affected parties are strongly encouraged to participate in the public consultation, also called a participant involvement program. Early, active and ongoing discussions with an applicant may lead to greater influence on project planning and what is submitted to the AUC for approval.

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 the results of a public involvement program in its application that includes information about how applicants consulted and notified stakeholders and Indigenous groups and identifies any unresolved objections and concerns about the project.

Step 3: Public notice



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 filed electronically 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 concerned 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 ask the applicant questions on the public record and present their position on the application either in writing or in person. Hearings may

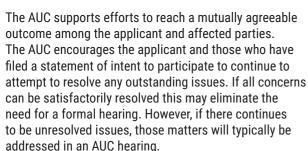
www.auc.ab.ca

be held in writing, in person or virtually through web-conference software.

AUC eFiling System

The eFiling System is the online tool that the AUC uses to manage applications and submissions in its proceedingbased review. The eFiling System gives access to all public documents associated with an application. The system is also used to submit your concerns and provide input to the AUC and can be used to monitor 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)



Step 6: The public hearing process

The AUC will issue a notice of hearing if a person with standing continues to have 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. When the AUC holds a public hearing, registered parties are given the opportunity to express their views directly to a panel of Commission members. Any member of the public can listen to an in-person or virtual oral hearing. An oral public hearing operates similar to a court proceeding.

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 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. It is also subject to the AUC's published scale of costs.

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

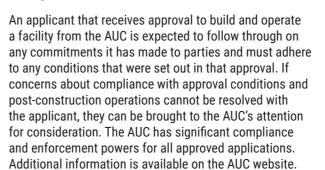
The AUC's goal is to issue its written decision no more than 90 days after the close of record. The AUC can approve, or deny an application and can also make its approval conditional upon terms or conditions. AUC decisions are publicly available through the AUC website at www.auc.ab.ca.

Step 8: Opportunity to appeal

An applicant or participant in a proceeding 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 participant in a proceeding can also ask the AUC to review its decision. An application to review a decision must be filed within 30 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



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.

We are 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.



Phone: 310-4AUC 1-833-511-4282 (outside Alberta) info@auc.ab.ca www.auc.ab.ca

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

Contact us

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