

Participant Involvement Program Summary

Thornton 2091S Substation Upgrade

Date: October 27, 2026

Version: V1

Classification: Public

1. Introduction

From August 2025 to May 2026, the AESO conducted a Participant Involvement Program (PIP) for the *Thornton 2091S Substation Upgrade Needs Identification Document*. The AESO directed the legal owner of transmission facilities (TFO), in this case ATCO Electric Ltd. (ATCO), to assist the AESO in providing notification as part of the AESO's PIP.

The AESO's PIP is designed to notify Stakeholders and Indigenous groups in the area where the AESO has reasonably determined that facilities could be installed to implement the AESO's preferred option to respond to the request for system access service.

The AESO's PIP has been conducted in accordance with the requirements of Section 7.1.2, NID12 and Appendix A2 of the current Alberta Utilities Commission (Commission) Rule 007 (AUC Rule 007), effective November 6, 2025.

2. Stakeholder Notification

The AESO developed a one-page AESO Need Overview document with the purpose of notifying Stakeholders of the following items:

- a description of the need for development;
- a description of the AESO's preferred option to respond to the system access service request;
- identification of the general area where facilities could be installed to implement the AESO's preferred option to respond to the system access service request;
- the AESO's contact information, including telephone, email and website, for further information; and
- the AESO's next steps.

A copy of the Need Overview was posted to the AESO website at <https://www.aeso.ca/grid/transmission-projects/thornton-2091s-substation-upgrade/> and a notice was published in the AESO Stakeholder Newsletter on May 6, 2026. Copies of the Need Overview posting and the AESO Stakeholder Newsletter notice have been included as Attachments 1 and 2, respectively. The Need Overview was also included with the TFO's project-specific information package that was distributed to Stakeholders, as further described in Section 2.1.

2.1 Stakeholders Notified in the TFO's PIP

The TFO has advised the AESO that its PIP included notification within 800 meters from the existing Thornton 2091S substation boundary as recommended by the Commission in Appendix A1 in AUC Rule 007.¹

The TFO notified a total of 14 Stakeholders; one was classified as a private or individual landowner. The 13 other notified Stakeholders are listed below:

- | | |
|--------------------------------------|--|
| • Alberta Forestry and Parks - Lands | • Horizon North Camp & Catering Partnership c/o Dexterra Group |
| • ARC Resources Ltd. | • Municipal District of Greenview No. 16 |
| • Cenovus Energy Inc. | • Norbord Inc. |
| • Ferus Inc. | • Orlen Upstream Canada Ltd. |
| • Harvest Operations Corp. | |

¹ ATCO has identified its facility application to be of the type: *Substation developments within existing facilities, where there is a change in the substation fence line or which create visual or noise impact – rural and industrial* as categorized in AUC Rule 007: *Facility Applications*, Appendix A1, Section 5.

- Seven Generations Energy Ltd. c/o ARC Resources Ltd.
- Pembina Pipeline Corporation
- Weyerhaeuser Company Limited
- Whitecap Resource

Attachment 3 includes the TFO's project information package, which included the AESO Need Overview that was distributed to the Stakeholders between April 30, 2026, and May 27, 2026. The TFO's project newsletter included the AESO's contact information, a description of the AESO's role, a reference to the AESO Need Overview, and an invitation to contact the TFO or the AESO for additional information.

3. Early Rate-Payer Group Involvement

The AESO published terms of participation for rate-payer group involvement in DFO projects on its website in 2022: <https://www.aeso.ca/assets/Terms-of-Participation-Industry-and-Rate-Payer-Groups.pdf>

The AESO sought feedback from eligible rate-payer groups during Stages 1 and 2 of the AESO Connection Process. The AESO notified the following eligible rate-payer groups:

- Alberta Direct Connect
- Consumer Coalition of Alberta
- Utilities Consumer Advocate
- Industrial Power Consumers Association of Alberta

3.1 Stage 1

On August 22, 2025, the AESO provided a summary of the connection alternatives that were considered for further study. A generic version of the letter, which included the summary of alternatives, is included as Attachment 4.

No feedback on the connection alternatives was provided by the notified rate-payer groups.

3.2 Stage 2

On March 23, 2026, the AESO provided a summary of the preferred alternative decision, including rationale for ruling out each considered alternative. A generic version of the letter, which included the summary of the alternative selection decision, is included as Attachment 5.

No feedback on the preferred alternative was provided by the notified rate-payer groups.

4. Responding to Questions and Concerns

To ensure that Stakeholders had the opportunity to provide feedback, the AESO provided Stakeholders with AESO contact information, including a dedicated, toll-free telephone line (1-888-866-2959) and a dedicated email address (stakeholder.relationships@aesocanada.ca). The AESO Need Overview included this contact information, along with the AESO's mailing address (3000, 240 4th Ave. SW, Calgary) and website address (www.aeso.ca), and a privacy statement that described how the AESO is committed to protecting Stakeholders' privacy.

As directed by the AESO, the TFO was prepared to direct any Stakeholder questions addressed to the AESO, or questions regarding the AESO Need Overview, to the AESO.

5. Questions and Concerns Raised

The TFO has advised the AESO that none of the Stakeholders notified by the TFO identified any concerns or objections regarding the AESO's preferred option to respond to the system access service request or the need for development.

The AESO has not received any indication of concerns or objections about the AESO's preferred option to respond to the system access service request or the need for development.

6. List of Attachments

- Attachment 1 – AESO Need Overview (May 2026)
- Attachment 2 – AESO Stakeholder Newsletter Need Overview Notice (May 6, 2026)
- Attachment 3 – TFO Project Newsletter – Thornton 2091S Substation – Thornton Area Load and 7L228 Switch Replacement Projects (April 2026)
- Attachment 4 - Stage 1 Early Rate Payer Involvement Letter and Summary (August 2025)
- Attachment 5 - Stage 2 Early Rate Payer Involvement Letter and Summary (March 2026)

Attachment 1 – AESO Need Overview (May 2026)



Need for the Thornton 2091S Substation Upgrade

ATCO Electric Ltd. (ATCO) has applied to the AESO for transmission system access to serve growing demand for electricity in the Grande Prairie area. ATCO's request can be met by the following solution:

PROPOSED SOLUTION

- Upgrade the existing Thornton 2091S substation, including adding one 144/25 kilovolt (kV) transformer and one 144 kV circuit breaker.
- Add or modify associated equipment as required for the above transmission developments.

NEXT STEPS

- In late 2026, the AESO may consider the need for this project for approval under section 501.3 of the ISO rules, *Abbreviated Needs Approval Process* (ANAP Rule), or apply to the Alberta Utilities Commission (AUC) for approval of the need.
- The AESO will notify stakeholders via the AESO's website at www.aeso.ca/grid/transmission-projects prior to the project being considered under the ANAP Rule or when filing a needs identification document (NID) application with the AUC.

The following organizations have key roles and responsibilities in providing access to the transmission system:

THE AESO

- Must plan the transmission system and enable access to it for generators and other qualified customers.
- Can approve eligible projects through the ANAP Rule and for non-eligible projects, the AESO will prepare and submit a NID to the AUC for approval.

ATCO

- Is the transmission facility owner in the Grande Prairie area.
- Is responsible for detailed siting and routing, constructing, operating, and maintaining the transmission facilities.
- Is regulated by the AUC and must apply to the AUC for approval of its transmission facilities applications.

WHO IS THE AESO?

The Alberta Electric System Operator (AESO) plans and operates Alberta's electricity grid and wholesale electricity market safely, reliably and in the public interest of all Albertans. We are a not-for-profit organization with no financial interest or investment of any kind in the power industry.

We appreciate your views, both on the need for transmission system development and proposed transmission plans. If you have any questions or comments, please contact us directly.

CONTACT US

Alberta Electric System Operator

AESO Stakeholder Relations
stakeholder.relations@aeso.ca
1-888-866-2959

3000, 240-4th Avenue SW
Calgary, AB T2P 4H4
Phone: 403-539-2450

www.aeso.ca | [@theaeso](https://x.com/theaeso)

Attachment 2 – AESO Stakeholder Newsletter Need Overview Notice (May 6, 2026)

GRID

Need Overview | Thornton 2091S Substation Upgrade

ATCO Electric Ltd. (ATCO) has applied to the AESO for transmission system access to reliably serve growing demand for electricity in the Grande Prairie area.

[Click here to view the proposed transmission development](#) and the [Need Overview](#) document.

**Attachment 3 – TFO Project Newsletter – Thornton 2091S Substation – Thornton Area Load
and 7L228 Switch Replacement Projects (April 2026)**

April 30, 2026

RE: Thornton 2091S Substation – Thornton Area Load and 7L228 Switch Replacement Projects

We are writing to provide you with information about proposed alterations to ATCO Electric Ltd.'s (ATCO) Thornton 2091S Substation. ATCO is proposing to undertake two separate projects at this substation, which are scheduled to be completed in late 2027. This letter provides project details, timelines and outlines our public consultation process.

Project Details

ATCO's Thornton 2091S Substation is located approximately 65 kilometres (km) south of Grande Prairie, Alberta. Alterations at the substation are needed to serve growing load (demand) for electricity in the area.

ATCO is proposing to add the following equipment to the substation (Thornton Area Load Project):

- One (1) 144-25 kilovolt (kV) transformer
- One (1) 144 kV circuit breaker
- Three (3) 25 kV circuit breakers

ATCO is also proposing to install an additional 144 kV circuit breaker to control the flow of electricity from transmission line 7L228, as the existing line switch is not functional and will be permanently closed (7L228 Switch Replacement Project). Please refer to the enclosed site layout for additional details on both proposed projects.

The proposed alterations will occur entirely within the existing property, and ATCO does not anticipate any impacts to the environment. Adjacent landholders can expect some increase in noise and traffic during construction.

Project Timeline

April 2026	Notification to landholders, agencies and other interested parties
May 2026	Consultation with landholders, agencies and other interested parties will commence
June 2026	Submission of an application to the Alberta Utilities Commission (AUC) for the 7L228 Switch Replacement Project
August 2026	If approved, construction of the 7L228 Switch Replacement Project will commence
September 2026	Construction of 7L228 Switch Replacement Project is completed
September 2026	Submission of an application to the AUC for the Thornton Area Load Project
April 2027	If approved, construction of the Thornton Area Load Project will commence
September 2027	Construction of the Thornton Area Load Project is completed

Note: Project timing and details may be adjusted as plans are finalized.

Alberta Electric System Operator

The Alberta Electric System Operator (AESO) is an independent, not-for-profit organization responsible for the safe, reliable and economic planning and operation of the provincial transmission grid. For more information about why the Thornton Area Load Project transmission facilities are needed, please refer to the AESO's Need Overview included with this package, or visit www.aeso.ca.

If you have any questions or concerns about the need for the Thornton Area Load Project or the proposed transmission development to meet the need, you may contact the AESO directly. You can also make your questions or concerns known to an ATCO representative who will collect your personal information for the purpose of addressing your questions and/or concerns to the AESO. This process may include disclosure of your personal information to the AESO. The AESO can be contacted at:

Alberta Electric System Operator (AESO)
stakeholder.relations@aeso.ca
1-888-866-2959
www.aeso.ca

Alberta Utilities Commission

ATCO will submit facility applications to the Alberta Utilities Commission (AUC) to obtain approval for both projects. For more information about how you can participate in the process, please refer to the enclosed AUC brochure entitled *Participating in the AUC's independent review process to consider facility applications*. In addition, ATCO will obtain permits and approvals from all the relevant agencies, where required.

Next Steps

In the weeks ahead, ATCO will be contacting directly affected stakeholders with interests in the vicinity of the projects. Please let us know if you have any questions or concerns regarding the projects.

You can provide feedback and share other information by using the enclosed reply form and postage-paid envelope or by contacting us (toll free) at 1-855-420-5775 or by email at consultation@atcoelectric.com.

Sincerely,

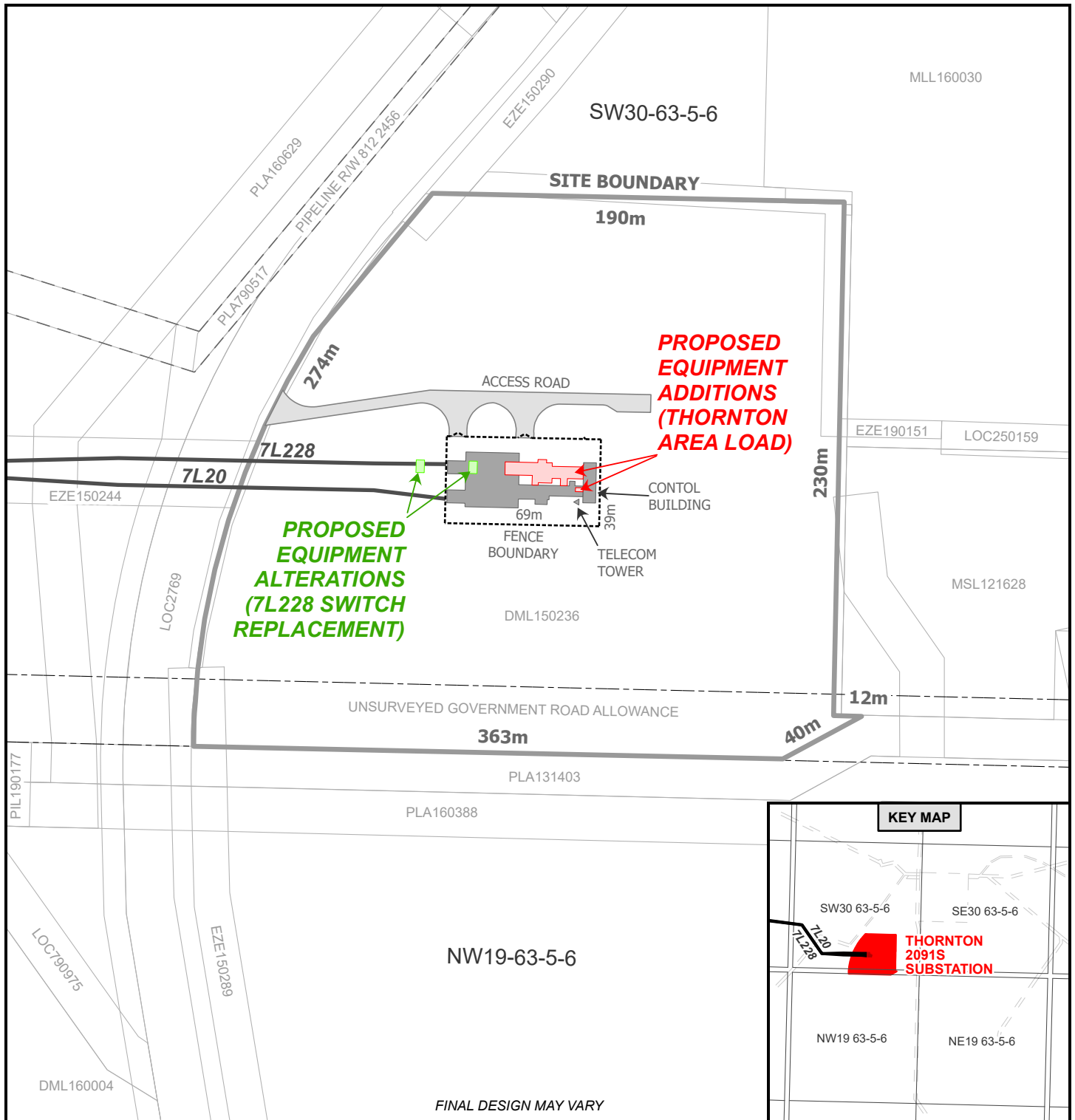


Laurie Jenkin

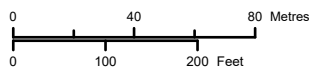
Planning Specialist, Lands
ATCO Electric Ltd.
Direct Tel: 780-221-0572
Direct Email: laurie.jenkin@atco.com

Enclosures:

- Proposed Site Layout (RS-2091S-N1-01)
- AESO Need Overview (Thornton 2091S Substation Upgrade)
- Alberta Utilities Commission Brochure: *Participating in the AUC's independent review process to consider facility applications*
- Reply Form and postage-paid envelope



- Proposed Equipment Additions (Thornton Area Load)
- Proposed Equipment Alterations (7L228 Switch Replacement)
- Existing Equipment / Control Building
- Existing Site Boundary
- Existing 144 kV Transmission Line
- Existing Fence
- Existing Disposition



NOTES:
- Only facilities in the vicinity of the project are shown.

ATCO Energy Systems™

Thornton Area Load and 7L228 Switch Replacement Projects

THORNTON 2091S SUBSTATION PROPOSED SITE LAYOUT

CREDIT NOTES
Alberta Data Partnerships, S&P Global Commodity Insights

This map is the property of ATCO. This map is not intended to be used in place of Alberta One Call.
Always practice extreme caution when near power lines!

April 2026

RS-2091S - N1 - 01



Need for the Thornton 2091S Substation Upgrade

ATCO Electric Ltd. (ATCO) has applied to the AESO for transmission system access to serve growing demand for electricity in the Grande Prairie area. ATCO's request can be met by the following solution:

PROPOSED SOLUTION

- Upgrade the existing Thornton 2091S substation, including adding one 144/25 kilovolt (kV) transformer and one 144 kV circuit breaker.
- Add or modify associated equipment as required for the above transmission developments.

NEXT STEPS

- In late 2026, the AESO may consider the need for this project for approval under section 501.3 of the ISO rules, *Abbreviated Needs Approval Process* (ANAP Rule), or apply to the Alberta Utilities Commission (AUC) for approval of the need.
- The AESO will notify stakeholders via the AESO's website at www.aeso.ca/grid/transmission-projects prior to the project being considered under the ANAP Rule or when filing a needs identification document (NID) application with the AUC.

The following organizations have key roles and responsibilities in providing access to the transmission system:

THE AESO

- Must plan the transmission system and enable access to it for generators and other qualified customers.
- Can approve eligible projects through the ANAP Rule and for non-eligible projects, the AESO will prepare and submit a NID to the AUC for approval.

ATCO

- Is the transmission facility owner in the Grande Prairie area.
- Is responsible for detailed siting and routing, constructing, operating, and maintaining the transmission facilities.
- Is regulated by the AUC and must apply to the AUC for approval of its transmission facilities applications.

WHO IS THE AESO?

The Alberta Electric System Operator (AESO) plans and operates Alberta's electricity grid and wholesale electricity market safely, reliably and in the public interest of all Albertans. We are a not-for-profit organization with no financial interest or investment of any kind in the power industry.

We appreciate your views, both on the need for transmission system development and proposed transmission plans. If you have any questions or comments, please contact us directly.

CONTACT US

Alberta Electric System Operator

AESO Stakeholder Relations
stakeholder.relations@aeso.ca
1-888-866-2959

3000, 240-4th Avenue SW
Calgary, AB T2P 4H4
Phone: 403-539-2450

www.aeso.ca | [@theaeso](https://x.com/theaeso)



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

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 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



An applicant seeking approval of a proposed utility development project is required to engage in a participant involvement program prior to filing an application with the AUC. The public involvement program involves consultation with persons whose rights may be directly and adversely affected by 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: *Facility Applications*.

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



When the AUC receives an application it is assigned a proceeding number and the AUC generally mails a notice of application 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 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 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 proceeding-based 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)



The AUC supports efforts to reach a mutually agreeable outcome among the applicant and 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 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 experts/consultants must be aware that while reimbursement for the costs of legal and technical assistance is available under AUC Rule 009: *Rules on Intervener Costs*, recovery of costs is subject to the AUC's assessment of the value of the contribution provided by the lawyer and or experts/consultants 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 experts/consultants 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



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.

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.



Contact us

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



10035–105 Street, Edmonton, Alberta, T5J 1C8

SHAPE THE CONVERSATION

THORNTON 2091S SUBSTATION THORNTON AREA LOAD & 7L228 SWITCH REPLACEMENT PROJECTS REPLY FORM

CONTACT INFORMATION

Date (DD/MM/YYYY): _____

First Name: _____

Last Name: _____

Company/Organization Name (if applicable):

Mailing Address: _____

Home Phone: _____

Cell Phone: _____

Business Phone: _____

Email: _____

Please help us identify new contacts

You were contacted about this project because ATCO identified you or your company/organization as having a land interest in the vicinity of the project. Is there anyone else associated with your property, such as other owners, renters or occupants, who we should also contact? If so, please provide the name(s), contact information and their land interest.

☐ I would like to receive all future correspondence about this project by Email (If this is your preference, please check the box)

AN IMPORTANT MESSAGE ABOUT PRIVACY: *The information on this form is being collected to identify concerns with proposed changes to and/or the siting of power transmission facilities, and to comply with the Alberta Utilities Commission (AUC) rules regarding the submission of transmission facilities applications. This information may be provided to electric facility owners, Alberta's Land & Property Rights Tribunal, and the Alberta Electric System Operator. Your comments and personal information may also be publicly accessible through the AUC website, should it be submitted to the AUC as part of a transmission facility application – subject to Alberta's Freedom of Information and Protection of Privacy Act. **If you wish to keep your information confidential, you must make a request to the AUC (403-592-4376).** If you have questions or concerns about your information or how it may be used or disclosed as part of this process, please contact us (see contact information below).*

Please let us know by checking a box below if either statement applies to you:

☐ I do not have concerns with the Project based on the information provided

☐ I have concerns with the Project based on the information provided

Please share any comments or concerns that you have about the Project:

Attachment 4 – Stage 1 Early Rate Payer Involvement Letter and Summary (August 2025)

Friday, August 22, 2025

[Rate-Payer Name]

[Rate Payer Email Address]

Dear [Contact Name]

Re: P3076 Thornton Area Load Rate-Payer Involvement Summary and Comment Matrix

During 2020 and 2021, the AESO hosted a series of workshops around Distribution and Transmission project coordinated planning, involving TFOs, DFOs, and rate-payer interest groups. In response to this engagement, the AESO implemented the Earlier Rate-Payer Group Involvement initiative in our connection process. The goal of early rate-payer group involvement is to increase transparency, improve trust, optimize regulatory efficiency, and develop the most economical and cost-effective solution through timely and meaningful collaboration. To review the Rate-Payer Involvement [Terms of Participation](#) please visit DFO Connection Projects at [AESO.ca](https://www.aeso.ca)

Regarding the P3076 Thornton Area Load] project (The Project), Fortis Alberta Inc] has applied to the AESO for transmission system access to reliably serve new load in the 22-Grande Cache area. Their request includes a Demand Transmission Service (DTS) contract capacity of **51.5 MW**.

The Project is currently in Stage 1 of the AESO Connection Process. Please find attached several connection Alternatives that the AESO has identified to respond to the System Access Service Request. As per the Terms of Participation, we are seeking your feedback. Feedback will be accepted over a two-week period as indicated in the attached Comment Matrix. Please provide your input by September 05, 2025. Note that cost information is not available at this time, however, costs will be provided in Stage 3 to support the needs approval application as required.

If you have any questions, please let me know.

Sincerely,

[Project Manager]

Stage 1 – Summary of Alternatives P3076 ATCO Thornton

June 25, 2025

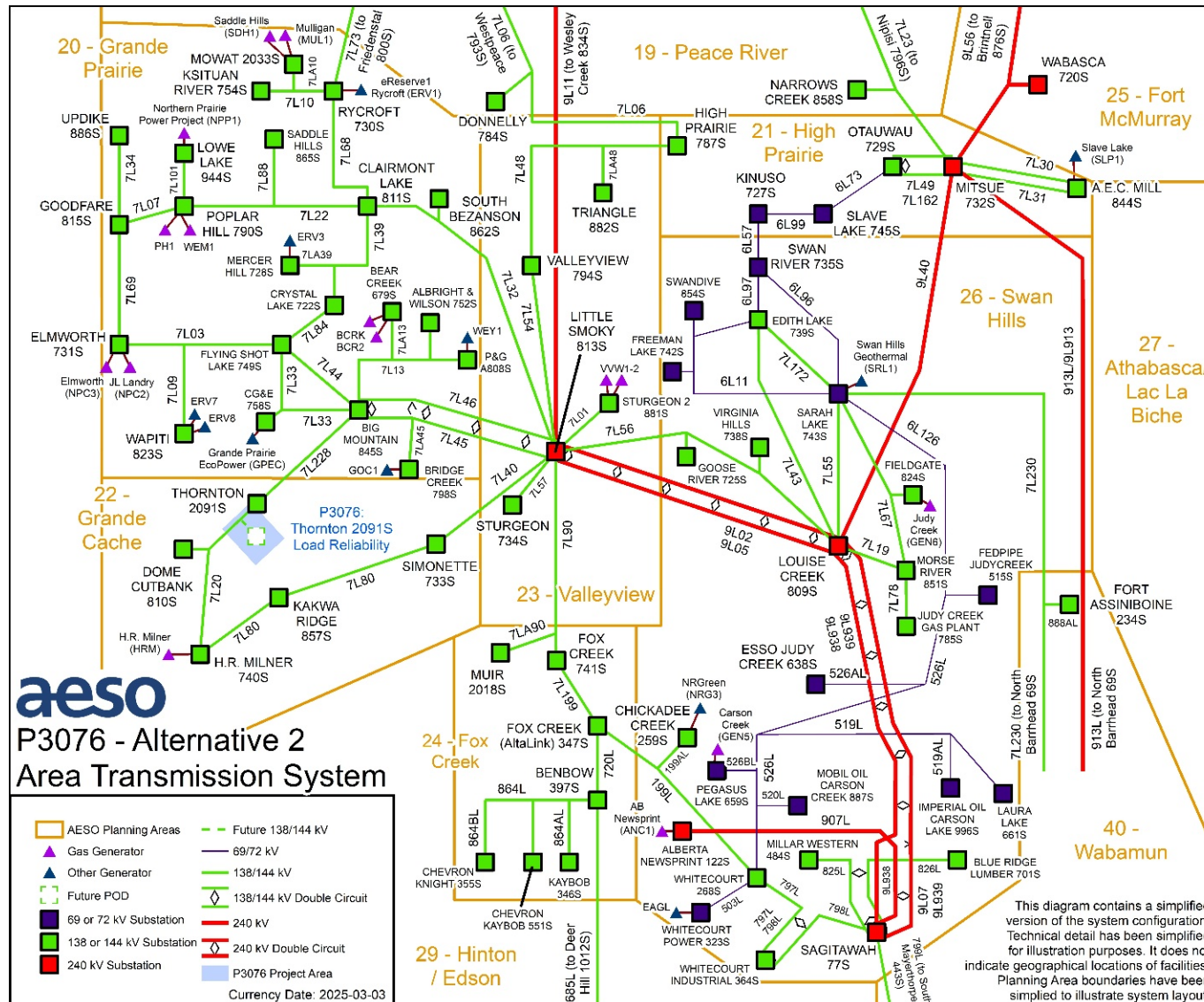
Selection of the Preferred Alternative

Note: All exact line lengths to be determined by the TFO

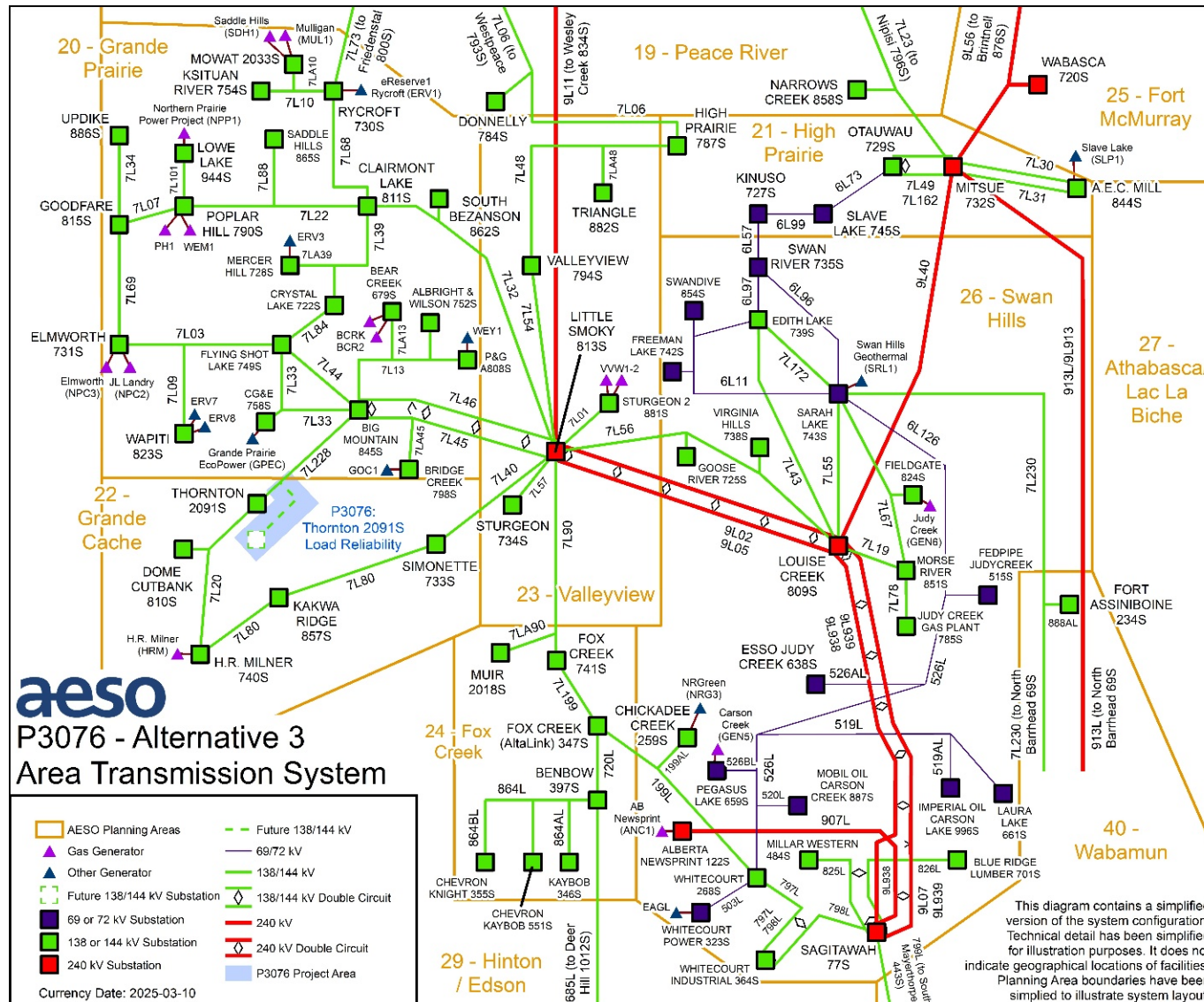
Criteria	Alternative 1	Alternative 2	Alternative 3
Alternative Name	Upgrade Thornton 2091S Substation	T-Tap connection to 144 kV Transmission Line 7L20	T-Tap connection to 144 kV Transmission Line 7L228
Scope	- Upgrade the Thornton 2091S substation, including adding one 144/25 kV transformer, one 144 kV circuit breaker and associated equipment. - The DFO has advised that this alternative will require approximately 24 km of distribution feeders.	- Add a new POD substation, including adding one 144/25 kV transformer, and one 144 kV circuit breaker and associated equipment. - Add one 144 kV circuit, approximately 24 km in length, to connect the new POD to the existing 144 kV transmission line 7L20 using a T-tap configuration, and associated equipment. - The DFO has advised that this alternative will require approximately 2 km of distribution feeders.	- Add a new POD substation, including adding one 144/25 kV transformer, and one 144 kV circuit breaker and associated equipment. - Add one 144 kV circuit, approximately 20 km in length, to connect the new POD to the existing 144 kV transmission line 7L28 using a T-tap configuration, and associated equipment. - The DFO has advised that this alternative will require approximately 2 km of distribution feeders.
To be Studied	Yes	No	No



Alternative 2 - Single Line Diagram



Alternative 3 - Single Line Diagram



Attachment 5 – Stage 2 Early Rate Payer Involvement Letter and Summary (March 2026)

Monday, March 23, 2026

[Rate-Payer Name]

[Rate Payer Email Address]

Dear [Contact Name]:

Re: P3076 Thornton Area Load Rate-Payer Involvement Summary and Comment Matrix

During 2020 and 2021, the AESO hosted a series of workshops around Distribution and Transmission project coordinated planning, involving TFOs, DFOs, and rate-payer interest groups. In response to this engagement, the AESO implemented the Earlier Rate-Payer Group Involvement initiative in our connection process. The goal of early rate-payer group involvement is to increase transparency, improve trust, optimize regulatory efficiency, and develop the most economical and cost-effective solution through timely and meaningful collaboration. To review the Rate-Payer Involvement [Terms of Participation](#) please visit DFO Connection Projects at [AESO.ca](#)

Regarding the P3076 Thornton Area Load project (The Project), ATCO Electric Ltd. has applied to the AESO for transmission system access to reliably serve new load in the 22-Grande Cache area. Their request includes a Demand Transmission Service (DTS) contract capacity increase of **26.5 MW**.

The Project is currently in Stage 3 of the AESO Connection Process. Please find attached several connection Alternatives that the AESO has identified to respond to the System Access Service Request. As per the Terms of Participation, we are seeking your feedback. Feedback will be accepted over a two-week period as indicated in the attached Comment Matrix. Please provide your input by April 05, 2026. Note that cost information is not available at this time, however, costs will be provided later in Stage 3 to support the needs approval application as required.

If you have any questions, please let me know.

Sincerely,

[Project Manager]

Stage 2 – Preferred Alternative

P3076 ATCO Thornton

MARCH 23, 2026



Selection of the Preferred Alternative

Criteria	Alternative 1	Alternative 2	Alternative 3
Alternative Name	Upgrade Thornton 2091S Substation	T-Tap connection to 144 kV Transmission Line 7L20	T-Tap connection to 144 kV Transmission Line 7L228
Scope	- Upgrade the Thornton 2091S substation, including adding one 144/25 kV transformer, one 144 kV circuit breaker and associated equipment. - ATCO has advised that this alternative will require approximately 24 km of distribution feeders.	- Add a new POD substation, including adding one 144/25 kV transformer, and one 144 kV circuit breaker and associated equipment. - Add one 144 kV circuit, approximately 24 km in length, to connect the new POD to the existing 144 kV transmission line 7L20 using a T-tap configuration, and associated equipment. - ATCO has advised that this alternative will require approximately 2 km of distribution feeders.	- Add a new POD substation, including adding one 144/25 kV transformer, and one 144 kV circuit breaker and associated equipment. - Add one 144 kV circuit, approximately 20 km in length, to connect the new POD to the existing 144 kV transmission line 7L28 using a T-tap configuration, and associated equipment. - ATCO has advised that this alternative will require approximately 2 km of distribution feeders.
Studied	Yes	No	No
Technical	Technically acceptable	Technically acceptable	Technically acceptable
Selection Decision and Rationale	Preferred Alternative	Ruled out since it has increased transmission development and cost compared to Alternative 1	Ruled out since it has increased transmission development and cost compared to Alternative 1

Preferred Alternative - Single Line Diagram

