

Participant Involvement Program Summary

SS-54 Substation Upgrade

Date: May 14, 2026

Version: V1

Classification: Public

1. Introduction

From June 2025 to March 2026, the AESO conducted a Participant Involvement Program (PIP) for the *SS-54 Substation Upgrade Needs Identification Document*. The AESO directed the legal owner of transmission facilities (TFO), in this case ENMAX Power Corporation (ENMAX Power), 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/ss-54-substation-upgrade/> and a notice was published in the AESO Stakeholder Newsletter on March 18, 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 Groups Notified in the TFO's PIP

The TFO has advised the AESO that its PIP included notification within the first row of development surrounding the proposed transmission development as recommended by the Commission in Appendix A1 in AUC Rule 007.¹

The TFO notified a total 17 Stakeholders, of which 1 was classified as a private or individual landowner. The other 16 notified Stakeholders are listed below:

- Alberta Transportation
- ATCO
- ATCO Gas
- City of Calgary Information Technology
- City of Calgary Parks
- City of Calgary Planning & Development Services
- City of Calgary Real Estate & Development Services
- City of Calgary Roads
- City of Calgary Traffic Operations

¹ The TFO has identified its facility application to be of the type: *Overhead or underground transmission line and/or new substation development and/or substation upgrades and/or minor transmission line replacements within the original right-of-way –urban*, as categorized in AUC Rule 007, Appendix A1, Section 5.

- City of Calgary Utilities Delivery
- City of Calgary Water Resources
- Councillor Ward 14
- Member of the Legislative Assembly-
Calgary-Shaw
- Shaw Project Management Team
- TELUS
- TELUS Communications

Attachment 3 includes the TFO's project newsletter, which included the AESO Need Overview that was distributed to the Stakeholders described above on March 10, 2026. The TFO's project newsletter was posted on the TFO's project-specific webpage www.enmax.com/no54substation on March 10, 2026. The TFO's project information package 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 Stage 2 of the AESO Connection Process. On June 27, 2025, 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 4.

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

No feedback 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 the AESO's contact information, including a dedicated, toll-free telephone line (1-888-866-2959) and a dedicated email address (stakeholder.relations@aeso.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 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 (March 2026)
- Attachment 2 – AESO Stakeholder Newsletter Need Overview Notice (March 18, 2026)
- Attachment 3 – TFO Project Newsletter – No. 54 Substation Capacity Upgrade Project Facility Application (March 2026)
- Attachment 4 – Early Rate Payer Involvement Letter and Summary (June 2025)

Attachment 1 – AESO Need Overview (March 2026)



Need for the SS-54 Substation Upgrade

ENMAX Power Corporation (EPC) has applied to the AESO for transmission system access to reliably serve growing demand for electricity in the Calgary area. EPC's request can be met by the following solution:

PROPOSED SOLUTION

- Upgrade the existing SS-54 substation, including adding one 138/25 kilovolt (kV) transformer and one 138 kV circuit breaker.
- Add or modify associated equipment as required for the above transmission developments.

NEXT STEPS

- In mid-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.

ENMAX Power Corporation (EPC)

- Is the transmission facility owner in the Calgary 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 (March 18, 2026)

GRID

Need Overview | SS-54 Substation Upgrade

ENMAX Power Corporation (EPC) has applied to the AESO for transmission system access to reliably serve growing demand for electricity in the Calgary area.

[Click here](#) for more information or visit aeso.ca: Grid > Transmission Projects > SS-54 Substation Upgrade (2921)

Attachment 3 – TFO Project Newsletter – No. 54 Substation Capacity Upgrade Project Facility Application (March 2026)

No. 54 Substation

Capacity Upgrade Project Facility Application



PROJECT OVERVIEW

ENMAX Power Corporation (ENMAX Power) owns and operates the ENMAX No. 54 Substation, located at 3023 210 Avenue Southeast. As electricity demand continues to grow in Southeast Calgary, ENMAX Power has identified the need to increase capacity at this substation to continue meeting customer needs.

To address this need, ENMAX Power is working with the Alberta Electric System Operator (AESO) to increase the substation's capacity (the Project) and intends to apply to the Alberta Utilities Commission (AUC) for approval. If approved, the Project will support the continued safe and reliable supply of electricity to customers in the area, both now and in the future. The Project involves the installation of an additional power transformer and associated equipment to reliably continue to distribute electricity. All new equipment would be located within the existing substation building and fenced yard.

PROPOSED SCHEDULE

ENMAX Power plans to file a Facility Application with the AUC in April 2026. Subject to regulatory approval and material procurement, construction is anticipated to begin in the first quarter of 2028, with the project expected to be in service by the fourth quarter of 2028. Stakeholders are encouraged to visit the project webpage for the most up-to-date information on construction timing and activities.

For more than 100 years, ENMAX Power has delivered safe and reliable electricity in Calgary.

No. 54 Substation

Capacity Upgrade Project Facility Application



| | | |
|---|--|---|
| <p>ENMAX Power No. 54 Substation Capacity Upgrade</p> <p>Newsletter Map</p> | <p>Legend</p> <ul style="list-style-type: none"> ★ Existing Steel Monopole — Existing Overhead Transmission Line - - - Calgary City Limit □ Proposed Equipment Location □ Existing Equipment Location □ Existing ENMAX Substation | <p>CALGARY N</p> <p>March 2026</p> |
| <p>1:2,500 (If printed on 8.5" x 11")</p> | | <p><small>Data sources: Civil and County; ENMAX 2026; Calgary Landbase; City of Calgary 2026; Copyright © The City of Calgary. All rights reserved. Use subject to License: Rocky View Landbase Rocky View County 2026; Tsoufina Landbase; Tsoufina 2026.</small></p> |



The data contained is for information purposes only. ENMAX Power Corporation does not make any representations or warranties as to the accuracy or completeness of the information contained herein or its verification. ENMAX does not guarantee that the information will not change at any time. This data is a representation of ENMAX owned and operated facilities only and may not depict the exact locations on the ground. This document is being furnished on a confidential basis and is not to be distributed to any other parties.

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No. 54 Substation

Capacity Upgrade Project Facility Application



Example of a Transformer



Example of a Circuit Breaker

Transformer: A device that changes the high voltage electricity coming in through transmission lines to a lower voltage suitable to distribute to customers.

Circuit Breaker: A high-voltage interrupting device used to protect and isolate transmission lines and sections of bus in electrical substations. These breakers are designed to quickly cut off, or interrupt, the flow of electricity when faults (such as short circuits) are detected.

Switchgear: A set of electrical switches and breakers that help control and protect the electricity system. It helps control and safely send electricity to homes and businesses.

PROJECT DESCRIPTION

The Project will take place entirely within the existing ENMAX No. 54 Substation fenced area and will include:

- Installation of one new transformer
- Installation of one new circuit breaker and several high voltage switches
- Installation of concrete foundations and structures, to support the above equipment
- Installation of new switchgear equipment within the existing substation

CONSTRUCTION METHODS

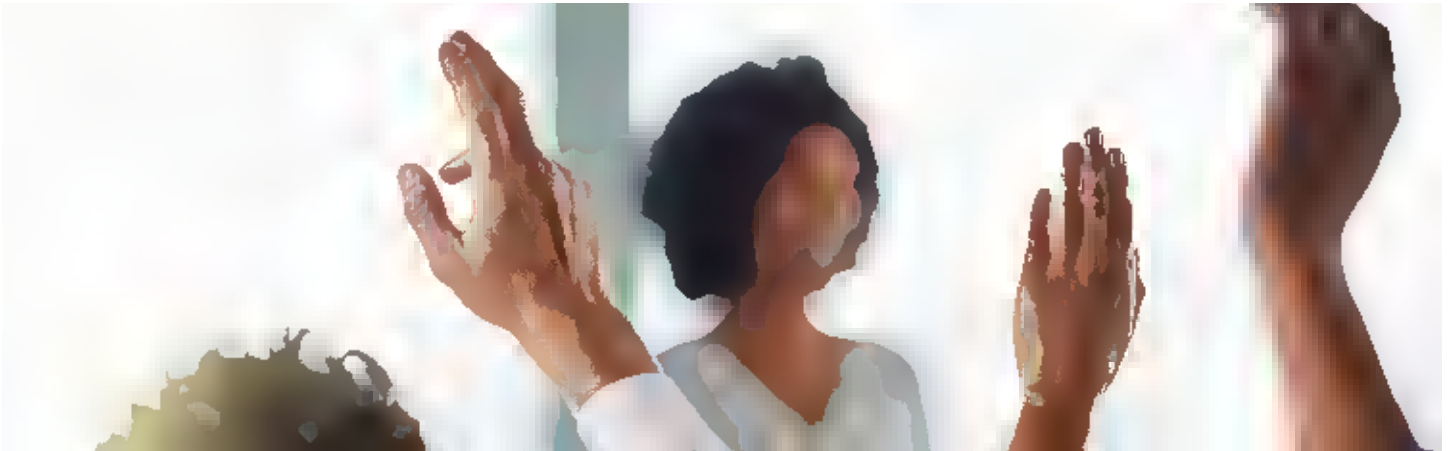
The Project's construction work will take place entirely within the existing fenced area of the ENMAX No. 54 Substation. Temporary road access changes may be necessary while work is underway.

POWER OUTAGES

There are no planned outages that will impact customers as part of this work.

No. 54 Substation

Capacity Upgrade Project Facility Application



COMMITMENT TO COMMUNITY

We are committed to being a responsible corporate neighbour. Our commitment includes providing timely and meaningful engagement with stakeholders about our projects and applications. We provide opportunities for stakeholders, including residents, occupants and landowners, to be informed about our projects and applications, and to engage with us at all stages.

ABOUT ENMAX CORPORATION

The ENMAX group of companies is a provider of electricity services, products and solutions. We are headquartered in Calgary, Alberta, with operations across Alberta and Maine. Through our subsidiaries, ENMAX Power Corporation and Versant Power, we own and operate transmission and distribution utilities that safely and reliably deliver electricity to customers in Calgary and northern and eastern Maine. Through ENMAX Energy Corporation, ENMAX owns and operates power generation facilities and offers a range of electricity and natural gas products and services to residential, commercial and industrial customers across Alberta. ENMAX is a private corporation and The City of Calgary is its sole shareholder.

ABOUT THE ALBERTA ELECTRIC SYSTEM OPERATOR

The 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 this project is 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 this project or the proposed transmission development to meet the need you may contact the AESO directly. You can make your questions or concerns known to a transmission facility owner 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.

CONTACT INFORMATION

Your input is valuable to us. We will ensure you get answers to your questions and your concerns are understood. For more information about the proposed Project, please contact:

ENMAX POWER CORPORATION

Phone: 403-514-1471

E-mail: stakeholderrelations@enmax.com

Website: enmax.com/no54substation

To learn more about the regulatory process, please contact:

ALBERTA UTILITIES COMMISSION

Phone: 403-310-4282

Email: info@auc.ab.ca

Website: auc.ab.ca

For information about the need for this project, please contact:

ALBERTA ELECTRIC SYSTEM OPERATOR

Phone: 1-888-866-2959

Email: stakeholder.relations@aeso.ca

Website: www.aeso.ca



Need for the SS-54 Substation Upgrade

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PROPOSED SOLUTION

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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

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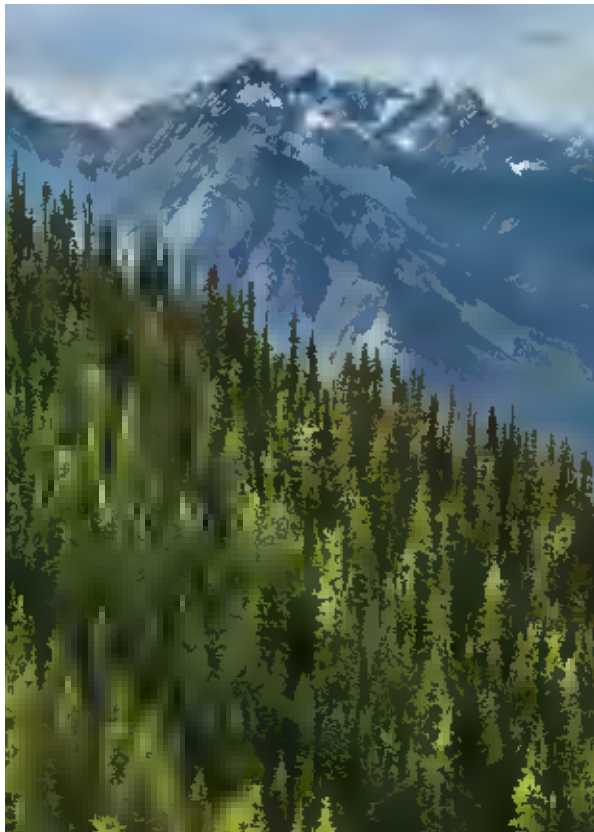
About us

The Alberta Utilities Commission (AUC) is an independent, quasi-judicial agency of the province of Alberta. The AUC ensures that the delivery of Alberta's utility service takes place in a manner that is fair, responsible and in the public interest.

We regulate investor-owned natural gas, electric and water utilities and certain municipally owned electric utilities to ensure that customers receive safe and reliable service at just and reasonable rates.

The AUC ensures that electric facilities are built, operated and decommissioned in an efficient and environmentally responsible way. The AUC also provides regulatory oversight of issues related to the development and operation of the wholesale electricity market in Alberta as well as the retail gas and electricity markets in the province.

The AUC's regulatory functions are carried out through both written and oral proceedings and representative groups are encouraged to participate in the process. Participation helps to ensure that the AUC is informed of the issues and that decisions are made in the public interest.



Alberta's independent utilities regulator

www.auc.ab.ca



Inspiring public confidence through:

- Public understanding of how to get involved and participate in the review of applications.
- Providing opportunities for meaningful participation in proceedings and hearings.
- Making fair, responsible and timely decisions that serve the public interest.

Ensuring fairness through:

- Informed decisions about the construction, operation, alteration and decommissioning of electric and natural gas facilities to ensure they are operated in a safe, reliable and environmentally responsible way.
- A fair, open and transparent application process, where Albertans have an opportunity to voice their concerns.
- Public notification of applications where parties may be affected by the outcome of a decision.
- Criteria-based eligibility for funding for those affected by a utility facility application, to allow for timely and meaningful participation.
- Ensuring regulated utilities comply with AUC decisions, orders, rules and relevant legislation.



Increasing efficiency and innovation through:

- Streamlining processes and reducing regulatory burden.
- Adapting and modernizing regulatory practices to ensure regulation is ready to meet the challenges of an evolving utilities industry.
- Understanding how emerging technologies impact the utilities industry while incorporating new approaches to how we work.
- Engaging with stakeholders to assist with the development of standards and continuous improvement to ensure an efficient regulatory framework.
- Continuously lowering the cost of regulation for ratepayers.

Principled decisions made:

- By appointed Commission members supported by multidisciplinary expert AUC technical staff.
- To effectively and efficiently address the concerns of participants.
- In a fair, open and transparent manner.

Updated May 2024

In working towards our vision of becoming a trusted leader that delivers innovative and efficient regulatory solutions for Alberta, the AUC is involved in the following regulatory activities, from power generation to retail payment of regulated utilities:



Power generation

It's the AUC's responsibility to examine and consider whether it is in the public interest to approve the construction of any electric power plant facility in Alberta, including thermal, hydro, solar and wind power plants.

The AUC has a well-established, independent and respected review process for considering applications for power plants intended to generate power and may be connected to the Alberta electric system.

The AUC determines whether the facility application is in the public interest, with specific focus on environmental, economic and social considerations and it ensures opportunities for public input.

Power generation applications are subject to multi-step process with opportunities for landowner and public involvement and a requirement that landowners will be notified and their concerns considered.



Transmission and distribution

The AUC has a responsibility to ensure that customers receive safe and reliable electric and gas utility service at just and reasonable rates.

Alberta's utilities sector is a natural monopoly environment where privately owned utilities operate a network of wires and pipelines. In order to protect the public interest, the need for and the associated rates and location of transmission and distribution infrastructure are determined by the AUC.

Regulated transmission and distribution service providers in Alberta are able to recover reasonable and necessary costs, including a reasonable return on their capital investment, necessary to provide safe and reliable utility service to customers.

The AUC's application process allows for a written or oral proceeding, where individuals, representative groups and applicants are able to participate. The AUC encourages public participation to help ensure that it is informed of the issues and renders decisions that serve the public interest.



Retail service and utility billing

In Alberta utility customers have a choice of retail service providers. If a customer does not choose a retail contract for utility service, that service is typically provided by the default supply provider and will be charged a variable rate based on the market price, also called the regulated rate option. The AUC reviews and approves the terms and conditions of service for regulated retail service providers.

Bills issued by utility retailers include commodity rates, transmission and distribution rates, and administration charges. Albertans have the choice to receive service from a regulated retailer, where retail rates are reviewed by the AUC, or sign a contract with a competitive retailer, agreeing to unregulated but competitive retail rates.

The AUC's Assistance and Information Services group is available to listen to and respond to customer inquiries and complaints about regulated utility matters. Contact us at 310-4AUC or info@auc.ab.ca.



Contact us

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



ENMAX Power Corporation
141 – 50 Avenue SE
Calgary, AB T2G 4S7
Tel (403) 514-3000
enmax.com

March 09, 2026

RE: ENMAX No. 54 SUBSTATION
Capacity Upgrade Project
Facility Application

Dear Landowner/Resident/Occupant/Business Owner:

ENMAX Power Corporation (ENMAX Power) is sharing this information package to support stakeholder awareness and understanding of the proposed No. 54 Substation Capacity Upgrade Project (the Project). This project will upgrade the existing substation to support the growing electrical needs of people and businesses in Southeast Calgary.

We've included a few materials to help you learn more about the Project:

- a Project newsletter with information about the location and schedule; and
- an Alberta Utilities Commission (AUC) brochure that explains the AUC's role and how approval works for projects like this; and
- an Alberta Electric System Operator (AESO) Need Overview notification.

Please reach out to the AUC should you require more information about the regulatory process.

Alberta Utilities Commission

Phone: 403-310-4282

Email: info@auc.ab.ca

Website: auc.ab.ca

For more information regarding the need for the substation upgrades, please contact the AESO at stakeholder.relations@aeso.ca or 1-888-866-2959.

Your feedback is important to us. To learn more or ask questions about the Project, you can:

- call us at 403-514-1471;
- email our team at stakeholderrelations@enmax.com; or
- visit enmax.com/no54substation for more information.

Thank you,

Stakeholder Relations
ENMAX Power

In the spirit of reconciliation, we respectfully acknowledge that we live and work on the traditional lands of Indigenous Peoples. ENMAX headquarters is in Calgary, Alberta, the traditional territory of the Blackfoot Confederacy, comprised of the Siksika, Kainai, Piikani, and Amskapi Piikuni Nations; the Tsuut'ina Nation; and the Îyârhe Nakoda Nations of Chiniki, Bearspaw, and Goodstoney, and home to the Métis Nation of Alberta, as well as many diverse Indigenous people who have made the city their home. We are committed to strengthening relationships with Indigenous Nations and peoples in all communities where we operate, through respect and collaboration.

Attachment 4 – Early Rate Payer Involvement Letter and Summary (June 2025)

Friday, June 27, 2025

[Rate-Payer Name]

[Rate Payer Email Address]

Dear [Contact Name]:

Re: P2921 SS-54 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 P2921 SS-54 Area Load (The Project), ENMAX Power Corporation, as the DFO, has requested system access service from the AESO to increase contract capacity at Substation No. 54 (SS-54) in Calgary. The request includes a Rate DTS capacity increase from 20 MW to 80 MW and associated transmission development.

The project is currently in Stage 2 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 July 11, 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.

With kind regards,

[Project Manager]

**Stage 2 – Preferred Alternative
P2921 SS-54 Area Load**

June 26, 2025

Selection of the Preferred Alternative

| Criteria | Alternative 1 | Alternative 2 | Alternative 3 |
|---|--|---|---|
| Alternative Name | Upgrade ENMAX Substation SS-54 | Upgrade ENMAX Substation SS-26 | Upgrade ENMAX Substation SS-24 |
| Scope | <ul style="list-style-type: none"> Upgrade the SS-54 substation, including adding one 138/25kV transformer one 138 kV circuit breaker and associated equipment. The DFO has advised that this alternative will require adding approximately 16 km of distribution feeders. | <ul style="list-style-type: none"> Upgrade the SS-26 substation, including adding one 138/25kV transformer, one 138kV circuit breaker and associated equipment. The TFO has advised that this alternative will require substation fence expansion to provide additional space for the new transformer. The DFO has advised that this alternative will require approximately 19 km of distribution feeders. | <ul style="list-style-type: none"> Upgrade the SS-24 substation, including adding one 138/25kV transformer, one 138kV circuit breaker and associated equipment. The TFO has advised that this alternative will require substation fence expansion to provide additional space for the new transformer. The DFO has advised that this alternative will require more than 19 km of distribution feeders. |
| Studied | Yes | No | No |
| Technical | Technically Acceptable | N/A | N/A |
| Selection Decision and Rationale | Preferred. | Ruled out. This alternative involves increased transmission development resulting from substation expansion and longer distribution feeders, and hence increased cost. | Ruled out. The DFO has advised this alternative will not be able to resolve system reliability deficiencies due to insufficient supply from SS-24 to SS-54 and SS-26 under normal and contingency conditions. The longer feeder lengths will also observe power quality issues. |

Preferred Alternative (Alternative 1) Single Line Diagram

