

December 10, 2024

**Notified Markey Participant Corporate Legal Name**

**Address Line 1**

**Address Line 2**

**City, Province, Postal Code.**

Dear **Notified Market Participant Primary Contact:**

Re: Need for the **Laramide Battery Storage Facility Connection**

The Alberta Electric System Operator (AESO) would like to advise you that 2569059 Alberta Inc. (Enfinite) has applied for transmission system access to connect its proposed Laramide Battery Storage Facility Connection (proposed Facility) to the Alberta interconnected electric system (AIES) in the AESO South Planning Region.

The purpose of this letter is to advise you that the AESO has identified that, under credible worse case forecast conditions, the **[Effective Generation Facility Name]** (**[Effective Generation Facility Asset ID]**) may be curtailed following the connection of the proposed Facility.

### **Connection Assessment Findings**

An engineering connection assessment was carried out by the AESO to assess the transmission system performance following the connection of the proposed Facility.<sup>1</sup> The connection assessment identified the potential for thermal criteria violations following the connection of the proposed Facility, under credible worse case forecast conditions, with all transmission facilities in service (Category A).

Category A thermal criteria violations on the 138 kV transmission lines 691L, 765L, 733L, and 240 kV transmission lines 924L, 927L, 1080L, 1106L, 1107L, and 1109L were exacerbated following the connection of the proposed Facility. The AESO is developing system plans to address thermal criteria violations on the 240 kV transmission system in the Southwest area<sup>2</sup>. Should the AESO determine that mitigation is required to address potential thermal criteria violations under Category A conditions, the AESO may develop operational procedures or other mitigation measures.

In addition, thermal and voltage criteria violations were also identified when a single transmission facility is out of service (Category B) following the connection of the Facility. To mitigate the potential Category B system performance issues, existing remedial action schemes (RASs) 175, 178, 174, modified planned RAS 193, and the planned RAS for 1037L/1038L will be used. The total megawatts tied to existing RAS 175, modified planned RAS 193, and the planned RAS for 1037L/1038L exceeds the Most Severe Single Contingency (MSSC) limit. Therefore, pre-contingency curtailments of projects assigned to these RASs may be required under the Category A condition, to prevent generation loss above the MSSC limit during Category B conditions. Pre-contingency generation curtailment under normal conditions may be required using real-time operational practices to prevent generation curtailment by RAS action above the MSSC limit. The probability of pre-curtailed being required would be dependent on generation profiles and operating conditions.

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<sup>1</sup> The studies were performed assuming the Rate STS, *Supply Transmission Service*, contract capacity of 100 MW and a Rate DTS, *Demand Transmission Service*, contract capacity of 50 MW.

<sup>2</sup> More information about this plan was provided at the Grid Reliability Update Stakeholder Session held on November 20, 2024; session materials are available on the AESO website.

The AESO will make use of real-time operational measures to mitigate these potential system performance issues, in accordance with [Section 302.1 of the ISO rules, Real Time Transmission Constraint Management](#) (TCM Rule), which is in effect today. When applied, the TCM Rule could result in the AESO issuing directives for curtailment to source assets that are effective in managing a constraint.

The connection assessment identified source assets, including the **[Effective Generation Facility Asset ID]**, which are effective in mitigating the potential transmission constraints.

The AESO will continue to monitor the pace of generation development and will notify market participants if it determines that it is necessary to obtain approval for an “exception” under Section 15(2) of the Transmission Regulation. The AESO will notify market participants if and when the AESO determines it is necessary to apply to the Alberta Utilities Commission (AUC) for approval of such an exception.

### ***For Further Information***

The AESO Need Overview document is attached for your information. The AESO Need Overview describes the AESO’s proposed transmission development to connect the proposed Facility to the AIES.

The engineering connection assessment will be included in the AESO’s Laramide Battery Storage Facility Connection needs identification document (NID) application. Following submission of the NID application to the Alberta Utilities Commission, the NID application will be posted on the AESO website at: <https://www.aeso.ca/grid/transmission-projects/>. Stakeholders will be notified when this occurs via the AESO stakeholder newsletter.

If you have any questions or concerns, please contact the AESO at 1-888-866-2959 or [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca)

Attachments:

AESO Need Overview: Laramide Battery Storage Facility Connection

# Need for the Laramide Battery Storage Facility Connection in the Blackie area

*2569059 Alberta Inc. (Enfinite) has applied to the AESO for transmission system access to connect its proposed Laramide Battery Storage Facility (Facility) in the Blackie area. Enfinite's request can be met by the following solution:*

## PROPOSED SOLUTION

- Add one 240 kV transmission line to connect the Facility to the existing Foothills 237S substation in a radial configuration.
- Modify the existing Foothills 237S substation, including adding two 240 kV circuit breakers.
- Add or modify associated equipment as required for the above transmission developments.

## NEXT STEPS

- In early 2025, 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](http://www.aeso.ca/grid/transmission-projects) prior to the project being considered under the ANAP Rule or prior to 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.

## ENFINITE

- Has requested transmission system access to connect the Facility.
- Is responsible for detailed siting, routing, and constructing the new 240 kV transmission line to connect the Facility to the existing Foothills 237S substation.
- Must apply to the AUC for approval of its transmission facilities applications.

## ALTALINK

- Is the transmission facility owner in the Blackie area.
- Is responsible for operating and maintaining the new 240 kV transmission line to connect the Facility to the existing Foothills 237S substation.
- Is responsible for constructing, operating, and maintaining the transmission facilities associated with the Foothills 237S substation modification.
- 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](mailto:stakeholder.relations@aeso.ca)  
 1-888-866-2959

2500, 330-5th Avenue SW  
 Calgary, AB T2P 0L4  
 Phone: 403-539-2450

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