

May 26, 2022

Notified Market Participant Corporate Legal Name
Address Line 1.
Address Line 2.
City, Province, Postal Code.

Dear **Notified Market Participant Primary Contact:**

Re: **Need for the Forty Mile Wind Power Plant Connection in the Bow Island area**

The Alberta Electric System Operator (AESO) would like to advise you that RES Forty Mile Wind LP (RES) has applied for transmission system access to connect its approved Forty Mile Wind Power Plant (Facility) to the Alberta interconnected electric system (AIES) in the AESO South Planning Region.

A copy of the AESO Need Overview document is attached for your information. The AESO Need Overview describes the AESO's proposed transmission development to connect the Facility to the AIES, and the AESO's next steps, which includes submitting a needs identification document (NID) application to the Alberta Utilities Commission (AUC) for approval.

The purpose of this letter is to advise you that the AESO has identified that, under credible worse case forecast conditions, the operation of the **[Effective Generation Facility Name]** (**[Effective Generation Facility Asset ID]**) may be affected following the connection of the Facility.¹

Connection Assessment Findings

An engineering connection assessment was carried out by the AESO to assess the transmission system performance following the connection of the Facility. The connection assessment identified the potential for voltage criteria violations at the Bowmanton 244S substation following the connection of the Facility, under credible worse case forecast conditions, with all transmission facilities in service (Category A). In addition, thermal, voltage and transient stability criteria violations were also identified when a single transmission facility is out of service (Category B) following the connection of the Facility.

Should the AESO determine that mitigation is required to address potential voltage criteria violations under Category A conditions, the AESO may develop operational procedures or other mitigation measures. In addition, to mitigate the potential Category B system performance issues, existing remedial action scheme (RAS) 164 may be modified to connect the Facility, which curtails the Facility and other effective generation facilities upon activation.

The AESO may also 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.

¹ The studies were performed assuming the Rate STS, *Supply Transmission Service*, contract capacity of 266 MW.

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

If the AESO determines that congestion will arise under Category A conditions, the AESO will make an application to the AUC 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 AUC for approval of such an exception.

For Further Information

The engineering connection assessment will be included in the AESO’s *Forty Mile Wind Power Plant Connection* NID application. Following submission of the NID application to the AUC, the NID application will be posted on the AESO website at: <https://www.aeso.ca/grid/projects/>

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

Attachments:

AESO Need Overview: *Need for the Forty Mile Wind Power Plant Connection in the Bow Island area*

Need for the Forty Mile Wind Power Plant Connection in the Bow Island area

Renewable Energy Systems Canada Inc. (RES) has applied to the Alberta Electric System Operator (AESO) to connect its approved Forty Mile Wind Power Plant (Facility) in the Bow Island area. RES' request can be met by the following solution:

PROPOSED SOLUTION

- Add one substation, to be designated Murray Lake 326S substation, including three 240 kilovolt (kV) circuit breakers.
- Connect the proposed Murray Lake 326S substation to the existing 240 kV transmission line 964L in an in-and-out configuration.
- Add one 240 kV transmission line to connect the Facility to the Murray Lake 326S substation.
- Add or modify associated equipment as required for the above transmission developments.

NEXT STEPS

- The AESO intends to apply to the Alberta Utilities Commission (AUC) for approval of the need in mid-2022.
- The AESO's needs identification document (NID) application will be available on the AESO's website at www.aeso.ca/grid/projects at the time of its application to 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.
- Is regulated by the AUC and must apply to the AUC for approval of its NID.

RES

- Has requested transmission system access to connect the Facility.
- Is responsible for detailed siting and routing, and constructing the new 240 kV transmission line to connect the Facility to the proposed Murray Lake 326S substation.
- Must apply to the AUC for approval of its transmission facilities applications.

ALTALINK

- Is the transmission facility owner in the town of Bow Island area.
- Is responsible for operating and maintaining the new 240 kV transmission line and constructing, operating and maintaining the transmission facilities associated with the proposed Murray Lake 326S substation.
- 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

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