



**Alberta Electric System Operator
Needs Identification Document Application**

**AltaLink Management Ltd.
Facility Applications**

McLaughlin Wind Power Plant Interconnection

August 16, 2019

Alberta Utilities Commission

Decision 21169-D01-2019: McLaughlin Wind Power Plant Interconnection

Alberta Electric System Operator
Needs Identification Document Application
Application 21169-A001

AltaLink Management Ltd.
Facility Applications
Applications 21169-A002 and 21169-A003

Proceeding 21169

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Applications 21169-A001 to 21169-A003

1 Decision summary

1. In this decision, the Alberta Utilities Commission considers whether to approve a needs identification document application from the Alberta Electric System Operator as well as facility applications from AltaLink Management Ltd. requesting approval for facilities to provide transmission system access to the McLaughlin 423S Substation in order to connect the McLaughlin Wind Power Plant project to the Alberta Interconnected Electric System.

2. After consideration of the record of the proceeding, and for the reasons outlined in this decision, the Commission confirms the Alberta Electric System Operator's assessment of the need to be correct and finds that approval of the facility applications is in the public interest having regard to the social, economic and other effects of the proposed facilities, including their effects on the environment.

2 Introduction

3. The Alberta Electric System Operator (AESO) filed an application with the Alberta Utilities Commission, pursuant to Section 34 of the *Electric Utilities Act*, seeking approval of the McLaughlin Wind Power Plant Interconnection needs identification document (NID). The application was registered on December 11, 2015, as Application 21169-A001.

4. AltaLink Management Ltd. filed facility applications with the Commission for approval to construct 65 metres of new 138-kilovolt transmission line, to be designated as Transmission Line 164AL, between the proposed McLaughlin 423S Substation and the existing Transmission Line 164L via a T-tap connection, and to modify Transmission Line 164L to accommodate the T-tap. The applications, filed pursuant to sections 14, 15 and 18 of the *Hydro and Electric Energy Act*, were registered on December 16, 2015, and December 17, 2015, as applications 21169-A002 and 21169-A003.

5. The NID and facility applications were initially filed in 2015, but were subsequently placed into abeyance while the Commission considered the McLaughlin Wind Power Plant application. The McLaughlin Wind Power Plant was approved in Decision 1976-D01-2018.¹ After the Commission approved the McLaughlin Wind Power project, the AESO and AltaLink informed the Commission that aspects of their original applications needed to be amended. The AESO filed an amendment to its application on June 19, 2019. It stated that the proposed

¹ Decision 1976-D01-2018: Renewable Energy Services Ltd. – McLaughlin Wind Power Plant and Substation, Proceeding 1976, Applications 1608592 and 1976-A001, February 23, 2018.

transmission development remained unchanged, but provided updates to the supporting documentation. AltaLink filed amendments to its applications on June 21, 2019. As a result of the amendments, the proposed Transmission Line 164AL would now be 110 metres in length, based on the approved location of the McLaughlin 423S Substation.

6. The Commission issued a notice of applications in 2015, and again in 2019, in accordance with Section 7 of Rule 001: *Rules of Practice*. No submissions were received for either notice.

7. With regard to the AESO's NID application, Section 38(e) of the *Transmission Regulation* provides that the Commission must consider the AESO's assessment of the need to be correct unless an interested person satisfies it that the assessment is technically deficient or approval is not in the public interest.

3 Applications

3.1 NID application

8. The AESO received a system access service request from Renewable Energy Services Ltd. to connect its McLaughlin Wind Power Plant project to the Alberta Interconnected Electric System in the Pincher Creek area. Renewable Energy Services Ltd. requested a Rate Supply Transmission Service contract capacity of 47 megawatts and a Rate Demand Transmission Service contract capacity of one megawatt for new system access services in the Pincher Creek area. The AESO determined that the request could be met by adding one 138-kilovolt circuit to connect the project to the existing Transmission Line 164L using a T-tap configuration.

9. The AESO conducted power flow, transient stability and short-circuit analyses to assess the impact of the proposed development on the transmission system. The analyses indicated that the proposed development could, under certain conditions, create thermal criteria violations. The analyses identified a number of mitigation measures that would be used to mitigate the performance issues.

10. The AESO directed AltaLink to file facility applications with the AUC for the facilities to meet the need identified and to assist the AESO in conducting a participant involvement program for its NID application.

3.2 Facility applications

11. AltaLink's facility applications requested approval to construct and operate a new transmission line, to be designated as Transmission Line 164AL. AltaLink also applied to connect the McLaughlin 423S Substation to Transmission Line 164AL. The McLaughlin 423S Substation is located in the southwest quarter of Section 22, Township 6, Range 29, west of the Fourth Meridian. AltaLink confirmed that the proposed transmission facilities meet the AESO's functional specifications.

12. AltaLink stated that its development of the proposed route focused on a short and direct connection between the existing Transmission Line 164L and the McLaughlin 423S Substation. AltaLink identified one potential route to meet the AESO's need, further noting that all other potential routing options would have resulted in longer line lengths and additional disturbances and associated land impacts.

13. AltaLink's proposed modification of Transmission Line 164L would consist of installing one self-support steel dead-end T-tap structure type. The proposed Transmission Line 164AL would consist of either single-pole or two-pole H-frame structure types. AltaLink stated that the structure height would be determined by the required ground clearances and the overall grading of the line, but could be up to 24 metres tall.
14. AltaLink did not submit a noise impact assessment because there would be no continuous audible noise sources added by the proposed development, and a noise impact assessment had been submitted previously for the McLaughlin 423S Substation.
15. AltaLink conducted an environmental evaluation of the project. AltaLink concluded that the project would be sited on cultivated agricultural land and would have negligible environmental impacts. On January 30, 2019, AltaLink received *Historical Resources Act* approval from Alberta Culture and Tourism.
16. The AESO and AltaLink conducted a joint participant involvement program to identify and engage stakeholders, and develop mitigation strategies to address stakeholder concerns where appropriate. AltaLink indicated that it contacted all stakeholders within 800 metres of the project. The AESO and AltaLink advised that no concerns or objections have been raised regarding the NID or the facility applications. AltaLink confirmed that stakeholders had been issued a project update letter in November 2018, and that it was not aware of any outstanding concerns from stakeholders.
17. AltaLink estimated the cost of the proposed transmission development to be approximately \$2.94 million. The costs were estimated to be within an accuracy of plus 20 per cent to minus 10 per cent. AltaLink stated that the costs would be allocated to Renewable Energy Services Ltd. The estimated in-service date is November 30, 2020.

4 Findings

18. The Commission finds that the NID application filed by the AESO contains all of the information required by the *Electric Utilities Act*, the *Transmission Regulation* and Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments*.
19. No interested party demonstrated that the AESO's assessment of the need to connect the McLaughlin Wind Power Plant is technically deficient or that approval of the NID application is not in the public interest. Therefore, the Commission considers the AESO's assessment of the need to be correct, in accordance with Subsection 38(e) of the *Transmission Regulation*, and approves the AESO's NID application.
20. The Commission finds that the facility applications to connect the McLaughlin 423S Substation to Transmission Line 164L, filed by AltaLink pursuant to sections 14, 15 and 18 of the *Hydro and Electric Energy Act*, comply with the information requirements prescribed in Rule 007. The facility applications are also consistent with the need identified in the NID application.

21. The Commission considers that the technical, siting and environment aspects of the facilities, as specified in Rule 007, have been met. The Commission is satisfied that the joint participant involvement program undertaken by the AESO and AltaLink meets the requirements of Rule 007. In addition, the Commission notes that there were no objections to the notices of applications.

22. The Commission finds the proposed alteration to Transmission Line 164L to be minor in nature as the alteration would occur within the existing transmission line right-of-way. The Commission finds the alteration does not require a revised permit and licence and the existing Permit and Licence U2009-161² remains valid.

23. The Commission is satisfied that there are no outstanding technical or environmental concerns associated with the project, nor are there any outstanding public or industry concerns.

24. Given the considerations discussed above, the Commission finds the proposed project to be in the public interest pursuant to Section 17 of the *Alberta Utilities Commission Act*.

5 Decision

25. Pursuant to Section 34 of the *Electric Utilities Act*, the Commission approves the need outlined in Application 21169-A001 and grants the Alberta Electric System Operator the approval set out in Appendix 1 – Needs Identification Document Approval 21169-D02-2019 – August 16, 2019.

26. Pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act*, the Commission approves Application 21169-A002 to construct and operate Transmission Line 164AL, and grants AltaLink Management Ltd. the approval set out in Appendix 2 – Transmission Line Permit and Licence 21169-D03-2019 – August 16, 2019.

27. Pursuant to Section 18 of the *Hydro and Electric Energy Act*, the Commission approves Application 21169-A003 to connect the McLaughlin 423S Substation to Transmission Line 164AL, and grants AltaLink Management Ltd. the approval set out in Appendix 3 – Connection Order 21169-D04-2019 – August 16, 2019.

Dated on August 16, 2019.

Alberta Utilities Commission

(original signed by)

Neil Jamieson
Commission Member

² Transmission Line Permit and Licence U2009-161, Application 1521942, May 5, 2009.