



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

**RES Forty Mile Wind GP Corp.
Facility Application**

**AltaLink Management Ltd.
Facility Applications**

Forty Mile Wind Power Plant Connection

October 26, 2022

Alberta Utilities Commission

Decision 27492-D01-2022

Alberta Electric System Operator

Needs Identification Document Application

RES Forty Mile Wind GP Corp.

Facility Application

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Forty Mile Wind Power Plant Connection

Proceeding 27492

Applications 27492-A001 to 27492-A006

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The Commission may, no later than 60 days of the date of this decision and without notice, correct typographical, spelling and calculation errors and other similar types of errors and post the corrected decision on its website.

1 Decision summary

1. In this decision, the Alberta Utilities Commission approves a needs identification document application from the Alberta Electric System Operator, and facility applications from RES Forty Mile Wind GP Corp. and AltaLink Management Ltd. for the Forty Mile Wind Power Plant Connection. For the reasons that follow, the Commission finds that approval of the applications is in the public interest having regard to the social, economic, and other effects of the proposed facilities, including their effect on the environment.

2 Applications

2. RES Forty Mile Wind GP Corp. previously received Commission approval to construct the Forty Mile Wind Power Project and the Forty Mile 516S Substation.¹

3. Building a new transmission facility in Alberta requires two applications. The first, a needs identification document application (needs application), is filed by the Alberta Electric System Operator (AESO) explaining why a new transmission facility is required. The second, a facility application, is filed by a transmission facility owner² proposing equipment to meet the AESO's identified need having regard for factors that include location, detailed design and routing considerations as well as consultation with potentially affected persons.

4. The AESO filed a needs application to connect the Forty Mile Wind Power Project to the Alberta Interconnected Electric System and RES Forty Mile and AltaLink Management Ltd. filed facility applications for approval to construct and operate the facilities to meet the need identified by the AESO. A map of the proposed facilities is shown in Figure 1.

¹ Power Plant Approval 26910-D02-2021, Proceeding 26910, Application 26910-A001, November 3, 2021, and Substation Permit and Licence 26910-D03-2021, Proceeding 26910, Application 26910-A001, November 3, 2021. RES Forty Mile has filed an application to amend its power plant in Proceeding 27561. The Commission considers the decision on these applications to be independent of the power plant amendment application as even if the amendment were denied, the power plant may still be constructed as originally approved.

² A facility application may also be filed by an electricity market participant under Section 24.31 of the *Transmission Regulation*.

Figure 1. Proposed Forty Mile Wind Power Plant Connection



5. The Commission issued a notice of applications and received one submission in response to the notice. In its September 20, 2022, standing ruling, the Commission denied standing to Benjamin Cameron.³

6. Details of each application and the Commission’s reasons for approving them are addressed in the sections that follow.

³ Exhibit 27492-X0066, AUC letter - Public hearing and ruling on standing.

2.1 Alberta Electric System Operator needs identification document application

7. Under Section 34 of the *Electric Utilities Act*, the AESO is required to submit a needs application when it determines that an expansion of the transmission system is required and to file that application with the Commission for approval. The needs application must describe what is driving the need for the expansion. In this case, the expansion arises from a request for system access service.

8. When considering whether to approve a needs application, the Commission must determine if the application has met the requirements of the *Electric Utilities Act*, the *Transmission Regulation*, and Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*. If the Commission determines that the requirements have been met, then the Commission must consider the needs application in accordance with subsection 38(e) of the *Transmission Regulation*.

9. Subsection 38(e) of the *Transmission Regulation* requires the Commission to consider the AESO's assessment of the need to be correct unless an interested person satisfies it that the AESO's assessment of the need is technically deficient, or approval of the application is not in the public interest.

10. In response to a system access service request from RES Forty Mile, the AESO filed a needs application for the following transmission development:

- Add one 240-kilovolt (kV) circuit to connect the approved Forty Mile 516S Substation to the proposed Murray Lake 326S Substation.
- Add one 240-kV substation, to be designated Murray Lake 326S Substation and connect the substation to existing 240-kV Transmission Line 964L (between the Bowmanton 244S Substation and Granlea T-tap⁴) using an in-and-out configuration.

11. The Commission finds that the needs application contains all the information required by the *Electric Utilities Act*, the *Transmission Regulation* and Rule 007.

12. The AESO directed RES Forty Mile and AltaLink to assist it in conducting a participant involvement program. The Commission has reviewed the joint participant involvement program and finds that it meets the requirements of Rule 007.

13. The AESO stated that the proposed transmission development provides a reasonable opportunity for RES Forty Mile to exchange electric energy and ancillary services and that the proposed transmission development is consistent with the AESO's long-term plans.

14. The AESO conducted studies to assess the impact the development and associated generation would have on the transmission system. The AESO concluded that connecting the wind power plant would not adversely affect the performance of the transmission system with the implementation of real-time operational practices and modification to an existing remedial action scheme.

⁴ The Granlea T-tap connects the Suncor Forty Mile Wind Power Project to Transmission Line 964L.

15. In this case, the AESO has filed all the relevant information and further to subsection 38(e) of the *Transmission Regulation*, no person intervened in the proceeding to dispute the AESO's assessment of the need. Therefore, the Commission considers the AESO's assessment of the need to be correct and approves the AESO's needs application.

2.2 RES Forty Mile Wind GP Corp. facility application

16. RES Forty Mile applied to construct and operate an approximately 21-kilometre, 240-kV transmission line, designated as Transmission Line 961L, between its approved Forty Mile 516S Substation and AltaLink's proposed Murray Lake 326S Substation, under the Market Participant Choice option, pursuant to Section 24.31 of the *Transmission Regulation*.

17. RES Forty Mile retained Hardline Engineering Ltd., who prepared a siting report for the transmission line. RES Forty Mile considered various route alternatives but ultimately applied for only a single route. Hardline concluded in its siting report that the proposed route had the least overall impact and is recommended as the best proposed alignment. The Commission accepts that conclusion and Hardline's rationale, which included that the route parallels existing linear disturbances, is the shortest of the routes that were considered, and has the greatest stakeholder support.

18. The Commission finds that the facility application filed by RES Forty Mile under sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, complies with the information requirements prescribed in Rule 007. The application is also consistent with the need identified in the AESO's needs application and the requirements of the AESO's functional specification.

19. As stated earlier, the Commission is satisfied that the joint participant involvement program meets the requirements of Rule 007. RES Forty Mile notified stakeholders within 800 metres of the right-of-way of the proposed transmission line and conducted in-person meetings with stakeholders adjacent to the proposed route. It stated that all stakeholders with project infrastructure on private land have either signed easement agreements or provided a letter of non-objection to the project.

20. RES Forty Mile, in co-ordination with AltaLink, retained Golder Associates Ltd., who prepared an environmental evaluation of the project. Golder also prepared an environmental protection plan for the RES Forty Mile transmission line portion of the project. Golder concluded that with adherence to project-specific mitigation measures, applicable standards and procedures, and compliance with applicable regulatory approvals and conditions, any effects of the project on the environment would not be significant.

21. Based on the environmental evaluation, the Commission is satisfied that the potential for adverse environmental effects from the project is not significant. Further, the Commission considers that any potential adverse effects can be reasonably mitigated through implementation of, and adherence to, the mitigation measures set out in the environmental protection plan (e.g., construction during dry or frozen ground conditions to the extent possible, scheduling construction activities to occur outside of the peak grassland bird breeding season and the migratory bird nesting season).

22. For the above reasons, the Commission is satisfied that RES Forty Mile's proposed transmission line is in the public interest, in accordance with Section 17 of the *Alberta Utilities Commission Act*.

2.3 AltaLink Management Ltd. facility applications

23. AltaLink applied to construct and operate the Murray Lake 326S Substation, which would consist of three 240-kV circuit breakers. AltaLink also applied to construct and operate two single-circuit 240-kV transmission lines, approximately 100 metres in length, to connect the substation to existing Transmission Line 964L via an in-and-out connection. In addition, it proposed to construct approximately one kilometre of underground fibre optic cable to connect the substation to the existing telecommunications network. The portion of Transmission Line 964L from Murray Lake 326S Substation to Bowmanton 244S Substation would be redesignated as Transmission Line 965L, while the portion from Whitla 251S Substation to Murray Lake 326S Substation would remain as Transmission Line 964L.

24. AltaLink also applied for a connection order to connect Murray Lake 326S Substation to RES Forty Mile's proposed Transmission Line 961L.

25. The Commission finds that the facility applications filed by AltaLink comply with the information requirements prescribed in Rule 007. The facility applications are also consistent with the need identified in the AESO's needs application and the requirements of the AESO functional specification.

26. As stated earlier, the Commission is satisfied that the joint participant involvement program meets the requirements of Rule 007. AltaLink notified stakeholders within 800 metres of the proposed substation, the proposed transmission lines, and the interconnection point with the existing transmission line and consulted with parties within 100 metres. It stated that no stakeholders identified concerns with the project and that it was not aware of any outstanding concerns.

27. Based on the environmental evaluation conducted by Golder for AltaLink, the Commission is satisfied that the potential environmental effects from the project would not be significant. The substation would be located on cultivated land and was sited in close proximity to existing Transmission Line 964L to minimize the length of the connecting lines. AltaLink provided a copy of its Environmental Protection Plan, which outlines the environmental requirements for employees and contractors involved in the construction and operation of the project.

28. For these reasons, the Commission finds AltaLink's proposed transmission developments to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

3 Decision

29. The Commission approves the needs identification document application, Application 27492-A001, under Section 34 of the *Electric Utilities Act* and grants the Alberta Electric System Operator the approval set out in Appendix 1 – Needs Identification Document Approval 27492-D02-2022.

30. The Commission approves Application 27492-A002 under sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, and grants RES Forty Mile Wind GP Corp. the approval set out in Appendix 2 – Transmission Line Permit and Licence 27492-D03-2022 to construct and operate Transmission Line 961L.

31. The Commission approves applications 27492-A003 to 27492-A006, under sections 14, 15, 18, 19 and 21 of the *Hydro and Electric Energy Act*, and grants AltaLink Management Ltd. the following approvals:

- Substation Permit and Licence 27492-D04-2022 to construct and operate Murray Lake 326S Substation (Appendix 3).
- Transmission Line Permit and Licence 27492-D05-2022, to alter and operate Transmission Line 964L (Appendix 4).
- Transmission Line Permit and Licence 27492-D06-2022, to alter and operate Transmission Line 965L (Appendix 5).
- Connection Order 27492-D07-2022, to connect Murray Lake 326S Substation to RES Forty Mile Wind GP Corp.'s Transmission Line 961L (Appendix 6).

32. The appendices will be distributed separately.

Dated on October 26, 2022.

Alberta Utilities Commission

(original signed by)

Douglas A. Larder, KC
Vice-Chair