



Lanfine North Wind Power Project Connection

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

**ATCO Electric Ltd.
Facility Applications**

**AltaLink Management Ltd.
Facility Application**

July 16, 2021

Alberta Utilities Commission

Decision 26176-D01-2021

Alberta Electric System Operator

Lanfine North Wind Power Project Connection Needs Identification Document

Application 26176-A001

ATCO Electric Ltd.

Lanfine North Wind Power Project Connection Facility Applications

Applications 26176-A003 and 26176-A004

AltaLink Management Ltd.

Lanfine North Wind Power Project Connection Facility Application

Application 26176-A002

Proceeding 26176

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Eau Claire Tower

1400, 600 Third Avenue S.W.

Calgary, Alberta T2P 0G5

Telephone: 310-4AUC (310-4282 in Alberta)

1-833-511-4AUC (1-833-511-4282 outside Alberta)

Email: info@auc.ab.ca

Website: www.auc.ab.ca

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Alberta Electric System Operator
Needs Identification Document Application

ATCO Electric Ltd. and AltaLink Management Ltd.
Lanfine North Wind Power Project Connection
Facility Applications

Decision 26176-D0X-2021
Proceeding 26176
Applications 26176-A001 to A004

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 ATCO Electric Ltd. and AltaLink Management Ltd. for the proposed Lanfine North Wind Power Project Connection. For the reasons that follow, the Commission finds that approval of the AltaLink and ATCO applications, and specifically ATCO's West route (the preferred route), 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 The applications

2. Building a 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 the new transmission facility is required. The second, a transmission facility application, is filed by a transmission facility owner 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. Under Subsection 15.4 of the *Hydro and Electric Energy Act*, the Commission may consider need and facility applications together in a single proceeding, as was done here.

3. The applications in this proceeding were initiated after Pattern Development Lanfine Wind ULC requested system access service from the AESO to connect its already-approved Lanfine North Wind Power Project¹ (the wind project) to the Alberta Interconnected Electrical System (the grid). To respond to Pattern's request, the AESO filed an application with the Commission proposing the construction of a 13-kilometre (km) transmission line to connect the existing Lanfine 959S Substation to Pattern's approved Buffalo Bird 601S Substation; alteration of the Lanfine 959S Substation; and the addition or modification of other equipment needed to ensure proper integration of the wind project with the grid. ATCO and AltaLink each filed applications requesting approval from the Commission for the specific equipment proposed to meet the need identified by the AESO. Details of each application and the Commission's reasons for approving them are provided in the sections that follow.

¹ The project consists of a wind power plant and a substation, called Buffalo Bird 601S Substation, that were approved by the Commission in Decision 22736-D01-2020 on January 27, 2020.

2.1 AESO needs identification document application

4. Under Section 34 of the *Electric Utilities Act*, the AESO is responsible to prepare a needs application when it determines that expansion of the transmission system is required, and to file that application with the Commission for approval. Under Subsection 34(1)(c), the AESO must file a needs application in response to a request for system access service from a market participant. In this case, the AESO's needs application was filed in response to Pattern's request for system access service to connect the wind project to the grid.

5. 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 and Hydro Developments*. If satisfied that those requirements have been met, the Commission must then consider the needs identification document in accordance with Subsection 38(e) of the *Transmission Regulation*.

6. The Commission has reviewed the AESO's application and finds that it contains all of the information required by the *Electric Utilities Act*, the *Transmission Regulation* and Rule 007. The Commission has also reviewed the joint participant involvement program undertaken by the AESO, ATCO and AltaLink (the participant involvement program) and finds that it meets the requirements of Rule 007.

7. Subsection 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 AESO's assessment of the need is technically deficient, or approval of the needs application is not in the public interest. In this case, no person intervened in the proceeding to dispute the AESO's assessment of the need. The Commission therefore considers that the AESO's assessment of the need is correct and approves the AESO's needs application.

2.2 ATCO facility applications

8. ATCO applied for approval to construct and connect a 144-kilovolt (kV) transmission line from the existing Lanfine 959S Substation to Pattern's Buffalo Bird 601S Substation and to add one 144-kV circuit breaker at the Lanfine 959S Substation. ATCO proposed two routing options for the approximately 13 km transmission line, which would be designated as Transmission Line 7L238. The West route (preferred route) and the East route (alternate route) are shown on the map in Figure 1 as red and green dashed lines, respectively.

9. One intervener, Leslie Girletz, filed a statement of intent to participate in response to the Commission's notice of applications. Leslie Girletz lives on the alternate route and indicated that she has a number of concerns with siting power lines close to her home. She requested that the Commission approve the preferred route. The Commission granted Leslie Girletz standing and set out a written hearing process to consider the applications. Leslie Girletz subsequently withdrew her intervention, stating that she did not wish to put her family and herself through the stress of a hearing process but she still greatly opposed the alternate route.

10. In making its determinations on ATCO's proposed routing options, the Commission has taken the information provided by Leslie Girletz into account, as part of its overall assessment of the record of this proceeding.

Figure 1. Proposed ATCO transmission line



11. The Commission finds that the facility applications filed by ATCO under sections 14, 15, 18 and 19 of the *Hydro and Electric Energy Act*, comply with the information requirements prescribed in Rule 007 and are consistent with the need identified in the AESO’s needs application. As stated, the Commission is also satisfied that the participant involvement program meets the requirements of Rule 007. The Commission accepts ATCO’s submissions that its route development process and the identification of the West route as the preferred route were heavily influenced by stakeholder concerns raised through the consultation process. On that basis, and noting the Commission’s receipt of only one response to its notice of applications, from Leslie Girletz, the Commission considers that the participant involvement program and ATCO’s consultation, met the objective of effective consultation.

12. The Commission has carefully weighed the social, economic and environmental effects of the West and East routes, and has taken into account the stated reasons for ATCO’s

identification of the West route as its preferred route, in making its overall decision on the routing for Transmission Line 7L238.

13. ATCO identified that a key consideration in its route design process is that, where practicable, the route should be separated from residences preferably by a distance of 150 metres or greater. In this case, the closest residence to the centreline on the East route is 40 metres away, and there are two other residences within 200 metres. In contrast, there are no residences within 400 metres and only one residence within 800 metres of the centreline along the West route. On that evidence, the Commission finds that the number of proximate residences potentially affected by the proposed facilities weighs in favour of the West route.

14. ATCO also stated that the West route was chosen as its preferred route after multiple rounds of stakeholder consultation and is the result of efforts to address the concerns of impacted landowners. The Commission accepts ATCO's assertion that the West route has the lowest overall impact to agricultural operations and achieves better compatibility with existing land use. That the Commission received only one response to its notice of applications, offers further support for this conclusion.

15. Aside from potential effects on proximate residences, agricultural operations and existing land use, the Commission finds that that the preferred and alternate routes are otherwise comparable; or, that the differences between them are not strongly determinative. For example, both routes were primarily sited within or adjacent to existing municipal road allowances, and the West route parallels an existing distribution line where it doesn't follow a road allowance. While the West route is approximately 3.3 km longer, and will therefore have a larger construction footprint, the percentage of the West route associated with existing rights-of-way is 97 per cent compared to 96 per cent for the East route.

16. The cost difference between the routes also does not materially weigh in favour of one route over the other. The higher cost of the West route (by approximately \$1.1M) is nevertheless equal to the cost estimate provided in the AESO's needs identification document. Further, the Commission notes that the AESO, in consultation with Pattern and ATCO, has determined that all costs associated with the facilities would be classified as participant-related.

17. From an environmental perspective, with implementation of mitigation measures, the residual effects of each of the routes are predicted to be similar. ATCO retained Hemmera Envirochem Inc. to conduct an environmental evaluation for its proposed project. ATCO also prepared an environmental protection plan describing the compliance and protection measures to be used during the project to avoid or reduce any adverse environmental effects.

18. Hemmera's environmental evaluation acknowledged that one raptor nest is proximate to the East route and no raptor nests are proximate to the West route but concluded that overall, the East route is preferred from the perspective of minimizing potential environmental effects. This is because it is a shorter, more direct route with a smaller overall project footprint whereas the West route overlaps with a greater area of native grassland, represents a higher potential risk of disturbance to wetlands and would encroach on one more sharp-tailed grouse lek setback than the East route. Specifically, the West route would encroach upon two sharp-tailed grouse lek setbacks (located 86 metres and 208 metres from the West route), whereas the East route would

encroach upon one sharp-tailed grouse lek setback (located 143 metres from the East route).² Notwithstanding, Hemmera concluded that direct effects to wetland habitat can be largely avoided through detailed design and siting of structures outside of wetlands and setbacks. And, after applying mitigation measures, including restrictions on construction activity during sharp-tailed grouse lekking season and the grassland breeding bird restricted activity period, Hemmera stated that both route options are considered to have minimal to low residual environmental effects.

19. Relying on Hemmera's assessment of the project's potential environmental effects, the Commission considers that with the imposition of the conditions that follow and ATCO's diligent implementation of the mitigation measures outlined in both the Hemmera environmental evaluation and its own environmental protection plan, the environmental effects of the proposed ATCO facilities and the West route in particular, can be minimized to an acceptable level.

20. Considering the foregoing, the Commission accepts ATCO's identification of the West route as the preferred route having regard for its social, economic and environmental effects and finds approval of ATCO's applications, subject to the conditions that follow, to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

21. In making the above finding, the Commission relies on and expects ATCO to follow all of the mitigation measures set out in Hemmera's environmental evaluation³ and the environmental protection plan and where those mitigation measures differ, the Commission directs ATCO to follow the more stringent of the mitigations proposed.⁴ Further, the Commission's approval is subject to the following condition:

- ATCO Electric Ltd. must provide an updated environmental protection plan, incorporating any additional mitigation measures from Alberta Environment and Parks, no less than 60 days prior to the start of construction.⁵

22. To ensure the West route's effects on sharp-tailed grouse are adequately mitigated, the Commission's approval is also subject to the following condition:

- ATCO Electric Ltd. shall not conduct any construction activities within 500 metres of active leks during the sharp-tailed grouse lekking season of March 15 to June 15.

23. Hemmera concluded that the West route will overlap with a greater area of native grassland. To address the resulting adverse effects, Hemmera's environmental evaluation recommended the avoidance of construction activities within native grassland habitat from April 15 to August 15 to minimize disturbance and mortality of nesting grassland birds.⁶ In its environmental protection plan, ATCO adopted this recommendation but with the qualifier, "where possible."

24. The Commission has considered ATCO's commitment to avoid construction during the restricted activity period "where possible." However, given the extent of the West route's

² Exhibit 26176-X0026, [Hemmera] Environmental Evaluation, PDF page 77.

³ Exhibit 26176-X0026, [Hemmera] Environmental Evaluation.

⁴ Exhibit 26176-X0033, Environmental Protection Plan.

⁵ Exhibit 26176-X0053, Information request response, PDF page 13.

⁶ Exhibit 26176-X0026, Environmental Evaluation, PDF page 80.

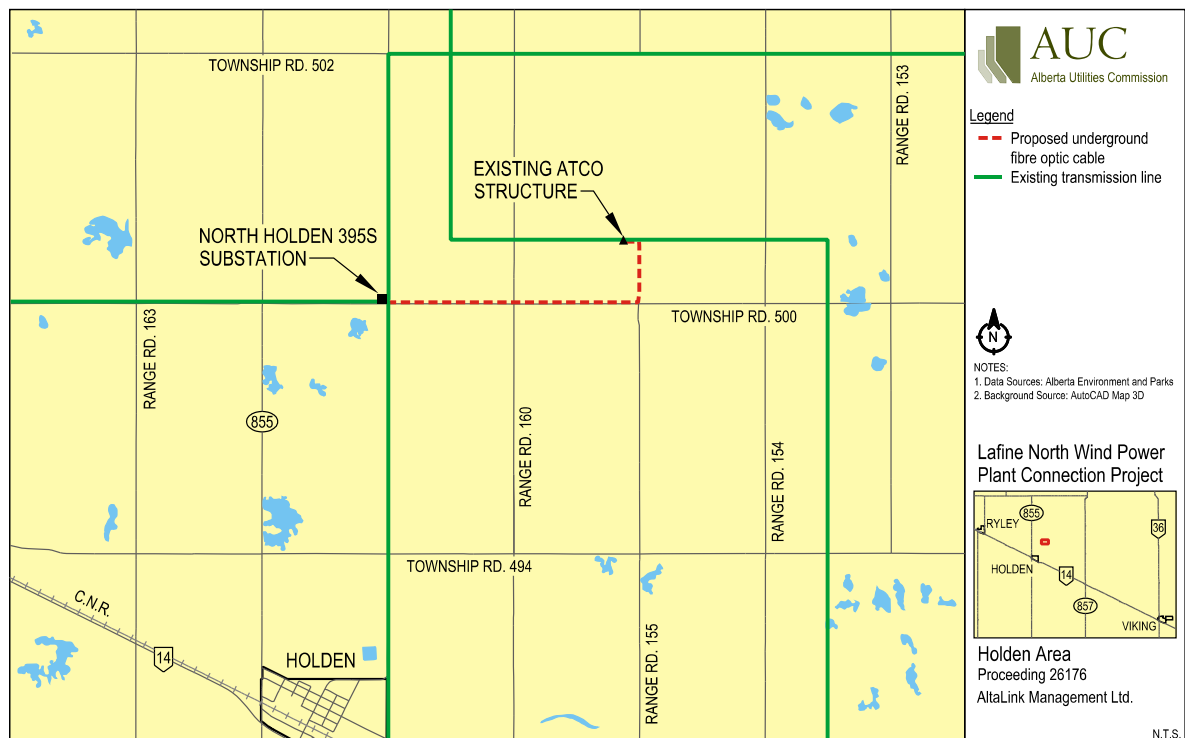
footprint within native grassland (22.6 per cent of the project area), the Commission finds that restricting construction activities within the grassland breeding bird restricted activity period, as recommended by Hemmera, is warranted. Accordingly, the Commission considers the following condition of approval to be in the public interest:

- ATCO Electric Ltd. shall not conduct any construction activities within native grassland habitat during the April 15 to August 15 grassland breeding bird restricted activity period.

2.3 AltaLink facility application

25. AltaLink filed an application for approval to construct and operate a four-kilometre underground fibre optic cable to support the connection of the wind project to the grid. This cable would connect AltaLink's telecommunications network to ATCO's telecommunications network. These networks are part of the transmission system and transfer telecommunications signals to enable active monitoring of the grid, ensuring safe and reliable operation. The route of the cable would be from an existing splice box on Structure 391 of ATCO's Eastern Alberta Transmission Line to AltaLink's existing North Holden 395S Substation, as shown by the red dashed line in Figure 2. The North Holden 395S Substation is approximately 250 km away from the wind project.

Figure 2. Proposed AltaLink underground fibre optic cable



26. AltaLink also applied for equipment to protect the grid from overload conditions that could result from the addition of the wind project. This included the installation or modification of existing telecommunications equipment at the North Holden 395S, Buffalo Creek 526S, and Jarrow 252S substations, and the installation of new telecommunications equipment inside the existing control building at ATCO's Oakland 946S Substation. The need for this equipment was outlined in the needs application as well as the AESO functional specification, which set out the

protection and control, supervisory control and data acquisition (SCADA) and telecommunications requirements.

27. AltaLink applied for the exact same facilities in Proceeding 26439, in relation to Garden Plain Wind Power Project Connection. AltaLink stated that the facilities will only be built once, but that it was filing two applications for the same scope of work so that if one project is delayed or cancelled, the other project can still proceed. In Decision 26439-D01-2021, the Commission approved the Garden Plain Wind Power Project Connection, including the facilities AltaLink has applied for here. In that decision, the Commission found that the AltaLink project was in the public interest, in accordance with Section 17 of the *Alberta Utilities Commission Act*.

28. In this proceeding, the Commission finds that AltaLink's applied-for facilities are consistent with the need identified in the AESO's needs application, and considers that the facilities are in the public interest for the reasons described in Decision 26439-D01-2021.

29. Typically the Commission does not issue a permit and licence for fibre optic cable applications. For the reasons described in Decision 26439-D01-2021, the Commission considers it appropriate to issue both a permit and licence for AltaLink's applied-for facilities, and a connection order. In that decision, the Commission issued a permit and licence and connection order which will *remain in effect* for the Lanfine North Wind Power Project Connection even if the Garden Plain Wind Power Plant Connection Project should be delayed or cancelled, as indicated in paragraph 45 of Decision 26439-D01-2021.

3 Decision

30. The Commission approves the needs identification document application, under Section 34 of the *Electric Utilities Act*, and grants the Alberta Electric System Operator the following approval set out in an appendix to this decision:

- Needs Identification Document Approval 26176-D02-2021 – July 16, 2021 (Appendix 1).

31. The Commission approves applications 26176-A003 to 26176-A005, under sections 14, 15, 18 and 19 and 21 of the *Hydro and Electric Energy Act*, and grants ATCO Electric Ltd. the following approvals set out in appendices to this decision:

- Transmission Line Permit and Licence 26176-D03-2021 – July 16, 2021, to construct and operate Transmission Line 7L238 (Appendix 2).
- Substation Permit and Licence 26176-D04-2021 – July 16, 2021, to alter and operate Lanfine 959S Substation (Appendix 3).
- Connection Order 26176-D05-2021 – July 16, 2021, to connect Transmission Line 7L238 to Buffalo Bird 601S Substation (Appendix 4).

32. The Commission approves Application 26176-A002, under sections 14, 15, 18, 19, and 21 of the *Hydro and Electric Energy Act*, and confirms that the following approvals, granted to AltaLink Management Ltd. for the Garden Plain Wind Power Plant Connection Project, act as

the effective approvals for the fibre optic cable and telecommunications equipment applied for in this proceeding:

- Transmission Line Permit and Licence 26439-D07-2021 – July 9, 2021, to construct and operate a fibre optic cable (Appendix 6 of Decision 26439-D01-2021).
- Connection Order 26439-D08-2021 – July 9, 2021, to connect the fibre optic cable to ATCO Electric Ltd.’s Eastern Alberta Transmission Line (Appendix 7 of Decision 26439-D01-2021).

33. As referenced in paragraph 45 of Decision 26439-D01-2021, the status of Transmission Line Permit and Licence 26439-D07-2021 and Connection Order 26439-D08-2021 is dependent on the status of both the Garden Plain Wind Power Plant Connection Project and Lanfine North Wind Power Project Connection project. Should the AltaLink facilities approved in Proceeding 26439 be cancelled or delayed, those approvals will remain in force, subject to the terms and conditions contained therein, in relation to the AltaLink facilities approved in this proceeding.

34. The appendices will be distributed separately.

Dated on July 16, 2021.

Alberta Utilities Commission

(original signed by)

Carolyn Hutniak
Commission Member

Appendix A – Summary of Commission conditions of approval in the decision

This section is intended to provide a summary of all conditions of approval specified in the decision for the convenience of readers. Conditions that require subsequent filings with the Commission will be tracked as directions in the AUC's eFiling System. In the event of any difference between the conditions in this section and those in the main body of the decision, the wording in the main body of the decision shall prevail.

The following is a condition of Decision 26176-D01-2021 that requires a subsequent filing with the Commission and will be included as a condition of Transmission Line Permit and Licence 26176-D03-2021:

- ATCO Electric Ltd. must provide an updated environmental protection plan, incorporating any additional mitigation measures from Alberta Environment and Parks, no less than 60 days prior to the start of construction.

The following are conditions of Decision 26176-D01-2021 that do not require subsequent filings with the Commission:

- ATCO Electric Ltd. shall not conduct any construction activities within 500 metres of active leks during the sharp-tailed grouse lekking season of March 15 to June 15.
- ATCO Electric Ltd. shall not conduct any construction activities within native grassland habitat during the April 15 to August 15 grassland breeding bird restricted activity period.