



BHE Canada Rattlesnake G.P. Inc.
Facility Applications

Alberta Electric System Operator
Needs Identification Document Application

AltaLink Management Ltd.
Facility Applications

Rattlesnake Ridge Wind Power Project

September 9, 2020

Alberta Utilities Commission

Decision 25018-D01-2020: Rattlesnake Ridge Wind Power Project

BHE Canada Rattlesnake G.P. Inc.
Facility Applications
Proceeding 25018
Applications 25018-A001 to 25018-A004

Alberta Electric System Operator
Needs Identification Document Application
Proceeding 25018
Application 25018-A005

AltaLink Management Ltd.
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Applications 25018-A006 to 25018-A008

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Published by the:

Alberta Utilities Commission
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1400, 600 Third Avenue S.W.
Calgary, Alberta T2P 0G5

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Decision 25018-D01-2020
Proceeding 25018

Rattlesnake Ridge Wind Power Project

Applications 25018-A001 to 25018-A008

1 Decision summary

1. In this decision, the Alberta Utilities Commission considers whether to approve applications from BHE Canada Rattlesnake G.P. Inc., the Alberta Electric System Operator and AltaLink Management Ltd. related to the construction and operation of the Rattlesnake Ridge Wind Power Project.

2. The following table summarizes the applications being considered by the Commission in this proceeding:

Table 1. Applications being considered in Proceeding 25018

Application numbers	Applicant	Description of application(s)
25018-A001 to 25018-A004	BHE Canada Rattlesnake G.P. Inc.	Facility applications to construct and operate a 117.6-megawatt power plant designated as the Rattlesnake Ridge Wind Power Plant, a collector substation designated as the Rattlesnake Ridge 719S Substation and a 138-kilovolt transmission line, designated as Transmission Line 879AL, and to connect the power plant to Transmission Line 879L
25018-A005	Alberta Electric System Operator	Needs identification document application to provide transmission system access to the wind power project
25018-A006 to 25018-A008	AltaLink Management Ltd.	Facility applications to alter and operate Transmission Line 879L and to construct Rattlesnake Ridge 719R Radio Site and to connect the power plant to Transmission Line 879L

3. 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. The Commission also finds that approval of the Rattlesnake Ridge Wind Power Plant, the preferred Rattlesnake Ridge 719S Substation location, the preferred Rattlesnake Ridge 719R Radio Site, and the preferred routes of transmission lines 879L and

879AL are in the public interest, having regard to the social, economic, and other effects of the projects, including their effect on the environment.

2 Introduction

4. BHE Canada Rattlesnake G.P. Inc. (BHE) filed applications 25018-A001 to 25018-A004 with the AUC on October 24, 2019, seeking the following:

- An approval to construct and operate a 117.6-megawatt (MW) wind power plant, designated as the Rattlesnake Ridge Wind Power Plant.
- A permit to construct and a licence to operate a collector substation designated as the Rattlesnake Ridge 719S Substation.
- A permit to construct and a licence to operate a 50-metre-long 138-kilovolt (kV) transmission line designated as Transmission Line 879AL.
- An order to connect the proposed power plant to AltaLink Management Ltd.'s existing 138-kV Transmission Line 879L.

5. BHE's application to construct and operate Transmission Line 879AL was filed under the Market Participant Choice¹ option.

6. The Alberta Electric System Operator (AESO) filed an application with the AUC seeking approval of the needs identification document (NID) to provide transmission system access to the Rattlesnake Ridge Wind Power Project. The application was registered on February 26, 2020, and combined into Proceeding 25018 as Application 25018-A005.

7. AltaLink filed applications with the AUC for approval to alter its existing 138-kV Transmission Line 879L to support the interconnection of the wind power project, and to construct a radio site with a telecommunications tower, designated as Rattlesnake Ridge 719R Radio Site, within the boundary of the proposed Rattlesnake Ridge 719S Substation. The applications were registered on February 27, 2020, and combined into Proceeding 25018 as applications 25018-A006 to 25018-A008.

8. The Commission is considering these applications under sections 11, 14, 15, 18 and 19 of the *Hydro and Electric Energy Act* and Section 34 of the *Electric Utilities Act*. In accordance with Section 38(e) of the *Transmission Regulation*, 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.

9. The Commission issued a notice of applications for the proposed project on November 19, 2019, in accordance with Section 7 of Rule 001: *Rules of Practice*. The Commission granted standing to Dianne Chute and Douglas Zorn, Rodney and Conny Gechter,

¹ BHE filed its application under Subsection 24.31 of the *Transmission Regulation* which allows a market participant to submit a proposal to the AESO for the construction and temporary operation of a transmission facility.

and Dwayne and Eleanor Gechter, and issued a notice of hearing with a process schedule. These parties were opposed to the wind power project and were granted standing based on concerns related to the wind power project’s potential adverse effects including: risk of fires, implications for emergency response, effects on rural roadways, groundwater contamination, effects on the wildlife in the area, reclamation, light pollution, shadow flicker, noise and property values.

10. Subsequently, on April 23, 2020, BHE and AltaLink filed amendments to their respective applications to include an alternate substation location. The Commission reissued notice of application to stakeholders that could be directly and adversely affected by the amendment. One additional stakeholder, Calvin Lunseth, filed a submission raising concerns with the proposed alternate location. Calvin Lunseth was granted standing by the Commission.

11. The Commission requested parties to provide comments on whether further process, including a hearing, was desired, or if the Commission should proceed to make a decision on the applications based on the information placed on the record to date. The only party to respond to the Commission’s request was BHE, in which it indicated that it wanted the Commission to proceed to a decision. As such, the Commission determined that it would consider parties’ submissions on the record as evidence and final argument, and would proceed to make its decision on the applications.

3 Discussion

12. The Rattlesnake Ridge Wind Power Plant would consist of 28 Goldwind G155/4200 4.2-MW turbines, and a 34.5-kV collector system of underground collector lines to connect the turbines to the Rattlesnake Ridge 719S Substation.

13. BHE stated that the Rattlesnake Ridge Wind Power Plant’s turbines would have a hub height of 110 metres and a rotor diameter of 155 metres. Additionally, the Rattlesnake Ridge Wind Power Plant would include access roads, an operations and maintenance facility, and one meteorological tower. The locations of the Rattlesnake Ridge Wind Power Plant turbines are shown in the following table:

Table 2. Rattlesnake Ridge Wind Power Plant turbine locations

Sections	Township	Range	Meridian
28, 31, 32, 33	10	8	W4M
5, 7, 8	11	8	W4M
12	11	9	W4M

14. The major equipment owned by BHE within the Rattlesnake Ridge 719S Substation would include one 34.5-kV/138-kV, 140-megavolt ampere transformer and one 138-kV circuit breaker.

15. BHE’s preferred location of the Rattlesnake Ridge 719S Substation would be on approximately one-half hectare of privately owned cultivated land, directly adjacent to AltaLink’s existing 138-kV Transmission Line 879L, in the southwest quarter of Section 28, Township 10, Range 8, west of the Fourth Meridian.

16. On April 23, 2020, BHE provided an application amendment which proposed to relocate approximately three kilometres of underground collector line and the associated laydown area. The application amendment also provided an alternate location for the Rattlesnake Ridge 719S Substation and an alternate route for Transmission Line 879AL. The alternate route for Transmission Line 879AL was proposed to be approximately one kilometre in length to connect the Rattlesnake Ridge 719S Substation to Transmission Line 879L. The alternate substation location was proposed to be sited approximately one kilometre north of the preferred substation location, within the northwest quarter of Section 28, Township 10, Range 8, west of the Fourth Meridian. AltaLink also amended its applications to include the alternate substation location and transmission line routing options as further discussed below.

17. The Rattlesnake Ridge Wind Power Plant and the Rattlesnake Ridge 719S Substation (collectively, the wind power project) would be sited within approximately 49 quarter sections of privately owned cultivated agricultural land and grasslands in the County of Forty Mile, in the Whitla area.²

18. BHE retained Golder Associates Ltd. to conduct a noise impact assessment for the wind power project in accordance with Rule 012: *Noise Control*. Golder stated that the wind power project would comply with the permissible sound levels at all receptors for both the daytime and nighttime period. Further, Golder further stated that the wind power project was not predicted to cause low frequency noise at any receptor.

19. BHE completed a shadow flicker analysis that evaluated a worst-case scenario and an expected-case scenario of shadow flicker at 20 different receptors within two kilometres of the wind power project. The expected-case scenario analysis predicted that no receptor would experience shadow flicker in excess of 30 hours per year, with the most impacted receptor expected to experience up to 18 hours per year. It further predicted that the wind power project would have a minimal potential for shadow flicker effects.

20. Some parties opposed to the wind power project raised concerns with risk of fires that could be caused by the wind power project. BHE confirmed that it consulted with the County of Forty Mile; however, it did not confirm whether it had discussed the wind power project with local first responders. BHE stated that the County of Forty Mile did not raise concerns during the consultation. BHE confirmed that it would complete an emergency response plan in consultation with the County of Forty Mile prior to the wind power project becoming operational. BHE confirmed that this plan would include procedures for emergency preparedness and response plans for all types of emergency situations, including fires.³

21. Parties opposed also raised concerns with the wind power project's impacts on rural roads, including the maintenance of the roads. BHE stated it would develop a road use agreement with the County of Forty Mile that would outline responsibilities for road repair and maintenance.

22. Additional information about the environmental impacts of the wind power project and Transmission Line 879AL are discussed in the Environmental impacts section of this decision.

² Exhibit 25018-X0002, Application, PDF pages 15 and 16.

³ Exhibit 25018-X0060, BHEC Responses to Dwayne and Eleanor Gechter Information Request, PDF page 12.

23. The AESO's NID application requested approval of the need to meet BHE's system access service request to connect the wind power project to the Alberta Interconnected Electric System. The AESO's preferred transmission facilities to meet the need identified included:

- Addition of one 138-kV circuit to connect the wind power project to the existing 138-kV Transmission Line 879L using a T-tap configuration.
- Modification, alteration, addition or removal of equipment, including switchgear, and any operational, protection, control and telecommunication devices required to undertake the work as planned and ensure proper integration with the transmission system.

24. The AESO conducted power flow, transient stability and short-circuit analyses to assess the impact of the wind power project and the transmission facilities on the Alberta Interconnected Electric System. The transient stability analysis indicated that there were no stability concerns, while some thermal violations were identified in the power flow analysis. The AESO indicated that thermal violations could be mitigated by increasing the thermal rating of the existing 138-kV Transmission Line 610L by removing the distribution underbuild, by proposed and existing remedial action schemes and by real-time operational practices.

25. To meet the AESO's identified need, BHE requested approval to construct and operate the 138-kV Transmission Line 879AL, which would connect the Rattlesnake Ridge 719S Substation to the Alberta Interconnected Electric System via AltaLink's existing 138-kV Transmission Line 879L. The proposed Transmission Line 879AL would consist of 50 metres of overhead conductor. BHE stated that approximately 40 metres of the transmission line would be sited within the boundary of the substation, and approximately 10 metres would be sited within undeveloped County of Forty Mile road allowance.

26. BHE confirmed that it had prepared an asset transfer agreement and an interim operating and interconnection agreement with AltaLink.⁴ BHE stated that a specific date for the asset transfer was not stipulated in the agreement since there was a high degree of schedule volatility. However, the interim agreement stipulated it would be in effect until six months after the wind power project energization date. Further, BHE confirmed that it and AltaLink had agreed that the asset transfer would occur as soon as practical after energization of the wind power project was completed.⁵

27. Also to meet the AESO's identified need, AltaLink requested approval to alter the existing Transmission Line 879L to support the interconnection of Transmission Line 879AL and install one 29-metre-tall steel lattice telecommunications tower at the proposed Rattlesnake Ridge 719S Substation, designated as the Rattlesnake Ridge 719R Radio Site.

28. AltaLink and BHE also applied to connect the wind power project via Transmission Line 879AL to Transmission Line 879L.

⁴ Exhibit 25014-X0039, BHEC Rattlesnake-Ridge-WPP 20191224_IR_Responses Final, PDF pages 41-182.

⁵ Exhibit 25018-X0039, BHEC Rattlesnake-Ridge-WPP 20191224_IR_Responses Final, PDF page 5.

29. BHE and AltaLink both conducted participant involvement programs for their respective applications to identify and engage stakeholders, and develop mitigation strategies to address stakeholder concerns where appropriate. BHE and AltaLink also assisted the AESO in conducting a participant involvement program for the NID application. AltaLink stated that it was not aware of any outstanding concerns regarding the transmission facilities; however, BHE noted that there were a number of outstanding concerns from local landowners in the area regarding the wind power project.

30. BHE stated that the expected in-service date of the wind power project and Transmission Line 879AL would be December 1, 2021. AltaLink stated that it would complete its alterations to Transmission Line 879L and construction of the telecommunications tower at the Rattlesnake Ridge 719S Substation by July 30, 2021.

3.1 Environmental impacts

31. BHE retained Golder to prepare an environmental evaluation for the wind power project and Transmission Line 879AL, which determined that the potential adverse effects of the wind power project and Transmission Line 879AL can be avoided, reduced or controlled with implementation of project-specific mitigation measures and adherence to the regulations, requirements and best management practices identified in the *Wildlife Directive for Alberta Wind Energy Projects*. The environmental evaluation concluded that the potential effects of the wind power project and Transmission Line 879AL on the environment would not be significant.

32. BHE stated that the wind power project and Transmission Line 879AL footprint has been sited so that no project activities would occur within environmentally significant areas.⁶ The environmental evaluation indicated that approximately 95 per cent of the wind power project footprint would be located on modified vegetation and land cover types including cultivation, tame pasture or hay, railway and roads. All turbines would be located on cultivated land, with the exception of one turbine which was proposed to be located on tame pasture. To reduce the amount of native grassland disturbance, BHE committed to using minimal disturbance construction techniques, to conduct construction during dry or frozen ground conditions and to utilize matting to prevent disturbance to native plants and soils. BHE further committed to conducting vegetation clearing outside of the migratory breeding bird and nesting restricted activity periods.⁷

33. BHE stated that project infrastructure had also been sited to avoid wetlands. However, the wind power project and Transmission Line 879AL would be sited within Alberta Environment and Park's (AEP) 100-metre setback for 52 Class III or higher wetlands. BHE stated that mitigations to reduce potential impacts to wetlands from the wind power project and Transmission Line 879AL that would be implemented include construction under dry or frozen ground conditions and using geotextile, rig matting, earthen berms, vegetated buffers, and silt fencing. BHE committed to conducting amphibian surveys at all Class III and higher wetlands where the required 100-metre setback would be infringed upon, prior to construction.⁸

⁶ Exhibit 25018-X0011, Environmental Evaluation, PDF page 20.

⁷ Exhibit 25018-X0039, AEP Referral Report, PDF page 32.

⁸ Exhibit 25018-X0039, AEP Referral Report, PDF page 33.

34. BHE submitted a renewable energy referral report issued by AEP Wildlife Management.⁹ AEP stated that the wind power project had been sited to avoid most wildlife features and the proposed mitigations for working within areas of higher quality habitat were adequate and aligned with the intent of the *Wildlife Directive for Alberta Wind Energy Projects*. Based on the wind power project's siting, limited wildlife use in the area and the monitoring and mitigation commitments made by BHE, AEP determined that the wind power project posed an overall moderate risk to wildlife and wildlife habitat.

35. With respect to wildlife habitat and wildlife features, AEP determined that the majority of the wind power project would avoid areas of higher quality habitat, with the exception of two raptor nests. AEP stated that the risk would be considered low based on the proposed mitigations for working in areas of native habitat and wetlands. BHE committed to keep its project-related surveys updated by conducting additional site-specific wildlife surveys every two years, until the wind power project is commissioned.¹⁰

36. AEP determined that the wind power project's bat mortality risk during operation would be high based on the extremely high bat activity recorded in the survey results from the wind power project area. AEP noted that BHE has committed to implementing the required mitigations to reduce the overall risk of bat mortality to acceptable levels; however, AEP acknowledged that extreme mitigations may be required depending on the results of the post-construction monitoring to reduce the mortality rate to acceptable levels.¹¹

37. BHE prepared a technical memorandum in response to concerns raised by AEP regarding high bat activity rates recorded during the baseline pre-construction environmental studies. BHE committed to maintaining bat mortality rates for the wind power project below the thresholds outlined in the *Bat Mitigation Framework for Wind Power Development* and, if required, implementing adaptive management alternatives that would be considered acceptable by AEP to meet the intent of the directive.¹² BHE further committed to the installation of acoustic detection devices at turbine locations T12, T17, T21 and T24 to provide data regarding bat presence at elevation, provide insights of north to south flow during migrations and permit the implementation of smart curtailment or other alternative mitigations as required by AEP.¹³

38. Dwayne and Eleanor Gechter raised concerns about the wind power project's potential impact to wildlife and wildlife habitat and the adequacy of the wildlife surveys conducted for the wind power project. Specific concerns were raised about the visual surveys conducted in the area of the Whitla Coulee System. They submitted that the visual surveys should be considered inadequate given the deep terrain and curves associated with the coulee. They further stated that the coulee system is of particular importance to sensitive wildlife in the wind power project area. Dwayne and Eleanor Gechter stated that the substation should be setback at least one and a half kilometres from the Whitla Coulee, and the two closest turbines should be relocated.¹⁴ They argued that this relocation would reduce the risk to wildlife residing in the Whitla Coulee.

⁹ Exhibit 25018-X0039, AEP Referral Report, PDF page 24.

¹⁰ Exhibit 25018-X0039, AEP Referral Report, PDF page 36.

¹¹ Exhibit 25018-X0039, AEP Referral Report, PDF page 33.

¹² Exhibit 25018-X0050, Round 2 Information Request Responses, PDF page 35.

¹³ Exhibit 25018-X0050, Round 2 Information Request Responses, PDF page 12.

¹⁴ Exhibit 25018-X0062, DE Gechter letter to AUC regarding BHE information responses, PDF page 3.

39. In response to the concerns raised by Dwayne and Eleanor Gechter, BHE submitted that additional wildlife surveys were conducted in an attempt to identify the wildlife activity mentioned by Dwayne and Eleanor Gechter with respect to the Whitle Coulee System. BHE noted that the additional surveys were also conducted using visual methods, as permission to access the land was not granted to conduct wildlife surveys.¹⁵

40. BHE stated that it provided an alternate substation location for the Commission's consideration in response to the suggestion to relocate the substation. BHE stated that the original substation location is preferred by the substation landowner, Calvin Lunseth, who is the landowner for both substation locations. Calvin Lunseth stated that the alternate substation location would affect his ability to farm his land. He explained that the alternate substation location would be positioned in the middle of the field, requiring him to farm around the full perimeter of the fenced area, whereas with the original location, he only had to farm up to the substation fenced area due to its location at the end of the field.¹⁶

41. Further, Calvin Lunseth explained that the original substation location would only require 50 metres of transmission line that would be contained within the fenceline of the substation. The alternate substation location would require over 1,000 metres of transmission line, which creates a danger of contacting the transmission lines when operating farm equipment at night or in dusty conditions.

42. BHE noted that the environmental evaluation indicated that the potential effects to wildlife and wildlife habitat from the alternate substation location and transmission line routing would be similar to the original substation location and that the same mitigation strategies, and commitments would be implemented.

43. BHE requested that AEP review the alternate substation location and on April 30, 2020, AEP issued a letter stating that it had reviewed the changes to the location of the alternate substation and concluded that the overall project risk to wildlife remained moderate, as described in the original referral report.¹⁷

44. BHE stated that the mitigation measures proposed in the environmental evaluation would comply with all pertinent environmental-based provincial and federal legislation, acts, and guidelines. BHE prepared a construction and operation mitigation plan and post-construction monitoring and mitigation plan as part of the environmental evaluation, which were based on the requirements included in AEP's renewable energy project submission report template.¹⁸ BHE further stated that the additional mitigation measures it proposed would be incorporated into the project-specific environmental protection plan prior to the start of construction.

45. BHE noted that conservation, reclamation and decommissioning activities would be implemented in alignment with AEP's *Conservation and Reclamation Directive for Renewable Energy Operations* (C&R Directive). BHE submitted that a project-specific conservation and

¹⁵ Exhibit 25018-X0093, Application Update Memorandum, PDF page 1.

¹⁶ Exhibit 25018-X0102, Calvin Lunseth document, page 1.

¹⁷ Exhibit 25018-X0094, AEP-WM Referral Report Amendment Letter for Project, PDF page 1.

¹⁸ Exhibit 25018-X0011, Appendix F Rattlesnake Ridge Wind Power Project: Wildlife Submission to Alberta Environment and Parks, PDF page 140.

reclamation plan meeting the requirements of the C&R Directive will be prepared prior to project construction and submitted to the AUC and AEP.¹⁹

4 Findings

46. In accordance with Section 17 of the *Alberta Utilities Commission Act*, the Commission must assess whether the proposed facility applications are in the public interest, having regard to their social, economic and other effects including their effects on the environment.

47. The Commission considers that the public interest will be largely met if the applications comply with existing regulatory standards, and the public benefits of the proposed facilities outweigh their negative impacts.²⁰ The Commission must take into account the purposes of the *Hydro and Electric Energy Act* and the *Electric Utilities Act*.²¹ The Commission also considers whether the applicants have met the requirements in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments* and Rule 012. Applicants must obtain all approvals required by other applicable provincial or federal legislation.

48. The purpose of a participant involvement program is to allow affected parties to understand the nature of a proposed project and afford them a reasonable opportunity to express concerns and engage in meaningful discussions with the applicant with the goal of eliminating, or mitigating to an acceptable degree, the affected party's concerns about the project. Based on the evidence submitted by the applicants, the Commission is satisfied that BHE, the AESO and AltaLink have conducted participant involvement programs which meet Rule 007 requirements and achieve the intended purpose of the program as described.

49. The Commission acknowledges that the parties opposed to the wind power project raised concerns about the wind power project's noise. However, the noise impact assessment filed by BHE demonstrates that the wind power project is predicted to be below the daytime and nighttime permissible sound levels identified in Rule 012, and the wind power project is not expected to cause low frequency noise at any noise receptor. The Commission finds that the noise impacts associated with the wind power project have been mitigated to an acceptable degree.

50. The shadow flicker analysis predicted that in the expected-case scenario, the most impacted residence would experience up to 18 hours of shadow flicker per year and the Commission is satisfied that the shadow flicker effects associated with the wind power project will be minimal.

51. Regarding the concerns raised on the effects of light pollution, the Commission expects that any lights atop the turbines would be designed in accordance with Transport Canada and NAV Canada regulations.

¹⁹ Exhibit 25018-X0050, Round 2 Information Request Responses, PDF page 4.

²⁰ EUB Decision 2001-111: EPCOR Generation Inc. and EPCOR Power Development Corporation 490-MW Coal-Fired Power Plant, Application 2001173, December 21, 2001, page 4.

²¹ *Hydro and Electric Energy Act*, RSA 2000 Ch. H-16, ss 2, 3; *Electric Utilities Act*, RSA 2003 Ch. E-5.1, ss 5.

52. With respect to the concerns raised by parties opposed to the wind power project about roads and road maintenance, the Commission notes that neither the municipality nor Alberta Transportation raised concerns about impacts to existing roads in the area. However, the Commission acknowledges BHE's commitment to develop a road use agreement with the County of Forty Mile.

53. While the interveners raised general concerns about the project's potential to impact property values, they provided no evidence in support of the assertion.

54. The parties opposed to the wind power project raised concerns regarding emergency response and the risk of fire. The Commission has considered these concerns, and acknowledges BHE's commitment to develop an emergency response plan in consultation with the County of Forty Mile before energization of the wind power project.

4.1 Environmental impacts

55. The Commission acknowledges that the wind power project and Transmission Line 879AL have been sited to avoid native habitat and wetlands. The Commission is satisfied that BHE's post-construction monitoring plan will adequately address the potential environmental impacts of the wind power project and is aligned with AEP's post-construction wildlife requirements set out in the *Wildlife Directive for Alberta Wind Energy Projects* and in the referral report.

56. With regard to the wildlife surveys conducted for the wind power project, the Commission finds the survey approach adopted, including additional visual surveys, was reasonable. The Commission notes in particular that AEP found the wildlife surveys conducted for the wind power project to be adequate and in alignment with the intent of the *Wildlife Directive for Alberta Wind Energy Projects*.

57. AEP determined that BHE's proposed bat mitigation measures are generally consistent with the requirements of the *Wildlife Directive for Alberta Wind Energy Projects* and *Bat Mitigation Framework for Wind Power Developments*. Nevertheless, AEP concluded that the risk of fatality to bats remains high and may require further adaptive management measures, depending on the results of the post-construction monitoring.

58. BHE acknowledged the high level of bat activity in the wind power project area and the identified risk to migratory bats from the operation of the wind power project and expressed its willingness to implement mitigation beyond those outlined by AEP in the referral report to address the risk to bats, including:

- i. To install acoustic bat detection on turbine locations T12, T17, T21 and T24 to allow for smart curtailment upon the detection of migratory bat activity.
- ii. To provide the acoustic bat detection monitoring results and any curtailment actions in the post-construction monitoring reports to be provided annually to AEP and the AUC for the Rattlesnake Ridge Wind Power Plant.

59. Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* came into force on July 1, 2019, and applies to all wind projects approved after September 1, 2019. Accordingly, BHE must comply with the requirements of Rule 033. Subsection 3(3) of Rule 033 requires approval holders to submit to AEP and the AUC annual post-construction monitoring survey reports. Consequently, the Commission would also impose the following as a condition of approval to the Rattlesnake Ridge Wind Power Plant:

- a. BHE shall submit an annual post-construction monitoring survey report to Alberta Environment and Parks (AEP) and the AUC within 13 months of the Rattlesnake Ridge Wind Power Plant becoming operational, and on or before the same date every subsequent year for which AEP requires surveys pursuant to Subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.

60. The Commission is satisfied that with diligent application of BHE's mitigation measures, post-construction monitoring, and implementation of any additional mitigation measures as directed by AEP, the potential adverse environmental effects, including those on wildlife and wildlife habitat, from the siting, construction and operation of the wind power project's facilities can be adequately mitigated.

61. Regarding the preferred and alternate locations of the Rattlesnake Ridge 719S Substation, the Commission was not persuaded that the alternate substation location would further reduce the environmental effects of the wind power project. However, the Commission recognizes that the alternate substation location will impose additional impacts on the farming operations of Calvin Lunseth. In the absence of compelling evidence to suggest that the alternate location is superior from an environmental perspective, the Commission finds that approval of the preferred substation location is in the public interest in that it better mitigates the impacts to Calvin Lunseth, the landowner of both locations.

62. The Commission accepts the findings contained within the environmental evaluation report, which concluded that the potential effects of Transmission Line 879AL on the environment would not be significant provided that mitigation measures are implemented.

63. The Commission accepts the determination by AEP that the wind power project poses an overall moderate risk to wildlife and wildlife habitat and has determined that the environmental impacts of the wind power project can be adequately mitigated with the mitigation measures and post-construction monitoring noted above.

4.2 Conclusion

64. Based on the foregoing and subject to the above-noted conditions, the Commission considers the Rattlesnake Ridge Wind Power Plant to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

65. The Commission has determined that the AESO's NID application contains all of the information required by the *Electric Utilities Act*, Rule 007 and the *Transmission Regulation*. No interested party demonstrated that the AESO's assessment of the need to provide transmission system access to the wind power project, 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.

66. The Commission finds that there is no evidence to suggest that approving the alternate Rattlesnake Ridge 719S Substation location would reduce the environmental effects, or risk to wildlife in the area. Further, the landowner who owns the substation land stated that the alternate substation location would affect his ability to farm his land and that he was in favour of the preferred substation location. As such, the Commission finds that the preferred Rattlesnake Ridge 719S Substation location, and therefore the preferred Rattlesnake Ridge 719R Radio Site, and the preferred routes of transmission lines 879L and 879AL, to be better locations than the alternate locations. Based on the foregoing, the Commission finds the preferred Rattlesnake Ridge 719S Substation location, the preferred Rattlesnake Ridge 719R Radio Site, and the preferred routes of transmission lines 879L and 879AL to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

67. The Commission has reviewed the facility applications filed by BHE and AltaLink, and has determined that the technical, siting and noise aspects of the facility applications meet the Commission's requirements. The Commission finds that the BHE and AltaLink applications for Transmission Line 879AL and Transmission Line 879L sufficiently address the need identified by the AESO.

68. The Commission finds that BHE and AltaLink's asset transfer agreement for Transmission Line 879AL meets the requirements of Section 24.31 of the *Transmission Regulation*. The Commission notes that there is an interim agreement between BHE and AltaLink, and BHE has stated that it will transfer the assets as soon as practical after energization. The Commission expects BHE and AltaLink to file an ownership transfer application, and a letter of enquiry to amend the connection order, at the earliest opportunity after energization of the wind power project.

69. The Commission has reviewed the interconnection application, and has determined that the technical aspects of the interconnection meet the Commission's requirements. The Commission finds the approval of the interconnection to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

5 Decision

70. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves Application 25018-A001 and grants BHE Canada Rattlesnake G.P. Inc. the approval set out in Appendix 1 – Power Plant Approval 25018-D02-2020, to construct and operate the Rattlesnake Ridge Wind Power Plant - September 9, 2020.

71. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 25018-A002 and grants BHE Canada Rattlesnake G.P. Inc. the approval set out in Appendix 2 – Substation Permit and Licence 25018-D03-2020 - September 9, 2020, to construct and operate the Rattlesnake Ridge 719S Substation.

72. Pursuant to Section 34 of the *Electric Utilities Act*, the Commission approves Application 25018-A005 and grants the Alberta Electric System Operator the approval set out in Appendix 3 – Needs Identification Document Approval 25018-D04-2020 - September 9, 2020, for the need to provide system access to the Rattlesnake Ridge Wind Power Project.
73. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 25018-A004 and grants BHE Canada Rattlesnake G.P. Inc. the approval set out in Appendix 4 – Transmission Line Permit and Licence 25018-D05-2020 - September 9, 2020, to construct and operate Transmission Line 879AL.
74. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 25018-A006 and grants AltaLink Management Ltd. the approval set out in Appendix 5 – Transmission Line Permit and Licence 25018-D06-2020 - September 9, 2020, to alter and operate Transmission Line 879L.
75. Pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act*, the Commission approves Application 25018-A007 and grants AltaLink Management Ltd. the approval set out in Appendix 6 – Telecommunications Facilities Permit and Licence 25018-D07-2020 – September 9, 2020, to construct and operate the Rattlesnake Ridge 719R Radio Site.
76. Pursuant to Section 18 of the *Hydro and Electric Energy Act*, the Commission approves applications 25018-A003 and 25018-A008 and grants BHE Canada Rattlesnake G.P. Inc. and AltaLink Management Ltd. the approval set out in Appendix 7 – Connection Order 25018-D08-2020 - September 9, 2020, to connect Transmission Line 879AL to Transmission Line 879L.
77. The appendices will be distributed separately.

Dated on September 9, 2020.

Alberta Utilities Commission

(original signed by)

Neil Jamieson
Commission Member

Appendix A – Summary of Commission conditions of approval

This section is intended to provide a summary of all conditions of approval for the convenience of readers. In the event of any difference between the directions and 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 25018-D01-2020 that requires follow-up with the Commission, and will be tracked as a condition of Power Plant Approval 25018-D02-2020 using the AUC's eFiling System:

- a. BHE shall submit an annual post-construction monitoring survey report to Alberta Environment and Parks (AEP) and the AUC within 13 months of the Rattlesnake Ridge Wind Power Plant becoming operational, and on or before the same date every subsequent year for which AEP requires surveys pursuant to Subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.