



Joss Wind Power Inc.

Hand Hills Wind Power Project

August 31, 2012



The Alberta Utilities Commission
Decision 2012-232: Joss Wind Power Inc.
Hand Hills Wind Power Project
Application No. 1605455
Proceeding ID No. 302

August 31, 2012

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1 Introduction

1. Nexen Inc. (Nexen) filed an application with the Alberta Utilities Commission (AUC or the Commission) pursuant to sections 11, 14 and 15 of the *Hydro and Electric Energy Act* for approval to construct and operate a 54 turbine, 81-megawatt (MW) wind power plant and substation to be known as the Hand Hills Wind Power Project and the associated Highland 572S substation (collectively known as the project). The proposed project would be located in the area of Delia, Alberta. This application was registered on September 16, 2009, as Application No. 1605455.

2. In February 2012, Nexen sold the project to Joss Wind Power Inc. (Joss Wind). As part of the sale, Joss Wind assumed responsibility for the application including any commitments made by Nexen in relation to the project. For the purposes of this decision, all references to the applicant shall include, by reference, both the actions and commitments of Nexen that Joss Wind has assumed responsibility for and the direct actions and commitments of Joss Wind.

1.1 Background

3. On May 14, 2010, the applicant requested that the Commission's review of the application be suspended due to potential changes to the project's turbines. In response to the request, the Commission suspended its review pending further notification from the applicant on the status of its proposed changes. On October 4, 2010, the applicant notified the Commission that it had finalized the technical details regarding its wind farm turbine technology and that it would be amending the application.

4. On January 6, 2011, the applicant submitted an amended application. The original application was based on a 54 turbine layout using General Electric (GE) 1.5-MW SLE wind turbine generators with a total installed capacity of 81 MW. The amended application sought approval for 35 Siemens SWT-2.3-101 (2.3 MW) turbines with a total installed capacity of 80.5 MW. The reduction in the number of turbines also resulted in the project location moving farther away from the Delia area identified in the original application.

5. On January 18, 2011, a landowner adjacent to the project submitted a letter regarding the location of turbines 34 and 35. The landowner was concerned about potential impacts those specific turbines would have on a future residence. On June 15, 2011, and again on August 22, 2011, the applicant filed further amendments to its application to move turbines 34 and 35 as far away as possible from the landowner within its siting constraints.

6. Following a series of further discussions between the landowner and the applicant over several months, the applicant was able to amend its application to address the landowner's

concerns. On November 25, 2011, the applicant amended its application by advising that it was removing turbine 34. As a result of the turbine removal, the wind power project would comprise of 34 Siemens SWT-2.3-101 (2.3 MW) wind turbines with a total installed capacity of 78.2 MW.

7. On January 16, 2012, the AUC issued a notice of application for the project. The notice of application was mailed to approximately 200 stakeholders. The notice was also published in the Drumheller Insider on January 20, 2012, and the Drumheller Mail and the Hanna Herald on January 25, 2012. The Commission received six objections in response to the notice. Following the closure of the notice period, the applicant consulted with the six landowners that had submitted objections to the project. The Commission also received one letter in support of the project from John and Merna Shields whose property was proposed as a site for two turbines. The Shields were in support of the project due to economic reasons.¹

8. On March 6, 2012, the applicant amended its application in order to address the concerns of one of the landowners who had submitted an objection in response to the notice. The applicant proposed to move three turbines 50 metres or less and one turbine, turbine 13, 111 metres east and 11 metres south. There were no new landowners within 800 meters as a result of the turbine move and the applicant stated that no parties would experience additional adverse impacts due to relocating the turbines. Following the filing of the amended application and after further consultation with the landowners, three landowners withdrew their objections.

9. On July 10, 2012, the Commission issued a ruling regarding whether the three remaining landowners who had filed objections in response to the notice had met the legislative test for standing under Section 9(2) of the *Alberta Utilities Commission Act*. In the ruling, the Commission found that none of the objecting parties had demonstrated that they have rights that may be directly and adversely affected by the Commission's decision on the application and because no party with standing objected to the application, the Commission determined that it would continue to consider the application without holding a hearing.²

2 The application

10. The Hand Hills Wind Power Project includes 34 wind turbines and a collector substation known as the Highland 572S substation. The wind turbines would be installed on the following lands:

- sections 7, 15, 17, 18, 21, 22, 30 and 31 of Township 30, Range 16, west of the Fourth Meridian
- sections 1, 12, 13, 21, 22, 23, 28 and 31 of Township 30, Range 17, west of the Fourth Meridian

11. The project also includes the construction and operation of a substation, designated as the Highland 572S substation, which would be located in LSD 5 of Section 18, Township 30, Range 16, west of the Fourth Meridian, approximately four kilometres southeast of the village of Delia. The Highland 572S substation would include one 240/34.5-kilovolt (kV),

¹ Exhibit 49.01, Letter of Support – March 31, 2011.

² Exhibit 108, AUC Standing Ruling.

60/80/100-megavolt ampere (MVA) transformer, one 300-kV circuit breaker, seven 34.5-kV circuit breakers and three 2.0-megavolt ampere reactive (MVAR) capacitor banks.

12. The project would also include a 34.5-kV collector system, consisting of overhead and underground power lines for the purpose of collecting and transmitting electric power from each wind turbine to the Highland 572S substation.

2.1 Consultation

13. Initial contact with landowners began in the fall of 2005, and the first option and surface lease agreements were signed in January 2006.³ Contact with new landowners continued and by March 2009, 32 agreements were signed with landowners offering options to lease their lands to install wind turbines. The applicant held open houses in September 2008 and March 2009. The applicant also met with all project option holders in person or by phone to provide project updates during this time. As well, a booth in the Delia Fall Fair was set up in October 2008 to provide information to local residents.

14. During April and May 2009, all land occupants, residents and landowners within 800 metres of the project area boundary were sent information packages and were personally contacted by project representatives. All land occupants, residents and landowners within 800 metres to 2,000 metres of the project area boundary were also sent information packages. The applicant also sent information packages to companies and other parties that may have an interest in the project.

15. The applicant also met with Starland County council and the Special Areas Board in April 2008. In September 2008, and March 2009, the applicant met with the local governments to introduce the project and provide updates.

16. In November 2010, as a result of the amendments to the number of turbines, the applicant sent updated information packages to all stakeholders that were previously contacted as well as all new stakeholders. All stakeholders within 800 metres were also personally contacted by a company representative. The applicant also met again with the Starland County council and the Special Areas Board in November and December 2010. Copies of the projects Special Areas Board⁴ and Starland County development permits⁵ were submitted and updated as required with each amendment.

17. A December 15, 2010 letter from Starland County states that “Starland County Municipal Planning Commission and Starland Council are in support of the development of wind generation facilities and the progression of this development towards achieving the establishment of this energy source within our municipality. We appreciate your ongoing participation and interaction with ourselves and our local residents during this lengthy project development.”⁶

18. The applicant has also consulted Transport Canada, Alberta Transportation and NAV Canada. Copies of the project’s Transport Canada approval,⁷ Alberta Transportation

³ Exhibit 28, Power Plant Application document revised as per IR, page 19.

⁴ Exhibit 3, Special Areas Board development permit, page 2.

⁵ Exhibit 3, page 4, Exhibit 30, page 14, and Exhibit 46, page 7, Starland County development permit and updates.

⁶ Exhibit 46, Amended Application Document, Starland County development permit update, page 8.

⁷ Exhibit 9 and Exhibit 40, Transport Canada approval.

approval,⁸ and a NAV Canada non-objection letter⁹ were submitted and updated as required with each amendment.

2.2 Environment

2.2.1 Land

19. As set out in the application, the proposed project area will be constructed on both cultivated farmland and pasture lands. The pasture lands identified are a mix of tame and native vegetation communities. Turbines 35, 16, 17, 6 and 13 would be situated on pasture lands that are native prairie. The remainder of the turbines will be located on cultivated lands.

20. The applicant proposed mitigation measures to minimize the environmental effects of the project, including: maintaining existing vegetation cover whenever possible, conducting surveys and avoiding plants species-at-risk, constructing and moving all equipment on native prairie only during frozen or dry ground conditions, restricting travel to assigned access route boundaries, repairing rutting and topsoil damage, stripping topsoil and subsoil using a two lift method, separating topsoil and subsoil piles to avoid admixing, suspending construction activity during wet conditions, installing erosion controls following surface disturbance in erosion prone areas, equipment cleaning protocols, conducting additional surveys of riparian wildlife, having environmental monitors on-site during the construction phase, reclaiming temporary disturbances following construction, and monitoring access roads for erosion, rutting, and weeds during operation.¹⁰

21. The applicant further committed to restoring native prairie areas disturbed by the project wherever possible and committed to reseeded disturbed native prairie areas with an approved certified seed mixture from a local source. The seed mixture selected will be based on observations of vegetation species in surrounding areas and discussions with the landowner and Alberta Sustainable Resource Development's Fish and Wildlife Division (Alberta Sustainable Resource Development is now called Alberta Environment and Sustainable Resource Development).

22. The applicant also contracted Cottonwood Consultants to conduct a rare plant survey around the proposed turbine locations and surrounding areas which potentially included rare plants. The surveys were completed between July and October 2008. No rare plant species were identified on any of the proposed turbine locations, and only two provincially listed species were found in the study area. Cottonwood Consultants concluded in its study that there was modest potential for the presence of rare plants in the study area, with higher potential areas consisting of sandy grasslands, native rough fescue grasslands, and spring/seepage areas.¹¹ In May 2009, a further vegetation assessment of all turbine sites occurring within native prairie was conducted by the applicant. No rare plants were found during this survey. Prior to construction, the applicant stated it would complete additional rare plant surveys for the remaining project

⁸ Exhibit 4, Application Documents, Alberta Transportation approval, page 106.

⁹ Exhibit 6, NAV Canada non-objection letter, page 2.

¹⁰ Exhibit 28, Power Plant application document revised as per ID, pages 15-16, Exhibit 29, Environmental Assessment document revised as per IR, Appendix IV Project Mitigation/Environmental Protection Plan, page 184 and Exhibit 60.02, Nexen IR Response, information request AUC-Nexen-24, pdf page 5.

¹¹ Exhibit 29, Environmental Assessment document revised as per IR, Appendix V, Wallis, C. 2009, Plant species-at-risk survey-Nexen Inc. Wind Energy Project, Hand Hills, Alberta, page 214.

components, including surveys for access roads and power lines, so that any rare plants can be identified and avoided.

2.2.2 Fish and wildlife

23. The applicant committed to follow the guidelines in Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division's *Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat within Grassland and Parkland Natural Regions of Alberta* document.¹² The species minimum setbacks set out in this guideline were considered as part of the project component siting process.

24. As well, the applicant stated that it followed the methodologies outlined in Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division's *Wildlife Guidelines for Alberta Wind Energy Projects* document to assess the project's potential effect on wildlife. The potential effects of the project on wildlife that were assessed included loss of bird habitat, direct mortality to birds and bats, loss of amphibian habitat, loss of ungulate and small mammal habitat, creation of barriers to wildlife movement, and loss of habitat and direct mortality of species-at-risk.

25. The applicant contracted Golder Associates Ltd. to conduct bird and bat surveys. These were completed in the project area in 2008. A low amount of bat movement through the project area was recorded. It was shown that based on flight height preferences and relative abundance, waterfowl and passerines are the bird species groups with the highest turbine collision. However, the Golder Associates Ltd. report noted that no species had a particularly high risk of collision in the study area in comparison to other wind resource areas in Alberta.

26. Through responses to information requests, the applicant estimated the rate of bat fatalities expected due to collisions during turbine operations to be approximately 5.2 bat fatalities per turbine per year. The applicant stated that the significance of estimated bat mortality to local and migratory bat populations cannot be evaluated as population data were not available.

27. The applicant committed to conducting two years of post-construction monitoring for bats and birds and stated that it would use the results of this monitoring to develop further mitigation as appropriate.¹³ As well, the applicant stated that it will consult with Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division and the Canadian Wildlife Service to determine acceptable mortality rates, and to work with these agencies to implement appropriate mitigation measures, where necessary. The applicant proposed that, if necessary, additional mitigation measures could include changing the cut-in speed for turbines and shutdown periods.¹⁴

¹² Exhibit 29, Environmental Assessment document revised as per IR, Appendix IX. Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat within Grassland and Parkland Natural Regions of Alberta, page 333.

This document was updated on April 28, 2011 by Fish and Wildlife Division, Sustainable Resource Development, Government of Alberta. The current version is available online at <http://www.srd.alberta.ca/FishWildlife/WildlifeLandUseGuidelines/documents/WildlifeLandUse-SpeciesHabitatGrasslandParkland-Apr28-2011.pdf>.

¹³ Exhibit 28, Power Plant application document revised as per IR, page 16, item 3.

¹⁴ Exhibit 60.02, Nexen IR Response, information request AUC-Nexen-26(f), page 16.

28. With regard to potential loss of amphibian habitat and direct mortality of amphibians, the applicant committed to conducting amphibian surveys at the underground power line water body crossing locations to identify the presence of amphibian species and habitat. Should amphibians be found at water body crossings, then, in consultation with Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division and the Canadian Wildlife Service, it would modify its crossing locations to protect amphibian species and habitat as necessary.

29. The applicant examined the cumulative effects of the project with existing development and future projects and concluded that significant negative cumulative effects may occur to migratory birds and small mammals by creating barriers to movement, and moderate negative cumulative effects may occur to native grasses, birds, bats, and small mammals. However, the applicant stated that environmental monitors will be present on-site during the construction and reclamation phases to ensure that mitigation measures are implemented and environmental regulations and guidelines are adhered to. With the implementation of the mitigation measures, the applicant submitted that there would be no significant environmental effects of the project.

30. Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division has reviewed the proposed project and provided the applicant with a sign-off for the initial project¹⁵ and for the application amendments.¹⁶ In that assessment, Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division indicated support for the environmental assessment and mitigation proposed. Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division indicated its expectation that native prairie would be further delineated and wildlife inhabiting riparian areas surrounding artesian wells (springs) would be surveyed to identify species-at-risk expected in those areas.

2.2.3 Historical resources impact assessment

31. A historical resources impact assessment was completed for the project.¹⁷ As a result of this assessment, three new archaeological sites were recorded following the field investigations. Potential impacts to these three sites were mitigated by the collection of artifacts from these sites. Consequently, Alberta Culture and Community Spirit granted the project conditional *Historical Resource Act* clearance on February 6, 2009. This clearance stated that the applicant has *Historical Resources Act* clearance for all lands assessed, which includes all of the amended turbine locations. The clearance is conditional on the applicant providing Alberta Culture and Community Spirit with the final project footprint prior to the start of construction.¹⁸

32. A paleontological historical resources impact assessment was also completed for the project. Three new archaeological sites were recorded and the applicant stated that collection of artifacts at all three sites has mitigated the potential for adverse effects in those locations. The assessment recommended on-site paleontological monitoring for all excavation activity in sections 12, 22 and 28 of Township 30, Range 17, west of the Fourth Meridian and the southwest quarter of Section 7, Township 30, Range 16, west of the Fourth Meridian, and that if bedrock is

¹⁵ Exhibit 4, Application Documents, Alberta Environment approval and Alberta Sustainable Resource Development approval, pages 114 and 115.

¹⁶ Exhibit 54, Amendment for movement of two turbines, Alberta Sustainable Resource Development approval, page 7.

¹⁷ Exhibit 29, Environmental Assessment document revised as per IR, Section B8, Historical Resources, page 63.

¹⁸ Exhibit 4, Application Documents, Appendix V-PP10- Alberta Culture & Community Spirit Approval, page 117.

encountered during excavation in areas not monitored, a professional paleontologist should be consulted. The applicant asserted that, with mitigation, effects to historical and paleontological resources are expected to be neutral.¹⁹

3 Noise impact assessment

33. A noise impact assessment was submitted with the initial filing of the application on September 16, 2009. The initial noise impact assessment proposed two turbine types and two turbine layout options. Each of the two wind turbine design layouts were established within the same geographical study area footprint. The results in the noise impact assessment indicated that the highest predicted noise level for the project of either of the two wind turbine design layouts would comply with the daytime and nighttime permissible sound level in accordance with AUC Rule 012: *Noise Control* (AUC Rule 012).

34. Subsequent noise impact assessment revisions and amendments were submitted as the wind turbine layout and design were amended. In the final noise impact assessment results^{20,21} for the final turbine layout, the applicant identified 39 receptor locations. The results indicated that the cumulative predicted noise level for the proposed 35 Siemens SWT2.3-101 turbine design layout would comply with the daytime and nighttime permissible sound level in accordance with AUC Rule 012.

4 Legislative framework

35. The AUC is responsible for regulating the construction and operation of power plants in Alberta. Section 11 of the *Hydro and Electric Energy Act* makes it clear that no person may construct or operate a power plant without prior approval from the Commission.

36. When considering an application for a power plant, the Commission is guided by sections 2 and 3 of the *Hydro and Electric Energy Act* and Section 17 of the *Alberta Utilities Commission Act*.

37. Section 2 of the *Hydro and Electric Energy Act* lists the purposes of the act, which include:

- To provide for the economic, orderly and efficient development and operation, in the public interest, of the generation of electric energy in Alberta.
- To secure the observance of safe and efficient practices in the public interest in the generation of electric energy in Alberta.
- To assist the government in controlling pollution and ensuring environment conservation in the generation of electric energy in Alberta.

¹⁹ Exhibit 29, Environmental Assessment document revised as per IR, Section B9, Paleontological Resources, page 71.

²⁰ Exhibit 98, Amendment Application, page 10.

²¹ Exhibit 104, Updated sound Table as per IR.

38. Section 3 of the *Hydro and Electric Energy Act* requires the Commission to have regard for the purposes of the *Electric Utilities Act* when assessing whether a proposed power plant is in the public interest. The purposes of that act include the development of an efficient competitive electricity market, where need for and investment in generation are guided by competitive market forces.

39. Section 3 of the *Hydro and Electric Energy Act* further directs that the Commission “shall not have regard to whether the proposed power plant is an economic source of electric energy in Alberta or to whether there is a need for the electric energy to be produced by such a facility in meeting the requirements for electric energy in Alberta or outside Alberta.”

40. Regarding the proposed substation, the Commission considered sections 14 and 15 of the *Hydro and Electric Energy Act*, which state that no person may construct or operate a transmission line without prior approval of the Commission.²²

41. Of note is Section 19 of the *Hydro and Electric Energy Act*, which authorizes the Commission to deny an application, approve it, or approve it with conditions.

42. Additionally, the Commission considered Section 17(1) of the *Alberta Utilities Commission Act*, which states:

Public interest

17(1) Where the Commission conducts a hearing or other proceeding on an application to construct or operate a hydro development, power plant or transmission line under the *Hydro and Electric Energy Act* or a gas utility pipeline under the *Gas Utilities Act*, it shall, in addition to any other matters it may or must consider in conducting the hearing or other proceeding, give consideration to whether construction or operation of the proposed hydro development, power plant, transmission line or gas utility pipeline is in the public interest, having regard to the social and economic effects of the development, plant, line or pipeline and the effects of the development, plant, line or pipeline on the environment.

43. The Commission also considered its AUC Rule 007: *Applications for Power Plants, Substations, Transmission Lines, and Industrial System Designations* which sets out its application requirements (AUC Rule 007).²³

44. In Decision 2001-111,²⁴ the Commission’s predecessor, the Alberta Energy and Utilities Board, described in the following passage, how it considers the public interest in relation to an application for a power plant:

The determination of whether a project is in the public interest requires the Board to assess and balance the negative and beneficial impacts of the specific project before it. Benefits to the public as well as negative impacts on the public must be acknowledged in this analysis. The existence of regulatory standards and guidelines and a proponent’s

²² As defined in section 1(1)(o)(iii) of the *Hydro and Electric Energy Act*, “transmission line” includes substations.

²³ AUC Rule 007- *Applications for Power Plants, Substations, Transmission Lines and Industrial System Designations*.

²⁴ Decision 2001-111: EPCOR Generation Inc. and EPCOR Power Development Corporation 490-MW Coal-Fired Power Plant, Application No. 2001173, December 21, 2001.

adherence to these standards are important elements in deciding whether potential adverse impacts are acceptable. Where such thresholds do not exist, the Board must be satisfied that reasonable mitigative measures are in place to address the impacts. In many cases, the Board may also approve an application subject to specific conditions that are designed to enhance the effectiveness of mitigative plans. The conditions become an essential part of the approval, and breach of them may result in suspension or rescission of the approval.

45. The Commission considers that this approach to assessing whether a proposed project is in the public interest is consistent with the purpose and intent of the statutory scheme. Further, the Commission considers that this approach provides an effective framework for the assessment of large projects that require multiple approvals or authorizations.

46. Therefore, in making a decision on the application, the Commission must consider, among other matters:

- Whether the approval of the application is in the public interest having regard to the social and economic effect of the development and the effects of the development on the environment, in accordance with Section 17 of the *Alberta Utilities Commission Act*.
- Whether the application meets all the requirements of AUC Rule 007.

5 Findings

47. The Commission finds that the applicant has complied with the application requirements as set out in AUC Rule 007, including the notification and consultation requirements outlined in the rule. The applicant fulfilled its duty to notify potentially affected landowners and residents, provided opportunities for these persons to voice concerns, and altered the project, in some cases, to address these concerns. For these reasons, the Commission finds that given the nature and scope of the project, the applicant's consultation steps were adequate and mitigate in favour of the approval of the application.

48. The Commission notes that many environmental and monitoring commitments were made by the applicant and took into account these commitments in its assessment of this application.

49. With regard to potential environmental impacts of the project on lands, the Commission finds that there will be impacts on native grasslands. There will also be potential environmental impacts on wildlife. These impacts considered alone would have weighed in favour of denying the application. However, with respect to impacts on lands, the Commission is satisfied that reasonable mitigative measures will be put into place to address them. Key to establishing these measures is the habitat compensation and mitigation plan to offset the impacts of the placement of turbines on native grasslands.

50. The Commission considers that Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division's positive assessment of the project's location, proposed mitigation strategies, and post-construction monitoring program is evidence that approval of the proposed project will not result in adverse environmental effects. The Commission also takes from this that, absent any adverse environmental effects, approval of the

project is in the public interest from an environmental perspective. However, the Commission notes that Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division sign-off on the project was predicated on the completion of post-construction wildlife monitoring programs. The Commission considers such an approach to be a prudent and effective measure to ensure that the actual impacts of the project are consistent with those predicted in the application.

51. Regarding the social and economic considerations of the public interest test, the Commission considers that the balance weighs in favour of approving the application. The Commission accepts that the proposed project will result in economic benefits to Alberta, and that there will be economic benefits to landowners participating in the project as outlined in the submission from the Shields.²⁵ The Commission also notes that Starland County Municipal Planning Commission and Starland Council are in support of the development of the project and that Starland County is "anxious to see the project constructed."²⁶

52. The Commission also considered the conditional *Historical Resource Act* clearance for the project provided by Alberta Culture and Community Spirit and has taken this clearance and the applicant's commitment to avoid or mitigate potential effects to any historical resources encountered into consideration in evaluating this application.

53. With respect to noise, the Commission notes the results in the noise impact assessment indicate that the highest predicted nighttime sound level at two residences in the study area (receptor R17 and R34) are predicted to be above 39 dBA_{Leq}, which is below the permissible sound level of 40 dBA_{Leq} set out in AUC Rule 012. The Commission directs the applicant to conduct a post-construction comprehensive noise survey for these receptors, under representative conditions,²⁷ to verify and confirm that the project complies with the requirements of AUC Rule 012, and to file the results of this comprehensive noise survey with the Commission.

54. The Commission accepts that the locations of the proposed Hand Hills Wind Power Project and Highland 572S substation and collector system were selected such that noise impacts on landowners and impacts on the environment have been minimized.

55. In light of the above, the Commission concludes that the proposed project is in the public interest.

56. However, due to the importance of the proposed mitigation measures in reducing the potential environmental impacts to an acceptable level, the Commission places the following conditions on the approval to be issued. Joss Wind:

- (a) Shall further delineate and minimize disturbance of native grassland during construction and operation of the project. Where disturbed, Joss Wind shall promptly reclaim native grasslands and restore associated wildlife habitat to a state equivalent to pre-disturbance conditions as much and as quickly as possible. The Commission expects the applicant, at the end of the project's lifetime, to promptly decommission all project components, and to reclaim and restore all disturbed areas. When providing notice of facility

²⁵ Exhibit 49.01, Letter of Support – March 31, 2011.

²⁶ Exhibit 30, Starland County development permit update, page 14.

²⁷ Representative conditions are defined on page 34 of AUC Rule 012: *Noise Control*.

decommissioning to the Commission, the applicant must fully describe the decommissioning, reclamation and restoration work conducted.

- b) Shall, prior to disturbance, survey wildlife at stream crossings and in all riparian areas of wetlands and springs potentially affected by development to the satisfaction of Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division. Joss Wind shall maintain published wildlife setback distances to the greatest extent possible. Where compromise of setback distances is required, Joss Wind shall consult with Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division and implement compensation and mitigation measures as directed by it.
- c) Shall develop and implement a post-construction wildlife monitoring program acceptable to Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division and the Canadian Wildlife Service, and file the results from its post-construction monitoring program with Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division and post the results in the Fish and Wildlife Management Information System. The Commission expects that the applicant will submit copies of those reports and all correspondence from Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division in regard to those reports to the Commission.
- d) Shall complete a bird and bat mortality post-construction monitoring program to the satisfaction of Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division. In the event the results from post-construction bird and bat monitoring program study differ significantly from the information presented in the application, the Commission may review the applicant's approval pursuant to Section 41 of the *Hydro and Electric Energy Act*. The purpose of such a review would be to address any unanticipated environmental impacts resulting from the project.
- e) Shall conduct on-site paleontological monitoring for all excavation activity in sections 12, 22 and 28 of Township 30, Range 17, west of the Fourth Meridian, and the southwest quarter of Section 7, Township 30, Range 16, west of the Fourth Meridian. In other areas, should bedrock be encountered during excavation, excavation shall cease until monitoring of paleontological resources is implemented and, where needed, mitigation is utilized.

57. The Commission also places the following noise conditions on the approval to be issued to verify and confirm that the project complies with the requirements of AUC Rule 012.

- a) Within one year of connecting the power plant to the Alberta Interconnected Electric System and becoming operational, Joss Wind shall conduct post-construction comprehensive noise studies at receptors R34 and R17 under representative operating conditions, in accordance with AUC Rule 012.
- b) Joss Wind shall file all studies and reports relating to the post-construction noise survey and the post-construction monitoring program with the Commission.

58. If the location of any wind turbine supporting structure has to be relocated more than 50 metres from the coordinates stated in the application, the approval holder must re-apply to the Commission for approval to relocate the structure prior to construction. Additionally, for any relocation within 50 metres of a supporting structure that further impacts a feature to which Alberta Environment and Sustainable Resource Development's Fish and Wildlife Division setbacks or Alberta Culture and Community Spirit avoidance or mitigation requirements apply, the approval holder must immediately consult with the appropriate agency and implement any additional mitigation measures specified.

6 Decision

59. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission grants approval for a 34-turbine wind power plant set out in Appendix 1 – Hand Hills Wind Power Plant Approval No. U2012-416 to Joss Wind Inc. to construct and operate the Hand Hills Wind power plant and collector system.

60. Pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act*, the Commission approves the substation application and grants Joss Wind Inc. the permit and licence set out in Appendix 2 - Highland 572S substation – Permit and Licence No. U2012-417 to construct and operate the Highland 572S substation.

61. The appendices will be distributed separately.

Dated on August 31, 2012.

The Alberta Utilities Commission

(original signed by)

Tudor Beattie, QC
Panel Chair

(original signed by)

Anne Michaud
Commission Member

(original signed by)

Neil Jamieson
Commission Member