



**Paintearth Wind Project LP, by its general partner  
Paintearth Wind Project Ltd.**

**Paintearth Wind Project**

**January 22, 2020**

**Alberta Utilities Commission**

Decision 22726-D01-2020

Paintearth Wind Project LP, by its general partner Paintearth Wind Project Ltd.

Paintearth Wind Project

Proceeding 22726

Applications 22726-A001 to 22726-A003

January 22, 2020

Published by the:

Alberta Utilities Commission

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](mailto:info@auc.ab.ca)

Website: [www.auc.ab.ca](http://www.auc.ab.ca)

The Commission may, within 30 days of the date of this decision and without notice, correct typographical, spelling and calculation errors and other similar types of errors and post the corrected decision on its website.

## **1 Decision summary**

1. In this decision, the Alberta Utilities Commission considers whether to approve applications from Paintearth Wind Project LP, by its general partner Paintearth Wind Project Ltd., to construct and operate the Paintearth Wind Project and the Lanes Lake 973S Substation in the County of Paintearth No. 18 (collectively, the project). After consideration of the record of the proceeding, and for the reasons outlined in this decision, the Commission finds that approval of the project is in the public interest having regard to the social, economic, and other effects of the project, including its effect on the environment.

## **2 Introduction**

2. Paintearth Wind Project LP, by its general partner Paintearth Wind Project Ltd. (Paintearth), filed applications with the Commission seeking approval to construct and operate a wind power plant and the Lanes Lake 973S Substation (the project), and also to connect the Lanes Lake 973S Substation to the Alberta Interconnected Electric System (AIES) pursuant to sections 11, 14, 15 and 18 of the *Hydro and Electric Energy Act*. The applications were registered on June 14, 2017, as applications 22726-A001 to 22726-A003. On May 31, 2018, Paintearth filed an amendment to its applications.

3. Paintearth's interconnection application will not be discussed further in this decision because the transmission facilities needed to connect the project to the AIES require applications from ATCO Electric Ltd. and the Alberta Electric System Operator (AESO) which are being considered in Proceeding 23206.

4. The Commission issued a notice of applications for the original and amendment applications in accordance with Section 7 of Rule 001: *Rules of Practice*. The Commission received submissions from Robert Dahmer and JD Johnson in response to the original notice. Mr. Dahmer confirmed he had outstanding concerns with the amendment applications. Mr. Johnson did not respond to the notice of amendment applications.

5. The Commission granted standing to Mr. Dahmer but denied Mr. Johnson standing on the basis that his property is located at least five kilometres from the proposed project and that he did not respond to the notice of amendment applications.<sup>1</sup>

---

<sup>1</sup> Exhibit 22726-X0068, AUC ruling on standing - Paintearth Wind Project.

6. On December 4, 2018, the Commission granted a request by Paintearth to place the proceeding in abeyance to address Mr. Dahmer's concerns and to consider a further amendment to its applications. On October 31, 2019, Mr. Dahmer submitted a letter withdrawing his statement of intent to participate.

### **3 Discussion**

7. Paintearth originally applied for a 149.6-megawatt (MW) project consisting of 44 turbines in June 2017. In late May 2018, Paintearth amended its applications and submitted that the power plant would now consist of 42 Senvion 3.6M140 3.6-MW wind turbines. Each turbine would have a generating capability of 3.6 MW, with the project having a total generating capability of 151.2 MW. Each wind turbine would have a hub height of 110 metres and a blade length of 70 metres, with a maximum height of 180 metres. The project would also include the Lanes Lake 973S Substation, an operations and maintenance facility, a collector system that would be primarily underground, at least one meteorological tower and access roads, and be located on approximately 4,241 hectares of primarily cultivated land in the County of Paintearth No. 18.

8. The Lanes Lake 973S Substation would be located in the southwest quarter of Section 14, Township 37, Range 15, west of the Fourth Meridian. It would be completely enclosed by a chain-link fence so that access is restricted, and contain the following major equipment:

- two 240/34.5-kilovolt (kV), 60/80/100-megavolt ampere transformers
- one 240-kV circuit breaker
- one 34.5-kV switchgear building complete with six 34.5-kV circuit breakers
- one 34.5-kV switchgear building complete with five 34.5-kV circuit breakers
- other substation equipment as described in the application

9. The project area is located approximately 40 kilometres southeast of Stettler as seen on the following map.

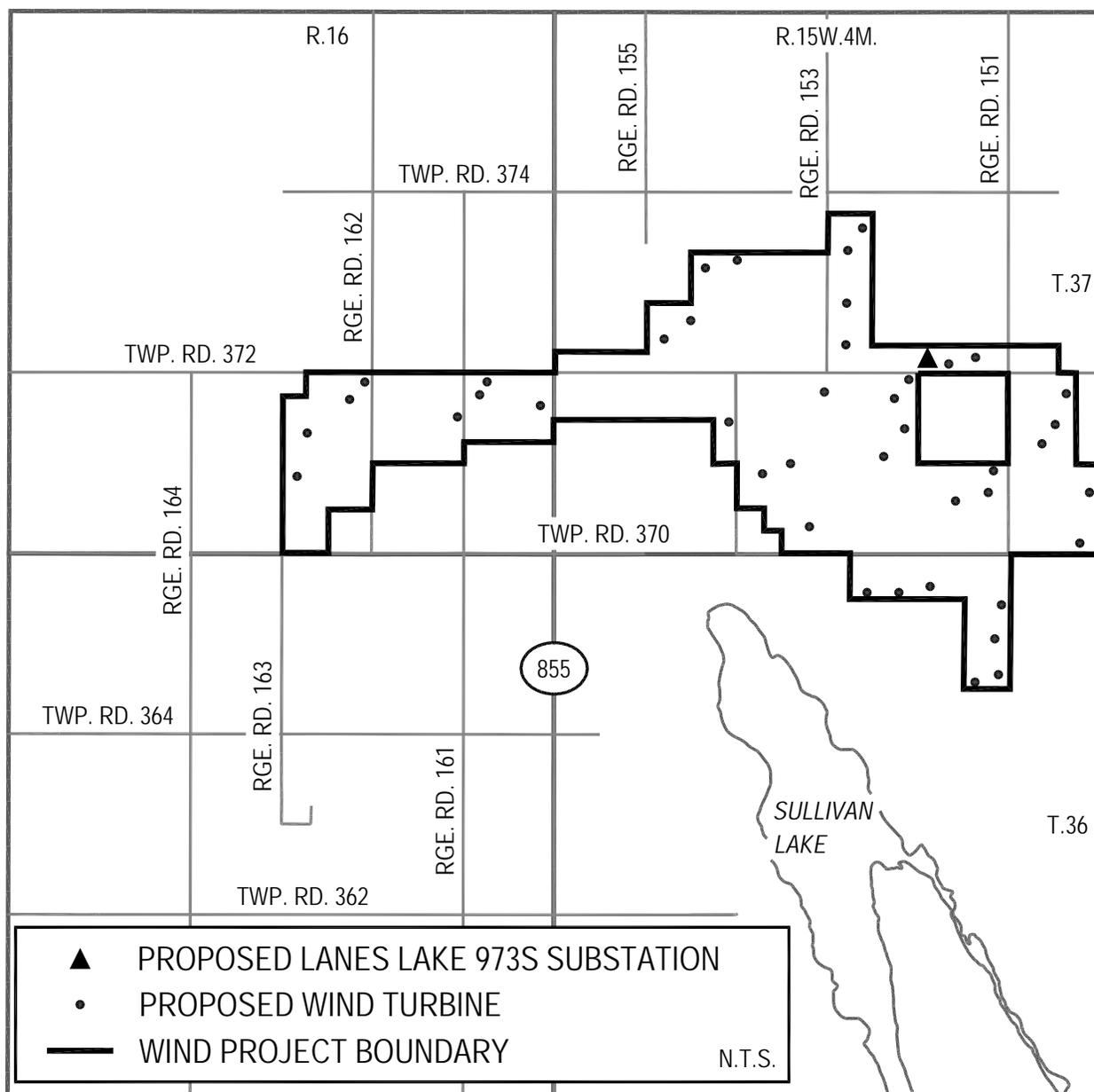


Figure 1. Proposed Paintearth Wind Project boundary

10. Paintearth advised that it consulted with Transport Canada, NAV CANADA<sup>2</sup> and Alberta Transportation and received the respective approvals on the original application. It provided updates in response to its amendment applications and stated that it did not expect any issues because the amendment was for a reduction in turbine locations and no remaining turbine locations have changed.

11. Paintearth provided a shadow flicker map prepared by WSP Canada,<sup>3</sup> on which it outlined the areas where shadow flicker is predicted to occur eight to 15 hours a year and where

<sup>2</sup> NAV CANADA is the company that owns and operates Canada’s civil air navigation service and is responsible for communicating aviation safety aspects related to structures such as wind turbines.

<sup>3</sup> Exhibit 22726-X0005, Attachment 4.0 - PIP Part 2, PDF page 16.

shadow flicker is predicted to occur more than 15 hours a year. WSP Canada concluded that no residences are expected to experience shadow flicker for more than 15 hours a year.

12. Paintearth asserted that it conducted a participant involvement program that was based on the requirements set out in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments*. This included notification with all potentially-affected landowners, residents and occupants within 2,000 metres of the proposed project, consultation within 800 metres and multiple community open houses. Paintearth completed additional notification and consultation with the updated layout, noise and visual impacts as a result of the amendment.

13. Paintearth received a renewable energy referral report issued by Alberta Environment and Parks Wildlife Management (AEP WM) in respect of its original application.<sup>4</sup> AEP WM reviewed the project layout, which was updated after the amendment applications were filed, and had no concerns about new risks to wildlife or wildlife habitat based on the proposed changes. AEP WM determined that the project would pose a medium risk to wildlife and wildlife habitat based on the wildlife assessment data provided by Paintearth, the project siting, and identified mitigation measures. AEP WM noted that turbine siting would provide substantial setbacks on features that funnel bird movement or to maintain linkages likely to reduce negative outcomes for these groups. AEP WM stated that Paintearth has sited turbines at least 1,000 metres from the watercourse draining into Sullivan Lake and has structured turbine siting to ensure travel corridors between Sullivan Lake and Lanes Lake are maintained.

14. AEP WM explained that given the uncertainty that siting measures would be adequate to reduce mortality, the high numbers of birds that migrate through the area, and the close proximity to Sullivan Lake, the project represents a medium risk level to wildlife and wildlife habitat. Paintearth committed to mitigation if necessary and to developing appropriate mitigation measures based on consultation with AEP WM, if levels of mortalities are found to be high.<sup>5</sup>

15. AEP WM stated that the project has been appropriately sited to avoid significant impact to most native habitats; however, 0.38 hectares of native prairie would be affected by one collector line in the southeast quarter of Section 9, Township 37, Range 15, west of the Fourth Meridian. Paintearth committed to reducing the footprint of this impact as much as possible, and proposed the following:

- Identifying and avoiding impact to rare plants, wildlife and species of special concern.
- Scheduling activities to reduce impacts to soils, native vegetation and wildlife.
- Constructing only on dry or frozen ground outside of all applicable species restricted activity periods.
- Reclaiming the area by encouraging natural revegetation or using approved native seed mixes as appropriate.<sup>6</sup>

---

<sup>4</sup> Exhibit 22726-X0009, Attachment 7 - AEP Referral Report.

<sup>5</sup> Exhibit 22726-X0009.01, Attachment 7 - AEP Referral Report, PDF page 9.

<sup>6</sup> Exhibit 22726-X0009.01, Attachment 7 - AEP Referral Report, PDF page 6.

16. Paintearth retained RWDI to conduct a noise impact assessment to assess project compliance in accordance with Rule 012: *Noise Control*. The noise impact assessment was revised (the revised NIA) to identify changes as a result of the amendment applications. In the revised NIA, RWDI identified nine dwelling receptors and 11 third-party energy-related facilities that are located in close proximity to the project and have the potential to influence cumulative sound levels at the noise receptors and accounted for two A-weighted decibels (dBA) uncertainty when calculating sound levels at receptors. The sound power levels of the project turbines were established based on the manufacturer's data.

17. In response to the Commission's information requests, Paintearth updated the predicted nighttime cumulative sound levels.<sup>7</sup> As reflected in the updated table, the predicted margins of compliance during the nighttime are equal to or greater than 0.6 dB and the maximum noise contribution from the project is 37.4 dBA. Based on this information, Paintearth predicted that the project would comply with the permissible sound levels set out in Rule 012.

18. Paintearth stated that it is aiming to begin commercial operation of the project by December 31, 2021.

#### 4 Findings

19. The Commission is considering these applications under sections 11, 14, 15 and 18 of the *Hydro and Electric Energy Act*. In accordance with Section 17 of the *Alberta Utilities Commission Act*, the Commission must assess whether the project is in the public interest, having regard to its social, economic and environmental effects.

20. The Commission considers that the public interest will be largely met if an application complies with existing regulatory standards, and the project's benefits outweigh its negative impacts. The Commission must take into account the purposes of the *Hydro and Electric Energy Act* and the *Electric Utilities Act* and determine whether an applicant has met the requirements of Rule 007 and Rule 012. An applicant must also obtain all approvals required by other applicable provincial or federal legislation.

21. Having reviewed the details of Paintearth's notification and consultation activities, the Commission finds that Paintearth's consultation and participant involvement program satisfies the requirements of Rule 007. While objections to the project were received, Paintearth was able to address them.

22. The Commission has considered the evidence on the record of this proceeding in assessing the environmental effects of the project, including the commitments made by Paintearth, the mitigation and monitoring plans established by Paintearth in consultation with AEP WM, and the project's adherence to applicable regulatory standards, directives and guidelines, including AEP WM's post-construction wildlife requirements set out in the *Wildlife Directive for Alberta Wind Energy Projects* and in the renewable energy referral report.

23. 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, Paintearth must comply with the requirements of Rule 033.

---

<sup>7</sup> Exhibit 22726-X0087, Paintearth AUC IR Round 4 Response-20DEC2019, PDF page 12, Table 2.

Subsection 3(3) of Rule 033 requires approval holders to submit annual post-construction monitoring survey reports to AEP and the Commission. Consequently, the Commission would also impose the following as a condition of the project's approval:

- (a) Paintearth shall submit an annual post-construction monitoring survey report to Alberta Environment and Parks (AEP) and the AUC within 13 months of the project 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*.

24. The Commission is satisfied that with adherence to the above commitments, standards, directives and requirements, the identified environmental effects of the project can be mitigated to a reasonable degree.

25. Concerning noise, the purpose of Rule 012 is to ensure that noise from a facility, measured cumulatively with noise from other energy-related facilities, does not exceed the permissible sound levels calculated in accordance with the rule. The revised NIA accounted for a two dBA uncertainty when calculating sound levels at receptors, which is considered to be a conservative approach. Given that the noise prediction demonstrated reasonable margins of compliance at the noise receptors, the project is expected to comply with the permissible sound levels set out in Rule 012.

26. Having regard for all of the foregoing and subject to the above-noted conditions, the Commission finds that approval of the project is in the public interest having regard to its social, economic, environmental and other effects in accordance with Section 17 of the *Alberta Utilities Commission Act*, and accordingly approves the project.

## 5 Decision

27. Pursuant to sections 11 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 22726-A001 and grants Paintearth Wind Project Ltd. the approval set out in Appendix 1 – Power Plant Approval 22726-D02-2020 – January 22, 2020, to construct and operate the Paintearth Wind Power Plant.

28. Pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act*, the Commission approves Application 22726-A002 and grants Paintearth Wind Project Ltd. the permit and licence set out in Appendix 2 – Substation Permit and Licence 22726-D03-2020 – January 22, 2020, to construct and operate the Lanes Lake 973S Substation.

29. The appendices will be distributed separately.

Dated on January 22, 2020.

### Alberta Utilities Commission

*(original signed by)*

Anne Michaud  
Vice-Chair