

# Aura Power Renewables Ltd.

**Metiskow Solar Project** 

August 23, 2021

# **Alberta Utilities Commission**

Decision 26514-D01-2021 Aura Power Renewables Ltd. Metiskow Solar Project Proceeding 26514 Applications 26514-A001 and 26514-A002

August 23, 2021

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#### **Alberta Utilities Commission**

Calgary, Alberta

Aura Power Renewables Ltd. Metiskow Solar Project Decision 26514-D01-2021 Proceeding 26514 Applications 26514-A001 and 26514-A002

# 1 Decision summary

1. In this decision, the Alberta Utilities Commission approves applications from Aura Power Renewables Ltd. to construct and operate a power plant designated as the Metiskow Solar Project, and to connect the project to FortisAlberta Inc.'s 25-kilovolt electric distribution system.

#### 2 Introduction

- 2. Aura filed applications with the Commission for approval to construct and operate the 22.5-megawatt Metiskow Solar Project (the project), and to connect the project to FortisAlberta's 25-kilovolt (kV) electric distribution system. The applications were registered on May 4, 2021, as applications 26514-A001 and 26514-A002.
- 3. The project consists of approximately 47,372 solar photovoltaic modules, each with a power rating of 530 watts, mounted on a single-axis tracking system; six inverter units, each with a power rating of 4.4 megavolt amperes; a 25-kV collection system; fence and internal access roads.<sup>1</sup>
- 4. The project is located on approximately 134 acres of leased agricultural land, approximately nine kilometres east of the hamlet of Metiskow and 17 kilometres northwest of the town of Provost in the Municipal District of Provost, Alberta. More specifically, the project is located in the south half of Section 3, Township 40, Range 4, west of the Fourth Meridian, as shown in Figure 1.

Exhibit 26514-X0012, Application, PDF pages 9 and 10.

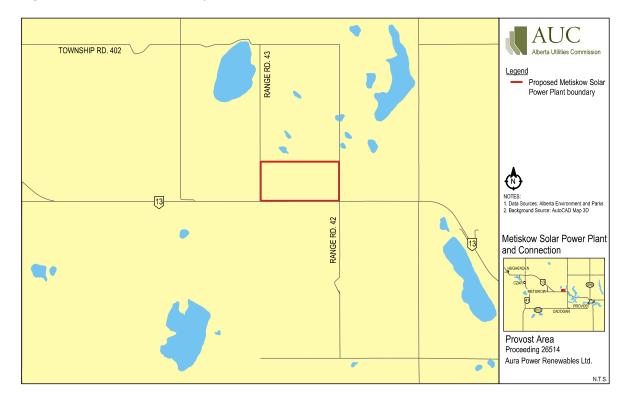


Figure 1. Metiskow Solar Project location

5. The project is interconnected to FortisAlberta's 25-kV electric distribution system at a point in the southwest quarter of Section 3, Township 40, Range 4, west of the Fourth Meridian. FortisAlberta confirmed that it has no concerns with the interconnection of the project.<sup>2</sup>

# 6. Aura's applications included:

- A participant involvement program, which detailed consultation with stakeholders within 800 metres of the project and notification of stakeholders within 2,000 metres of the project.
- A renewable energy referral report dated January 12, 2021, from Alberta Environment and Parks (AEP) Fish and Wildlife Stewardship, which ranked the project an overall moderate risk to wildlife and wildlife habitat.
- An environmental evaluation, which predicted environmental impacts of the project to ecosystem components in the project area, developed mitigations to prevent or limit those impacts, and characterized the significance of residual impacts.
- An environmental protection plan, which outlined environmental protection measures and monitoring that Aura committed to undertaking during the construction and operation phases of the project.
- Historical Resources Act approval dated December 15, 2017.

<sup>&</sup>lt;sup>2</sup> Exhibit 26514-X0029, Fortis Alberta - Willingness to Connect.

• A noise impact assessment summary form, which concluded the project would comply with Rule 012: *Noise Control*.

- A solar glare assessment, which predicted that glare receptors would experience zero glare from the project.
- Manufacturer datasheets for the project solar modules, inverter units and tracking system.
- 7. Aura stated that it expects construction of the project to commence on May 1, 2022, and that construction would be completed by November 1, 2023.<sup>3</sup>
- 8. The Commission issued a notice of applications in accordance with Section 7 of Rule 001: *Rules of Practice* and provided the notice to relevant stakeholders, including an Indigenous group: Frog Lake First Nation. No submissions were received in response to the notice of applications.
- 9. In the following sections, the Commission discusses environmental impacts from the project and other factors the Commission has considered to make its decision, and provides the Commission's findings.

#### 3 Environmental impacts

- 10. AEP ranked the project an overall moderate risk to wildlife and wildlife habitat, based on project siting, fence design, wetland setback infringements, high number sensitive species and species at risk usage, and commitments made by Aura to mitigate and monitor wildlife impacts. Specifically, AEP ranked the project as a high risk to wetlands and sensitive breeding amphibians, a high risk to breeding birds, a moderate risk to migratory birds, a moderate risk to bird mortality, and a low risk to wildlife features. In addition, AEP ranked the project fence design a high risk for wildlife.
- 11. When reviewing the application materials, the Commission considered the three high-risk ratings assigned by AEP in its referral report, and evaluated the mitigations that Aura has committed to implementing to reduce potential impacts.

#### 3.1 Wetlands and amphibians

- 12. AEP stated the project would infringe on the 100-metre setback for 15 Class III and higher wetlands. Alternatively, Aura has proposed a 30-metre setback on all Class III and higher wetlands and a 10-metre setback on all Class II wetlands as a best management practice. The results of the amphibian surveys identified the presence of breeding amphibian species in the project area including one sensitive amphibian species, the Canadian toad.
- 13. AEP acknowledged Aura's commitments to alternative mitigations to protect wetland habitat and sensitive amphibians. In particular, Aura would schedule construction activities within the 100-metre wetland setbacks outside the amphibian breeding restricted activity period (April 15th to August 31st); would minimize vegetation removal; would install temporary control measures, such as silt fencing; and would check open trenches daily for trapped

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Exhibit 26514-X0030, Aura - IR Response Round 1, PDF page 11.

amphibians. AEP concluded that the risks to sensitive amphibian species would not be fully eliminated by these alternative mitigations, and numerous wetland setbacks would be impacted by the proposed project. AEP considers that the project is a high risk to wetlands and sensitive breeding amphibians.

- 14. In response to Commission information requests, Aura stated that, in addition to the mitigations it has committed to implementing, as described in the referral report, it would continue to consult AEP and add to the mitigations proposed, if required. Aura stated that "This includes but is not limited to activities such as monitoring eruptive amphibian breeding activities during an exceptionally wet year and suspending work at required locations, use of silt fencing around the wetlands, or the use of low ground pressure equipment and protective matting, if required."<sup>4</sup>
- 15. Aura explained that additional alternative mitigations under consideration would include "further setback from wetlands identified as sensitive." Aura clarified that it has initiated discussions with AEP to identify additional mitigations and setbacks for the 15 Class III and higher wetlands and is considering use of lands in the northern area of the project site to accommodate AEP feedback. Aura confirmed that it would communicate changes with AEP and the Commission once the scope of any setback requirements have been resolved.

#### 3.2 Breeding birds

- 16. AEP stated that the project presents a high risk to breeding birds based on an abundance of grassland-dependent birds in the project area, including some species at risk, as a result of siting of the project on tame grassland. AEP identified that the tame grassland is functioning as high-quality habitat for grassland-dependent birds. The results of the breeding bird survey indicated that within the project area, tame grassland is being used by grassland specialists, and wetlands are being used by wetland-dependent species. AEP concluded that development of the project would negatively impact breeding birds.
- 17. AEP noted that Aura has proposed two mitigations to reduce the disturbance and mortality risk to breeding birds: (i) Aura would schedule vegetation removal and mowing outside the breeding bird restricted activity period (April 15th to August 15th); (ii) If vegetation removal or mowing is required during the breeding bird restricted activity period, a nest sweep would be conducted by a qualified wildlife biologist to identify any active nests. If nests or nesting behaviour are detected, a species-specific setback (minimum 100 metres) would be applied until the young fledge and the nest has been confirmed inactive by a qualified wildlife biologist. AEP concluded that nest sweeps would not fully eliminate the risk of nest disturbance or destruction during vegetation removal or mowing and assessed the risk to breeding birds would be high.
- 18. In response to Commission information requests, Aura stated that it would make a reasonable attempt to schedule vegetation removal or moving to periods outside the restricted

<sup>&</sup>lt;sup>4</sup> Exhibit 26514-X0030, Aura - IR Response Round 1, PDF page 4.

<sup>&</sup>lt;sup>5</sup> Exhibit 26514-X0034, Round 2 IR Response, PDF page 3.

<sup>&</sup>lt;sup>6</sup> Exhibit 26514-X0038, Round 3 IR response, PDF page 2.

<sup>&</sup>lt;sup>7</sup> Exhibit 26514-X0020, AEP Referral Report, PDF page 9.

activity period; however, "there are limitations which may be experienced such as availability of local services or cost of implementation depending on the time of the year."8

#### 3.3 Project fence layout

- 19. AEP noted that the current fence layout has the potential to create numerous funnels and entrapment sites for wildlife, which is inconsistent with the AEP *Wildlife Directive for Alberta Solar Energy Projects*. AEP advised Aura to conduct a redesign of the fence layout and ranked the current fence layout a high risk to wildlife.
- 20. In response to Commission information requests, Aura noted that the fence layout has not yet been finalized and explained that its final fence design would be completed in consultation with AEP.9 Aura stated that it would incorporate the recommendations of AEP to align the fence layout with the *Wildlife Directive for Alberta Solar Energy Projects*. 10

#### 4 Other factors considered

- 21. Aura did not submit an initial version of its renewable energy operations conservation and reclamation plan as set out in AEP's *Conservation and Reclamation Directive for Renewable Energy Operations* but was finalizing the plan and committed to providing the final version at least 6 months prior to the start of construction.<sup>11</sup>
- 22. Aura retained Green Cat Renewables Canada Corporation (Green Cat Renewables) to assess solar glare from the project. Green Cat Renewables identified a dwelling and three transportation routes (i.e., Highway 13 and two local roads) as receptors. The solar glare assessment indicated that the project would use anti-reflective coating on the solar panels and the solar panels would be mounted on a single-axis tracking system with a maximum tracking angle of  $\pm 50$  degrees. The solar glare assessment indicated that the project solar panels may employ a backtracking system and modelled four different operating scenarios: no backtracking, backtracking angle of five degrees, backtracking angle of 15 degrees, and backtracking angle of 25 degrees. The solar glare assessment predicted there would be no glare from the project at any of the receptors considered in the glare assessment.
- 23. Aura confirmed that it would develop a site-specific emergency response plan prior to the start of construction, including site monitoring, emergency mitigations and communication protocols. Aura has completed high-level discussions with the Municipal District of Provost and will initiate consultation with local first responders at least six months prior to construction.<sup>12</sup>
- 24. Aura also provided an overview of how the operator will ensure sufficient funds are available at the project end of life to cover the cost of decommissioning and reclamation. Aura stated it would perform a periodic review of the salvage value of the installed equipment and compare this value against the reclamation costs of the project. Should a situation arise whereby

Exhibit 26514-X0030, Aura - IR Response Round 1, PDF page 5.

<sup>&</sup>lt;sup>9</sup> Exhibit 26514-X0030, Aura IR Response Round 1, PDF page 3.

Exhibit 26514-X0034, Round 2 IR Response, PDF pages 1 and 2.

Exhibit 26514-X0030, Aura - IR Response Round 1, PDF page 5.

Exhibit 26514-X0030, Aura - IR Response Round 1, PDF page 8.

the salvage value is less that the reclamation costs, Aura would make the necessary arrangements to deposit funds in trust to make up for this difference.

- 25. Aura further explained that the project would not proceed without reliable base level revenue such as a robust energy market and that it would not rely on temporary revenue programs (e.g., sale of renewable energy credits or carbon offset or credit programs) when determining whether sufficient funds would be available at the project end of life to cover the cost of decommissioning and reclamation.<sup>13</sup>
- 26. Aura explained that it did not consult with Indigenous groups, because (i) The project would be located on deeded free-hold land and not on Crown land; (ii) The proposed interconnection is not across Crown land; (iii) The closest Indigenous group, the Frog Lake First Nation, is located over 150 kilometres away; (iv) The *Historical Resources Act* approval from Alberta Culture and Tourism revealed no concerns; (v) There are no large water bodies on the project site and Aura does not expect any disruption from the project to downstream water bodies or to fishing and hunting activities in the area.<sup>14</sup>

#### 5 Findings

- 27. The Commission is considering the applications under Section 11 of the *Hydro and Electric Energy Act*. This section states that no person can construct or operate a power plant without the Commission's approval.
- 28. Aura's participant involvement program was conducted in accordance with Rule 007: Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments. Details of the participant involvement program reflect that Aura consulted with persons whose rights may be directly and adversely affected by the project as required. Aura has confirmed that there are no outstanding public or industry objections or concerns in relation to the applications. Furthermore, the Commission received no response to its notice of applications.
- 29. The Commission notes that AEP ranked the project a high risk to wetlands and sensitive breeding amphibians and the alternative mitigations that Aura committed to implementing would not fully eliminate the potential impacts. Aura has committed to continue consultations with AEP to identify additional mitigations for Class III and higher wetlands and will explore additional mitigations with AEP, including considering lands in the northern area of the project site as a way to further reduce impacts. The Commission accepts that Aura will continue to consult with AEP and imposes the following condition of approval:
  - a. Aura shall file an update to its environmental protection plan to incorporate any additional mitigations and/or changes to setbacks for wetlands and sensitive breeding amphibians that are committed to as a result of its ongoing consultations with Alberta Environment and Parks. The update is to be filed with the Commission no later than six months before construction is scheduled to begin.

Exhibit 26514-X0030, Aura - IR Response Round 1, PDF pages 5 and 6.

Exhibit 26514-X0030, Aura - IR Response Round 1, PDF page 2.

30. The Commission notes that development of the project has the potential to negatively impact breeding birds, which is in line with AEP's assessment of the risk of the project to breeding birds as high.

- 31. However, Aura made two commitments to reduce impacts on breeding birds, as described in the AEP referral report: Aura would schedule vegetation removal and mowing outside the breeding bird restricted activity period (April 15th to August 15th); alternatively, Aura would conduct a nest sweep to identify active nests and a minimum 100-metre setback should be applied until the young fledge and the nest has been confirmed inactive. AEP still expressed concerns about the disturbance/destruction of the nest sweep during construction and maintained a high impact rating.
- 32. Aura stated that it would make reasonable attempts to schedule vegetation removal or mowing outside of the restricted activity period for breeding birds but that this may not be feasible. However, Aura would have an environmental monitor on-site to address issues associated with breeding birds and construction during the restricted activity period. The Commission finds that taking account of AEP's risk ranking for breeding birds and notwithstanding Aura's commitments to mitigate the potential impacts, the potential residual impact to breeding birds remains high and imposes the following condition of approval:
  - b. Aura shall not conduct any construction activities within tame grassland habitat during the grassland breeding bird restricted activity period (April 15th to August 15th).
- 33. The Commission notes that AEP ranked the current fence layout as a high risk to wildlife and that it provided Aura with specific recommendations on how to redesign the project fence. The Commission is satisfied with Aura's commitment to incorporate AEP's recommendations into its final project fence design in order to align with the *Wildlife Directive for Alberta Solar Energy Projects*.
- 34. Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* requires approval holders to submit to AEP and the Commission annual post-construction monitoring survey reports. Therefore, the Commission imposes the following condition of approval:
  - c. Once the project is commissioned, Aura shall submit an annual post-construction monitoring survey report to Alberta Environment and Parks (AEP) and the Commission 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*.
- 35. Aura has not submitted an initial version of its renewable energy operations conservation and reclamation plan, but stated that it would complete the plan at least six months prior to construction. Accordingly, the Commission imposes the following condition of approval:
  - d. Aura shall complete the initial renewable energy operations conservation and reclamation plan as set out in Alberta Environment and Parks' *Conservation and Reclamation Directive for Renewable Energy Operations*, and file it with the Commission no later than six months before construction is scheduled to begin.

36. The Commission notes that Aura has not finalized selection of equipment for the project. Consequently, the Commission imposes the following as a condition of approval:

- e. Once Aura has made its final selection of equipment for the project, it must file a letter with the Commission that identifies the make, model, and quantity of the equipment and, if the equipment layout has changed, provide an updated site plan. This letter must also confirm that the finalized design of the project will not increase the land, noise, glare or environmental impacts beyond the levels approved in this decision. This letter is to be filed no later than one month before construction is scheduled to begin.
- 37. Any glare issues associated with the project shall be addressed by Aura in a timely manner and the Commission imposes the following condition of approval:
  - f. Aura shall file a report with the Commission detailing any complaints or concerns it receives or is made aware of regarding solar glare from the project during its first year of operation, as well as Aura's response to the complaints or concerns. In the event of complaints or concerns, Aura shall file this report no later than 13 months after the project becomes operational.
- 38. Green Cat Renewables prediction results for the project solar glare were premised upon the use of an anti-reflective coating applied to the project solar panels and the Commission imposes the following condition of approval:
  - g. Aura shall use anti-reflective coating on the project solar panels.
- 39. With respect to noise impacts, the Commission finds the noise impact assessment summary form submitted by Aura meets the requirements of Rule 012 and accepts the conclusion that noise from the project will comply with the permissible sound levels established by that rule.
- 40. For the reasons outlined above and subject to all of the conditions that form part of this decision as set out above which are also listed in Appendix A, the Commission finds that Aura has satisfied the requirements of Rule 007 and Rule 012 and that in accordance with Section 17 of the *Alberta Utilities Commission Act*, 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.

#### 6 Decision

41. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves Application 26514-A001 and grants Aura Power Renewables Ltd. the approval set out in Appendix 1 – Power Plant Approval 26514-D02-2021 – August 23, 2021 (Appendix 1 will be distributed separately).

42. Pursuant to Section 18 of the *Hydro and Electric Energy Act*, the Commission approves Application 26514-A002 and grants Aura Power Renewables Ltd. the approval set out in Appendix 2 – Connection Order 26514-D03-2021 – August 23, 2021 (Appendix 2 will be distributed separately).

Dated on August 23, 2021.

# **Alberta Utilities Commission**

(original signed by)

Douglas A. Larder, QC Vice-Chair

#### 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 are conditions of Decision 26514-D01-2021 that require subsequent filings with the Commission and will be included as conditions of Power Plant Approval 26514-D02-2021:

- Aura shall file an update to its environmental protection plan to incorporate any
  additional mitigations and/or changes to setbacks for wetlands and sensitive breeding
  amphibians that are committed to as a result of its ongoing consultations with
  Alberta Environment and Parks. The update is to be filed with the Commission no later
  than six months before construction is scheduled to begin.
- Once the project is commissioned, Aura shall submit an annual post-construction monitoring survey report to Alberta Environment and Parks (AEP) and the Commission 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.
- Aura shall complete the initial renewable energy operations conservation and reclamation plan as set out in Alberta Environment and Parks' *Conservation and Reclamation Directive for Renewable Energy Operations*, and file it with the Commission no later than six months before construction is scheduled to begin.
- Once Aura has made its final selection of equipment for the project, it must file a letter with the Commission that identifies the make, model, and quantity of the equipment and, if the equipment layout has changed, provide an updated site plan. This letter must also confirm that the finalized design of the project will not increase the land, noise, glare or environmental impacts beyond the levels approved in this decision. This letter is to be filed no later than one month before construction is scheduled to begin.

The following are conditions of Decision 26514-D01-2021 that do not or may require a subsequent filing with the Commission:

- Aura shall not conduct any construction activities within tame grassland habitat during the grassland breeding bird restricted activity period (April 15th to August 15th).
- Aura shall file a report with the Commission detailing any complaints or concerns it
  receives or is made aware of regarding solar glare from the project during its first year of
  operation, as well as Aura's response to the complaints or concerns. In the event of
  complaints or concerns, Aura shall file this report no later than 13 months after the
  project becomes operational.
- Aura shall use anti-reflective coating on the project solar panels.