



Greencells Indygen Alberta Ltd.

Estuary Solar Power Project

June 1, 2023

Alberta Utilities Commission
Decision 27862-D01-2023
Greencells Indygen Alberta Ltd.
Estuary Solar Power Project
Proceeding 27862
Applications 27862-A001 to 27862-A003

June 1, 2023

Published by the:

Alberta Utilities Commission
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The Commission may, no later than 60 days from 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

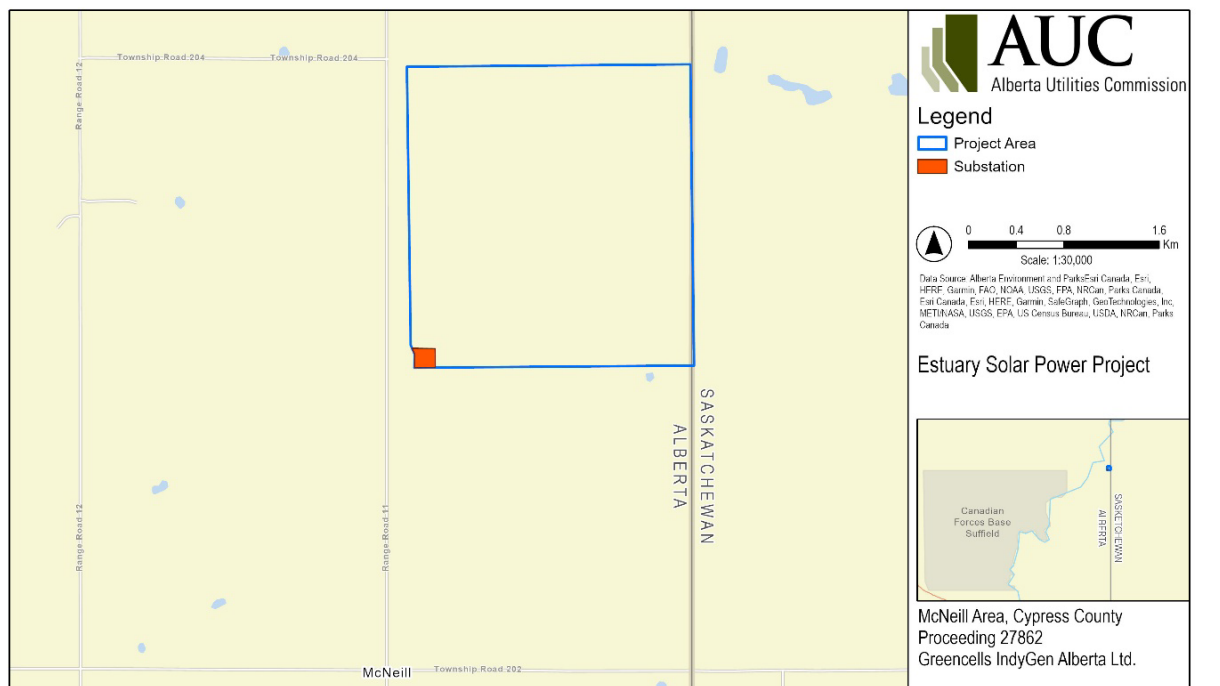
1. In this decision, the Alberta Utilities Commission approves applications from Greencells Indygen Alberta Ltd. for the construction and operation of the Estuary Solar Power Plant and the Estuary Solar 1006S Substation (the project). However, the Commission finds that Greencells must alter its project to maintain a 30-metre setback from Class III and higher wetlands.

2. The Commission denies the interconnection application at this time as premature, as the transmission facility operator has not applied for approval of the required transmission line.

2 Applications

3. Greencells filed applications with the Commission for approval to construct and operate the 200-megawatt Estuary Solar Power Plant and the associated Estuary Solar 1006S Substation. It also requested approval to connect the project to the Alberta Interconnected Electric System. The project would be located on previously cultivated lands near McNeill, Alberta, in Section 24, Township 20, Range 1, west of the Fourth Meridian, as shown on the map in Figure 1.

Figure 1. Proposed Estuary Solar Power Project location



4. The power plant would consist of an array of solar photovoltaic panels with a height of 0.8 metres to 1.56 metres above ground supported with fixed-tilt racking.
5. The substation would include one 138/34.5-kilovolt (kV), 240-megavolt ampere transformer and one 138-kV circuit breaker.
6. Greencells' applications included:
 - A participant involvement program summary, which detailed consultation with stakeholders within 400 metres of the project and notification of stakeholders within 800 metres of the project.
 - An environmental evaluation for the project, prepared by Western EcoSystems Technology, ULC, which describes the present environmental and land use conditions, identifies potential effects of the project, and predicts any residual effects the project may have. It also provided an environmental protection plan, which detailed mitigation measures to reduce or eliminate environmental effects of the project.
 - An initial conservation and reclamation plan, completed by Western EcoSystems Technology, ULC.
 - A renewable energy referral report from Alberta Environment and Protected Areas – Fish and Wildlife Stewardship (AEPA), which ranked the project with an overall low risk to wildlife and wildlife habitat, and a high risk to wetlands.
 - An emergency response plan for the construction and operation of the project that was provided to local emergency services.
 - A solar glare assessment report, completed by Solas Energy Consulting Inc., which predicted the project would not result in any red-grade glare but would produce some yellow-grade glare for vehicles travelling along Township Road 204 and for aircraft landing from the northeast at an abandoned aerodrome.
 - A noise impact assessment (NIA), completed by RWDI AIR Inc., which predicted that noise from the project will comply with Rule 012: *Noise Control*.
7. Greencells submitted that it anticipates project construction will be completed by December 31, 2024.
8. Greencells confirmed that it had filed an application for *Historical Resources Act* approval.
9. The Commission issued a notice of applications and no submissions were received in response to the notice.

3 Findings

10. For the reasons outlined below, 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.

11. The Commission has reviewed the applications and has determined that the information requirements specified in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines* have been met.

12. The Commission also finds that Greencells' participant involvement program satisfies the requirements of Rule 007. Greencells consulted residents, landowners, and occupants within 400 metres of the project and notified residents, landowners, and occupants within 800 metres of the project. It stated that no stakeholders raised concerns.

13. The Commission finds that the project will comply with Rule 012. The NIA considered noise levels at one receptor located 1,500 metres west of the project boundary. RWDI stated that the project, which includes 46 inverters and the substation transformer for noise sources, will not be the dominant source of noise at the dwelling and will be inaudible with respect to the assumed ambient sound level. Numerous well pads, a large gas plant compressor station and an approved solar project contribute to noise levels in the area. The NIA determined that without the project, the nighttime cumulative sound level would be 40.0 dBA, equal to the nighttime permissible sound level. The NIA predicted that the nighttime cumulative sound level with the project would be 40.3 dBA. RWDI submitted that for both daytime and nighttime periods, the contribution from the project demonstrates a no net increase and an overall negligible effect.

14. The Commission accepts the conclusion in the solar glare assessment that the project is unlikely to have the potential to create hazardous glare conditions. There are no residences within 800 metres of the project. The Commission notes that the yellow-grade glare predicted along Township Road 204 is expected for less than one hour per year. The assessment also predicted yellow-grade glare along a landing path to an abandoned aerodrome. The Commission requires that any glare issues associated with the project that may arise be addressed by Greencells in a timely manner. Therefore, the Commission imposes the following condition of approval:

- a. Greencells Indygen Alberta Ltd. 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 the first year of operation, as well as Greencells' response to the complaints or concerns. Greencells shall file the report no later than 13 months after the project becomes operational.

15. The Commission notes that the predictions and associated conclusion in the solar glare assessment report were premised upon the use of an anti-reflective coating on the project solar panels. Therefore, the Commission imposes the following condition of approval:

- b. Greencells Indygen Alberta Ltd. shall use an anti-reflective coating on the project solar panels.

16. Greencells did not specify the finalized equipment selection for the project. Consequently, the Commission imposes the following condition of approval:

- c. Once Greencells Indygen Alberta Ltd. has finalized its equipment selection for the photovoltaic power plant it must file a final project update to the Commission to confirm that the project has stayed within the final project update specified allowances for solar power plants. The final project update must be filed at least 90 days prior to the start of construction.

17. Greencells applied for an interconnection order to connect its power plant to the Alberta Interconnected Electric System. Greencells indicated that the project will be connected to AltaLink Management Ltd.'s Empress 394S Substation through a new transmission line, designated as Transmission Line 714L, and that AltaLink will be responsible for the new transmission facilities to connect the project. Since AltaLink has not yet applied for these facilities, the Commission considers the interconnection application to be premature. It is more appropriate to assess connection of the project to the Alberta Interconnected Electric System when AltaLink files its transmission facility application, which the Commission expects will be accompanied by an interconnection application.

3.1 Environment

18. Greencells retained Western EcoSystems Technology, ULC to produce an environmental evaluation, environmental protection plan, and initial conservation and reclamation plan for the project. The environmental evaluation described the baseline environmental conditions, identified potential effects and developed mitigation for environmental sensitivities prior to construction and operation. The environmental protection plan described Greencells' commitments to compliance with relevant environmental legislation and application of mitigations during construction and operation. The initial conservation and reclamation plan described the planning requirements to help ensure successful reclamation outcomes for the project.

19. AEPA reviewed the project and issued a referral report which determined an overall low risk to wildlife and wildlife habitat. All environmental risk categories within the referral report were assessed as low with the exception of wetlands which were assessed as a high risk. AEPA determined this high risk ranking due to multiple infringements of the 100-metre setbacks recommended for Class III+ wetlands in the *Wildlife Directive for Alberta Solar Energy Projects* (the Directive). AEPA stated that "7 wetlands will be directly impacted by solar arrays, 4 wetlands will have 5 m setbacks, and another 4 wetlands will have 30 m setbacks... [S]iting solar panels within wetland setbacks does not align with the Directive."¹

20. Furthermore, the environmental evaluation reported the detection of Canadian toads and plains spadefoot toads, which are provincially listed species at risk, and Great Plains toads, which are provincially and federally listed species at risk.² In addition to 100-metre Class III+ wetlands setbacks, Appendix C of the Directive also recommends 100-metre setbacks for breeding ponds associated to Canadian toads, plains spadefoot toads and Great Plains toads.³

¹ Exhibit 27862-X0024, Attachment 9 - AEP Referral Report 09DEC2022, PDF page 4.

² Exhibit 27862-X0046, Attachment 5 - Environmental Evaluation 21DEC2022, PDF page 20.

³ *Wildlife Directive for Alberta Solar Energy Projects*, Alberta Environmental and Parks, effective October 4, 2017.

21. Greencells submitted that infringements to the Directive-specified Class III+ wetland and amphibian setbacks are justifiable due to existing agricultural impacts and the application of mitigations outlined in the environmental protection plan.⁴ When asked if it would consider decreasing the amount and extent of setback infringements, Greencells stated:

Greencells does not believe it necessary to increase the setbacks. Greencells is committing to completing and implementing an Amphibian Mitigation Plan as outlined on PDF page 12 of the REPS [renewable energy project submission]. Additionally, setbacks proposed are similar to other solar projects within southern Alberta.⁵

22. The Commission considers that Greencells' proposed reduction in the Directive-recommended 100-metre setbacks for Class III+ wetlands is reasonable given the existing agricultural impacts. However, the Commission finds that the proposed 5-metre setbacks are unreasonable given the confirmed presence of multiple sensitive amphibian species. Therefore, the Commission requires Greencells to apply a 30-metre setback to all Class III+ wetlands. These setbacks must be applied to all project infrastructure (i.e., roads, fencelines, collector lines and solar panel infrastructure). All commitments made for the protection of wetlands and amphibians including the amphibian mitigation plan and mitigations outlined in the environmental protection plan must still be upheld. The Commission imposes the following as a condition of approval:

d. All project infrastructure must maintain a 30-metre setback from all Class III+ wetlands.

23. Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* requires approval holders to submit annual post-construction monitoring survey reports to AEPA and the Commission. Therefore, the Commission imposes the following condition of approval:

e. Greencells Indygen Alberta Ltd. shall submit an annual post-construction monitoring report to Alberta Environment and Protected Areas – Fish and Wildlife Stewardship and the Commission no later than January 31 of the year following the mortality monitoring period, and on or before the same date every subsequent year for which Alberta Environment and Protected Areas requires surveys pursuant to subsection 3(3) of *Rule 033: Post-approval Monitoring Requirements for Wind and Solar Power Plants*.

24. Greencells stated that its initial conservation and reclamation plan would be updated regularly with new information throughout the life cycle of the project. In addition, Greencells committed to pre-disturbance site assessments, interim monitoring and required surveys for obtaining a reclamation certificate in accordance with the *Conservation and Reclamation Directive for Renewable Energy Operations* and/or any other applicable laws and regulations in effect in Alberta at the time.⁶

25. The Commission finds overall that Greencells' environmental assessments and proposed mitigations are suitable, and that the environmental risk of the project is acceptable with the directed increase in setback for Class III+ wetlands. In addition, Greencells has adequately

⁴ Exhibit 27862-X0052, Estuary Solar AUC IR1 Response V1.0 15FEB2023, PDF pages 15 and 16.

⁵ Exhibit 27862-X0052, Estuary Solar AUC IR1 Response V1.0 15FEB2023, PDF page 16.

⁶ Exhibit 27862-X0048, Attachment 7 - Conservation and Reclamation Plan 21DEC2022, PDF pages 7, 10, 11 and 31.

considered the decommissioning and reclamation activities that will be required at the end of the project's life, including its obligations under the *Conservation and Reclamation Regulation*.

3.2 Conclusion

26. Based on the foregoing, the Commission considers the power plant and substation to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

27. At this time, the Commission denies Greencells' application to connect its power plant to the Alberta Interconnected Electric System as the application is premature.

4 Decision

28. Under sections 14 and 15 of the *Hydro and Electric Energy Act*, the Commission approves Application 27862-A002 and grants Greencells Indygen Alberta Ltd. the approval set out in Appendix 1 – Substation Permit and Licence 27862-D02-2023 to construct and operate Estuary Solar 1006S Substation.

29. Under Section 11 of the *Hydro and Electric Energy Act*, the Commission approves Application 27862-A001 grants Greencells Indygen Alberta Ltd. the approval set out in Appendix 2 – Power Plant Approval 27862-D03-2023 to construct and operate the Estuary Solar Power Plant.

30. The Commission directs Greencells, no later than June 30, 2023, to advise of the total generating capability of the project factoring in any changes to the project resulting from the requirement to maintain a 30-metre setback from Class III+ wetlands and to file an updated site plan showing the changes.

31. The appendices will be distributed separately, but Appendix 2 – Power Plant Approval 27862-D03-2023 will be issued after Greencells provides an update to the total generating capability of the project, as directed above.

Dated on June 1, 2023.

Alberta Utilities Commission

(original signed by)

Matthew Oliver, CD
Commission Member

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

This section is intended to provide a summary of all conditions of approval specified in the decision for the convenience of readers. In the event of any difference between the conditions in this section and those in the main body of the decision, the wording in the main body of the decision shall prevail. The conditions will be included in Power Plant Approval 27862-D03-2023 and those that require subsequent filings with the Commission will be tracked as directions in the AUC's eFiling System.

The following are conditions of Decision 27862-D01-2023 that require subsequent filings with the Commission:

- c. Once Greencells Indygen Alberta Ltd. has finalized its equipment selection for the photovoltaic power plant it must file a final project update to the Commission to confirm that the project has stayed within the final project update specified allowances for solar power plants. The final project update must be filed at least 90 days prior to the start of construction.
- e. Greencells Indygen Alberta Ltd. shall submit an annual post-construction monitoring report to Alberta Environment and Protected Areas – Fish and Wildlife Stewardship and the Commission no later than January 31 of the year following the mortality monitoring period, and on or before the same date every subsequent year for which Alberta Environment and Protected Areas requires surveys pursuant to subsection 3(3) of *Rule 033: Post-approval Monitoring Requirements for Wind and Solar Power Plants*.

The following are conditions of Decision 27862-D01-2023 that may not or do not require subsequent filings with the Commission:

- a. Greencells Indygen Alberta Ltd. 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 the first year of operation, as well as Greencells' response to the complaints or concerns. Greencells shall file the report no later than 13 months after the project becomes operational.
- b. Greencells Indygen Alberta Ltd. shall use an anti-reflective coating on the project solar panels.
- d. All project infrastructure must maintain a 30-metre setback from all Class III+ wetlands.