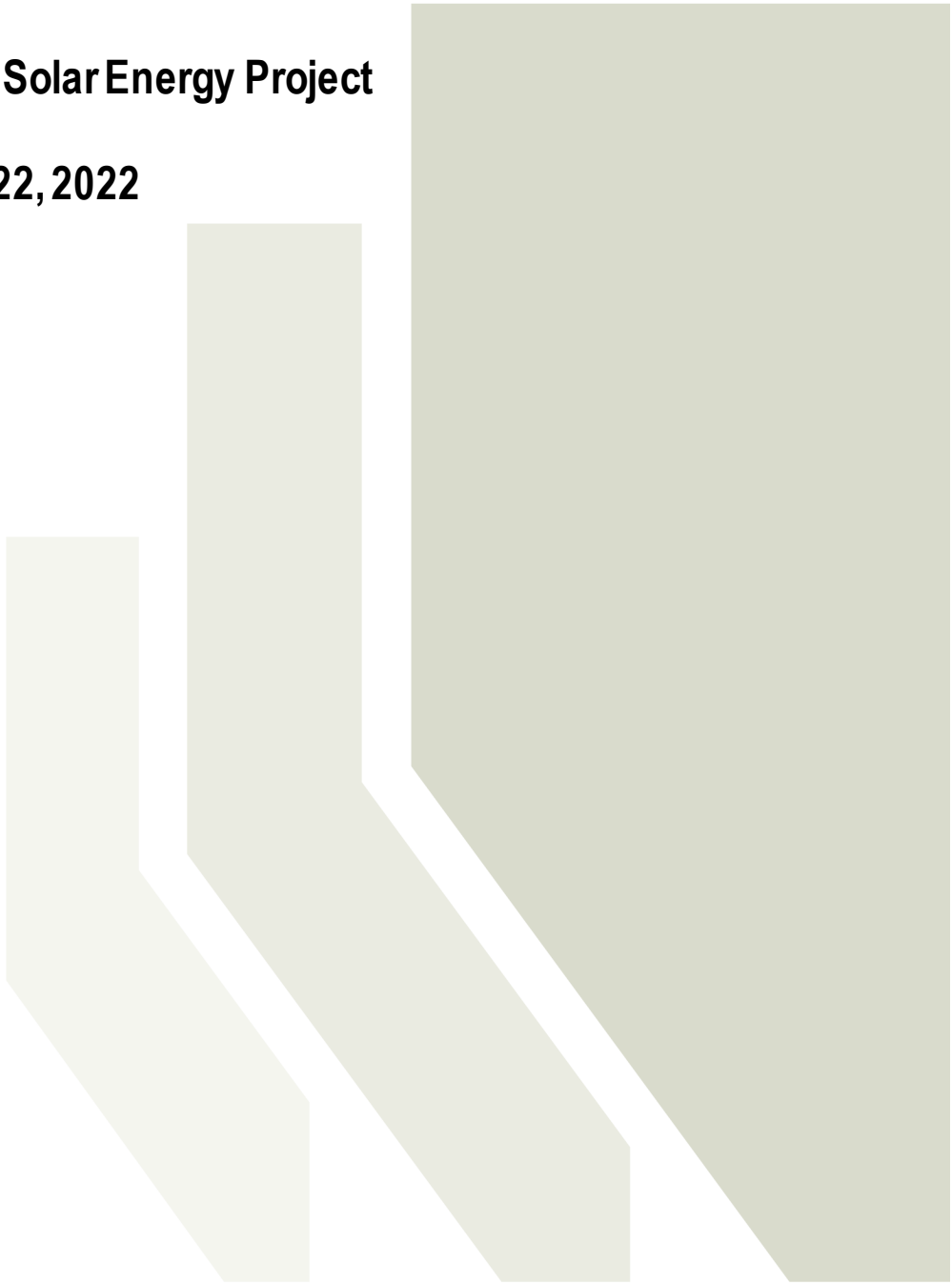




Kiwetinohk Energy Corp.

Homestead Solar Energy Project

September 22, 2022



Alberta Utilities Commission

Decision 27345-D01-2022

Kiwetinohk Energy Corp.

Homestead Solar Energy Project

Proceeding 27345

Applications 27345-A001 and 27345-A002

September 22, 2022

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

Website: www.auc.ab.ca

The Commission may, no later than 60 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.

Contents

1	Decision summary.....	1
2	Applications	1
3	Discussion and findings.....	4
4	Decision.....	6
	Appendix A – Summary of Commission conditions of approval in the decision.....	7

List of figures

Figure 1.	Homestead Solar Energy Project location.....	2
-----------	--	---

1 Decision summary

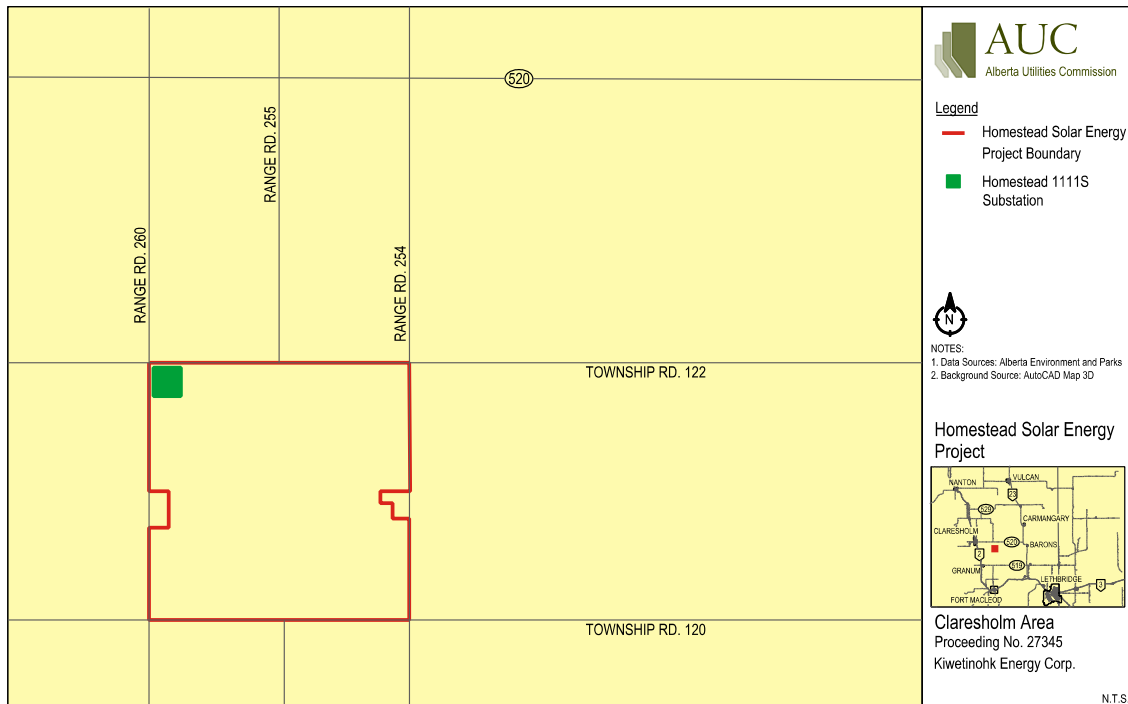
1. In this decision, the Alberta Utilities Commission approves applications from Kiwetinohk Energy Corp. (KEC), to construct and operate the Homestead Solar Energy Project, located in the Claresholm area. The project consists of a 400-megawatt Homestead solar power plant and the associated Homestead 1111S Substation.

2 Applications

2. KEC filed applications with the Commission for approval to construct and operate the power plant and substation. The power plant consists of approximately 1,100,000 Longi LR5-72HBD-545M bifacial solar photovoltaic modules on a single-axis tracking system, 100 4600-UP-US inverters and underground collector lines that would connect to the Homestead 1111S Substation. The Homestead 1111S Substation contains two 240/34.5-kilovolt (kV), 225-megavolt ampere transformers, one 240-kV circuit breaker, eight 34.5-kV circuit breakers, and associated substation equipment.

3. The project is sited on approximately 2,000 acres of privately owned cultivated land, in the Municipal District of Willow Creek, within sections 5, 6, 7 and 8 of Township 12, Range 25, west of the Fourth Meridian, as shown in the figure below. The Homestead 1111S Substation is located in Legal Subdivision 13 of Section 7, Township 12, Range 25, west of the Fourth Meridian.

Figure 1. Homestead Solar Energy Project location



4. A separate application will be submitted for transmission infrastructure to connect the project to the Alberta Interconnected Electric System.

5. KEC's applications included:

- A participant involvement program summary, which details consultation with stakeholders within 400 metres of the project and notification to stakeholders within 800 metres of the project.¹
- A copy of the renewable energy project submission filed with Alberta Environment and Parks (AEP), which is specific to wildlife and wildlife habitat and describes baseline environmental conditions and associated surveys or studies; identifies potential environmental impacts from the project; and, describes mitigation to prevent or limit those impacts.² Supplemental environmental information was provided in response to AUC information requests.³
- An environmental protection plan, completed by Western EcoSystems Technology, ULC, which is a field-ready document summarizing the environmental protection measures that KEC commits to undertaking during the project's construction and operation.⁴

¹ Exhibit 27345-X0005, Appendix D - 2022-04-13 Homestead Solar - PIP Report_FINAL.

² Exhibit 27345-X0006, Appendix E - AEP Report - 20211020 – Final.

³ Exhibit 27345-X0024, 2022-05-27 Homestead IR 1_FINAL; Exhibit 27345-X0025, Attachment A – Waterbodies – 20220520; and, Exhibit 27345-X0032, 2022-06-06 Homestead IR 2_FINAL.

⁴ Exhibit 27345-X0010, Appendix I - Environmental Protection Plan - 20220407 – FINAL.

- An initial conservation and reclamation plan, completed by Western EcoSystems Technology, ULC, using desktop data to describe the existing baseline conditions and land use associated with the project. The initial conservation and reclamation plan will be updated throughout the project's life until final reclamation certification and outlines the site-specific conservation and reclamation activities that have been or will be undertaken to ensure that the desired reclamation outcomes and objectives are achieved at the project's end of life.⁵
- The AEP renewable energy referral report, dated March 21, 2022, which ranked the project an overall low risk to wildlife and wildlife habitat.⁶
- A site-specific emergency response plan for the construction and operation of the project that was provided to local responders and authorities.⁷
- A solar glare assessment, which predicted that glare from the project is not likely to have the potential to create hazardous glare conditions for nearby dwellings or transportation routes.⁸
- A noise impact assessment, completed by Green Cat Renewables Canada Corporation, which confirmed that the project will comply with Rule 012: *Noise Control*.⁹
- *Historical Resources Act* approval dated August 26, 2021.¹⁰

6. KEC expected construction to begin in March 2023, with a commercial operation date of November 2024.

7. The Commission issued a notice of applications and received statements of intent to participate from four stakeholders. One stakeholder later withdrew their objection to the project. On June 17, 2022, the Commission issued its ruling,¹¹ granting standing for Larry and Lorna Deering (the Deerings) and Tom and Darla Slovak (the Slovaks) landowners adjacent to the proposed solar farm. The Commission also denied standing to Gail and Linda Fjordbotten (the Fjordbottens) as they did not establish that they may be directly and adversely affected by the project, but allowed the Fjordbottens to participate if the Deerings or Slovaks continued to participate.¹² The Deerings and Slovaks withdrew their objections on July 15, 2022, and July 22, 2022, respectively and the Commission cancelled the oral hearing for the project as no parties with standing remained in objection to the project.¹³

⁵ Exhibit 27345-X0012, Appendix K - Initial C&R - 20220407 - FINAL - R1.

⁶ Exhibit 27345-X0011, Appendix J - 20220321 AEP-FWS Referral Report_Homestead.

⁷ Exhibit 27345-X0007, Appendix F - Homestead Solar Emergency Response Plan_FINAL.

⁸ Exhibit 27345-X0008, Appendix G - Homestead Solar SGHAR v1.1 (20220321) - Final.

⁹ Exhibit 27345-X0013, Appendix L - NIA v1.0 (20211125) - Final.

¹⁰ Exhibit 27345-X0014, Appendix M - Signed_HRA_Response.

¹¹ Exhibit 27345-X0038, Ruling on standing.

¹² Exhibit 27345-X0041, AUC ruling on participation.

¹³ Exhibit 27345-X0045, Notice of hearing cancellation - Homestead Solar Energy Project.

3 Discussion and findings

8. 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.

9. 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. Additionally, the Commission finds that KEC's participant involvement program (PIP) satisfied the requirements of Rule 007.

10. The PIP consisted of notification to stakeholders, including occupants, residents, landowners, First Nation reserves and Metis Settlements located within 800 metres of the project boundary and personal consultation if the stakeholders were located within 400 metres of the project, as well as a public open house. The PIP provided stakeholders with an opportunity to be informed of the project and provide feedback. KEC submitted that consultation with Indigenous communities was not required because the project is on freehold land with no First Nation reserves or Metis Settlements within the consultation boundary. The Commission finds that the PIP requirements under Rule 007 have been met. The Commission notes that KEC addressed the concerns of the Deerings and Slovaks, eliminating the need to hold a public hearing.

11. The Commission accepts AEP's assessment that the project presents an overall low risk to wildlife and wildlife habitat and finds that any residual environmental effects will be reasonably mitigated by the mitigation and monitoring measures to be implemented by KEC.

12. KEC did not prepare a stand-alone environmental evaluation, instead filing the renewable energy project submission, responses to AEP's information requests,¹⁴ the environmental protection plan, and the conservation and reclamation plan. While the application should have addressed all of the environmental information requirements set out in SP15 and TS24 of Rule 007, KEC has addressed the missing information in responses to two rounds of information requests asked by the Commission.¹⁵

13. The Commission is satisfied that, with diligent implementation of the mitigation measures outlined and adherence to the commitments made by KEC, the identified environmental effects of the project can be mitigated to an acceptable degree. The project area is located primarily on cultivated lands, with seasonal wetlands only covering one per cent of the project area. The Commission finds the project's potential impact on wetlands to be minimal given that all four seasonal marshes and three of the associated 100 metres setbacks are avoided. Where construction occurs within a setback, KEC has proposed mitigation accepted by AEP. KEC will conduct further wetland delineation in 2022 to support the associated *Water Act* approval.

14. There is no project infrastructure within any wildlife setbacks and no sharp-tailed grouse leks were identified in the project area. KEC committed to repeating raptor nest and sharp-tailed

¹⁴ Exhibit 27345-X0009, Appendix H - 20220309 AEP Initial Review Questions – Response.

¹⁵ Exhibits 27345-X0024, 2022-05-27 Homestead IR 1_FINAL and 27345-X0032, 2022-06-06 Homestead IR 2_FINAL.

grouse surveys every two years until the project is commissioned and adjust mitigation measures as determined by AEP, if any new environmental effects to wildlife features are detected.

15. KEC retained WaterSMART Solutions Ltd. to assess groundwater impacts.¹⁶ A desktop review of available data identified 26 water wells within the project area. To better understand and to reduce the project's risk of causing groundwater contamination, for example where groundwater wells may be poorly sealed, KEC committed to implement all WaterSMART's recommended actions and will update the environmental protection plan accordingly.

16. 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:

- Kiwetinohk Energy Corp. shall submit an annual post-construction monitoring report to Alberta Environment and Parks – Fish and Wildlife Stewardship (AEP) 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 AEP requires surveys pursuant to subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* and Section 4.0 of Alberta Environment and Parks' *Post-Construction Survey Protocols for Wind and Solar Energy Projects*.

17. KEC retained Green Cat Renewables Canada Corporation to assess solar glare from the project. The solar glare assessment indicated that the project's solar panels would be mounted on a single axis tracking system and assumed that the project would use anti-reflective coating on the solar panels. Green Cat Renewables identified seven dwellings within approximately 800 metres of the project and four transportation routes as receptors, and confirmed that there are no registered aerodromes within 4,000 metres of the project boundary. The solar glare assessment predicted that none of the dwellings and transportation routes would experience any glare from the project.

18. The Commission finds that nearby dwellings or transportation routes are not expected to experience glare from the project, however, the Commission requires that any glare issues associated with the project that may arise be addressed by KEC in a timely manner. Accordingly, the Commission imposes the following condition of approval:

- Kiwetinohk Energy Corp. 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 its response to the complaints or concerns. Kiwetinohk Energy Corp. shall file this report no later than 13 months after the project becomes operational.

19. Green Cat Renewables' assessment that the project is not likely to have the potential to create hazardous glare conditions for nearby dwellings or transportation routes was premised upon the use of an anti-reflective coating. Accordingly, the Commission imposes the following condition of approval:

¹⁶ Exhibit 27345-X0005, Appendix D – 2022-04-13 Homestead Solar – PIP Report FINAL (Starting on PDF page 61).

- Kiwetinohk Energy Corp. shall use anti-reflective coating on the project solar panels.

20. KEC retained Green Cat Renewables to conduct a noise impact assessment (NIA) for the project. The NIA indicated that the major sound sources of the project are 100 inverter/transformer stations and two high voltage transformers. The NIA identified 11 dwellings located within or close to 1.5 kilometres of the project boundary as receptors, and predicted that the project will be compliant with permissible sound levels set out in Rule 012 at all receptors. The Commission finds that the NIA meets the requirements of Rule 012 and accepts that the project will comply with the applicable permissible sound levels at receptors.

21. The Commission finds that impacts from the construction and operation of the substation will be minor in nature. The footprint of the substation is within the project boundary, which the Commission considered in its assessment of the solar power plant. The NIA also demonstrated that the substation will operate in compliance with Rule 012.

22. The Commission considers the applications to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

4 Decision

23. Pursuant to section 11 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27345-A001 and grants Kiwetinohk Energy Corp., the approval set out in Appendix 1 – Power Plant Approval 27345-D02-2022 to construct and operate the 400-megawatt Homestead solar power plant.

24. Pursuant to sections 14, 15, and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27345-A002 and grants Kiwetinohk Energy Corp., the approval set out in Appendix 2 – Substation Permit and Licence 27345-D03-2022 to construct and operate the Homestead 1111S Substation.

25. The appendices will be distributed separately.

Dated on September 22, 2022.

Alberta Utilities Commission

(original signed by)

Cairns Price
Panel Chair

(original signed by)

John McCarthy
Acting 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. Conditions that require subsequent filings with the Commission will be tracked as directions in the AUC's eFiling System. 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 following is a condition of Decision 27345-D01-2022 that requires subsequent filings with the Commission and will be included as a condition of Power Plant Approval 27345-D02-2022:

- Kiwetinohk Energy Corp. shall submit an annual post-construction monitoring report to Alberta Environment and Parks – Fish and Wildlife Stewardship (AEP) 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 AEP requires surveys pursuant to subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* and Section 4.0 of Alberta Environment and Parks' *Post-Construction Survey Protocols for Wind and Solar Energy Projects*.

The following are conditions of Decision 27345-D01-2022 that may or do not require subsequent filings with the Commission and will be included as conditions of Power Plant Approval 27345-D02-2022:

- Kiwetinohk Energy Corp. 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 its response to the complaints or concerns. Kiwetinohk Energy Corp. shall file this report no later than 13 months after the project becomes operational.
- Kiwetinohk Energy Corp. shall use anti-reflective coating on the project solar panels.