



Big Sky Solar GP Inc.

Big Sky Solar Project

October 24, 2022



Alberta Utilities Commission

Decision 27594-D01-2022

Big Sky Solar GP Inc.

Big Sky Solar Project

Proceeding 27594

Applications 27594-A001 and 27594-A002

October 24, 2022

Published by the:

Alberta Utilities Commission

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1 Decision summary

1. In this decision, the Alberta Utilities Commission approves applications from Big Sky Solar GP Inc. to construct and operate the Big Sky Solar Power Plant and associated Bullseye 1004S Substation.

2 Introduction

2. Big Sky Solar GP Inc. (BSS), a wholly owned subsidiary of Renewable Energy Systems Canada Inc., filed applications 27594-A001 and 27594-A002 with the Commission for approval to construct and operate the 140-megawatt (MW) Big Sky Solar Power Plant and associated Bullseye 1004S Substation (collectively, the project).

3. The power plant would consist of approximately 340,200 solar photovoltaic modules, each with a power rating of 535-545 watts, a single-axis tracking system, 47 inverter/transformer units, an underground collector system, a fence and internal access roads.¹

4. The substation would consist of a 30-metre telecommunications tower, a 144/34.5 kilovolt (kV) 100/130/160-megavolt ampere transformer, a 144-kV circuit breaker, a 144-kV motor operated disconnect switch, nine 34.5-kV circuit breakers, a secure fence, and other associated substation equipment.²

5. As shown in Figure 1, the project would be located on approximately 800 acres (324 hectares) of private, cultivated land in the Municipal District of Acadia No. 34 (MD of Acadia), approximately 2.5 kilometres northwest of the hamlet of Acadia Valley. The legal description of the project lands are listed in Table 1 below. The Bullseye 1004S Substation would be located in the northwest quarter of Section 32, Township 25, Range 2, west of the Fourth Meridian.³

¹ Exhibit 27594-X0001, Big Sky Solar Project Rule 007 Application, PDF page 7; Exhibit 27594-X0004, Appendix C - Power Plant Drawing; Exhibit 27594-X0007, Appendix F - Emergency Response Plan, PDF page 5; Exhibit 27594-X0014, Appendix L - Noise Impact Assessment, PDF page 9.

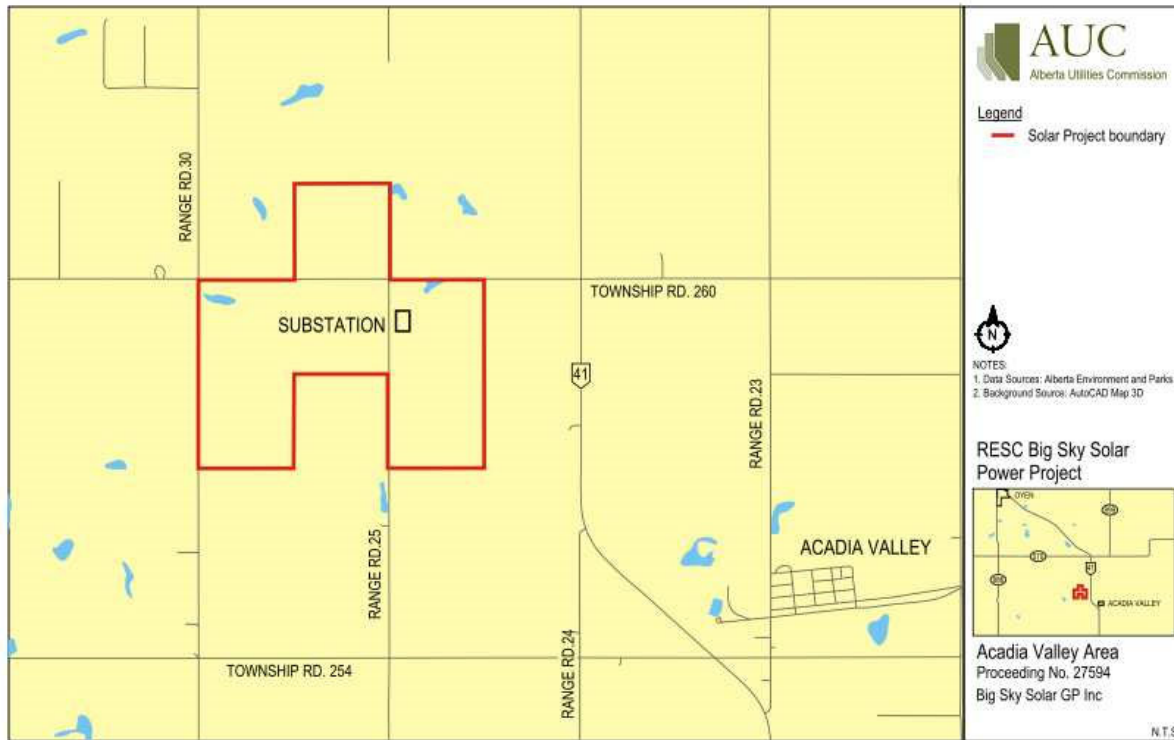
² Exhibit 27594-X0001, Big Sky Solar Project Rule 007 Application, PDF page 20.

³ Exhibit 27594-X0001, Big Sky Solar Project Rule 007 Application, PDF page 8.

Table 1. Legal land description of the project

Quarter	Section	Township	Range	Meridian
Southeast	6	26	2	4
Northeast, northwest and southwest	31	25	2	4
Northwest and southwest	32	25	2	4

Figure 1. Big Sky Solar Project location



6. BSS’ applications included:

- A participant involvement program (PIP), which detailed personal consultation with stakeholders within 400 metres of the project boundary and notification to stakeholders within 800 metres of the project boundary.⁴
- An environmental evaluation, which described methodology for studies conducted, identified potential environmental effects of the project, and assessed residual effects from the project.⁵

⁴ Exhibit 27594-X0017, Appendix O - PIP Report.

⁵ Exhibit 27594-X0009, Appendix H - Environmental Evaluation.

- An environmental protection plan (EPP), which outlined mitigation measures to reduce potential adverse effects to the environment during the construction, operation, and post-construction phases of the project.⁶
- A referral report from Alberta Environment and Parks (AEP) Fish and Wildlife Stewardship, dated May 17, 2022, which ranked the project an overall low risk to wildlife and wildlife habitat.⁷
- An initial renewable energy operations conservation and reclamation plan (REO C&R Plan), which described potential strategies to minimize long-term project effects and achieve final reclamation targets.⁸
- A noise impact assessment, which concluded that the project would comply with Rule 012: *Noise Control*.⁹
- A solar glare assessment, which concluded that the project would not result in glare effects at nearby transportation routes or residences.¹⁰
- A draft site-specific emergency response plan (ERP) for the construction and operation of the project.¹¹

7. BSS stated that it expects construction of the project to commence in May 2023 and be completed by December 31, 2024, with an in-service date of January 1, 2024.¹² Specifically, BSS requested the Commission use December 31, 2024, as the expiry in the project approval and permit and licence, to “allow for potential unforeseen delays.”¹³

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. No submissions were received in response to the notice.

3 Discussion and findings

9. 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.

3.1 Participant involvement program

10. BSS submitted that during the PIP, it conducted personal one-on-one consultation with all landowners, residents and occupants within the 400-metre consultation zone, and mailed project-specific information packages to stakeholders within the 800-metre notification zone. In

⁶ Exhibit 27594-X0012, Appendix J - Environmental Protection Plan.

⁷ Exhibit 27594-X0015, Appendix M - Renewable Energy Referral Report.

⁸ Exhibit 27594-X0013, Appendix K - Conservation and Reclamation Plan.

⁹ Exhibit 27594-X0014, Appendix L - Noise Impact Assessment.

¹⁰ Exhibit 27594-X0008, Appendix G - Solar Glare Assessment.

¹¹ Exhibit 27594-X0007, Appendix F - Emergency Response Plan.

¹² Exhibit 27594-X0030, Information Responses BSS-AUC-2022SEP26-001 to 009, PDF page 13.

Exhibit 27594-X0001, Big Sky Solar Project Rule 007 Application, PDF page 21.

¹³ Exhibit 27594-X0001, Big Sky Solar Project Rule 007 Application, PDF page 9.

addition, BSS consulted with the MD of Acadia, Alberta Transportation, Transport Canada, NAV CANADA and other relevant agencies.

11. BSS submitted a pre-consultation assessment request to the Aboriginal Consultation Office (ACO), and received a response from the ACO that no consultation is required. BSS clarified that it intends to submit an application to AEP for a *Water Act* approval, which may trigger the need for consultation with Indigenous groups. The Commission notes that BSS has committed to fulfill any requirements for Indigenous consultation that arise during the *Water Act* approval process as directed by the ACO.¹⁴

12. The Commission finds that BSS' PIP was conducted in accordance with Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*. BSS consulted with stakeholders and confirmed there are no outstanding objections or concerns in relation to the applications. BSS confirmed it would continue to work with the MD of Acadia throughout the development of the project.

3.2 Environmental impacts

13. A referral report from AEP Fish and Wildlife Stewardship, dated May 17, 2022, ranked the project an overall low risk to wildlife and wildlife habitat.¹⁵ This was based on project siting, limited wildlife use in the area, and commitments made by BSS to mitigate and monitor wildlife impacts. AEP ranked the project a moderate risk to breeding birds (i.e., birds nesting in or around the project area), a low risk to birds in general (including migratory birds and species at risk), a low risk to wildlife features, and ranked the project fence a moderate risk due to possible interference with wildlife through entrapment, impeded movement, and collision.

3.2.1 Soil stripping and grading

14. In the environmental evaluation for the project, BSS calculated approximate topsoil stripping volumes based on a conservative assumption that the entire limit of disturbance¹⁶ will require stripping and grading.¹⁷ In the EPP for the project, BSS stated that soil stripping and grading will be restricted to what is required for access and safe construction and operation practices.¹⁸

15. Stripping and grading could result in the loss of soil quality and quantity in the project area. Soil conditions will be of importance to agriculture post-reclamation and soil stripping may create long-term adverse impacts if inappropriately handled. The Commission recognizes that stripping and grading of the entire project area is unlikely and expects BSS to limit soil stripping and grading to what is necessary for access and safe construction and operation of the project.

¹⁴ Exhibit 27594-X0001, Big Sky Solar Project Rule 007 Application, PDF page 15.

¹⁵ Exhibit 27594-X0015, Appendix M - Renewable Energy Referral Report.

¹⁶ Limit of disturbance includes the maximum extent of physical disturbance during project construction. The limit of disturbance includes areas required for temporary workspaces such as areas required for construction of the fence line, construction laydown area, and areas required for grading to support construction of the project solar panels. (Exhibit 27594-X0009, PDF page 8)

¹⁷ Exhibit 27594-X0009, Appendix H - Environmental Evaluation, PDF page 42.

¹⁸ Exhibit 27594-X0012, Appendix J - Environmental Protection Plan, PDF pages 26 and 27.

The Commission further recognizes that BSS is required to remain compliant with AEP's *Conservation and Reclamation Directive for Renewable Energy Operations*.

3.2.2 Project fence

16. In its referral report, AEP Fish and Wildlife Stewardship rated the project fence a moderate risk to wildlife. Specifically, AEP Fish and Wildlife Stewardship stated that construction of the project fence generally aligns with the *Wildlife Directive for Alberta Solar Energy Projects*; however, some parts of the fence, including a long funnel-shaped design around the middle section of the solar panels and a narrow corridor between the west and middle sections of the solar panels, have the potential to increase the risk of wildlife entrapment.¹⁹

17. In response to a Commission information request, BSS stated that it does not plan to redesign the project fence, because the current design uses squared off corners, and is set back from the road allowances for Township Road 260 and Range Road 25 to reduce the potential for wildlife entrapment.²⁰

18. The Commission accepts BSS' explanation about limitations to modify the project fence and expects BSS to implement appropriate mitigation measures to reduce the environmental impacts from the project fence.

3.2.3 Nest sweeps and post-construction monitoring

19. In its referral report, AEP Fish and Wildlife Stewardship determined that the project risk to breeding birds is moderate, based on ground disturbance within tame grassland and hay land.²¹ The EPP states that bird nest searches will be completed by a qualified wildlife biologist in non-cultivated landcover from April 1 to July 15. This does not align with the Environment and Climate Change Canada (ECCC) recommended nesting period for the project area's nesting zone (i.e., nesting zone B4), which is approximately from mid-April to late-August.²²

20. In response to a Commission information request, BSS advised that it would adhere to the ECCC recommended nesting period of April 1 to August 24 for the project area.²³ Accordingly, the Commission imposes the following condition of approval:

- a. Big Sky Solar GP Inc. shall update the environmental protection plan with dates and conditions for bird nest sweeps that are consistent with the Environment and Climate Change Canada recommended nesting period for the project area's nesting zone. Big Sky Solar GP Inc. shall submit the updated environmental protection plan to the Commission no later than 90 days before commencement of the project construction.

21. 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. Similarly, AEP requires BSS to submit post-construction monitoring reports to AEP Fish and Wildlife Stewardship and the Commission annually by the end of

¹⁹ Exhibit 27594-X0015, Appendix M - Renewable Energy Referral Report, PDF page 4.

²⁰ Exhibit 27594-X0030, Information Responses BSS-AUC-2022SEP26-001 to 009, PDF page 8.

²¹ Exhibit 27594-X0015, Appendix M - Renewable Energy Referral Report, PDF page 2.

²² Exhibit 27594-X0012, Appendix J - Environmental Protection Plan, PDF page 30.

²³ Exhibit 27594-X0030, Information Responses BSS-AUC-2022SEP26-001 to 009, PDF page 6.

January following the mortality monitoring period.²⁴ Therefore, the Commission imposes the following condition of approval:

- b. Big Sky Solar GP Inc. shall submit an annual post-construction monitoring survey report to Alberta Environment and Parks 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 Parks requires surveys pursuant to subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.

22. The project area is located primarily on cultivated and tame grassland/hay lands with wetlands covering approximately 1.4 per cent of the project area. The Commission is satisfied that, with implementation of the mitigation measures outlined and adherence to the commitments made by BSS, the identified environmental effects of the project can be mitigated to an acceptable degree.

3.3 Other factors considered

23. The solar glare assessment predicted that the project will not result in glare effects at nearby transportation routes or residences. The predictions and associated conclusions in the solar glare assessment report were premised upon the use of an anti-reflective coating on the project solar panels.²⁵ Therefore, the Commission imposes the following condition of approval:

- c. Big Sky Solar GP Inc. shall use an anti-reflective coating on the project solar panels.

24. The Commission is satisfied that no glare impacts from the project are expected. However, the Commission requires that any glare issues associated with the project that may arise be addressed by BSS in a timely manner. Therefore, the Commission imposes the following condition of approval:

- d. Big Sky Solar GP Inc. 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 BSS' response to the complaints or concerns. BSS shall file this report no later than 13 months after the project becomes operational.

25. The site-specific ERP submitted by BSS identified preliminary emergency response measures and outlined site monitoring and communication protocols. Local responders and authorities were provided a copy of the ERP and BSS did not receive any comments or feedback. BSS confirmed it would continue to finalize the ERP in consultation with the MD of Acadia, local emergency services, the engineering, procurement, and construction contractor, and any other interested stakeholders that express concerns about the safety of the project.²⁶

26. With respect to end-of-life management, BSS submitted a REO C&R Plan in accordance with the AEP *Conservation and Reclamation Directive for Renewable Energy Operations*, and provided an overview of how it will ensure sufficient funds are available at the project end of life to cover the cost of decommissioning and reclamation. BSS confirmed that it would

²⁴ Exhibit 27594-X0015, Appendix M - Renewable Energy Referral Report, PDF page 5.

²⁵ Exhibit 27594-X0008, Appendix G - Solar Glare Assessment, PDF page 7.

²⁶ Exhibit 27594-X0001, Big Sky Solar Project Rule 007 Application, PDF pages 10 and 11.

decommission the project at its sole cost and expense, and as required by the land lease, BSS would provide security for decommissioning (e.g., a bond, letter of credit or guarantee or such other form) no later than three years prior to decommissioning.²⁷

27. With respect to noise impacts, the Commission finds that the noise impact assessment submitted by BSS 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.²⁸

28. The Commission notes that BSS expects to finalize equipment selection for the project in the first quarter of 2023.²⁹ Consequently, the Commission imposes the following as a condition of approval:

- e. Once Big Sky Solar GP Inc. has finalized its equipment selection and project layout, it must file a final project update with the Commission to confirm that the project has stayed within the final project update allowances for solar power plants. The final project update must be filed at least 60 days prior to the start of construction.

29. The Commission finds that BSS has satisfied the requirements of Rule 007 and Rule 012. For the reasons outlined above and subject to all of the conditions that form part of this decision as set out above and listed in Appendix A, the Commission considers the applications to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

4 Decision

30. Pursuant to sections 11 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27594-A001 and grants Big Sky Solar GP Inc. the approval set out in Appendix 1 – Power Plant Approval 27594-D02-2022 to construct and operate the Big Sky Solar Power Plant (Appendix 1 will be distributed separately).

31. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27594-A002 and grants Big Sky Solar GP Inc. the approval set out in Appendix 2 – Substation Permit and Licence 27594-D03-2022 to construct and operate the Bullseye 1004S Substation. (Appendix 2 will be distributed separately).

Dated on October 24, 2022.

Alberta Utilities Commission

(original signed by)

Renée Marx
Commission Member

²⁷ Exhibit 27594-X0001, Big Sky Solar Project Rule 007 Application, PDF page 13.

²⁸ Exhibit 27594-X0014, Appendix L - Noise Impact Assessment.

²⁹ Exhibit 27594-X0030, Information Responses BSS-AUC-2022SEP26-001 to 009, PDF page 11.

Appendix A – Summary of Commission conditions of approval

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 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 27594-D01-2022 that require subsequent filings with the Commission and will be included as conditions of Power Plant Approval 27594-D02-2022:

- a. Big Sky Solar GP Inc. shall update the environmental protection plan with dates and conditions for bird nest sweeps that are consistent with the Environment and Climate Change Canada recommended nesting period for the project area's nesting zone. Big Sky Solar GP Inc. shall submit the updated environmental protection plan to the Commission no later than 90 days before commencement of the project construction.
- b. Big Sky Solar GP Inc. shall submit an annual post-construction monitoring survey report to Alberta Environment and Parks 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 Parks requires surveys pursuant to subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.
- e. Once Big Sky Solar GP Inc. has finalized its equipment selection and project layout, it must file a final project update with the Commission to confirm that the project has stayed within the final project update allowances for solar power plants. The final project update must be filed at least 60 days prior to the start of construction.

The following are conditions of Decision 27594-D01-2022 that do not or may require a subsequent filing with the Commission:

- c. Big Sky Solar GP Inc. shall use an anti-reflective coating on the project solar panels.
- d. Big Sky Solar GP Inc. 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 BSS' response to the complaints or concerns. BSS shall file this report no later than 13 months after the project becomes operational.