



**SR Scotford Inc.**

**Scotford Solar Power Project**

**September 1, 2022**

**Alberta Utilities Commission**

Decision 27314-D01-2022

SR Scotford Inc.

Scotford Solar Power Project

Proceeding 27314

Application 27314-A001

September 1, 2022

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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.

## 1 Decision summary

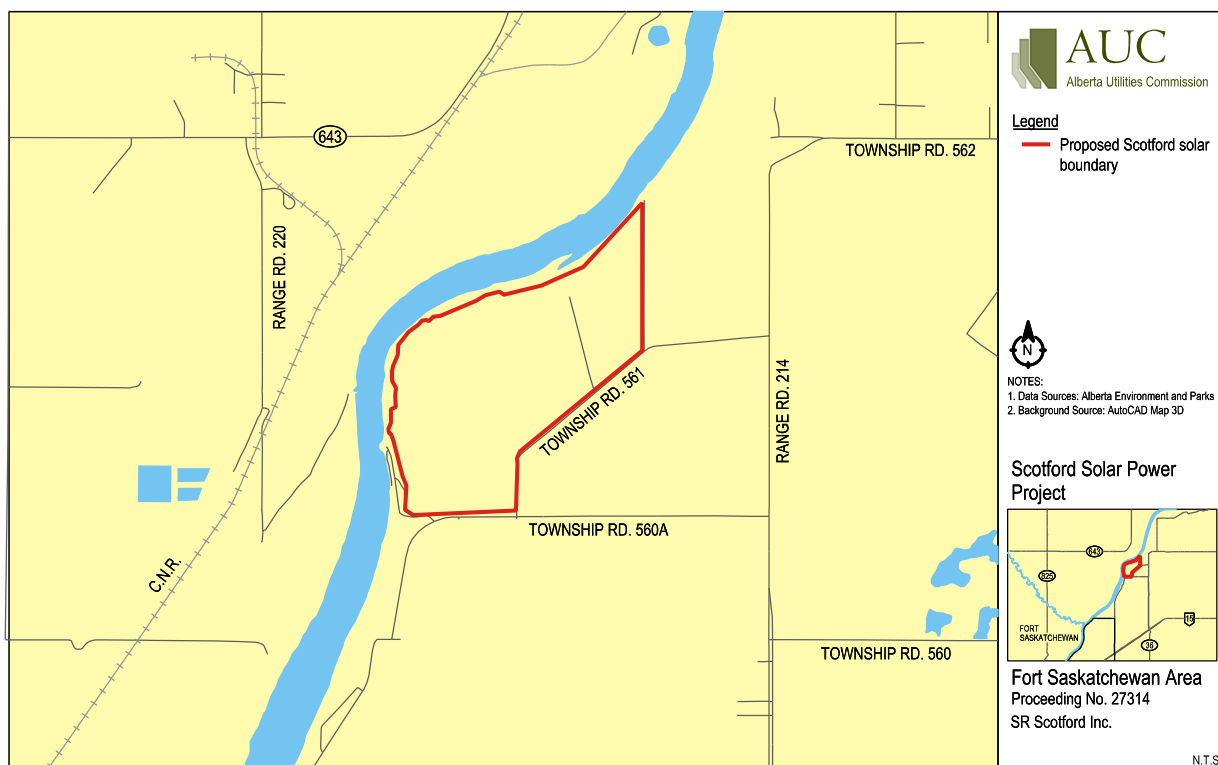
1. In this decision, the Alberta Utilities Commission approves an application from SR Scotford Inc. (SR Scotford) to construct and operate the 58-megawatt (MW) Scotford Solar Power Project, approximately 14 kilometres northeast of the city of Fort Saskatchewan.

## 2 Application

2. SR Scotford filed an application with the Commission for approval to construct and operate a solar power plant, designated as the Scotford Solar Power Project. The power plant would consist of approximately 150,390 540-watt MAXEON solar photovoltaic modules on a fixed-tilt axis racking system, 283 string inverters, 24 transformers, and a 34.5-kilovolt gathering system.

3. The power plant would be located north of the Shell Scotford Industrial Complex on approximately 245 acres of privately owned industrial land, within the northwest quarter of Section 5, northeast quarter of Section 6, southeast quarter of Section 7 and west half of Section 8; of Township 56, Range 21, west of the Fourth Meridian, as shown in the figure below.

Figure 1. Scotford Solar Power Project location



4. SR Scotford submitted that it intended for the power plant to connect to the existing Scotford 409S Substation and to supply the Shell Scotford Industrial Complex. The application does not include the construction and operation of a transmission line or amendments to an existing transmission facility or amendments to the Scotford industrial system designation (ISD) order; which would be subject to future proceedings, as required. In this proceeding, SR Scotford clarified that it would consult with the Scotford ISD participants before filing an amendment application to the ISD. SR Scotford stated that, if the Scotford ISD participants do not reach a consensus regarding the ISD amendment application, a subsequent application will be made to the Commission for an alternate connection point.

5. SR Scotford's application included:

- A participant involvement program report, which detailed the personal consultations with stakeholders within 400 metres of the project, notification to stakeholders within 800 metres of the project, and notification to registered aerodromes within 4,000 metres of the project.<sup>1</sup>
- A copy of the Alberta Environment and Parks - Fish and Wildlife Stewardship's (AEP) renewable energy referral report dated June 3, 2022, that summarizes the review undertaken by AEP and the potential risks to wildlife and wildlife habitat as a result of the project.<sup>2</sup>
- An environmental evaluation prepared by Tetra Tech Canada Inc., which described the potential adverse effect of the project, mitigation measures and the predicted residual adverse effects of the project.<sup>3</sup>
- An environmental protection plan, which described the project-specific measures to be implemented during development and operation of the project.<sup>4</sup>
- A conservation and reclamation plan prepared by Tetra Tech Canada Inc. and in accordance with Alberta Environment and Park's *Conservation and Reclamation Directive for Renewable Energy Operations*.<sup>5</sup>
- A noise impact assessment (NIA) prepared by Green Cat Renewables Canada Corporation (GRC) that predicted the project will comply with Rule 012: *Noise Control*.<sup>6</sup>
- A site-specific emergency response plan for the construction and operation of the project that was provided to local responders and authorities.<sup>7</sup>
- A solar glare assessment from GRC that found no residences within 800 metres of the project and predicted the project is not expected to present a significant hazard to drivers

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<sup>1</sup> Exhibit 27314-X0015, Attachment O - Participant Involvement Program Report.

<sup>2</sup> Exhibit 27314-X0012, Attachment L - Renewable Energy Referral Report.

<sup>3</sup> Exhibit 27314-X0007, Attachment G - Environmental Evaluation.

<sup>4</sup> Exhibit 27314-X0008, Attachment H - Environmental Protection Plan.

<sup>5</sup> Exhibit 27314-X0009, Attachment I - Conservation and Reclamation Plan.

<sup>6</sup> Exhibit 27314-X0010, Attachment J - Noise Impact Assessment.

<sup>7</sup> Exhibit 27314-X0004, Attachment D - Emergency Response Plan.

along adjacent roads and railways or helicopter pilots approaching the Redwater (Pembina) Heliport.<sup>8</sup>

- A letter outlining the *Historical Resources Act* clearance conditions, dated September 30, 2021.<sup>9</sup>

6. SR Scotford anticipated an in-service date of December 31, 2023, for the power plant. It added that construction completion, inclusive of all interim reclamation work, would occur by December 31, 2024.

7. The Commission issued a notice of application in accordance with Section 7 of Rule 001: *Rules of Practice*. One submission from Heartland Generation Ltd. (Heartland) was received. Heartland noted concerns with the inclusion of the power plant into the Scotford ISD order. Heartland indicated it had no concerns with the power plant itself. In a letter dated August 3, 2022, the Commission informed parties that an ISD amendment was not being applied for in this proceeding and it would process the current application separately from any potential future application for an ISD amendment or connection order. The Commission confirmed that Heartland has the ability to participate in any future application for an amendment to the Scotford ISD order.

### 3 Discussion and findings

8. The Commission's authority to approve power plant applications arises under sections 11 and 19 of the *Hydro and Electric Energy Act*. Under 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. The public interest is met when applications comply with legislative and regulatory requirements and the project's benefits outweigh its negative effects. This includes requirements set out in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines* and Rule 012: *Noise Control*.

9. For the reasons outlined below, the Commission finds that approval of the power plant is in the public interest having regard to the social, economic, and other effects of the project, including its effect on the environment.

10. The Commission notes that SR Scotford intended for the power plant to connect to the existing Scotford 409S Substation and to supply the Shell Scotford Industrial Complex. The Commission finds that consideration of these issues to be premature given that an application to amend the existing ISD order and an application for connection of the power plant is not before the Commission. SR Scotford has stated that it would consult with the Scotford ISD participants prior to filing an ISD amendment application. SR Scotford also stated that if consensus cannot be reached with the Scotford ISD participants, it would file a subsequent application for an alternate connection point. The Commission finds that it is more appropriate to consider the issues pertaining to an ISD or connection order in a future application(s).

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<sup>8</sup> Exhibit 27314-X0005, Attachment E - Solar Glare Hazard Analysis.

<sup>9</sup> Exhibit 27314-X0013, Attachment M - Historical Resources Act Requirements.

11. The Commission finds that the participant involvement program for the proposed power plant meets the requirements of Rule 007. SR Scotford notified occupants, residents, landowners, First Nation reserves and Metis Settlements within 800 metres of the project boundary, notified registered aerodromes within 4,000 metres, and conducted personal consultations within 400 metres of the project. SR Scotford confirmed there are no residences within the consultation or notification areas given the industrial nature of the area and landowners within 800 metres of the proposed power plant site boundary did not have any outstanding questions or concerns about the project. SR Scotford submitted a pre-consultation application with the Aboriginal Consultation Office, which confirmed that no Aboriginal consultation is required because the project is not located on public lands. Based on the foregoing, the Commission is satisfied that the participant involvement program met the objectives of effective consultation.

12. The Commission accepts AEP's assessment that the project presents an overall low risk to wildlife and wildlife habitat. The Commission finds that any residual environmental effects will be reasonably mitigated by the mitigation and monitoring measures that SR Scotford will implement.<sup>10</sup>

13. The Commission is satisfied that with the implementation of the mitigation measures outlined, and is of the opinion that adherence to the commitments made by SR Scotford can mitigate the identified environmental effects of the project to an acceptable degree. While the project is sited within the valley break of the North Saskatchewan River, it is within Alberta's Industrial Heartland, and is surrounded by industrial facilities. The project land is currently cultivated and there are no native grasslands impacted. The power plant is setback 102 metres from the North Saskatchewan River and no interactions with fish or fish habitat are anticipated. The project has been sited to avoid direct impacts to Class III and higher wetlands, but will have permanent impacts within three wetland development setbacks. An existing disturbance (i.e., municipal road) runs through the wetland development setbacks between the project and the three wetlands which acts as an existing deterrent for amphibians. Additionally, SR Scotford has committed to conducting wildlife sweeps if construction is to occur within a wetland setback during the amphibian breeding season (April 1 to September 30).<sup>11</sup> The Commission finds that the existing barrier to amphibians and proposed mitigations appropriately mitigate the potential for significant impacts to amphibians within the wetland development setback.

14. The Commission finds that the power plant will not result in a significant effect on the environment and wildlife due to the industrial nature of the project area and SR Scotford's mitigation measures. AEP assessed the risk to sensitive habitats within valley breaks as high because they are generally considered key wildlife and biodiversity zones; however, mitigations have been proposed that reduce risks to a low to moderate risk for the important habitats, species, and wildlife features associated with valley break features. Permanent impacts are proposed within the buffer of the one intermittent watercourse identified in the project area; however, AEP has determined the risk to riparian wildlife and habitat as moderate because the existing riparian habitat will be maintained. AEP determined that the power plant poses a low risk to wildlife and wildlife habitat, considering the siting, high wildlife use in the area, and commitments made by SR Scotford to mitigate and monitor wildlife impacts. In response to a red-tailed hawk nest

<sup>10</sup> Exhibit 27314-X0007, Attachment G - Environmental Evaluation; Exhibit 27314-X0008, Attachment H - Environmental Protection Plan; Exhibit 27314-X0009, Attachment I - Conservation and Reclamation Plan; and, Exhibit 27314-X0012, Attachment L - Renewable Energy Referral Report.

<sup>11</sup> 27314-X0008, Attachment H - Environmental Protection Plan.

setback encroached by the project, SR Scotford has committed to resurveying the nest prior to construction and consulting with AEP, if the nest is deemed active.

15. The Commission finds that there is minimal potential for project interaction with groundwater. It is anticipated that ground disturbance associated with construction will be limited to a depth of six metres. The potential project-related impacts associated with ground disturbance at this depth is expected to be negligible and are considered to not be sufficient to materially affect movement of shallow groundwater outside the construction phase of the power plant.

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:

- a. SR Scotford Inc. 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. SR Scotford retained GRC to conduct an NIA for the project. GRC identified no dwellings within 1.5 kilometres of the project boundary. Instead, it selected two nominal locations along 1.5 kilometres of the project boundary as receptors to assess the potential noise impacts from the project. The NIA predicted noise contribution from the project would not result in any increase above the baseline case sound levels at the noise receptors.

18. The Commission notes that the project would be located within the Northeast Capital Industrial Association (NCIA) boundary and noise from energy-related facilities is managed through NCIA’s regional noise management plan. In its endorsement of the regional noise management plan, the Commission required that new facilities should result in no net increase above baseline case sound levels at nearby receptors, i.e., increase in sound level above the baseline case should be no greater than 0.4 decibels.<sup>12</sup> The Commission finds that the project is expected to comply with the no net increase requirement for noise from new facilities in the NCIA boundary.

19. SR Scotford retained GRC to assess solar glare from the project. The solar glare assessment assumed that the project would use anti-reflective coating on the solar panels. GRC identified that there were no dwellings within 800 metres of the project boundary but it identified four roads, two railways and the Redwater (Pembina) Heliport as receptors.

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<sup>12</sup> Letter from Alberta Utilities Commission to Northeast Capital Industrial Association, issued on September 16, 2013; Letter from Alberta Utilities Commission to Northeast Capital Industrial Association, issued on October 16, 2013.

20. Railway A is predicted to be the receptor that is most impacted by the project. Train operators travelling along Railway A may observe yellow glare<sup>13</sup> for up to 3,697 minutes (61.6 hours) per year (or 37 minutes per day). GRC explained that vehicle operators will only see a fraction of the predicted glare since they will be travelling past the site, not standing still while looking at the solar photovoltaic arrays. Potential mitigations include visual screening from fencing, vegetation or berms.

21. With respect to the heliport receptor, no glare is expected for the flight approach angles between 334 and 34 degrees and approach angles between 304 and 334 degrees are expected to experience green glare for up to 522 minutes (8.7 hours) per year (or 17 minutes per day). GRC explained that the project is not considered a safety risk to pilots who use the heliport, because: (i) Minimal amount of green glare is predicted for certain flight approaches and green glare is not considered to be a safety hazard; (ii) Because the solar glare assessment used conservative assumptions, less solar glare is anticipated in practice than predicted; and (iii) Helicopters can fly in almost any direction and pilots can carry out their final approach using alternate approach angles to avoid the potential for glare.

22. SR Scotford stated that it provided overviews of the glare assessment to Strathcona County, Canadian Pacific Ltd. and Canadian National Railway Company and did not receive concerns about the project. In addition, SR Scotford consulted Pembina NGL Corporation, the owner of the Redwater (Pembina) Heliport, and clarified that Pembina had no questions or concerns with the project due to infrequent use of the heliport and the predictions of the glare report.

23. Overall, the solar glare assessment concluded the project is not expected to present a significant hazard to drivers, train operators, or pilots near the project.

24. The Commission finds that glare is not expected to be an issue with this project. Mitigation measures for glare on the roads and railways are available should glare become an issue. With regard to the heliport, the Commission finds that certain flight approach angles are expected to experience short periods of green glare, which is not considered a safety hazard to pilots. In addition, the Commission notes that there is infrequent use of the heliport and helicopters can carry out their final approach using alternate approach angles to totally avoid glare. The Commission notes that there are currently no existing provincial or federal regulations imposing criteria for solar glare impacts from solar power projects. The Commission requires that any glare issues associated with the power plant that may arise be addressed by SR Scotford in a timely manner. Accordingly, the Commission imposes the following condition of approval:

- b. SR Scotford 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 two years of operation, and its responses to the complaints or concerns. SR Scotford Inc. shall file this report no later than 25 months after the project becomes operational.

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<sup>13</sup> Green glare: glare with low potential for temporary after-image; Yellow glare: glare with potential for temporary after-image; Red glare: glare with potential for permanent eye damage.



25. Because GRC's assessment that the power plant is not likely to have the potential to create hazardous glare conditions for nearby roads, railways and aerodromes was premised upon the use of an anti-reflective coating, the Commission imposes the following condition of approval:

- c. SR Scotford Inc. shall use anti-reflective coating on the project solar panels.

26. The Commission finds that SR Scotford has appropriately addressed the emergency response needs for the project. The site-specific emergency response plan (ERP) includes specific considerations for the construction and operation of the power plant. SR Scotford engaged local fire and Royal Canadian Mounted Police detachments regarding any concerns or input related to emergency response planning for the project. SR Scotford submitted that no responses were received. However, if comments are received SR Scotford will update the ERP and provide a copy to local responders prior to the start of construction.

27. The Commission finds that SR Scotford has committed to decommissioning the power plant when it is no longer viable for operation. SR Scotford submitted that it backstops its decommissioning and reclamation commitments by including the associated costs as a part of the capital expense framework for the power plant. The designated amounts and the future salvage values for metals in the project infrastructure are available for decommissioning and reclamation.

28. For the above reasons, and subject to the terms and conditions in this decision and Appendix 1 – Power Plant Approval 27314-D02-2022, the Commission considers the application to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act* and with sections 11 and 19 of the *Hydro and Electric Energy Act*.

#### **4 Decision**

29. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves the application and grants SR Scotford Inc. the approval set out in Appendix 1 – Power Plant Approval 27314-D02-2022 to construct and operate the Scotford Solar Power Project (Appendix 1 will be distributed separately).

Dated on September 1, 2022.

#### **Alberta Utilities Commission**

*(original signed by)*

Vincent Kostas  
Acting Commission Member

## 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 is a condition of Decision 27314-D01-2022 that requires subsequent filings with the Commission and will be included as a condition of Power Plant Approval 27314-D02-2022:

- SR Scotford Inc. 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 27314-D01-2022 that may or do not require subsequent filings with the Commission and will be included as conditions of Power Plant Approval 27314-D02-2022:

- SR Scotford 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 two years of operation, and its responses to the complaints or concerns. SR Scotford Inc. shall file this report no later than 25 months after the project becomes operational.
- SR Scotford Inc. shall use anti-reflective coating on the project solar panels.