



**General Land & Power Corp. and  
AltaLink Management Ltd.**

**Sollair Solar Energy Project and Connection**

**May 2, 2023**

**Alberta Utilities Commission**

Decision 27582-D01-2023

General Land & Power Corp. and

AltaLink Management Ltd.

Sollair Solar Energy Project and Connection

Proceeding 27582

Applications 27582-A001 to 27582-A004

May 2, 2023

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## **1 Decision summary**

1. In this decision, the Alberta Utilities Commission approves applications from General Land & Power Corp. (GL&P) to construct and operate a power plant, designated as the Sollair Solar Energy Power Plant, and the associated Sollair 1055S Substation. The Commission also approves applications from AltaLink Management Ltd. to connect the Sollair Solar Energy Project to the Alberta Interconnected Electric System. The connection applications are to construct and operate a new 138-kilovolt Transmission Line 688BL and alter Transmission Line 688L, including installing a fibre optic cable for communications.

## **2 Introduction**

### **2.1 General Land & Power Corp.'s applications**

2. GL&P filed applications with the Commission for approval to construct and operate the 75-megawatt Sollair Solar Energy Power Plant and the associated Sollair 1055S Substation (together, the Sollair project or project), under Section 11 of the *Hydro and Electric Energy Act*.

3. The Sollair project is sited on approximately 476 acres of freehold, cultivated land in Rocky View County. More specifically, the project is located adjacent to the north boundary of the city of Airdrie within Section 26, Township 27, Range 29, west of the Fourth Meridian, as shown in Figure 1. The Sollair project lands, which are previously disturbed and cultivated, are owned by GL&P.

4. The power plant will consist of approximately 183,600 solar modules on approximately 2,616 solar panel tables. The solar panel tables will be controlled by 190 single-axis trackers<sup>1</sup> and will tie into approximately 25 inverter/transformer stations. The substation will contain one 138/34.5-kilovolt transformer, one 138-kilovolt circuit breaker, and associated substation equipment.<sup>2</sup>

5. GL&P described the project benefits as including the potential for short- and long-term employment opportunities, provincial and municipal tax revenues, potential contract opportunities to local service providers, and adding renewable electricity to Alberta's power sector.<sup>3</sup> In addition, GL&P plans a pilot project to grow and harvest compatible crops between the operating solar racking and panels.<sup>4</sup>

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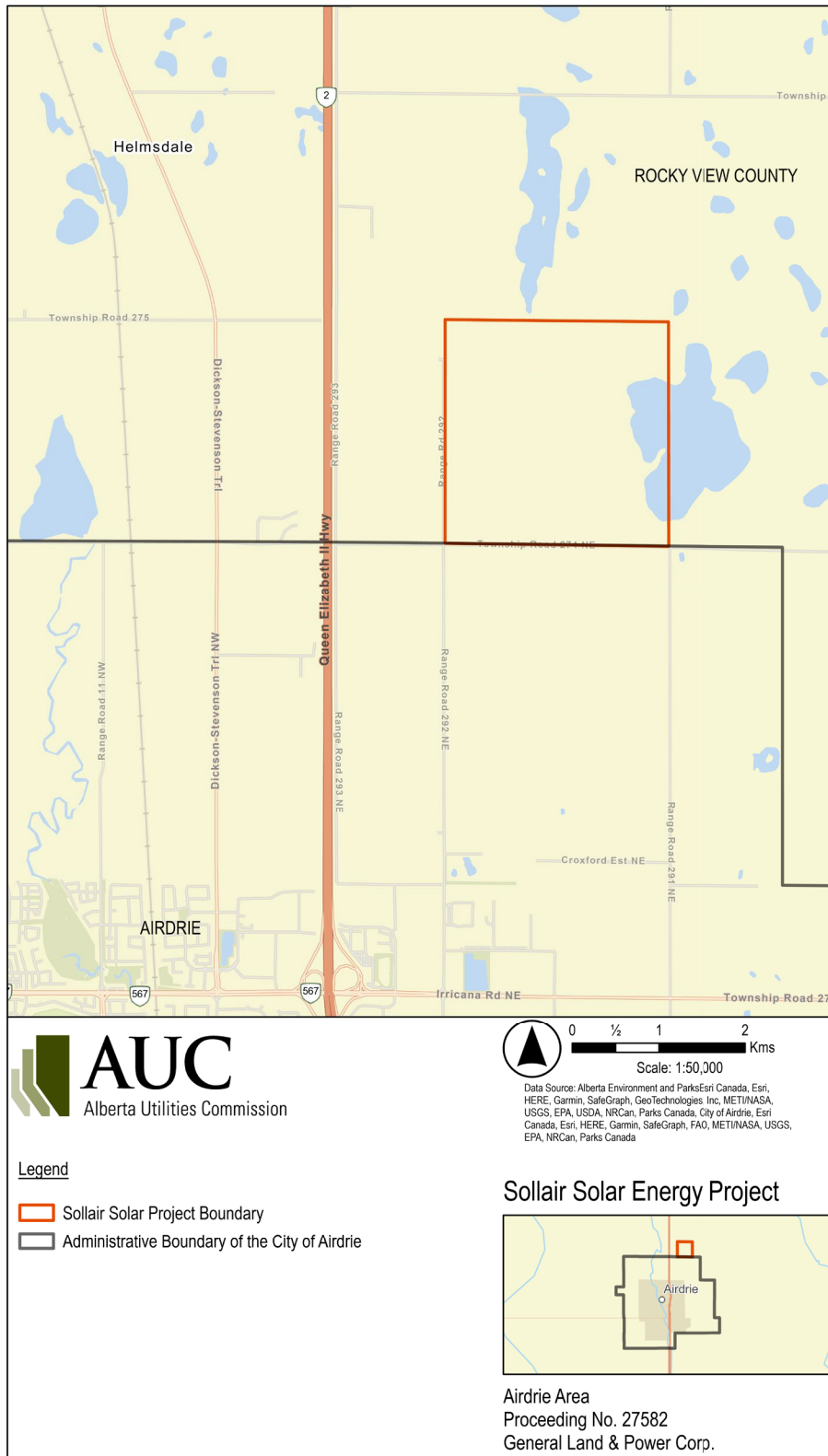
<sup>1</sup> Exhibit 27582-X0262, GL&P-AUC-2023-JAN20-FEB2-RESPONSES, PDF page 2.

<sup>2</sup> Exhibit 27582-X0001, Sollair Solar Energy Project Facility Application.

<sup>3</sup> Exhibit 27582-X0015, Appendix N - PIP Report, PDF page 19.

<sup>4</sup> Exhibit 27582-X0009, Appendix H - Environmental Evaluation.

Figure 1. Sollair Solar Energy Project location



6. GL&P's applications contained the following key components:
- A participant involvement program summary, which detailed consultation with stakeholders within 400 metres of the Sollair project and notification of stakeholders within 800 metres of the project.<sup>5</sup> GL&P explained that no Indigenous consultation was undertaken for the Sollair project since it is sited on freehold land, with no Indigenous groups requiring access to the site for traditional land use.<sup>6</sup>
  - An environmental evaluation, which assessed the pre-construction Sollair project site conditions, described field survey methodologies, discussed potential environmental impacts from the Sollair project to valued ecosystem components in the Sollair project area, and characterized the significance of any residual impacts.<sup>7</sup>
  - An environmental protection plan, which provides details on mitigation methods and the conservation of valued ecosystem components to reduce impacts from construction, operation, and reclamation of the Sollair project.<sup>8</sup>
  - A renewable energy referral report dated June 30, 2022, from Alberta Environment and Parks Fish and Wildlife Stewardship (AEPA),<sup>9</sup> which ranked the Sollair project as an overall low risk to wildlife and wildlife habitat.<sup>10</sup>
  - An initial conservation and reclamation plan developed with the objective to return the project land to an equivalent land capability.<sup>11</sup>
  - A *Historical Resources Act* approval dated July 22, 2022.<sup>12</sup>
  - A noise impact assessment, which concluded that the Sollair project would comply with Rule 012: *Noise Control*.<sup>13</sup>
  - A solar glare assessment, which concluded that the Sollair project is not likely to have the potential to create hazardous glare conditions for the dwellings or transportation routes.<sup>14</sup>
  - A preliminary site-specific emergency response plan.<sup>15</sup>

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<sup>5</sup> Exhibit 27582-X0015, Appendix N - PIP Report.

<sup>6</sup> Exhibit 27582-X0015, Appendix N - PIP Report, PDF page 6.

<sup>7</sup> Exhibit 27582-X0009, Appendix H – Environmental Evaluation.

<sup>8</sup> Exhibit 27582-X0010, Appendix I- Environmental Protection Plan.

<sup>9</sup> On October 24, 2022, the Ministry of Environment and Parks (AEP) was renamed the Ministry of Environment and Protected Areas (AEPA). Any references to AEP in Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* and elsewhere that relate to forward-looking obligations or commitments between the applicant and AEPA should be interpreted as meaning Alberta Environment and Protected Areas. AEPA will be used throughout regardless of whether the referenced document or information was issued prior to the name change.

<sup>10</sup> Exhibit 27582-X0013, Appendix L - 20220630 AEP-FWS Referral Report Sollair Solar.

<sup>11</sup> Exhibit 27582-X0011, Appendix J - Sollair Solar Project Conservation and Reclamation Plan.

<sup>12</sup> Exhibit 27582-X0014, Appendix M - HRA Approval.

<sup>13</sup> Exhibit 27582-X0012, Appendix K - Sollair Solar Noise Impact Assessment.

<sup>14</sup> Exhibit 27582-X0008, Appendix G - Sollair Solar Project Solar Glare Assessment.

<sup>15</sup> Exhibit 27582-X0007, Appendix F - Draft ERP Sollair Solar Energy Project.

7. GL&P advised that it expects the project to be partially in-service in December 2023, with a final completion date by December 31, 2024.<sup>16</sup>

## 2.2 AltaLink Management Ltd.'s applications

8. To connect the Sollair project to the Alberta Interconnected Electric System, GL&P requested system access from the Alberta Electric System Operator (AESO). In response to that request, the AESO approved the need for the transmission development pursuant to ISO Rules Section 501.3 - *Abbreviated Needs Approval Process*,<sup>17</sup> and directed AltaLink to file a facility application with the AUC for the facilities to meet the connection need.

9. AltaLink filed applications for approval of the Sollair Solar Energy Project Connection. The connection project consists of constructing and operating a new single-circuit 138-kilovolt transmission line, approximately 40 metres in length, designated as Transmission Line 688BL, between the Sollair 1055S Substation and existing Transmission Line 688L. As well, Transmission Line 688L will be altered to accommodate the new T-tap connection, including installing an underground fibre optic cable in its existing right-of-way between the East Airdrie 199S Substation, the Sollair 1055S Substation, and the Summit 653S Substation for operation and control communications. The applications were filed under sections 14, 15 and 18 of the *Hydro and Electric Energy Act*.

10. AltaLink's applications contained the following key components:

- A participant involvement program summary, which detailed consultation with stakeholders within 100 metres of the proposed fibre optic cable, 200 metres from the proposed modifications to Transmission Line 688L, and 800 metres from the proposed overhead Transmission Line 688BL.<sup>18</sup>
- An environmental evaluation, which assessed the pre-project site conditions, described field survey methodologies, discussed potential environmental impacts from the AltaLink project to valued ecosystem components in the AltaLink project area, and characterized the significance of any residual impacts.<sup>19</sup>
- An environmental protection plan, which provides details on mitigation methods and the conservation of valued ecosystem components to reduce impacts from construction, operation, and reclamation of the AltaLink project.<sup>20</sup>
- A *Historical Resources Act* approval dated March 15, 2022.<sup>21</sup>

11. The expected in-service date for the connection project is December 31, 2023.

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<sup>16</sup> Transcript, Volume 2, page 214, lines 9 to 12.

<sup>17</sup> Exhibit 27582-X0086, Appendix TS05 AESO Direction Letters.

<sup>18</sup> Exhibit 27582-X0082, AML Sollair Solar Energy Project Connection D.0806 - Application.

<sup>19</sup> Exhibit 27582-X0093, Appendix TS24 Environmental Evaluation.

<sup>20</sup> Exhibit 27582-X0094, Appendix TS26 Environmental Protection Plan.

<sup>21</sup> Exhibit 27582-X0095, Appendix TS31 Historical Resources Act Approvals.

## 2.3 Interveners

12. The Commission issued notices of applications<sup>22</sup> and a notice of hearing. The following parties filed statements of intent to participate and were granted standing in the proceeding:

- Individual stakeholders adjacent to the Sollair project boundary who subsequently formed the Section 26 Neighbours Group (S26 Group).<sup>23</sup>
- CNOOC Petroleum North America ULC (CNOOC).
- City of Airdrie.

13. As a result of these statements of intent to participate, the Commission held a virtual hearing on February 27, 2023, to March 2, 2023, to consider the applications and concerns raised. The registered proceeding participants and the registered appearances for the oral hearing can be found in appendixes A and B, respectively.

14. In the following sections of this decision, the Commission discusses several concerns and factors that the Commission has considered in making its decision, and provides the Commission's findings.

## 3 Discussion and findings

### 3.1 Participant involvement program

15. The S26 Group submitted that GL&P's participant involvement program was inadequate due to the lack of meaningful consultation with local residents. In addition, some residents were not included in the consultation process despite residing within the notification or consultation radius. The S26 Group stated that many group members received little to no follow-up attempts to discuss their ongoing concerns. Specific concerns raised included the following:

- The participant involvement program did not identify the fact that Edith Waterhouse and Michelle Hiebert also lived on Alice Somerville's parcel.
- Despite there being two separate residences on A. Somerville's land, GL&P erroneously treated those residences as one residence for solar and noise studies, and took measurements from the residence located farthest from the Sollair project.<sup>24</sup>

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<sup>22</sup> In addition to local individual stakeholders and municipalities, notification of the applications was also sent to the Blood Tribe, the Piikani Nation, the Siksika Nation, the Tsuut'ina Nation, the Stoney (Bears paw) Band, the Stoney (Chiniki) Band, and the Stoney (Goodstoney) Band.

<sup>23</sup> Towards the end of the oral hearing in this matter, there was some uncertainty about whether B. Thorlakson, a member of the S26 Group, continued to be a member of the S26 Group. In correspondence dated March 7, 2023, counsel for the S26 Group indicated that while B. Thorlakson had stepped away from his original role in the organization and planning of the group's submissions, he continued to have the concerns attributed to him in the group's written submissions.

<sup>24</sup> Exhibit 27582-X0206, Written Evidence of the Section 26 Neighbours Group, PDF page 5, paragraph 7.



- In a single telephone conversation with A. Somerville, where A. Somerville advised that she was hard of hearing and needed to review the information on the Sollair project with her family, the consultation representative for GL&P took no steps to follow up.<sup>25</sup>
- Overall, the participant involvement program did not result in any meaningful consultation with members of the S26 Group by GL&P.<sup>26</sup>

16. Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines* requires an applicant to consult nearby landowners and relevant jurisdictions about potential project related impacts at the pre-application stage. During GL&P's participant involvement program, it notified landowners within an 800-metre radius of the Sollair project boundary, and hand delivered a project-specific information package to local stakeholders within 400 metres of the Sollair project boundary.

17. The Commission has some concern about consultation efforts by GL&P, particularly with respect to M. Hiebert, E. Waterhouse, and A. Somerville. The Commission acknowledges that GL&P notified M. Hiebert and E. Waterhouse by hand delivering a project-specific information package to their residences, but GL&P could have made further efforts to engage in consultation with those individuals. While GL&P stated that the land title for A. Somerville's land parcel did not clearly specify more than one residence on the lot, it should have recognized multiple residences during the distribution of the project-specific information packages. Further, additional efforts could have been made by GL&P to communicate with A. Somerville, who advised she was hard of hearing during a telephone conversation with a representative of GL&P.<sup>27</sup>

18. Notwithstanding the above, the Commission is satisfied that GL&P's participant involvement program met the minimum requirements as set out in in Rule 007. In order to have meaningful consultation, stakeholders need to be open to engagement. M. Hiebert and E. Waterhouse could have reached out to representatives of GL&P after receipt of the project information packages, and chose not to do so.

19. The Commission expects GL&P to take steps to consult and work with local stakeholders in good faith as it constructs and operates the Sollair project.

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<sup>25</sup> Transcript, Volume 2, pages 304-305; see also Transcript, Volume 1, pages 129-130; and Exhibit 27582-X0271, Appendix D – Package Summaries of Engagement, PDF page 6.

<sup>26</sup> Exhibit 27582-X0206, Written Evidence of the Section 26 Neighbours Group, PDF page 7, paragraph 17.

<sup>27</sup> Exhibit 27582-X0271, Appendix D – Package summaries of engagement, PDF page 6, and Transcript, Volume 1, page 129.

### 3.2 Agricultural concerns and the agrivoltaic research program

20. The S26 Group raised concerns with agricultural lands being taken out of production and provided evidence regarding the productive nature of the Sollair project lands.<sup>28</sup> In response, GL&P submitted that its agrivoltaic pilot project mitigates these concerns. The proposed agrivoltaic project<sup>29</sup> is aimed to research not only the compatibility of agricultural land uses within the Sollair project footprint but also whether agricultural uses can successfully coexist with photovoltaic projects in general.

21. GL&P stated that it has engaged Red Deer Polytechnic, Olds College, and Dr. Steven Tannas to collaborate on designing the agrivoltaic pilot project to explore its viability for this project from an environmental, social and economic perspective.<sup>30</sup> The proposed agrivoltaic program plans agricultural activities throughout the majority of the site:

- 377 acres of land allocated within the Sollair project's fenced area for sheep grazing on seeded native grasslands.
- 55 acres of land within the Sollair project's fenced area between the solar panels and fenceline, along the pipeline right-of-way as well as in the project laydown area to be used for crop production.<sup>31</sup>
- 100 acres of land outside of the Sollair project's fenced area, largely located in the wetland buffer area along the east side of the site, allocated for crop production.
- 8.5 acres of land within the Sollair project's fenced area between solar panels allocated for crop production.
- 9.9 acres of land within the Sollair project's fenced area between solar panels allocated for forage production in the southeast portion of the site.
- Three acres of land within the Sollair project's fenced area between solar panels allocated for a market garden in the southeast portion of the site.

22. GL&P submitted that the combined agricultural and power generation land uses would be more productive than if the land was only used for agriculture or power generation. GL&P indicated that the research findings from the proposed agrivoltaic project will be shared with industry, community and government agencies.<sup>32</sup> It also advised that as it learns from the research conducted, it could apply those findings to other areas of the Sollair project (expanding the forage and market garden, for example).<sup>33</sup> GL&P advised that it is committed to the agrivoltaic research program for the long term.<sup>34</sup>

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<sup>28</sup> Exhibit 27582-X0206, 2023-01-27 Written Evidence of Section 26 Neighbours Group, PDF page 21.

<sup>29</sup> Exhibit 27582-X0275, Appendix H - Agrivoltaics Opportunities Assessment - Steven Tannas.

<sup>30</sup> Exhibit 27582-X0267, GL&P reply evidence, PDF page 13.

<sup>31</sup> Transcript, Volume 1, pages 17 and 38-41.

<sup>32</sup> Transcript, Volume 2, pages 181, 183.

<sup>33</sup> Transcript, Volume 2, pages 175-176 and 181.

<sup>34</sup> Transcript, Volume 2, pages 180-183.

23. The Commission finds that the proposed agrivoltaic project is a unique pilot project that is aimed at addressing the loss of productive agriculture lands where a solar farm is sited. GL&P will work with established academic institutions to conduct research into agricultural crops that can coexist with photovoltaic projects. The proposed pilot project could provide valuable research that may inform how agricultural crops and grazing can be incorporated into future solar project sites.

### **3.3 Environmental impacts**

#### **3.3.1 Stormwater runoff and drainage**

24. The Sollair project is sited on previously cultivated land that has up to three per cent grade in the north half of the section (east to west) and up to six percent in the south half of the section (east to west).<sup>35</sup>

25. The S26 Group raised a concern regarding water runoff from the solar panels into adjacent lands and the impact it could have on existing drainage patterns.<sup>36</sup> While the gradient of the project lands appears to be a factor that positively influences annual crop production<sup>37</sup> on the project lands, the S26 Group expressed concern about stormwater runoff pooling to the south of the project lands.

26. In its list of commitments<sup>38</sup> to the Commission, GL&P stated it will engage with a registered professional engineer to develop a stormwater management plan that will address the following objectives:

- Provide an annual water balance matched with total annual runoff volumes from the site.
- Provide water quality control by permitting sufficient detention time of a 25-millimetre storm event, which would capture and remove the majority of total suspended solids in stormwater runoff.
- Provide peak flow control for extreme storm events so that the water volumes discharged from the developed project site will not exceed the water volumes from the pre-developed site.

27. GL&P committed to sharing its stormwater management plan with the local residents, the City of Airdrie and Rocky View County.

28. GL&P noted that the solar panels will be operated by a single-axis tracking system that adjusts the solar panel angles to track the position of the sun throughout the day. This means that the panels would be at different angles, with the panel edges in different locations, which should reduce the concentrated runoff of rainfall that can cause compaction of soils.<sup>39</sup>

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<sup>35</sup> Transcript, Volume 2, pages 169,170 and 222.

<sup>36</sup> Exhibit 27582-X0206, Written Evidence of Section 26 Neighbours Group, PDF page 11.

<sup>37</sup> Transcript, Volume 2, page 272.

<sup>38</sup> Exhibit 27582-X0296, List of commitments

<sup>39</sup> Transcript, Volume 1, page 149, lines 10-24.

29. The Commission finds that the stormwater runoff is expected to be adequately controlled with the implementation of the proposed mitigation measures. As such, the Commission imposes the following conditions of approval:

- a. The Commission requires General Land & Power Corp. to promptly address complaints or concerns from stakeholders regarding stormwater drainage at the post-construction stage. GL&P shall file a report with the Commission detailing any complaints or concerns it receives regarding stormwater drainage from the Sollair project during its first two years of operation, as well as GL&P's response to the complaints or concerns. GL&P shall file the reports annually, with the first report submitted no later than 13 months after the Sollair project becomes operational.
- b. General Land & Power Corp. shall consult local stakeholders during the preparation of the stormwater management plan.

### 3.3.2 Birds and wetlands

30. In its renewable energy referral report,<sup>40</sup> AEPA ranked the Sollair project as an overall low risk to wildlife and wildlife habitat, based on project siting, wildlife use in the area, and commitments made by GL&P to mitigate and monitor wildlife impacts.

31. AEPA ranked the Sollair project as a low risk to wetland impacts, a moderate risk to breeding birds, and a high overall risk to birds because of the relatively high avian use in the Sollair project area and the general siting of the Sollair project near a large wetland, which is considered high-value bird habitat and is attractive to migratory birds. The Commission's review was focused on the moderate risk to breeding birds and the overall high risk to birds; however, wetlands are discussed in context of how they can represent high-quality habitat for breeding and migratory birds.

32. The Commission observes that the Sollair project does not directly impact any Class III+ wetlands and the project adheres to the 100-metre setback associated with the large Class V wetland east of the project. Adhering to the 100-metre setback for this wetland mitigates risk to amphibians and breeding birds who rely on the riparian habitat. While the Sollair project does infringe on the 100-metre setback of two Class III wetlands, AEPA ranked the risk to wetland wildlife and wetland habitat as low because the land within those buffers is already heavily disturbed by cultivation and represents less valuable wildlife habitat. The Commission finds that the risk to wetlands is low given AEPA's low-risk ranking to wetlands, GL&P's siting outside of Class III+ wetlands, and adherence to appropriate high-value wetland setbacks.

33. The Sollair project is within the sensitive raptor range and has been sited within a 100-metre setback of a red-tailed hawk nest. GL&P has committed to removing the red-tailed hawk nest in the winter while the nest is inactive and has further committed that no construction activity will occur within the appropriate nest setback while the nest is active. AEPA assigned a moderate risk to raptor nests as a result of the removal of the nest, but the Commission is satisfied with the proposed mitigations and by the fact that no sensitive raptor nest setbacks will be infringed.

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<sup>40</sup> Exhibit 27582-X0013, AEP-FWS Referral Report.

34. The Commissions also notes that while the Sollair project is within the sensitive range for sharp-tailed grouse, no grouse species were noted during wildlife surveys and no sharp-tailed grouse leks were identified within 500 metres of the project.

35. The Commission acknowledges that the siting of the project near the large Class V wetland to the east poses a risk to birds, particularly migratory birds that may be attracted to the wetland as a high-value bird habitat and migration stopover location. However, the Commission finds that the level of risk can be managed through GL&P's commitment to adaptive management in consultation with AEPA. The Commission further points out that:

- There are no Important Bird Areas within 10 kilometres of the project.
- GL&P has maintained the 100-metre setback to the Class V wetland east of the project.
- AEPA noted a low abundance of the bird species at risk detected during migratory bird surveys. GL&P submitted that the project is unlikely to impact an entire population of a specific species.

36. GL&P has also committed to taking the following steps to reduce the overall high risk to birds:<sup>41</sup>

- Conducting nest sweeps during nesting season (April 1 – July 15) prior to mowing, haying or application of weed control measures. In the event of an active nest, GL&P will not disturb the nest during nesting season.
- Conducting raptor nest and sharp-tailed grouse surveys every two years to keep data current as indicated in the AEPA *Wildlife Directive for Alberta Solar Energy Projects* until the Sollair project construction is complete (i.e., all energy infrastructure is in place and ready to produce electricity).
- Installing avian covers on exposed medium voltage equipment in the substation to reduce avian electrocution.
- Installing anti-nesting spikes on structures, where appropriate, to prevent nesting and perching.
- Using solar panels with metallic borders and contrast markings to reduce avian collision with the solar panels.<sup>42</sup>
- Surveying bird mortality on the Sollair project lands for a minimum of three years and implementing any additional measures as directed by AEPA.

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<sup>41</sup> Exhibit 27582-X0296, List of Commitments.

<sup>42</sup> Transcript, Volume 4, page 515.

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

- c. General Land & Power Corp. shall submit an annual post-construction monitoring survey report to Alberta Environment and Protected Areas (AEPA) 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 AEPA 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 the *Post-Construction Survey Protocols for Wind and Solar Energy Projects*.

38. The Commission notes that while the stated mitigation measures proposed by GL&P would reduce impacts to birds, if post-construction monitoring reveals that wildlife mortalities exceed acceptable levels (as determined by AEPA), GL&P is required to implement additional mitigation measures in consultation with AEPA.

### 3.3.3 Weed and pest control

39. The S26 Group raised concerns that the project would introduce weeds and pests. All of the individual interveners' lands are farmed to some extent.

40. GL&P submitted a vegetation and invasive species management plan<sup>43</sup> outlining its approach to managing weeds both during construction and long-term operations of the Sollair project. As the risk of spreading invasive species is highest during the construction phase of the project, GL&P committed to having all equipment cleaned prior to entering and exiting the project site, and that such cleaning will include removal of any soil or plant material by washing it from the equipment.<sup>44</sup> GL&P also committed to having a qualified environmental specialist inspect seeds for weed species prior to their arrival on the project site and that long-term weed control will involve monitoring for weeds, spraying and sheep grazing.

41. GL&P indicated that in addition to the washing stations used to wash equipment arriving and leaving the project site, the potential introduction and/or spread of clubroot will be further mitigated by disinfecting equipment such as steaming and bleaching hand tools. GL&P will develop and implement a specific clubroot mitigation plan during construction of the project.

42. GL&P submitted that other types of pests (e.g., insects) can be controlled through spraying between the panels using specialty equipment. The Commission expects pests such as insects and gophers to be controlled in a timely manner.

43. The Commission accepts that a long-term weed management program will be implemented on-site once the construction phase has been completed. GL&P's proposed approach to weed control on-site is through identification, prevention, control and monitoring. GL&P stated that it will hire a reputable weed control vendor to monitor and control invasive species on-site through chemical spraying, mowing and sheep grazing. A minimum of

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<sup>43</sup> Exhibit 27582-X0276, Vegetation and invasive species management plan.

<sup>44</sup> Transcript, Volume 4, page 502, lines 7-10.

two seasonal checks will be required to identify invasive weed species, if any, and if regulated weed species are detected on-site, a professional agrologist will develop and maintain a weed monitoring plan for GL&P. The Commission finds that the weed and pest control measures committed to by GL&P are acceptable to appropriately identify and manage weeds and pests at the project site and mitigate the spread off-site.

### 3.3.4 Conservation and reclamation

44. With respect to end-of-life management, GL&P submitted a conservation and reclamation plan in accordance with the AEPAs *Conservation and Reclamation Directive for Renewable Energy Operations*. The conservation and reclamation plan included a desktop assessment of soil and vegetation at the project, and noted that a field-based pre-disturbance site assessment will be conducted prior to construction to inform site-specific conservation requirements.<sup>45</sup>

45. The existing site grade slopes from east to west, and because it is relatively flat from north to south and the panels are planned in a north-south orientation, GL&P expects that minimal, if any, soil stripping and grading will be required. For any earthworks that are required, the conservation and reclamation plan includes soil management mitigation to guide the successful conservation of soils and vegetation components at the Sollair project.

46. The Commission finds that GL&P has nearly eliminated the need for any soil stripping and grading through effective site selection. Furthermore, by carefully executing the requirements of the *Conservation and Reclamation Directive for Renewable Energy Operations* and implementing mitigation measures in the conservation and reclamation plan, the Commission finds that GL&P's approach to conservation and reclamation is appropriate.

47. In response to the City of Airdrie's concerns regarding security for decommissioning and reclamation of the Sollair project, GL&P stated that it would be open to discussing security with Rocky View County.<sup>46</sup>

## 3.4 Technical issues

### 3.4.1 Solar glare impact

48. GL&P retained Green Cat Renewables Canada Corporation (GCR), which prepared two glare assessments to predict glare from the project. The updated glare assessment,<sup>47</sup> which reflects the updated project layout, has been considered by the Commission in this decision.

49. The glare assessment modelled seven dwellings, Highway 2 and four local roads as receptors, and confirmed no aerodromes were identified within 4,000 metres of the Sollair project boundary. The glare assessment concluded that the Sollair project is not likely to have the potential to create hazardous glare conditions for drivers on nearby transportation routes nor have an adverse effect on residential receptors.<sup>48</sup>

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<sup>45</sup> Exhibit 27582-X0011, Appendix J, Conservation and Reclamation Plan, PDF pages 3 and 5.

<sup>46</sup> Transcript, Volume 2, page 202.

<sup>47</sup> Exhibit 27582-X0264, GL&P-AUC-2023FEB2-002-001 - Updated Glare Assessment.

<sup>48</sup> Exhibit 27582-X0264, GL&P-AUC-2023FEB2-002-001 - Updated Glare Assessment, PDF page 9.

50. The S26 Group expressed concerns about glare effects from the Sollair project. In particular:

- The S26 Group was concerned about glare effects from the Sollair project at sunrise and sunset.
- The S26 Group submitted that GL&P did not model all properties within 800 metres of the Sollair project boundary and did not model operators of farming machinery that may be affected by glare from the Sollair project.

#### **3.4.1.1 Backtracking operation**

51. The S26 Group was concerned about glare effects from the Sollair project, particularly at sunrise and sunset. The S26 Group asserted that GL&P did not account for the zero degree resting angle during backtracking operation (i.e., when the solar panels are flat).<sup>49</sup>

52. The glare assessment indicated that the solar panels would be mounted on a single-axis tracking system and the tracking system would employ a backtracking function to avoid inter-row shading at low sun angles (i.e., sunrise or sunset). The assessment explained that at low sun elevation angles, high array tilt angles will result in shading from rows nearer the sun on those behind them, and to mitigate consequent production losses, the trackers will gradually tilt away from the sun back toward horizontal.<sup>50</sup> The angle that the solar panels will “backtrack” to is called “resting angle.”

53. The glare assessment modelled various resting angles and concluded that when the solar panels use a resting angle greater than or equal to three degrees during the backtracking periods, there will be no glare from the Sollair project to any identified receptors. GL&P committed to operate the Sollair project solar panels at a resting angle of three degrees or higher to achieve no predicted glare at any receptors.<sup>51</sup>

54. The Commission accepts the glare assessment’s conclusion. Accordingly, the Commission imposes the following condition of approval:

- d. General Land & Power Corp. shall rotate the Sollair project solar panels to use a resting angle greater than or equal to three degrees during backtracking periods to mitigate glare from the Sollair project.

#### **3.4.1.2 Absent glare receptors**

55. The S26 Group raised concerns that solar glare from the Sollair project would negatively impact their ability to conduct farming activities and to enjoy their lands; however, GL&P did not predict glare effects on operators of farm machinery or other activities on their lands.<sup>52</sup> In addition, the S26 Group identified two additional potential receptors, which were not considered in the initial glare assessment: a residence occupied by E. Waterhouse and a camping area

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<sup>49</sup> Exhibit 27582-X0206, 2023-01-27-Written Evidence of Section 26 Neighbours Group, PDF page 8.

<sup>50</sup> Note that an angle of zero degrees corresponds to horizontal (i.e., the solar panels face straight up).

<sup>51</sup> Exhibit 27582-X0267, GL&P reply evidence, PDF page 12. Exhibit 27582-X0296, List of Commitments, PDF page 2.

<sup>52</sup> Exhibit 27582-X0206, 2023-01-27-Written Evidence of Section 26 Neighbours Group, PDF page 9.



identified by M. Hiebert.<sup>53</sup> M. Hiebert submitted that the camping area is used by visiting family and friends for camping in both trailers and other outdoor sleeping quarters.<sup>54</sup>

56. GCR's reply evidence indicated it is not aware that glare from a solar project would result in a safety risk to operating farm machinery.<sup>55</sup> During the hearing, Jason Mah of GCR stated that he does not expect any glare impacts to farm machinery in adjacent fields and explained that GL&P has committed to work with landowners if any issues with respect to glare effects are raised.<sup>56</sup>

57. J. Mah added E. Waterhouse's residence as a receptor in the updated glare assessment. J. Mah explained that glare at M. Hiebert's camping area would not likely be an issue because: (i) M. Hiebert's camping area is adjacent to E. Waterhouse's residence. Any other receptors in the immediate area near E. Waterhouse's residence, including M. Hiebert's camping area, would have similar glare results (ii) glare was only predicted at sunrise and sunset, when there is the phenomenon of sun masking (i.e., where the sun and the glare are in close proximity and the sunlight would overpower the glare in general); and (iii) GL&P's commitment to using a minimum resting angle of three degrees would also eliminate the glare impacts at M. Hiebert's camping area.<sup>57</sup>

58. Rule 007 requires a solar glare assessment to predict glare at receptors within 800 metres of the project boundary, aerodromes within 4,000 metres of the project boundary, and highways, major roadways and railways that may be affected by glare from the project. In Table 16.1 of Rule 007, a receptor is defined as:

Receptors means any permanently or seasonally occupied (minimum use of six weeks per year or more) dwellings used for the purpose of human rest; including a nursing home or hospital with the exception of an employee or worker residence, dormitory, or construction camp located within an energy-related facilities industrial plant boundary. Trailer parks and campgrounds may qualify as a dwelling if it can be demonstrated that they are in regular and consistent use.

The dwelling must not be mobile and should have some sort of foundation or features of permanence (e.g., electrical power, domestic water supply, septic system) associated with it. Summer cottages or manufactured homes are examples of seasonally occupied dwellings, while a holiday trailer simply pulled onto a site is not.<sup>58</sup>

59. The Commission finds the glare assessment predicted glare from the project at dwellings and transportation routes in accordance with Rule 007. Rule 007 explicitly defines a residential receptor as permanently or seasonally occupied dwellings. The Commission does not require GL&P to predict glare impacts to operators of farming machinery, because they do not qualify as receptors defined in Rule 007.

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<sup>53</sup> Exhibit 27582-X0206, 2023-01-27-Written Evidence of Section 26 Neighbours Group, PDF pages 8, 9 and 17.

<sup>54</sup> Transcript, Volume 2, page 302, lines 14-25.

<sup>55</sup> Exhibit 27582-X0267, GL&P reply evidence, PDF page 12.

<sup>56</sup> Transcript, Volume 1, page 100, lines 12-20.

<sup>57</sup> Transcript, Volume 2, page 211, lines 7-25, page 212, lines 1-4.

<sup>58</sup> Rule 007: Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines, PDF page 118.

60. With respect to the camping area identified by M. Hiebert, according to the definition of receptor in Rule 007, “Trailer parks and campgrounds may qualify as a dwelling if it can be demonstrated that they are in regular and consistent use.” The Commission does not consider the camping area on the northeast area of M. Hiebert’s property to qualify as a receptor, because the evidence does not demonstrate the camping area is in regular and consistent use. In addition, the Commission notes that M. Hiebert’s camping area and E. Waterhouse’s residence are adjacent to each other in one quarter section. The Commission accepts J. Mah’s explanation that if the camping area were to be added in the glare assessment, it would be predicted to have similar glare as that predicted at E. Waterhouse’s residence. The Commission also accepts J. Mah’s explanation that GL&P’s commitment to use a resting angle greater than or equal to three degrees is expected to eliminate predicted glare from the project at M. Hiebert’s camping area. For these reasons, the Commission does not require GL&P to predict glare at this camping area.

61. The Commission requires GL&P to promptly address complaints or concerns from stakeholders regarding glare if GL&P receives any post-construction. Therefore, the Commission imposes the following condition of approval:

- e. The Commission requires General Land & Power Corp. to promptly address complaints or concerns from stakeholders regarding solar glare from the Sollair project. In the event of complaints or concerns, GL&P shall file a report with the Commission detailing any complaints or concerns it receives regarding solar glare from the Sollair project during its first two years of operation, as well as GL&P’s response to the complaints or concerns. GL&P shall file the report annually, with the first report submitted no later than 13 months after the Sollair project becomes operational.

62. The Commission notes that predictions in the solar glare assessment were premised upon the use of an anti-reflective coating on the Sollair project solar panels.<sup>59</sup> Therefore, the Commission imposes the following condition of approval:

- f. General Land & Power Corp. shall use an anti-reflective coating on the project solar panels.

### 3.4.2 Noise impact

63. GL&P submitted two noise impact assessments (NIAs) for the Sollair project. GL&P retained Hardline Engineering Ltd. to complete an initial NIA submitted with the application package<sup>60</sup> and retained SLR Consulting (Canada) Ltd. to complete another NIA submitted with GL&P’s reply evidence.<sup>61</sup> The SLR NIA, which reflects the updated project layout, has been considered by the Commission in this decision.

64. The NIA modelled 19 dwellings within 1.5 kilometres of the Sollair project boundary as receptors, and concluded that noise from the Sollair project will comply with the permissible sound levels set out in Rule 012 at all receptors during both daytime and nighttime periods. In

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<sup>59</sup> Exhibit 27582-X0264, GL&P-AUC-2023FEB2-002-001 - Updated Glare Assessment., PDF page 8.

<sup>60</sup> Exhibit 27582-X0012, Appendix K - Sollair Solar Noise Impact Assessment.

<sup>61</sup> Exhibit 27582-X0263, GL&P-AUC-2023JAN20-001-001 - Updated Noise Impact Assessment.

addition, the NIA evaluated low frequency noise and concluded that the Sollair project is not expected to cause any low frequency noise issue based on Rule 012 criteria.<sup>62</sup>

65. The S26 Group raised concerns about noise from the Sollair project. The S26 Group submitted that the NIA was based on models and the actual equipment for the Sollair project has not been selected. The S26 Group implied that the noise levels from the Sollair project would be different than prediction results if the actual equipment for the Sollair project is different than those modelled in the NIA. The S26 Group was concerned about Sollair project compliance at the most affected receptors R02, R03 and R04. In addition, similar to the S26 Group's concerns about the glare assessment, the S26 Group identified two additional potential receptors, which were not considered in the initial NIA: a residence occupied by E. Waterhouse and a camping area identified by M. Hiebert.<sup>63</sup>

66. Arthur Kupper of SLR provided reply evidence and testified regarding S26 Group's concerns about the NIA and potential noise impacts from the Sollair project. A. Kupper added E. Waterhouse's residence as a receptor in the updated NIA. During the hearing, A. Kupper explained that M. Hiebert's camping area does not qualify as a receptor, because Rule 012 defines receptor as permanently or seasonally occupied dwellings.<sup>64</sup>

67. Rule 012 defines a dwelling as:

Any permanently or seasonally occupied structure used for habitation for the purpose of human rest; including a nursing home or hospital with the exception of an employee or worker residence, dormitory, or construction camp located within an energy-related industrial plant boundary. Trailer parks and campgrounds may qualify as a dwelling if it can be demonstrated that they are in regular and consistent use.<sup>65</sup>

68. The Commission does not consider the camping area on the northeast area of M. Hiebert's property qualifies as a noise receptor, because no evidence demonstrates the camping area is in regular and consistent use. As such, the Commission does not require GL&P to predict noise at this camping area.

69. In response to the S26 Group's concerns about predicted compliance based on models, A. Kupper expected the sound levels predicted in the NIA to be conservative (i.e., higher than the actual sound levels will be).<sup>66</sup> GL&P committed to conduct a post-construction sound survey to confirm Sollair project compliance with Rule 012.<sup>67</sup>

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<sup>62</sup> Exhibit 27582-X0263, GL&P-AUC-2023JAN20-001-001 - Updated Noise Impact Assessment, PDF page 16.

<sup>63</sup> Exhibit 27582-X0206, 2023-01-27-Written Evidence of Section 26 Neighbours Group, PDF pages 8, 9 and 17.

<sup>64</sup> Transcript, Volume 2, page 211, lines 7-9.

<sup>65</sup> Rule 012: *Noise Control*, PDF page 42.

<sup>66</sup> Transcript, Volume 1, page 85, line 25 to page 86, lines 1-2.

<sup>67</sup> Transcript, Volume 4, page 490, lines 22-24; Exhibit 27582-X0296, List of Commitments, PDF page 1.

70. The Commission finds that the NIA incorporated the following conservative conditions or assumptions:<sup>68</sup>

- The noise model used the International Organization for Standardization 9613-2 standard, which assumes each receptor is downwind from every sound source.
- The NIA assumed that inverters and transformers of the Sollair project are operating continuously at maximum power rating during the daytime and nighttime, and tracking motors operate continuously during the daytime and 40 minutes at night to account for stowing operation.

71. Overall, the Commission finds that the NIA submitted by GL&P meets the requirements of Rule 012 and accepts the conclusion that noise from the Sollair project will comply with the permissible sound levels established by that rule.

72. Once GL&P has finalized its equipment selection for the Sollair project, Rule 007 requires GL&P to file a final project update with the Commission to confirm that the Sollair project has stayed within the final project update specified allowances for solar power plants. In particular, GL&P is required to demonstrate that the Sollair project remains compliant with Rule 012. This requirement addresses S26 Group's concern that the actual equipment that will be used has not been modelled. A condition of approval regarding the final project update is imposed in paragraph 78 of this decision.

73. Given S26 Group's concerns about Sollair project compliance and GL&P's commitment to conduct a sound survey, the Commission has decided to order a post-construction comprehensive sound level survey to verify compliance of the Sollair project with Rule 012. The Commission notes that according to Table 5 of the NIA, R03 and R04 are predicted to be the most affected receptors (i.e., receptors with the greatest cumulative sound levels).<sup>69</sup> Therefore, the Commission imposes the following condition of approval:

- g. General Land & Power Corp. shall conduct a post-construction comprehensive sound level survey, including an evaluation of low frequency noise, at receptors R03 and R04. The post-construction comprehensive sound level survey must be conducted under representative conditions and in accordance with Rule 012: *Noise Control*. Within one year after the Sollair project commences operations, GL&P shall file a report with the Commission presenting measurements and summarizing results of the post-construction comprehensive sound level survey.

### 3.4.3 Hail damage

74. The Sollair project lands are sited in an area that is recognized for having inclement weather including intense storms that can produce a significant amount and size of hail. Hail damage to the solar panels and the subsequent potential impact on the environment was

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<sup>68</sup> Exhibit 27582-X0263, GL&P-AUC-2023JAN20-001-001 - Updated Noise Impact Assessment, PDF pages 2 and 11.

<sup>69</sup> Exhibit 27582-X0263, GL&P-AUC-2023JAN20-001-001 - Updated Noise Impact Assessment, PDF page 13.

identified as a concern. The S26 Group raised specific concerns that damaged solar panels would leach chemicals into the ground and groundwater.<sup>70</sup>

75. At the time of the hearing GL&P had not identified the final type of solar modules that will be utilized in the Sollair project; however, it noted that all three modules currently under consideration have passed a hail test as part of the *Canadian Electrical Code* certification. The hail tests are completed in accordance with the current International Electrotechnical Commission (IEC) 61215 standard and includes:

- Minimum of 25-millimetre diameter ice balls.
- Minimum travelling velocity of 23 metres per second.

76. At least one of the modules being considered by GL&P has passed hail tests that exceed the IEC 61215 standard.<sup>71</sup> GL&P confirmed it would acquire adequate insurance coverage on its equipment for damage due to inclement weather conditions.<sup>72</sup>

77. GL&P stated in its reply evidence that solar modules are solid state equipment and therefore do not contain liquids that can be released to the environment in the event of a breach. If a release is to occur, it would be in the form of a vapour that would disperse into the ambient air and subsequently be diluted to concentrations highly unlikely to pose a potential health risk.<sup>73</sup> The Commission accepts this evidence, which is based on information produced in a 2012 report by Environment Canada.<sup>74</sup>

78. Given the hail damage concern raised, the Commission imposes the following as a condition of approval:

- h. Once General Land & Power Corp. has finalized its solar module selection, it must file a final project update with the Commission to confirm that the Sollair project is within the final project update specified allowances for solar power plants in accordance with Rule 007. In the final project update, GL&P must confirm that the Sollair project is utilizing certified solar modules that meet or exceed the minimum requirements as per the current IEC 61215 standard. The final Sollair project update must be filed at least 90 days prior to the start of construction.

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<sup>70</sup> Exhibit 27582-X0206, 2023-01-27 Written Evidence of Section 26 Neighbours Group, PDF page 11, paragraph 39.

<sup>71</sup> Transcript, Volume 1, page 154.

<sup>72</sup> Transcript, Volume 1, page 154.

<sup>73</sup> Exhibit 27582-X0267, GL&P reply evidence, PDF page 16, paragraph 50.

<sup>74</sup> Exhibit 27582-X0009, Appendix H – Environmental Evaluation, PDF pages 54-55, citing “Assessment of the Environmental Performance of Solar Photovoltaic Technologies. A report funded under the Clean Energy Fund (Environment Canada, in partnership with Natural Resources Canada’s CanmetENERGY; Cat. No.: En84-88/2012E-PDF ISBN 978-1-100-21269-2, page 45).

### 3.4.4 Electromagnetic fields

79. Electromagnetic fields (EMF) are associated with electricity and are a type of low frequency, non-ionizing radiation that originates from both natural and man-made sources. The S26 Group raised concerns regarding potential health issues that could arise from exposure to the EMF generated by the proposed Sollair project.

80. GL&P specified in its reply evidence that the Sollair project inverters, modules and collection cables are not capable of producing EMF levels above background EMF levels outside the Sollair project fence line.<sup>75</sup> GL&P noted that magnetic fields measured at PV projects drop to levels of 0.5 milligauss (mG) or less at distances of 150 feet or more from utility-scale inverters. The closest inverter to the property boundary is 345 feet (or 105.2 metres) within the site.<sup>76</sup>

81. The Commission stated in Decision 27474-D01-2023 that:

The Commission has previously held that it cannot give weight to opinion evidence about the health effects of EMF from lay witnesses given the complexity of the topic. The Commission continues to place significant weight on the World Health Organization's conclusion that, based on available research data, exposure to EMF is unlikely to constitute a serious health hazard.<sup>77</sup>

82. With respect to EMF concerns, the Commission finds that there is no evidence to suggest that the amount of EMF generated from the Sollair project will result in any adverse health effects.

### 3.5 Emergency response plan

83. The S26 Group raised a number of concerns regarding GL&P's emergency response plan (ERP), including concerns about fire and the fact that the ERP contemplates emergency response vehicles coming from Airdrie.<sup>78</sup> M. Hiebert is a volunteer firefighter in Crossfield and confirmed that under the current framework, the Crossfield volunteer fire department would be responsible for responding to any fire on the Sollair project site. M. Hiebert provided information about expected emergency response times<sup>79</sup> and suggested these times would likely be longer than if emergency responders came from the city of Airdrie. M. Hiebert also raised concerns about the availability of an escape route for one of the members of the S26 Group in the event of a fire.<sup>80</sup>

84. M. Hiebert raised concerns about the lack of knowledge and training available regarding fires at solar farms. She said that she and other firefighters that she has spoken to are unaware of any potential hazards that first responders should be cognizant of when fighting a fire at a solar farm.<sup>81</sup>

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<sup>75</sup> Exhibit 27582-X0267, GL&P reply evidence, PDF page 16.

<sup>76</sup> Exhibit 27582-X0267, GL&P reply evidence, PDF page 17.

<sup>77</sup> Decision 27474-D01-2023: ENMAX Power Corporation – Northwest Calgary Transmission Line Relocation Project, Proceeding 27474, Application 27474-A001, January 25, 2023.

<sup>78</sup> Exhibit 27582-X0007, Appendix F, Draft ERP Sollair Solar Energy Project, PDF page 6.

<sup>79</sup> Transcript, Volume 2, pages 308-310.

<sup>80</sup> Transcript, Volume 2, page 313.

<sup>81</sup> Transcript, Volume 3, pages 458-459.

85. GL&P acknowledged that the ERP is currently in a draft format, and that additional consultation and revisions will be necessary to complete the ERP.<sup>82</sup> The draft site-specific ERP submitted by GL&P identified preliminary emergency mitigation measures and outlined site monitoring/communication protocols. GL&P confirmed that Rocky View County would be the first responder in the event of an emergency. GL&P recognized that it will have to co-ordinate between the City of Airdrie and Rocky View County as it develops and finalizes the ERP document. GL&P committed to engaging specialists in developing the ERP document and to continue its consultation with local responders and authorities through the development, construction and operation of the Sollair project.<sup>83</sup>

86. The Commission understands that the current ERP is a draft document. GL&P should consult with local stakeholders to address concerns regarding egress in the event of an emergency, and work with local government, including Rocky View County and the City of Airdrie to address issues related to ensuring a timely response to a local fire, and any special considerations in responding to a solar farm fire.

87. The Commission makes note of the concerns raised by M. Hiebert regarding the lack of training and protocols available for how first responders should address a fire at a solar farm facility, and potential hazards they may encounter in fighting such a fire. Through the development of the ERP, if specific requirements are identified, the Commission expects GL&P to provide training to local responders as required.

### **3.6 Visual impacts**

88. The Commission notes that most residences surrounding the Sollair project have significant mature-tree screening and all residences surrounding the Sollair project have some degree of tree screening. The height of the trees present at or near these residences will exceed the height of the proposed solar panels so the Commission accepts that visual impacts to nearby residences are expected to be mitigated to some extent.

89. In its reply evidence, GL&P stated that it is committed to working with the local residents to develop and implement a landscaping program and to address visual impact concerns at local residences as identified by the local residents.<sup>84</sup>

90. Given that visual impacts resulting from the proposed Sollair project are an ongoing concern for the local residents, the Commission imposes the following conditions of approval:

- i. GL&P shall seek input from the local residents during the consideration, preparation and implementation of a landscaping program, with the goal of addressing local residents' visual impact concerns with respect to the Sollair project.

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<sup>82</sup> Exhibit 27582-X0267, GLP Reply Evidence at PDF 16, paragraph 59, and Transcript, Volume 1, pages 66-67.

<sup>83</sup> Transcript, Volume 2, page 193.

<sup>84</sup> Exhibit 27582-X0267, GL&P reply evidence, PDF page 11.

- j. General Land & Power Corp. shall file a report with the Commission detailing any complaints or concerns it receives or is made aware of regarding visual impacts from the Sollair project, as well as GL&P's response to the complaints or concerns during its first two years of operation, as well as GL&P's response to the complaints or concerns. GL&P shall file the reports annually, with the first report submitted no later than 13 months after the Sollair project becomes operational.

### 3.7 Property value impact

91. The Commission notes that the opinions of Glen Doll (valuation expert for GL&P) and Brian Gettel (valuation expert for the S26 Group) vary from no impact (zero per cent) to low impact (zero per cent to 10 per cent) on property valuations of the local residences.

92. B. Gettel found that there may be impacts to the six building sites located within 0.8 kilometres of the Sollair project, and in particular residences within those sites. The two properties that are farthest from the Sollair project to the south would be expected to have a loss between zero per cent to five per cent, while the four properties located in closer proximity would have losses ranging from five per cent to 10 per cent.<sup>85</sup>

93. G. Doll noted that the closest residences to the Sollair project site are located to the south, and the residence which will be closest is approximately 220 metres from the proposed solar farm infrastructure. He made note of the tree cover at those residences which will reduce potential impacts, and also stated that the primary desirable view in the subject area would be to the west, toward the mountains.<sup>86</sup>

94. Assessing property valuations is a complex process and technical matter that is influenced by a wide variety of contextual and circumstantial factors. The Commission takes note of the significant tree screening at the properties nearest to the Sollair project, and GL&P's commitment to work with stakeholders to implement additional tree screening. As such, the Commission finds that property valuation impact for the properties in closest proximity to the Sollair project would likely be minimal.

95. B. Gettel discussed neighbourhood agreements in his evidence, where in recent years developers have provided compensation to homeowners next to solar farms.<sup>87</sup> The Commission encourages developers to work with local residents on commercially reasonable solutions, such as neighborhood agreements, where there are land value impacts.

### 3.8 Other issues raised by the Section 26 Neighbours Group

96. Concerns were raised by the S26 Group regarding dust suppression, both in the course of construction and on local roads during project operations. GL&P committed to using dust suppression measures on local roads during construction on the Sollair project site.<sup>88</sup> GL&P confirmed that it had been working with the City of Airdrie and would be incorporating watering

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<sup>85</sup> Exhibit 27582-X0229, 02-02-2023 Gettel Appraisals Report, PDF page 41.

<sup>86</sup> Exhibit 27582-X0190, IR-S26-GLP-JAN6-0011-001, PDF page 3.

<sup>87</sup> Exhibit 27582-X0229, 02-02-2023 Gettel Appraisals Report, PDF page 22.

<sup>88</sup> Transcript, Volume 2, pages 212-213.



and dust suppression as a component of City of Airdrie road use. GL&P also confirmed that it would apply dust suppression as required by Rocky View County.

97. M. Hiebert raised concerns regarding construction noise and associated impacts on her wellbeing as a frontline shift worker, who does not have a set sleeping schedule<sup>89</sup>. The Commission requires GL&P to abide by the mitigating measures set out in Section 2.11 of Rule 012, and Rocky View County's noise control bylaw<sup>90</sup> during the construction of the project. In particular, the Commission requires GL&P to consult M. Hiebert and other nearby residents about significant noise-causing activities and to the extent possible, schedule these events to reduce disruption to these residents. In accordance with Section 2.11 of Rule 012, should a noise complaint be filed during construction, GL&P must respond expeditiously and take prompt action to address the complaint.

98. Concerns were also raised by M. Hiebert regarding artificial lighting that may be required for the site and the impact of such lighting on persons who use the northeast corner of the Somerville property.<sup>91</sup> The Commission expects GL&P to work with local stakeholders regarding artificial lighting at the site in order to minimize impacts on local stakeholders.

### 3.9 Municipal concerns

99. The Commission notes that prior to filing its applications, GL&P submitted an application to Rocky View County for rezoning of the project lands. That application was denied by Rocky View County. The county was notified of the applications before the Commission but did not file a statement of intent to participate. In the absence of participation by Rocky View County, the Commission is unable to draw any conclusions regarding the county's position on the project.

100. The City of Airdrie (City) filed a statement of intent participate in the proceeding, citing concern with the proposed location of the solar project bordering the north city limits, the lack of engagement from GL&P, and concern over the development of some of the most productive agricultural lands in this area. It added concerns the project would impact planned upgrades to Township Road 274, impact drainage patterns which may flow back into the city, and interfere with future development of the city. Development of the Northeast Community Area Structure Plan area is adjacent to the proposed solar farm site and is planned to occur when Airdrie reaches a population of 210,000.<sup>92</sup>

101. In its intervener evidence, the City stated that it does not oppose the Sollair project but had concerns that GL&P misunderstood the applicable municipal planning framework. It also raised concerns regarding the impact of AltaLink's fibre optic line on its future Range Road 292 development plans. In addition, it requested that should the Commission approve the project, it impose a number of conditions so that areas of municipal and intermunicipal planning concerns are appropriately addressed. Such conditions included that the proponents enter into road use agreements with the City, enter into a Municipal Access Agreement that would capture the fibre

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<sup>89</sup> Transcript, Volume 2, page 303.

<sup>90</sup> Rocky View County's BYLAW C-8067-2020.

<sup>91</sup> Transcript, Volume 2, pages 302-303.

<sup>92</sup> Exhibit 27582-X0065, City of Airdrie letter to AUC concerning notice of application.

optic cable and any upgrades to Transmission Line 688L, and to work with the City to ensure appropriate emergency management measures are in place.<sup>93</sup>

102. The Commission received a letter<sup>94</sup> from the City on February 22, 2023, indicating that it had resolved its concerns with GL&P and was satisfied with the commitments made by GL&P and AltaLink, given that the Commission considers commitments to be binding on an applicant. The City submitted that it was no longer seeking conditions of approval.<sup>95</sup>

103. One of the key issues as it pertains to the City was the compatibility of the project with the future development of the lands and lands near the project. A specific year for when future development would occur is not known; however, the City did provide estimates of when population growth would trigger the need to develop the lands. GL&P committed to engage with the City “in ongoing good faith discussions regarding the re-development of the Project lands for incorporation into urban development, regarding the best economic benefits of the lands.” The Commission expects this on-going co-operative dialogue will assist the City with its long-term planning and in assessing future compatibility of land uses.

104. The Commission does not need to issue findings on the City’s concerns and its requested conditions of approval given the City’s acceptance of the commitments made by AltaLink and GL&P.

### 3.10 CNOOC Petroleum North America ULC

105. CNOOC filed a statement of intent to participate in the proceeding, noting that the Sollair project lands include one abandoned fuel gas pipeline and one abandoned sour gas pipeline. CNOOC also noted that it had received a reclamation certificate for an access road and valve site.<sup>96</sup>

106. CNOOC requested that any development be in accordance with, and satisfy all regulatory setbacks with respect to the CNOOC facilities listed in its statement of intent to participate. It made note of the need for pipeline setbacks, and no permanent structures placed in the pipeline right-of-way, including trees or the parking of heavy equipment. It also requested that any development will comply with abandoned wellbore requirements in Alberta Energy Regulator Directive 079: *Surface Development in Proximity to Abandoned Wells*.<sup>97</sup>

107. GL&P committed to these requests, which were included in the CNOOC letter submitted as evidence in this proceeding.<sup>98</sup> The Commission expects GL&P to adhere to them.

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<sup>93</sup> Exhibit 27582-X0205, Intervener Evidence of the City of Airdrie.

<sup>94</sup> Exhibit 27582-X0279, Letter regarding hearing participation.

<sup>95</sup> Exhibit 27582-X0279, City of Airdrie Ltr to AUC re hearing participation update - Feb 22, 2023.

<sup>96</sup> Exhibit 27582-X0123, AUC Written Evidence Response Sollair Energy Project, PDF pages 2-3.

<sup>97</sup> Exhibit 27582-X0123, AUC Written Evidence Response Sollair Energy Project, PDF page 3. CNOOC also included a statement regarding losses and liability, which is outside of the Commission’s jurisdiction, and therefore has not been addressed by the Commission in this decision.

<sup>98</sup> Transcript, Volume 2, page 213; and Exhibit 27582-X0123, AUC – Written Evidence Response, Sollair Energy Project, PDF page 3.

## 4 Conclusion

108. In accordance with Section 17 of the *Alberta Utilities Commission Act*, in addition to any other matters it may or must consider, the Commission must give consideration to whether approval of the Sollair project and the AltaLink connection project is in the public interest having regard to the social and economic effects and effects on the environment. The Commission considers that the public interest will be largely met if an application complies with existing regulatory standards, and the project's public benefits outweigh its negative impacts, including those experienced by more discrete members of the public.

109. The Commission finds that the applications filed by GL&P and AltaLink comply with the information requirements prescribed in Rule 007. As well, AltaLink's proposed connection project is consistent with the need and the requirements identified in the AESO's functional specification.

110. The Commission finds that GL&P's Sollair project is in the public interest. The project is predicted to meet the permissible sound levels as defined in Rule 012, have minimal glare impact and have minimal visual disturbances due to the existing tree screening located around the landowners' residences. GL&P's list of commitments include working with landowners in the area to address their concerns identified in this decision and to further minimize property value impacts which were found to be minimal. In addition, GL&P's proposed agrivoltaic project is a unique pilot project that is aimed at addressing the loss of productive agriculture lands where a solar farm is sited. On the whole, the Commission finds that the negative impacts associated with the Sollair project can be mitigated to an acceptable degree and are outweighed by the benefits of the project.

111. The Commission finds that AltaLink's connection project facilities are in the public interest. The Commission finds that AltaLink's project will have minimal impacts given that the transmission line is only 40 metres in length and the new T-tap structure on existing Transmission Line 688L will be within the existing right-of-way. In addition, the fibre optic cable will be buried and will be primarily within AltaLink's existing transmission line rights-of-way and government road allowances.

112. For the above reasons, and subject to the conditions in this decision, the Commission finds that, in accordance with Section 17 of the *Alberta Utilities Commission Act*, approval of GL&P's Sollair project applications and AltaLink's connection project applications is in the public interest having regard to the social, economic, and other effects of the projects, including the effects on the environment.

## 5 Decision

113. Pursuant to sections 11 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27582-A001 and grants General Land & Power Corp. the approval set out in Appendix 1 – Power Plant Approval 27582-D02-2023, to construct and operate the Sollair Solar Energy Power Plant.

114. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27582-A002 and grants General Land & Power Corp. the permit and licence set out in Appendix 2 – Permit and Licence 27582-D03-2023, to construct and operate the Sollair 1055S Substation.

115. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 27582-A003 and grants AltaLink Management Ltd. the permit and licence set out in Appendix 3 – Permit and Licence 27582-D04-2023, to construct and operate Transmission Line 688BL and the associated fibre optic telecommunications cable.

116. Pursuant to sections 14, 15, 19 and 21 of the *Hydro and Electric Energy Act*, the Commission approves Application 27582-A003 and grants AltaLink Management Ltd. the permit and licence set out in Appendix 5 – Permit and Licence 27582-D06-2023 to alter and operate Transmission Line 688L.

117. Pursuant to Section 18 of the *Hydro and Electric Energy Act*, the Commission approves Application 27582-A004, and grants AltaLink Management Ltd. the approval set out in Appendix 4 – Connection Order 27582-D05-2023 to connect Transmission Line 688BL to Sollair 1055S Substation.

118. The appendixes will be distributed separately.

Dated on May 2, 2023.

**Alberta Utilities Commission**

*(original signed by)*

Renée Marx  
Panel Chair

*(original signed by)*

Vera Slawinski  
Commission Member

**Appendix A – Proceeding participants**

<b>Name of organization (abbreviation) Company name of counsel or representative</b>
<b>Fasken LLP</b> Brenden Hunter <b>General Land &amp; Power Corp.</b> Stan Owerko Chris Berry
<b>AltaLink Management Ltd.</b> Jenette Yearsley Gregory Osmond Dave Lee
<b>Wilson Laycraft</b> Aimee Louie <b>Section 26 Neighbours Group (S26 Group)</b> Brent Fletcher Hilda Fletcher Judy Matlock Michelle Hiebert John Stanlake John Schmidt Alice Somerville Edith Waterhouse Al Stojke Ben Thorlakson Laurence and Shonon Pole 1201287 Alberta Ltd. / Wayne Tebb
<b>Brownlee LLP</b> Jeneane Grundberg Alifeyah Gulamhusein Brendan Dzioba <b>City of Airdrie</b> Jamal Ramjohn

<b>Alberta Utilities Commission</b>  <b>Commission panel</b> Renée Marx, Panel Chair Vera Slawinski, Commission Member  <b>Commission staff</b> Laura-Marie Berg (Commission counsel) Andrew Culos (Commission counsel) Hussain Shamji Victor Choy
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**Appendix B – Oral hearing – registered appearances**

Name of organization (abbreviation) Name of counsel or representative	Witnesses
<b>General Land &amp; Power Corp.</b> B. Hunter, Fasken, counsel	S. Owerko C. Berry G. Fisher R. McCallum G. Doll S. Tannas B. Romanesky J. Mah B. Nelligan A. Kupper J. Howland
<b>Section 26 Group (S26 Group)</b> A. Louie, Wilson Laycraft, counsel	J. Matlock M. Hiebert J. Stanlake B. Fletcher B. Gettel
<b>City of Airdrie</b> A. Gulamhusein, counsel	J. Ramjohn

## Appendix C – 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 27582-D01-2023 that require subsequent filings with the Commission and will be included as conditions of Power Plant Approval 27582-D02-2023:

- c. General Land & Power Corp. shall submit an annual post-construction monitoring survey report to Alberta Environment and Protected Areas (AEPA) 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 AEPA 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 the *Post-Construction Survey Protocols for Wind and Solar Energy Projects*.
- h. Once General Land & Power Corp. has finalized its solar module selection, it must file a final project update with the Commission to confirm that the Sollair project is within the final project update specified allowances for solar power plants in accordance with Rule 007. In the final project update, GL&P must confirm that the Sollair project is utilizing certified solar modules that meet or exceed the minimum requirements as per the current IEC 61215 standard. The final Sollair project update must be filed at least 90 days prior to the start of construction.
- g. General Land & Power Corp. shall conduct a post-construction comprehensive sound level survey, including an evaluation of low frequency noise, at receptors R03 and R04. The post-construction comprehensive sound level survey must be conducted under representative conditions and in accordance with Rule 012: *Noise Control*. Within one year after the Sollair project commences operations, GL&P shall file a report with the Commission presenting measurements and summarizing results of the post-construction comprehensive sound level survey.

The following are conditions of Decision 27582-D01-2023 that do not or may require a subsequent filing with the Commission:

- a. The Commission requires General Land & Power Corp. to promptly address complaints or concerns from stakeholders regarding stormwater drainage at the post-construction stage. GL&P shall file a report with the Commission detailing any complaints or concerns it receives regarding stormwater drainage from the Sollair project during its first two years of operation, as well as GL&P's response to the complaints or concerns. GL&P shall file the reports annually, with the first report submitted no later than 13 months after the Sollair project becomes operational.
- b. General Land & Power Corp. shall consult local stakeholders during the preparation of the stormwater management plan.

- d. General Land & Power Corp. shall rotate the Sollair project solar panels to use a resting angle greater than or equal to three degrees during backtracking periods to mitigate glare from the Sollair project.
- e. The Commission requires General Land & Power Corp. to promptly address complaints or concerns from stakeholders regarding solar glare from the Sollair project. In the event of complaints or concerns, GL&P shall file a report with the Commission detailing any complaints or concerns it receives regarding solar glare from the Sollair project during its first two years of operation, as well as GL&P's response to the complaints or concerns. GL&P shall file the report annually, with the first report submitted no later than 13 months after the Sollair project becomes operational.
- f. General Land & Power Corp. shall use an anti-reflective coating on the project solar panels.
- i. GL&P shall seek input from the local residents during the consideration, preparation and implementation of a landscaping program, with the goal of addressing local residents' visual impact concerns with respect to the Sollair project.
- j. General Land & Power Corp. shall file a report with the Commission detailing any complaints or concerns it receives or is made aware of regarding visual impacts from the Sollair project, as well as GL&P's response to the complaints or concerns during its first two years of operation, as well as GL&P's response to the complaints or concerns. GL&P shall file the reports annually, with the first report submitted no later than 13 months after the Sollair project becomes operational.