



**Stettler Solar Inc.**

**Stettler Solar and Storage Project and Interconnection**

**October 27, 2025**

**Alberta Utilities Commission**

Decision 29712-D01-2025

Stettler Solar Inc.

Stettler Solar and Storage Project and Interconnection

Proceeding 29712

Applications 29712-A001 to 29712-A003

October 27, 2025

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## **1 Executive summary**

1. In this decision, subject to certain conditions, the Alberta Utilities Commission approves applications from Stettler Solar Inc. (SSI) to construct and operate a 25-megawatt (MW) solar power plant and a 9.6-MW/33-megawatt-hour (MWh) energy storage facility (ESF), designated as the Stettler Solar and Storage Project (the project), and to connect the project to the ATCO Electric Ltd. distribution system.

2. The Stettler South Preservation Group (SSPG) and the County of Stettler No. 6 (the County) intervened in this proceeding. The SSPG requested that the Commission deny SSI's applications but if the Commission approves the project, SSPG requested that the Commission include certain conditions of approval. The County did not support approval of the project, but if the Commission approves the project, the County requested that the Commission include certain conditions of approval and suggested certain matters be considered and decided by the County during its development permit process for the project.

3. The Commission has weighed the concerns raised by the interveners against the benefits of the project and the mitigation measures proposed by SSI. The Commission's reasons for finding that the project is in the public interest are set out in detail in this decision and summarized below:

- SSI's participant involvement program (PIP) satisfied the requirements in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*. SSI committed to continue to work with stakeholders throughout the life cycle of the project to address any concerns as they arise.
- The Alberta Environment and Protected Areas renewable energy referral report for the project determined that the project poses an overall low risk to wildlife and wildlife habitat. The project siting (i.e., location), in addition to SSI's commitments to mitigation measures and the Commission's conditions limit environmental impacts of the project.
- SSI sufficiently demonstrated consideration of regulations relevant to agricultural lands (e.g., *Electric Energy Land Use and Visual Assessment Regulation, Weed Control Act, Soil Conservation Act*) and its commitments to limit agricultural impacts are appropriate.
- Visual impacts from the project will be mitigated using a visual screening plan.
- The glare impacts from the project are limited and will be sufficiently mitigated.

- SSI engaged with the County to address the County's concerns. SSI made commitments and the Commission imposed conditions to address these concerns. SSI will continue to work with the County to facilitate the execution of the project.
- The fire risks associated with the energy storage facility are limited and will be mitigated by SSI's monitoring systems and emergency response plan. SSI must continually review and update the site-specific emergency response plan.
- The project is predicted to comply with the permissible sound levels as defined in Rule 012: *Noise Control*.
- SSI's approach to reclamation is reasonable.<sup>1</sup> SSI is required to fully reclaim the project at the end-of-life and bear the costs of doing so.

4. Overall, the Commission finds that approval of the applications, as conditioned, and with the commitments made by SSI, is in the public interest, having regard to the social, economic, environmental and other effects of the project.

## 2 Introduction

### 2.1 Summary of Stettler Solar Inc.'s applications

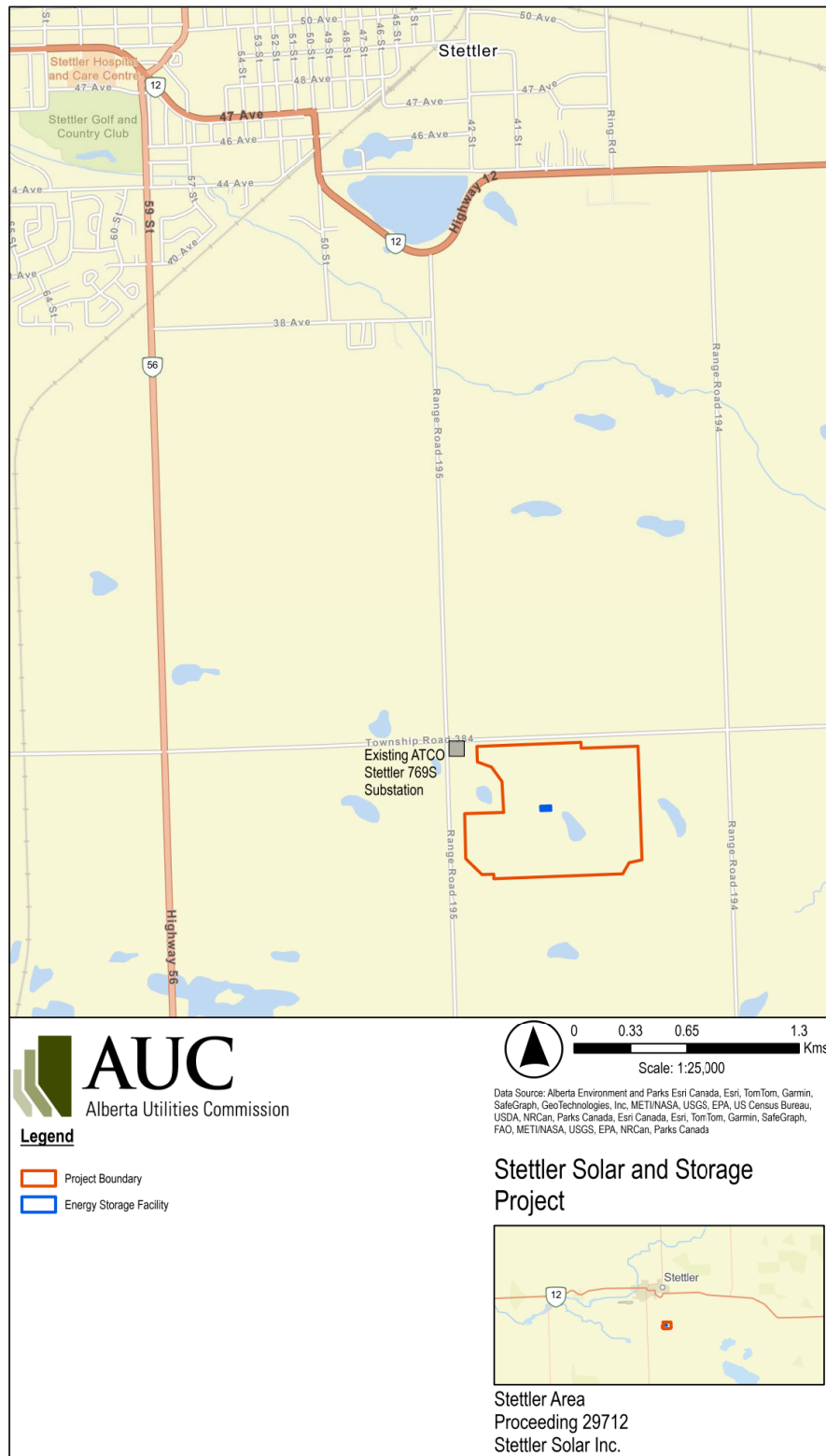
5. SSI applied to construct and operate a 25-MW solar power plant and a 9.6-MW/33-MWh ESF, designated as the Stettler Solar and Storage Project, and to connect the project to the ATCO Electric Ltd. distribution system.

6. The project will be located in the County of Stettler No. 6, approximately two kilometres southeast of the town of Stettler, Alberta. Specifically, the project will be located within Section 20, Township 38, Range 19, west of the Fourth Meridian, and the project will be connected to ATCO Electric Ltd.'s existing Stettler 769S Substation located in the northwest quarter of Section 20, Township 38, Range 19, west of the Fourth Meridian. The project location is shown in Figure 1.

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<sup>1</sup> Exhibit 29712-X0014, Appendix M-SSI Conservation & Reclamation Plan and Exhibit 29712-X0201, SSI Commitment List.

Figure 1. Stettler Solar and Storage Project and interconnection location



7. SSI made two project updates during the proceeding. The updated project consists of the following major equipment:

- The power plant will consist of approximately 71,700 bifacial 560-watt modules on a single-axis tracking system, and seven SMA Sunny Central MVPS 4600-S2-US inverter-transformer units, with a total capacity of 25 MW.
- The ESF will consist of 12 SunGrow ST2752UX storage units, three SunGrow SC4000UD-MV battery inverters, and one transformer, with a total discharging capability of 9.6 MW and storage capacity of 33 MWh.
- An underground collector system, which will be used for connecting the electric energy generated by the project to an existing ATCO Electric Ltd. distribution line, and an internal road network.

8. The project will be connected to the ATCO Electric Ltd. distribution system through an adjacent distribution line that will link directly to the existing Stettler 769S Substation. The distribution facility owner, ATCO Electric Ltd., who is responsible for the interconnection, confirmed its non-objection to connect the project to its distribution system.<sup>2</sup>

9. Project construction is expected to start in the first quarter of 2027 and finish by March 31, 2028, with an in-service date in the first quarter of 2028. SSI requested an approval expiry date of September 30, 2028, to account for any unexpected delays.<sup>3</sup>

## 2.2 Interveners

10. The Commission issued a notice of applications in accordance with Rule 001: *Rules of Practice*. In response, the Commission received statements of intent to participate from members of the SSPG and the County. The Commission granted standing to members of SSPG and permitted persons who did not have standing to join SSPG to participate in the proceeding. The Commission granted the County full participation rights.

11. SSPG raised concerns about issues related to consultation, environmental impacts, agricultural impacts, visual impacts, glare, fire risks, emergency response plan, construction and reclamation, and noise impacts.

12. Most of the County's concerns overlapped the issues raised by SSPG, which include agricultural impacts (including weed and pest management), visual impacts, emergency response, reclamation, and noise. The concerns of SSPG and the County are discussed throughout the decision.

13. In addition, the County suggested that certain matters be considered and decided by the County, rather than the Commission, during its development permit process for the project. These matters are discussed in Section 4.6 of this decision.

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<sup>2</sup> Exhibit 29712-X0008, Appendix G\_SSI DFO ATCO Letter of Non Objection.

<sup>3</sup> Exhibit 29712-X0001, Stettler Solar and Storage Project Facility Application, PDF page 10.

## 2.3 Proceeding process

14. On June 13, 2025, before the virtual oral hearing to consider the applications commenced on June 16, 2025, SSI received updated information regarding the project's inverter-transformer model, which required updating the noise impact assessment (NIA). As a result, the Commission granted SSI's request to split the proceeding into two stages.<sup>4</sup>

- Stage 1 of the proceeding: the Commission held a virtual oral hearing from June 16 to 18, 2025, to consider all matters related to the applications except noise; and
- Stage 2 of the proceeding: SSI updated the NIA, and then the Commission completed a written hearing from July 7 to August 15, 2025, to consider noise impacts from the project.

15. The registered proceeding participants and the registered appearances for the oral hearings can be found in appendixes A and B, respectively.

## 3 The approval process for the project

16. In this section of the decision, the Commission describes the legal framework in which its decisions are made. First, the Commission explains its mandate and powers when considering facility applications. Then, the Commission describes how it assesses the public interest. Finally, the Commission addresses how it considers municipal planning instruments in its public interest assessment.

### 3.1 What is the role of the Commission?

17. The Commission is an independent regulator responsible for considering applications for power plants, substations and ESFs in accordance with the legislative framework.<sup>5</sup> The Commission must consider whether the proposed project is in the public interest, having regard to its social, economic, environmental and other effects.<sup>6</sup>

18. The applicant bears the onus of demonstrating that approval of its project is in the public interest. Interveners may attempt to show the applicant has not met its onus by demonstrating the effects of the project on their interests and explaining why approval of the project is not in the public interest or why certain conditions should apply. The Commission's role is to test and assess the evidence before it and engage in a multifaceted analysis established by the regulatory regime, to determine if the project should be approved, and if so, whether any conditions should apply.

19. On December 6, 2024, the *Electric Energy Land Use and Visual Assessment Regulation* was enacted.<sup>7</sup> The regulation was established to protect high-quality agricultural land, irrigable land and valued viewsapes from the impacts of electric energy generation development.

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<sup>4</sup> Exhibit 29712-X0193, AUC letter - Ruling on Stettler Solar Inc.'s requests to bifurcate the hearing and to excuse witnesses.

<sup>5</sup> *Hydro and Electric Energy Act*, sections 11, 13.01, 14, 15 and 19.

<sup>6</sup> *Alberta Utilities Commission Act*, Section 17.

<sup>7</sup> OIC 368/2024 (AB).

20. On June 4, 2025, the Government of Alberta issued the *Code of Practice for Solar and Wind Renewable Energy Operations*, effective May 31, 2025, which sets out the requirements for reclamation security provided directly to the government.

21. The *Code of Practice for Solar and Wind Renewable Energy Operations* came into effect after SSI had filed its applications but before a decision was issued. The Commission addresses how it applies the *Electric Energy Land Use and Visual Assessment Regulation* and the *Code of Practice for Solar and Wind Renewable Energy Operations* in more detail below.

### **3.2 How does the Commission assess the public interest?**

22. When the Commission receives an application to construct and operate a power plant, Section 17(1) of the *Alberta Utilities Commission Act* is engaged. This provision states that, in addition to any other matters it may or must consider, the Commission must consider whether the proposed project is in the public interest, having regard to its social, economic, environmental and other effects.

23. As a starting point, a power plant application filed with the Commission must comply with Rule 007 and Rule 012. These rules include a comprehensive set of requirements for a facility application, such as a power plant.

24. The Commission also balances a variety of public interest considerations, taking into account the purposes of the *Hydro and Electric Energy Act* and the *Electric Utilities Act*. These statutes provide for the economic, orderly and efficient development of facilities and infrastructure, including power plants and ESFs, that are in the public interest. They also set out a framework for a competitive generation market, where decisions about whether and where to generate electricity are left to the private sector.<sup>8</sup>

25. Conducting a public interest assessment requires the Commission to assess and balance the competing elements of the public interest in the context of each specific application before it. Part of this exercise is an analysis of the nature of the impacts associated with a particular project, and the degree to which the applicant has addressed these impacts. Balanced against this is an assessment of the project's potential public benefits. The assessment includes the positive and adverse impacts of the project on those nearby, such as landowners, or on local objectives advanced by municipalities.

26. The Commission has previously affirmed 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.

#### **3.2.1 How does the Commission consider municipal planning instruments?**

27. Municipalities play a unique role in land use planning and have a strong interest in upholding local objectives. The Commission considers their land use authority and planning instruments when determining if a project is in the public interest<sup>9</sup> and values the insights

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<sup>8</sup> *Hydro and Electric Energy Act*, sections 2 and 3; *Electric Utilities Act*, Section 5.

<sup>9</sup> Decision 27842-D01-2024: Aira Wind Power Inc. – Aira Solar Project and Moose Trail 1049S Substation, Proceeding 27842, Applications 27842-A001 and 27842-A002, March 21, 2024, paragraph 28; Decision 27486-D01-2023: Foothills Solar GP Inc. – Foothills Solar Project, Proceeding 27486, Applications 27486-A001 and 27486-A002, April 20, 2023, paragraph 23.

municipalities provide on the potential effects of projects, including the regional context of their planning instruments.<sup>10</sup> While the Commission considers municipal land use planning policies in making its public interest determination, these land use planning policies are also assessed against existing provincial laws, project impacts (social, economic and environmental effects), and compliance with Rule 007 and Rule 012.

28. Although the Commission endeavors to achieve consistency with municipal planning instruments, pursuant to sections 619 and 620 of the *Municipal Government Act*,<sup>11</sup> the Commission's decision on applications takes precedence over municipal planning instruments.<sup>12</sup> This approach aims to reduce regulatory burdens and ensures that issues heard and determined at the provincial level are not reheard at the municipal level.

## 4 Discussion and findings

29. The Commission reviewed the applications and determined that the information requirements specified in Rule 007 and Rule 012 are met. The Commission considers the proposed power plant, ESF and project connection to be in the public interest having regard to their social, economic, environmental and other effects, in accordance with Section 17 of the *Alberta Utilities Commission Act* and other applicable enactments, subject to the conditions of approval described below.

30. In the following subsections, the Commission discusses its findings regarding consultation, environmental impacts, agricultural impacts, visual impacts, glare, the County's concerns, fire risks and emergency response plan, reclamation and noise impacts.

### 4.1 Is Stettler Solar Inc.'s consultation adequate?

31. In this section, the Commission finds that SSI's consultation and notification activities with landowners and the County were reasonable, adequate, and compliant with Rule 007.

32. SSPG expressed concerns about the adequacy of SSI's consultation efforts and submitted that SSI's consultation did not meet the spirit and intent of Rule 007. In particular, SSPG submitted that no consultation took place with two SSPG members, Darien Chapman and Brant Stenlund.<sup>13</sup> The County did not express concerns about SSI's consultation.

33. SSI conducted a participant involvement program (PIP) for the project to consult and notify relevant stakeholders.<sup>14</sup> The PIP included mailing project-specific information packages, conducting personal consultation and hosting open houses.

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<sup>10</sup> Decision 28086-D01-2024: Three Hills Solar Power Corp. – Three Hills Solar Project, Proceeding 28086, Application 28086-A001, June 12, 2024.

<sup>11</sup> *Municipal Government Act*, sections 619 and 620.

<sup>12</sup> *Borgel v Paintearth (Subdivision and Development Appeal Board)*, 2020 ABCA 192, paragraph 22. This was affirmed most recently by the Court of Appeal of Alberta in *Canmore (Town of) v Three Sisters Mountain Village Properties Ltd*, 2023 ABCA 278, paragraphs 74 to 75.

<sup>13</sup> Exhibit 29712-X0086, SSPG Group Submissions, PDF page 22; Exhibit 29712-X0088, Appendix B Brant Stenlund Direct Evidence, PDF page 5; Exhibit 29712-0089, Appendix C Darien Chapman Direct Evidence, PDF page 6.

<sup>14</sup> Exhibit 29712-X0005, Appendix D\_SSI Participant Involvement Program Report.

34. SSI submitted that throughout project development, SSI continually and purposefully engaged with stakeholders, including the general public, Indigenous communities, industrial interest holders, government agencies, the County, and persons that own lands within the applicable notification and consultation boundaries. SSI submitted that its consultation resulted in four landowners and residents who are most directly impacted by the project signing letters of non-objection.<sup>15</sup>

35. SSI stated that it did not directly consult with D. Chapman and B. Stenlund during its PIP process, because these stakeholders were neither landowners nor residents within the consultation/notification radii at that time. While B. Stenlund farms a property within 800 metres of the project, he is not on the title or a resident, and W. Stenlund, who is on the title, confirmed SSI's consultation was adequate. The Commission finds that SSI made reasonable attempts to consult D. Chapman, once it became aware that D. Chapman would be on the title of the property in the future.

36. Further, the Commission finds that SSI took reasonable efforts to engage with the broader public, including those who are not within the consultation/notification radii, such as conducting two open houses and posting advertisements in a local newspaper. SSI committed to ongoing communication and consultation with all stakeholders throughout the project development, construction and operation.<sup>16</sup>

37. In summary, although SSI was unable to resolve outstanding concerns to the satisfaction of all stakeholders, the Commission is satisfied that SSI conducted effective consultation by providing information to, and answering questions from, stakeholders by phone, text communication and open houses. Based on review of the consultation records and the evidence in this proceeding, the Commission finds that SSI's PIP achieved the objectives of consultation and notification set out in Rule 007.

#### **4.2 Are the impacts from the project to the environment reasonable?**

38. In this section, the Commission discusses the project's impacts to the environment, primarily to water runoff and flooding, wetlands, and wildlife, and determines that, with the commitments made by SSI and the conditions below, the project is unlikely to cause significant adverse impacts to the environment.

39. SSPG raised concerns about water runoff and flooding of its members' lands due to the project. Similarly, the County submitted that a stormwater management plan is needed and it must account for both the increased water leaving the project site and the quality of water leaving the site. SSI committed to produce and implement a stormwater management plan with input from the County.<sup>17</sup> The Commission accepts that this commitment will appropriately address stormwater issues.

40. SSPG retained Cottonwood Consultants Ltd. and SSI retained Maskwa Environmental Consulting Ltd. to provide independent evidence on wetland and wildlife impacts of the project.

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<sup>15</sup> Exhibit 29712-X0032, Non-Objection Letter from Ron and Danelle Lan; Exhibit 29712-X0194, SSI Opening Statement, PDF page 4.

<sup>16</sup> Exhibit 29712-X0201, SSI Commitment List, PDF page 12.

<sup>17</sup> Exhibit 29712-X0119, Joint Letter of Agreed Commitments - SSI and Stettler County, PDF page 2; and Exhibit 29712-X0119, Joint Letter of Agreed Commitments - SSI and Stettler County, PDF pages 14 and 15.

41. In its applications, SSI proposed a reduction to the wetland setbacks recommended in the *Wildlife Directive for Alberta Solar Energy Projects* (Wildlife Directive) for Class III+ wetlands, from 100 metres to 30 metres. Due to continuous historical agricultural disturbances reducing the quality of the surrounding upland habitat, Maskwa stated that the 100 metres surrounding these wetlands have not served as wildlife habitat for at least 54 years.<sup>18</sup>

42. Cottonwood suggested that Maskwa's wetland classifications and delineations may be inaccurate, temporary and ephemeral waterbodies were not avoided in the project design, and the mitigations Maskwa proposed will not sufficiently protect these features. In addition, Cottonwood opined that SSI's proposed wetland setbacks were not appropriate given that wildlife will utilize croplands as habitat. Cottonwood provided a comparison of its wetland delineations and classifications against SSI's wetland delineations and classifications.<sup>19</sup> On this basis, Cottonwood recommended retaining the 100-metre wetland setbacks recommended in the Wildlife Directive.

43. Due to differences in professional opinions, parties' methods of wetland assessment were compared. Both parties utilized qualified professionals and historical aerial imagery. Overall, Cottonwood and Maskwa's delineations and classifications were relatively similar. Given that Maskwa had access to the project lands to conduct field assessments,<sup>20</sup> and used the most in-depth method of conducting wetland surveys, the Commission accepts Maskwa's wetland classifications and delineations. Regarding the expert's differences of opinion on the quality of habitat within the 100-metre setback, the Commission accepts that species may utilize croplands for foraging but also that this area has been cultivated and that cultivated habitats serve lesser functions than other forms of habitat. The Commission finds that the project is unlikely to cause a decrease in habitat quality as compared to the impact of cultivation on habitat quality. Therefore, the Commission accepts the reduction of the 100-metre setback to a 30-metre setback.

44. Based on the above, the Commission finds that SSI suitably considered the standards and best management practices outlined in the Wildlife Directive when initially selecting a site for the project. As stated in the Wildlife Directive, "[a]ppropriate site selection at the landscape level [as] the first and most critical factor in preventing significant negative effects on wildlife."<sup>21</sup> The environmental suitability of this site is supported by the Alberta Environment and Protected Areas (AEPA) renewable energy referral report, which determined an overall low risk to wildlife and wildlife habitat.<sup>22</sup>

45. 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 for the project.

- a. Stettler Solar Inc. shall submit an annual post-construction monitoring survey report to Alberta Environment and Protected Areas (AEPA) no later than January 31 of the year following the mortality monitoring period and submit the annual post-construction

<sup>18</sup> Exhibit 29712-X0007, Appendix F\_SSI Environmental Evaluation, PDF page 82.

<sup>19</sup> Exhibit 29712-X0098, Appendix L Cliff Wallis Expert Report, PDF pages 2 to 3, and 18 to 45.

<sup>20</sup> The Commission acknowledges that this is not an oversight of Cottonwood, as Cottonwood did not have land access and therefore could not conduct field assessments.

<sup>21</sup> *Wildlife Directive for Alberta Solar Energy Projects*, Alberta Environment and Parks, effective October 4, 2017.

<sup>22</sup> Exhibit 29712-X0018, Appendix Q\_SSI Referral Report Stettler Solar.

monitoring survey report and AEPA's post-construction monitoring response letter to the Commission within one month of its issuance to Stettler Solar Inc. These reports and response letters shall be subsequently filed with the same time constraints every subsequent year for which AEPA requires surveys pursuant to Section 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.

### 4.3 Are the impacts from the project to agricultural lands reasonable?

46. On December 6, 2024, immediately prior to SSI submitting its applications in this proceeding, the Government of Alberta enacted the *Electric Energy Land Use and Visual Assessment Regulation*. This regulation outlines requirements for power plants on high-quality agricultural land, irrigable lands, and within buffer zones and visual impact assessment zones. The Government of Alberta's stated policy objective of "agriculture first" in the Minister's February 2024 letter is realized in the *Electric Energy Land Use and Visual Assessment Regulation*, which defines the focus of that policy to lands classified by the Land Suitability Rating System (LSRS) as Class 1 and 2 lands, or Class 3 in specific municipalities.<sup>23</sup>

47. The project was initially sited on some soils classified as Class 2 under the LSRS. However, SSI redesigned the project to avoid Class 2 lands, with all remaining lands being LSRS Class 3 lands.<sup>24</sup> The project is not located within a specified municipality where Class 3 lands are considered high-quality agricultural land under the *Electric Energy Land Use and Visual Assessment Regulation*. Therefore, the Commission accepts that high-quality agricultural land considerations under the *Electric Energy Land Use and Visual Assessment Regulation* do not apply, and no agrivoltaics plan is required. Regardless, the Commission recognizes that preserving high-producing land for agriculture is a public interest objective. This is a factor that the Commission must balance as part of its public interest determination.

48. The County expressed concerns about the impacts of projects on local agricultural production and associated reductions of investment in the local agricultural economy. The County confirmed there are no other operating power generation or power generation and storage facilities currently located on lands in the County that are zoned for agricultural production. In this case, on balance, the Commission is satisfied that the project has been appropriately sited to preserve high-quality agricultural lands.

49. SSPG raised concerns about potential agricultural impacts to its members' adjacent lands due to the construction of the project. The County was similarly concerned with weed control and pest management to protect farming operations in the area. SSI is required to adhere to relevant soil, weed and pest regulations and has committed to mitigations, management, and monitoring for these issues in its commitment list, environmental protection plan, and conservation and reclamation plan. These include commitments to consult adjacent landowners throughout the life of the project and to consult the County on weed and pest management plans.<sup>25</sup> The Commission finds SSI's commitments appropriate for the protection of agricultural land and expects SSI to strictly uphold these commitments.

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<sup>23</sup> *Electric Energy Land Use and Visual Assessment Regulation*, Province of Alberta, December 6, 2024.

<sup>24</sup> Exhibit 29712-X0007, Appendix F\_SSI Environmental Evaluation, PDF pages 33, 36 and 62.

<sup>25</sup> Exhibit X0150, SSI Commitment List\_2025-06-02; Exhibit X0161, SSI Reply Evidence Submissions, PDF page 27; and Exhibit 0157, Appendix F - Maskwa Reply Evidence, PDF pages 13 and 14.

#### 4.4 Will the project have visual impacts on viewsapes and how does the Commission consider these impacts?

50. In this section, the Commission finds that impacts on viewsapes are a consequence of the project that needs to be balanced against the project's public benefits, and that implementation of screening plans proposed by SSI will mitigate visual impacts from the project to an acceptable level.

51. SSPG members own and/or reside on lands in and around the project area, and stated that they will experience new, increased, and adverse visual impacts and an unwanted visual burden, as a result of the project. Specifically, SSPG requested that SSI design a tree screening plan for the Chapman and Stenlund residences and implement the plan prior to the construction of the project.<sup>26</sup>

52. The County also raised visual concerns, specifically along Township Road 384 and Range Road 195. The County wants to consider and decide on the visual screening along these roads in the County development permit process and requested the Commission expressly acknowledge the County's ability to do so.<sup>27</sup>

53. SSI retained Green Cat Renewables Canada Corporation (GCR) to assess visual impacts, review visual screening options, and respond to SSPG's concerns about visual impacts. GCR did not recommend a visual screening plan for the Chapman and Stenlund residences because these residences already have significant screening such that the potential for visual impacts from the project is limited. Having reviewed the photos and imagery of these residences, existing vegetation, and project location, the Commission does not consider additional screening to be necessary. However, SSI indicated it remains open to consulting with the Chapmans and Stenlunds to explore potential visual screening options to address their site-specific concerns in a practical manner<sup>28</sup> and the Commission expects SSI to carry out this consultation. The Commission also expects SSI to finalize a visual screening plan based on the final project design and in consultation with the specific landowners requiring mitigation.

54. Other SSPG members, including Emerald Fakas, Clayton and Sarah Rock, and Steven Kromm expressed concerns regarding visual impacts from the project. After considering the location of each residence and existing screening, GCR determined the project is unlikely to be visible from any of these residences. The Commission agrees with GCR's conclusion and does not require SSI to implement visual mitigation for these residences.

55. The County requested installation of visual screening along Township Road 384 and Range Road 195 for the benefit of the travelling public, and that the screening plan should be left to the development permit process. SSI submitted this would be neither practical nor consistent with visual mitigation requirements imposed on other solar projects in Alberta. There are areas with existing trees and structures along these roads that would provide some screening for the project and a portion of the project will also be partially screened by the existing substation. SSI further explained that a requirement to provide visual screening for county roads could reduce the energy capacity of the project (due to shade), increase the fire risk, require additional

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<sup>26</sup> Exhibit 29712-X0086, SSPG\_Group Submissions, PDF page 12-13.

<sup>27</sup> Exhibit 29712-X0082, Submission of County of Stettler No.6, PDF pages 22-23.

<sup>28</sup> Exhibit 29712-X0161, SSI Reply Evidence Submissions, PDF page 13.

vegetation management, weed and erosion control, and reduce the potential for agricultural activities at the project site.<sup>29</sup>

56. The Commission does not consider screening along the entirety of Township Road 384 and Range Road 195 to be warranted; however, the Commission is of the view that some screening in select areas along these roads where the County considers the visual impact to be the highest, is reasonable. This is a matter the County and SSI can address through the development permit process. Accordingly, the Commission requires SSI to develop a visual screening plan in consultation with the County. In addition, SSI must promptly respond to any concerns or complaints from the County or drivers on county roads about visual impacts from the project. Therefore, the Commission imposes the following condition of approval for the project.

- b. Stettler Solar Inc. shall promptly respond to any concerns or complaints from the County of Stettler No. 6 or drivers on county roads about visual impacts from the project. Through the development permit process, Stettler Solar Inc. shall work with the County to develop a practical visual screening plan, considering other factors or impacts related to the project, such as impacts to energy capacity, fire risk, additional vegetation management, weed and erosion control, and agricultural activities at the site. Stettler Solar Inc. shall implement the visual screening plan developed with the County.

#### **4.5 What are the potential glare impacts from the project and how will they be mitigated?**

57. In this section, the Commission finds that glare impacts from the project are limited and will be mitigated to an acceptable level.

58. SSPG raised concerns about glare impacts from the project solar panels and recommended the Commission require SSI to promptly address complaints or concerns from stakeholders regarding glare from the project.<sup>30</sup>

59. The County was concerned that project glare could result in degraded or reduced traffic safety for vehicles using county roads. In particular, the County submitted that Township Road 384 is one of the few roads in the county where the County has invested in a high-grade paved surface to facilitate the movement of people and goods, and traffic safety along Township Road 384 should not be reduced by any amount of glare from the project. The County recommended that SSI be required to detail mitigation measures to achieve no predicted glare from the project on local roads as part of the final project update.<sup>31</sup>

60. SSI also retained GCR to conduct a solar glare assessment (SGA) for the project.<sup>32</sup> The SGA identified 17 dwellings and three local roads (Township Road 384, Range Road 194 and Range Road 195) within 800 metres of the project boundary as receptors. In response to an information request from the Commission, SSI added the Stettler Airport and the Stettler Hospital and Care Centre Helipad to the glare model developed for the SGA and predicted that

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<sup>29</sup> Transcript, Volume 3, page 242, lines 10-16; page 245, lines 10-25; page 246, lines 6-10.

<sup>30</sup> Exhibit 29712-X0086, SSPG\_Group Submissions, PDF pages 19-20.

<sup>31</sup> Exhibit 29712-X0082, Submission of County of Stettler No.6, PDF pages 20-21.

<sup>32</sup> Exhibit 29712-X0010, Appendix I\_SSI Solar Glare Assessment.

flight paths and runways will receive minimal green glare but no yellow glare.<sup>33</sup> SSI submitted that since no yellow glare is predicted for the flight paths and runways, no mitigation is required.<sup>34</sup>

61. The project solar panels will have an anti-reflective coating and use a single-axis tracking system, which has a backtracking function to tilt the solar panels gradually back to horizontal or near-horizontal during periods when the sun is low in the sky. The resting angle is defined as the minimum rotation angle between the solar panels and the horizontal (i.e., the resting angle sets the lower limit for rotation during backtracking periods).

62. If the project solar panels are allowed to tilt fully horizontal during the backtracking periods, the SGA predicted that Range Road 194 and Range Road 195 will receive no glare from the project, Township Road 384 will receive up to 967 minutes of yellow glare per year from the project, and dwellings will receive up to 606 minutes of yellow glare per year from the project. Based on the current project design, the SGA predicted that project glare could be eliminated at all receptors if a resting angle limit greater than or equal to four degrees were implemented during the backtracking periods. SSI committed to determine and implement a resting angle limit, based on the final project design, to eliminate yellow glare within the 15-degree field of view<sup>35</sup> for drivers using local roads.

63. The SGA also addressed other mitigation measures that could be implemented for road users and residents during operation of the project, which included installing blinds over windows, planting vegetation like trees or hedges, installing fencing, other barriers, or road signs to warn motorists of the potential glare at particular times of day and year.

64. Limiting the resting angle is an effective mitigation to minimize or eliminate glare impacts from the project. The Commission understands that yellow glare (i.e., glare with potential for temporary after-image) can be potentially hazardous to road users. Given the concerns about potential glare impacts, the Commission requires SSI to configure the solar panels to use a resting angle sufficient to eliminate yellow glare for road receptors. The Commission expects that this will also eliminate or significantly reduce predicted glare at residences. Therefore, the Commission imposes the following condition of approval for the project.

- c. Stettler Solar Inc. shall, at the time it submits the final project update, determine the minimum resting angle at which predicted yellow glare from the project would be eliminated within the 15-degree field of view for local roads and include this information in the final project update. Stettler Solar Inc. shall configure the project solar panels to use a resting angle greater than or equal to the minimum resting angle required to eliminate glare within the 15-degree field of view for local roads.

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<sup>33</sup> The glare assessment used colour codes to categorize effects of glare to a person's eyes.

- 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.

<sup>34</sup> Exhibit 29712-X0058, 2025-03-31 Stettler Solar - IR #2\_FINAL, PDF pages 7-8.

<sup>35</sup> Field of view in noise modelling is measured horizontally from the centreline of the road and represents the angle within which a driver is assumed to be sensitive to glare.

65. In addition, the Commission requires SSI to promptly respond to any complaints or concerns regarding glare during project operations and implement mitigation measures if glare is determined to be an issue. The Commission imposes the following condition of approval for the project.

- d. Stettler Solar Inc. shall promptly address any complaints or concerns regarding glare from the project. Stettler Solar Inc. shall file a report with the Commission detailing any glare complaints/concerns during the first year of project operation, as well as Stettler Solar Inc.'s response to the complaints/concerns. In particular, the report shall specify if mitigation measures have been implemented in response to the complaint/concern. Stettler Solar Inc. shall file this report no later than 13 months after the project becomes operational.

66. Given SSI's commitment and the conditions the Commission imposes in this section, particularly with respect to a minimum resting angle, the Commission finds that glare impacts from the project are minimal. With this mitigation, the project is not expected to create hazardous glare conditions for drivers on nearby transportation routes or have an unacceptable glare effect on residential receptors.

#### **4.6 What are the County's concerns and how does the Commission consider them?**

67. The County stated that it does not support the project as it would detract from the desired character of the community, which includes a rural lifestyle and sense of community, a rural-based agricultural economy, and preserving the rural qualities and agricultural characteristics of the landscape.

68. However, acknowledging that the Commission has the authority to decide whether to approve the project, the County submitted recommendations to help address its concerns regarding conversion of agricultural lands to industrial use, weed and pest management, visual impacts, glare, emergency response, reclamation, setbacks, and noise.<sup>36</sup> These concerns are discussed in the relevant sections of this decision.

69. The Commission must consider the siting of the project with the position of the County that a solar project on agricultural land does not fit within the desired character of the County, in addition to other impacts such as environmental impacts, glare and proximity to residences. This must also be balanced against benefits of the projects. The Commission has considered the County's position carefully, and also the context of the size of the project and its location in proximity to the town of Settler. SSI made commitments to address the County's concerns, and the Commission has also imposed several conditions based in part on the County's recommendations. As summarized in Section 5, on balance, the Commission finds that the evidence weighs in favour of approving the project.

70. The Commission now discusses the County's request that the Commission acknowledge that certain issues should be considered and decided in the County's development permit process for the project, rather than as part of the Commission's decision. These issues include (i) compliance with the County's land use bylaw setbacks or any variance requests, (ii) access to county roads and construction standards for approaches off county roads, (iii) road use agreements for traffic impacts during construction and ongoing operations, (iv) completing and

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<sup>36</sup> Exhibit 29712-X0082, Submission of County of Stettler No.6.

implementing a stormwater management plan, (v) any signage and posted contact information at site and site security, and (vi) final site plan approval including precise placement of buildings and internal access roads (collectively, the Proposed Land-Use Planning Issues).

71. In its evidence, the County requested that the AUC apply one of two outcomes to the Proposed Land-Use Planning Issues. The County submitted that the Commission should decide that these matters are either: (i) “conclusively ‘considered and decided’ by the AUC” in the proceeding, or (ii) “set aside by the AUC to enable the County to ‘consider and decide’ at the time of the development permit application.”

72. Following submission of the County’s evidence, SSI committed to implement most of the County’s recommendations, including that the County should decide the Proposed Land-Use Planning Issues, other than the final site plan. This is set out in a joint letter of agreed commitments.<sup>37</sup> In particular, SSI confirmed that the current project design has adhered to setback requirements as set out by the County.<sup>38</sup>

73. With respect to the final site plan, SSI argued that it is the Commission’s role to determine and approve the placement of the project’s infrastructure. SSI noted that the final site plan will directly affect its fire safety commitments, its ability to optimize energy generation, and its potential to co-locate agricultural activities within the project site.<sup>39</sup>

74. Conversely, the County submitted that the detailed site design should be the subject of the development permit process. The County noted that it has one opportunity to decide on the development permit and there would be no reopening if issues later materialize, unless SSI triggered a new development permit process. Accordingly, the County needs to look ahead to ensure that issues are resolved at the time of the development permit process.<sup>40</sup>

75. The Commission notes SSI’s willingness to collaborate with the County on specific matters, such as access locations, and agrees with SSI that the Commission has jurisdiction to approve or deny the siting of a power plant, having regard to the social and economic effects of the power plant, and its effects on the environment. From this perspective, it is not reasonable to defer decisions regarding project layout and final site plan to the County as part of its development permit process. With respect to the other Proposed Land-Use Planning Issues, the Commission accepts that the County can address these matters as part of the development permit process. The Commission’s approval of the project should not be construed as overturning the County’s ability to enforce its requirements regarding matters such as road use, stormwater management, etc. and impose conditions as part of the development permit process.

76. Municipal input is important to the Commission’s understanding of the context, background and local concerns about a project. The Commission considers municipal requirements, including land use bylaws, planning bylaws, and setbacks when evaluating project applications. If a project is unable to satisfy municipal bylaws or setback requirements, wherever necessary and practical, the applicant is responsible for obtaining an approval for land use rezoning or setback variances from the relevant municipality. In accordance with Rule 007, applicants must consult with relevant municipalities, and requirements, concerns and questions

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<sup>37</sup> Exhibit 29712-X0119, Joint Letter of Agreed Commitments - SSI and Stettler County.

<sup>38</sup> Exhibit 29712-X0201, SSI Commitment List, PDF page 12.

<sup>39</sup> Transcript, Volume 3, page 246, lines 13-25.

<sup>40</sup> Transcript, Volume 2, page 208, lines 12-25, and page 209, lines 1-14.

must be addressed during continuous consultation with the municipalities. During the development permit application, the Commission expects SSI to continue working with the County to meet the requirements of the County's land use bylaws.

#### **4.7 How does the Commission consider battery safety and the associated emergency response plan?**

77. SSPG raised concerns regarding potential health and safety risks associated with the project ESF and the emergency response plan (ERP). SSPG retained Integrated Modelling Inc. (IntMod) to review SSI's air quality dispersion modelling assessment and complete a new dispersion modelling assessment.<sup>41</sup>

78. SSI retained RWDI AIR Inc. (RWDI) to conduct an air quality dispersion modelling assessment for the project.<sup>42</sup> SSI developed a draft site-specific ERP to address planning, practices and procedures to respond to an emergency.<sup>43</sup> In addition, SSI filed documents from the battery manufacturer in relation to the proposed battery model, which include two emergency response guides (i.e., Year 2023 version and Year 2025 version) and a confidential large-scale burn test report.<sup>44</sup> SSI also retained Ollson Environmental Health Management (OEHM), and Energy Safety Response Group (ESRG) to address SSPG's concerns about fire risks and the ERP.

79. During the oral hearing, SSPG questioned the impartiality and independence of Dr. Ollson. SSPG alleged that presentations Dr. Ollson made at conferences show that Dr. Ollson is not an independent evaluator, and is instead an advocate for companies seeking approval of battery energy storage system facilities.<sup>45</sup> In response, SSI stated that SSPG's characterization of the intent behind Dr. Ollson's conference slides does not align with the independent and impartial evidence that Dr. Ollson provided for this hearing.<sup>46</sup>

80. Parties may engage independent witnesses to give opinion evidence in a proceeding on issues that are within that witness' area of specialized knowledge, training, skills, experience or expertise.<sup>47</sup> Independent expert witnesses have a duty to provide fair, objective and non-partisan evidence.<sup>48</sup>

81. As part of his evidence, Dr. Ollson provided his curriculum vitae outlining his relevant educational and professional experience regarding the issues he addressed in this proceeding, including environmental health sciences and risk assessments.<sup>49</sup> Dr. Ollson's experience includes testifying in numerous Commission proceedings regarding renewable energy projects and impacts to human health. Dr. Ollson's evidence included an acknowledgement that he has a duty

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<sup>41</sup> Exhibit 29712-X0095, Appendix I IntMod Stettler Solar and Energy Storage Facility Reports.

<sup>42</sup> Exhibit 29712-X0009.01, Appendix H\_SSI Emergency Response Plan, PDF pages 21-31.

<sup>43</sup> Exhibit 29712-X0009.01, Appendix H\_SSI Emergency Response Plan.

<sup>44</sup> Exhibit 29712-X0074, SSI-SSPG-2025APR04-019 (b) Attachment - Year 2023 SunGrow Battery Emergency Response Guide; Exhibit 29712-X0081-C, SSI-SSPG-2025APR04-001 (a) - Confidential SunGrow Large Scale Burn Test; and Exhibit 29712-X0159, Appendix D - Year 2025 SunGrow emergency response guide.

<sup>45</sup> Transcript, Volume 3, pages 275-277.

<sup>46</sup> Transcript, Volume 3, page 294, lines 17-22.

<sup>47</sup> Rule 001: *Rules of Practice*, Section 21 (Independent witnesses).

<sup>48</sup> *White Burgess Langille Inman v Abbott and Haliburton Co*, 2015 SCC 23.

<sup>49</sup> Exhibit 29712-X0160, Appendix B - Dr. Ollson Reply Evidence, PDF pages 25-32.

to provide opinion evidence that is fair, objective and non-partisan.<sup>50</sup> This acknowledgement is also included in Dr. Ollson's commissioned affidavit adopting his evidence.<sup>51</sup>

82. In reviewing Dr. Ollson's evidence, the Commission did not identify any areas where Dr. Ollson did not appear to be independent or impartial. The Commission finds that Dr. Ollson qualifies as an independent expert and that SSPG did not establish a basis to question Dr. Ollson's impartiality.

83. Next, the Commission considers battery safety and emergency response in the sections that follow:

- In Section 4.7.1, the Commission considers the stability of the proposed battery and the air dispersion modelling results to evaluate potential fire risks and chemical exposure. The Commission finds that the fire risks associated with the ESF are limited.
- In Section 4.7.2, the Commission considers monitoring systems and preventative mitigation measures (e.g., the facility siting) for the ESF. The Commission finds that fire risks associated with the ESF will be properly monitored and SSI will take appropriate preventative mitigation measures.
- In Section 4.7.3, the Commission considers the project-specific ERP and associated factors, and finds that fire risks will be mitigated to an acceptable level by SSI's ERP.

#### **4.7.1 What are the potential fire risks associated with the energy storage facility?**

84. When evaluating potential fire risks associated with the ESF, the Commission considers these factors: (i) the stability of the proposed battery, (ii) the application of air dispersion modelling and its role in emergency response strategies, (iii) the scenarios used in the air dispersion modelling, and (iv) the predicted concentrations of toxic gas (i.e., hydrogen fluoride or HF).

85. First, SSI explained that during tests in accordance with UL9540A: *Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems*, thermal runaway failure propagation associated with the proposed battery model is expected to remain isolated to the initiating enclosure without spreading to adjacent enclosures. SSI acknowledged that severe testing conditions created in recent large-scale fire tests for LFP batteries did indicate that fire may spread between modules under extreme and purposely set destructive fire conditions; however, air monitoring results during these tests did not indicate the presence or generation of toxic gas (i.e., HF).<sup>52</sup>

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<sup>50</sup> Exhibit 29712-X0160, Appendix B - Dr. Ollson Reply Evidence, PDF page 4.

<sup>51</sup> Exhibit 29712-X0180, Christopher Ollson - Commissioned Affidavit.

<sup>52</sup> Exhibit 29712-X0041, 2025-02-12 Stettler Solar - IR #1\_FINAL, PDF page 8; Exhibit 29712-X0140, SSI Revised Responses to AUC Information Requests Round 3, PDF page 14.

86. The Commission finds that compared to other commercially available options (e.g., NMC), LFP batteries are more stable and less likely to experience thermal runaway leading to a fire. This finding is consistent with previous Commission decisions on LFP batteries.<sup>53</sup> Further, the Commission notes that UL9540A tests show that thermal runaway is not expected to spread (i.e., remain isolated to the initiating enclosure) under destructive fire conditions. While the testing demonstrates that the risks are not completely eliminated, the Commission accepts that safety concerns about fire risks and toxic emissions, in the event of a battery failure or fire, are largely mitigated based on the LFP battery technology selected by SSI, in addition to its monitoring system and ERP discussed below.

87. Given that the project equipment has not yet been finalized, if the chemistry and/or battery manufacturer for the final project design are different than those described in the current applications, then such changes would require an amendment application in accordance with Rule 007. As such the Commission imposes the following conditions of approval for the project.

- e. Once Stettler Solar Inc. has finalized its equipment selection for the power plant and energy storage facility, it must file a final project update with the Commission to confirm that the project has stayed within the final project update allowances for solar power plants and energy storage facilities specified in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*. The final project update must be filed at least 90 days prior to the start of construction.
- f. Stettler Solar Inc. shall use lithium iron phosphate batteries for the energy storage facility. If an alternate battery chemistry is selected, the final project update submitted by Stettler Solar Inc. shall include specifications such as the cell combustion phase duration and peak temperature, along with confirmation the alternate chemistry possesses better thermal stability than lithium iron phosphate. Stettler Solar Inc. cannot proceed with construction of the energy storage facility until it receives written approval from the Commission.

88. Second, the Commission clarifies that when evaluating potential fire risks and associated mitigation measures for an ESF, air dispersion (including scenarios and results) is one of the factors (but not the only or determinant factor) that must be considered. In addition to air dispersion modelling, the Commission also considers the battery technology, monitoring systems, equipment siting, project-specific ERP, and real-life measurements, when evaluating fire risks and mitigation for the project.

89. Third, the Commission does not accept SSI's contention that IntMod's worst-case scenario is inappropriate because the scenario is "unrealistically" conservative. Rather, the Commission finds that RWDI and IntMod modelled different scenarios for the thermal runaway/fire events and both modelling scenarios provide value to the Commission's public

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<sup>53</sup> Previous decisions include Decision 28845-D01-2024: Warwick Gas Storage Ltd. – Warwick Battery Storage Facility, Proceeding 28845, Applications 28845-A001 and 28845-A002, June 11, 2024, PDF page 7; Decision 27971-D01-2023: Sunnynook Solar Energy Inc. – Sunnynook Solar + Energy Storage Project, Proceeding 27971, Applications 27971-A001 and 27971-A002, June 2, 2023, PDF pages 11-12; Decision 27109-D01-2022: TA Alberta Hydro Inc. – WaterCharger Battery Storage Facility, Proceeding 27109, Application 27109-A001, November 3, 2022, PDF page 10; and Decision 29226-D01-2025: Fox Meadows Wind Inc. – Fox Meadows Wind Project, Proceeding 29226, Applications 29226-A001 to 29226-A003, June 20, 2025, PDF page 81.

safety analysis. When weighing the public interest as it relates to an ESF fire, which all parties acknowledge is a rare event, the Commission considered both modelling scenarios recognizing that these scenarios incorporate different levels of conservatism. Specifically, RWDI's air quality dispersion modelling was based on a reasonable but still conservative emissions scenario, while IntMod's modelling was based on an extremely conservative scenario that is less likely to occur than the scenario modelled by RWDI. The Commission gives more weight to RWDI's model as it represents a probable failure scenario that is appropriately or realistically conservative.

90. Fourth, both RWDI and IntMod used the United States Environmental Protection Agency's Acute Exposure Guideline Levels (AEGL) Level 2 (AEGL-2)<sup>54</sup> to assess public exposure to toxic gas concentrations that would be generated in a potential thermal runaway or fire at the ESF. There are several exposure durations for AEGL-2 and RWDI and IntMod disagreed about which duration should be used. The Commission accepts RWDI's explanation that AEGL-2-60 minutes (24 ppm) is an appropriate threshold for assessing predicted toxic gas concentrations based on a conservative assessment. This finding is consistent with previous Commission decisions in which the Commission used the AEGL-2-60 minutes threshold when evaluating battery safety and associated air quality dispersion modelling results.<sup>55</sup> The Commission finds that the AEGL-2-four to eight hours (12 ppm) threshold is not suitable since the air dispersion modelling assessments from both RWDI and IntMod are based on conservative assumptions already and the additional conservative assumption of a longer exposure duration would not provide helpful information.

91. As explained above, RWDI's model is based on a realistic but still conservative scenario. Based on RWDI's model, the nearest residence is predicted to have an HF concentration of 5.9 ppm over a one-hour period, and the nearest road is predicted to have an HF concentration of 9.7 ppm over a one-hour period, both of which are well below the AEGL-2-60 minutes threshold of 24 ppm.<sup>56</sup>

92. The Commission reiterates that air dispersion modelling must be considered in combination with other factors when evaluating potential fire risks and associated mitigation

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<sup>54</sup> United States Environmental Protection Agency's AEGLs are dictated by the severity of the toxic effects caused by the exposure, with Level 1 being the least and Level 3 being the most severe. Specifically, the three AEGL levels are defined below:

- AEGL-1: Notable discomfort, irritation, or certain asymptomatic non-sensory effects, little or no risk of adverse health effects for the general population.
- AEGL-2: Irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.
- AEGL-3: Life-threatening or result in death.

For each AEGL category, thresholds/criteria are defined for five relatively short exposure periods – 10 minutes, 30 minutes, 1 hour, 4 hours and 8 hours.

<sup>55</sup> Previous decisions include Decision 27216-D01-2022: Concord Coaldale GP2 Ltd. – Coaldale Solar Project Battery Energy Storage System Addition, Proceeding 27216, Application 27216-A001, November 4, 2022, PDF page 8; Decision 27191-D01-2022: Concord Monarch GP2 Ltd. – Monarch Solar Project Battery Energy Storage System Addition, Proceeding 27191, Application 27191-A001, November 4, 2022, PDF page 8; Decision 27205-D01-2022: Georgetown Solar Inc. – Georgetown Solar + Energy Storage Project, Proceeding 27205, Applications 27205-A001 and 27205-A002, November 2, 2022, PDF page 14; Decision 29226-D01-2025: Fox Meadows Wind Inc. – Fox Meadows Wind Project, Proceeding 29226, Applications 29226-A001 to 29226-A003, June 20, 2025, PDF page 88.

<sup>56</sup> Exhibit 29712-X0140, SSI Revised Responses to AUC Information Requests Round 3, PDF page 15.

measures for the ESF. Risk factors and mitigation measures related to the project ERP are discussed in further detail in Section 4.7.3 of this decision.

93. In summary, the Commission finds that potential fire risks related to the ESF are limited based on the following analysis:

- LFP technology has a reasonable chemical stability and low risk of thermal runaway, and the use of LFP batteries mitigates some safety concerns associated with other battery technologies;
- The Commission reviews air dispersion modelling scenarios and results but also emphasizes that the air dispersion modelling assessment is not the only or determinant factor for evaluating fire risks and emergency response strategies;
- The different air dispersion scenarios modelled by RWDI and IntMod both provide value to the Commission's analysis of public safety; and
- According to RWDI's conservative modelling, the predicted HF concentrations at the nearest residence and nearest road are well below the AEGL-2-60 minutes threshold.

#### **4.7.2 How will potential fire risks associated with the energy storage facility be monitored and prevented?**

94. Next, the Commission will consider the detection and monitoring systems and preventative mitigation measures for the ESF and evaluate how fire risks from the ESF will be monitored and prevented.

95. SSI submitted that the project ESF will incorporate a battery management system (BMS), which serves as an automated control and monitoring system. The BMS will use embedded sensors to continuously monitor ESF operating parameters, and will also transmit messages such as warnings and alarms. It also allows operational personnel to intervene manually or remotely to enact protection modes as needed.<sup>57</sup>

96. SSPG and the County recommended that SSI implement thermal camera monitoring for fire detection. SSI committed to install thermal imaging cameras at the ESF site for continuous monitoring, and where technically possible, to integrate the cameras into its system alarms, shutdowns, and emergency response planning.<sup>58</sup> The Commission expects SSI to uphold its commitment to install thermal imaging cameras at the project ESF to provide monitoring that is independent of the automated BMS.

97. The Commission emphasizes that installation of a monitoring system that can automatically notify emergency response providers is essential for safety and fire risk control at the project ESF. The Commission imposes the following conditions of approval for the project.

- g. Stettler Solar Inc. shall install a remote monitoring and detection system that can be programmed to automatically notify emergency response providers, including the local fire station, immediately upon activation.

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<sup>57</sup> Exhibit 29712-X0009.01, Appendix H\_SSI Emergency Response Plan, PDF page 13.

<sup>58</sup> Exhibit 29712-X0201, SSI Commitment List, PDF page 14.

- h. Stettler Solar Inc. shall implement ongoing upgrades to improve the safety of the project energy storage facility, including but not limited to firmware and software enhancements, monitoring capability enhancement, process changes and safety standards as they are developed.

98. Finally, the Commission considers that preventative mitigation measures for safety and fire control are important. The Commission understands that the ESF will be sited on a gravel pad, which limits the risk that grass or wildfires will reach the ESF, and that SSI will undertake fire prevention measures at the ESF, including identifying risk factors, implementing proper storage procedures, and removing fuel sources.<sup>59</sup>

99. Overall, the Commission finds that fire risks associated with the ESF will be properly monitored by the automated systems and thermal imaging cameras, and that proper siting and other preventative mitigation measures reasonably address fire risks from the ESF.

#### **4.7.3 How does the emergency response plan address fire risks from the energy storage facility?**

100. SSPG expressed concerns about the adequacy of SSI's ERP for the project. IntMod recommended that the ERP include the following mitigation measures in response to a fire:

- establishing roadblocks and redirecting traffic to restrict access along portions of the two nearest roads: Township Road 384 and Range Road 195;
- notifying nearby residences within the projected plume to shelter in place (e.g., remain indoors, close windows, shut off HVAC systems) or evacuate; and
- responding to resident concerns and, if necessary, assisting with evacuation procedures.

101. These mitigation measures (including roadblocks and notification protocols) should be developed in consultation with the local fire departments and subject matter experts. Therefore, the Commission imposes the following condition of approval for the project.

- i. Before the project commences operation, Stettler Solar Inc. shall include roadblocks as a mitigation option and develop and outline emergency notification protocols within the project-specific emergency response plan. In particular, Stettler Solar Inc. shall consult with the local fire departments and subject matter experts about the need for roadblocks and automatic shelter-in-place notification for nearby residents and implement these if instructed to do so by the local fire departments.

102. SSI confirmed that it has shared the ERP with local emergency responders and incorporated and addressed preliminary concerns. The ERP will be a living document and will be revised, as needed, in consultation with the County and applicable fire and emergency response agencies.<sup>60</sup> With respect to emergency-related resourcing and training, SSI is willing to provide training to local emergency responders to address a battery emergency. SSI explained that upon final equipment selection, training material tailored for the project-specific equipment will be

<sup>59</sup> Transcript, Volume 1, page 111, lines 17-21; Exhibit 29712-X0009.01, Appendix H\_SSI Emergency Response Plan, PDF page 10.

<sup>60</sup> Exhibit 29712-X0201, SSI Commitment List, PDF page 7.

prepared and provided to the local emergency responders. Therefore, the Commission imposes the following condition of approval for the project.

- j. When requested by local fire departments, Stettler Solar Inc. shall provide on-site training to local emergency responders.

103. The emergency response guide from the equipment manufacturer suggested emergency response procedures and provided guidelines and technical sheets for the ESF battery model. SSI stated that it will update the ERP with specific guidelines and technical sheets from the ESF manufacturer outlining recommendations for addressing hazards related to safety and emergency response.<sup>61</sup>

104. Given that the ERP is a living document, the Commission imposes the following condition of approval for the project.

- k. Stettler Solar Inc. shall continually, before and during construction and during operation, review and update the project-specific emergency response plan, and incorporate reasonable changes necessary to address concerns raised by the County of Stettler No. 6 and local fire departments, and other interested stakeholders such as local landowners. All consultation and decisions related to the emergency response plan must take into account the latest recommendations from the manufacturer's emergency response guide. The updated plans must be provided to the County of Stettler No. 6 and local fire departments.

105. The Commission considers fire detection and response planning to be an integral part of mitigating fire risks associated with the ESF and is satisfied that SSI can mitigate fire risks associated with the ESF and other emergency events through continuous monitoring and review of emergency response procedures in consultation with related municipalities and local fire departments.

#### **4.8 Is it likely that the project will be adequately reclaimed at its end of life?**

106. SSI submitted a conceptual conservation and reclamation plan for the project. SSI submitted that site reclamation will adhere to the requirements outlined in the *Conservation and Reclamation Directive For Renewable Energy Operations* and the terms of SSI's lease agreements with project landowners. Based on the information provided, the Commission accepts that SSI's approach to reclamation is reasonable. SSI is required to fully reclaim the project and bear the costs of doing so.

107. Effective May 31, 2025, applicants for wind and solar energy projects in Alberta – including SSI – must obtain a registration under the *Environmental Protection and Enhancement Act*.<sup>62</sup> One of the requirements to obtain registration, set out in the *Code of Practice for Solar and Wind Renewable Energy Operations*, is to provide reclamation security either to: (i) the Government of Alberta; or (ii) landowners as part of a negotiated agreement, as long as the Commission considers that security adequate; or (iii) a combination of the two options. SSI has chosen to provide security directly to the government for the entirety of the project. This means that the Commission will not assess the adequacy of SSI's proposed reclamation security under

<sup>61</sup> Exhibit 29712-X0009.01, Appendix H\_SSI Emergency Response Plan, PDF page 12.

<sup>62</sup> *Code of Practice for Solar and Wind Renewable Energy Operations*, Government of Alberta, Effective May 31, 2025.

the *Code of Practice for Solar and Wind Renewable Energy Operations*, and that the Commission can be reasonably assured that funds will be available to reclaim the project at its end of life. The Commission accordingly imposes the following condition of approval.

1. Stettler Solar Inc. must provide security to the Government of Alberta in accordance with the *Code of Practice for Solar and Wind Renewable Energy Operations* and otherwise comply with all conditions and terms of Stettler Solar Inc.'s registration with respect to the Stettler Solar and Storage Project.

108. Based on the information provided, the Commission accepts that SSI's approach to reclamation is sufficient for the purposes of satisfying the Commission that the approval of the project is in the public interest.

#### **4.9 Is noise from the project expected to comply with Rule 012?**

109. SSI retained RWDI to conduct an NIA for the project, which was later updated to reflect an updated project inverter-transformer station model.<sup>63</sup> The updated NIA predicted that noise from the project will comply with permissible sound levels (PSLs) set out in Rule 012 and that the project is not expected to produce low-frequency noise effects. SSI also submitted a confidential manufacturer acoustic test report for the project inverter-transformer station model to support the determination of sound power levels in the updated NIA.

110. In this section, the Commission finds that SSI's NIA meets the requirements of Rule 012. The Commission accepts the conclusion of the updated NIA that noise from the project will comply with Rule 012. As part of its approval, the Commission requires SSI to conduct a post-construction comprehensive sound level (CSL) survey at receptors R1, R4, and one of either R17 or R18 to verify project compliance and expects SSI to uphold its commitment to follow mitigation measures recommended in Rule 012 to manage construction noise.

##### **4.9.1 Does the project noise impact assessment meet the requirements of Rule 012?**

111. Henk de Haan from dBA Noise Consultants Ltd. was retained by the SSPG to review the updated NIA and the confidential manufacturer acoustic test data for the project inverter-transformer stations and provided detailed comments and recommendations regarding the baseline case, the reliability of manufacturer data, tonal noise, sound source directivity, ground attenuation factor used in noise modelling, noise from tracker motors and modelling uncertainty.<sup>64</sup> SSI retained Teresa Drew from RWDI to respond to SSPG's noise concerns and dBA Noise Consultants' evidence.<sup>65</sup>

112. dBA Noise Consultants' evidence is summarized below.

- The updated NIA underestimated baseline sound levels from the existing ATCO Stettler 769S Substation.

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<sup>63</sup> Exhibit 29712-X0204, SSI Updated Noise Impact Assessment.

<sup>64</sup> Exhibit 29712-X0213, H.25.644 V2 de Haan\_Review NIA Stettler Solar & BESS - Public document, PDF page 50.

<sup>65</sup> Exhibit 29712-X0213, H.25.644 V2 de Haan\_Review NIA Stettler Solar & BESS - Public document.

- The manufacturer test report did not account for the transformer and therefore, the updated NIA underestimates the noise generated by the project inverter-transformer stations.<sup>66</sup>
- Inverters and the battery units have the potential to create audible tonal noise for nearby receptors, but whether the tonal noise is audible at a receptor depends on how loud the tonal noise source is at a specific receptor location, compared to the local ambient sound level.<sup>67</sup>
- Based on the manufacturer test results, the project inverter-transformer stations display directivity (i.e., noise emissions that vary with direction from the source). The quietest side should be oriented towards nearby receptors.<sup>68</sup>
- The ground attenuation factor of 0.7 used in the updated NIA is not conservative. Typically, NIAs for solar projects use a ground factor of 0.5.
- Noise emissions from the tracker motors were adjusted downwards to account for intermittent operation; however, according to Rule 012, noise sources that operate during part of the daytime or nighttime period should be modelled at full power.
- After combining uncertainties in noise emissions and propagation, dBA Noise Consultants concluded that predicted cumulative sound levels in the updated NIA likely had an overall uncertainty of  $\pm 5$  A-weighted decibels (dBA).

113. The Commission notes that dBA Noise Consultants conducted an extremely thorough review of the project NIAs and associated manufacturer test reports, and provided detailed evidence about potential noise impacts from the project. The Commission understands that the scope and level of detail in the review was due to SSI updating the project equipment immediately before the start of the oral hearing. The Commission finds that dBA Noise Consultants' evidence for this proceeding contains significantly more detail than what is required to evaluate potential noise impacts from a proposed project.

114. At the application stage, the purpose of an NIA is to determine whether it is reasonable to expect that cumulative sound levels from a proposed project will comply with Rule 012. When reviewing an NIA, the Commission expects intervener noise experts to focus on major flaws or shortcomings that could influence the accuracy of conclusions with respect to compliance with Rule 012. Highly detailed evidence regarding noise emissions, modelling and/or the assessment approach that do not influence compliance with Rule 012 provide less value to the Commission.

115. However, portions of dBA Noise Consultants' evidence was helpful to the Commission's understanding of potential noise impacts and compliance with Rule 012. In the following paragraphs of this section, the Commission discusses the issues raised in dBA Noise

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<sup>66</sup> Exhibit 29712-X0213, H.25.644 V2 de Haan\_Review NIA Stettler Solar & BESS - Public document, PDF pages 37-38.

<sup>67</sup> Exhibit 29712-X0213, H.25.644 V2 de Haan\_Review NIA Stettler Solar & BESS - Public document, PDF pages 41-42.

<sup>68</sup> Exhibit 29712-X0213, H.25.644 V2 de Haan\_Review NIA Stettler Solar & BESS - Public document, PDF pages 38 and 43.

Consultants' evidence, including baseline case, manufacturer data, tonality, sound directivity, ground attenuation factor, tracker noise and uncertainties.

116. Before assessing cumulative effects from a proposed project, Rule 012 first requires an NIA to assess whether the baseline case is compliant, where the baseline case consists of noise from natural and non-industrial sources and existing, approved, and proposed energy-related facilities. The updated NIA identified one energy-related facility, the existing ATCO Stettler 769S substation, as contributing to baseline case sound levels. The Commission finds that RWDI reasonably modelled sound levels from the ATCO Stettler 769S Substation at receptors using sound power levels presented in the NIA prepared for this facility,<sup>69</sup> and accepts that the baseline case is compliant with PSLs set out in Rule 012 at all receptors.

117. Rule 012 requires an NIA to indicate whether sound data used in computer modelling is from field measurements, vendors/manufacturers, theoretical estimates or another source.<sup>70</sup> Sound power levels for a project should be determined using the best available data or methods. For this proceeding, the Commission accepts that the test data provided by the manufacturer is the best available data source for determining sound power levels from the project inverter-transformer stations, and that the process RWDI used to determine sound power levels for the project equipment is reasonable and acceptable.

118. The Commission notes that dBA Noise Consultants' concern about the adequacy and reliability concerns of the manufacturer test data are ultimately related to project compliance, which can and will be tested in a post-construction CSL survey (discussed in Section 4.9.2 of this decision).

119. With respect to tonality, dBA Noise Consultants and RWDI agreed that (i) the project inverters have tonal noise; and (ii) the ambient sound spectrum should be measured to evaluate the audibility of tonal noise from the project at a receptor. The updated NIA included a reasonable evaluation of tonality and although the project may produce tonal noise, residences are not expected to experience tonality given the presence of ambient noise. However, if the Commission receives a complaint about tonal noise from a nearby resident after the project is in operation, the Commission may require SSI to evaluate tonality for all audible frequencies and implement mitigation as may be necessary.

120. With respect to sound directivity, the Commission finds there would be little value to including source directivity in noise modelling for the project as the project design, including a specific orientation for the inverter-transformer stations, has not been finalized. Therefore, modelling the inverter-transformer stations as omnidirectional point sources is an acceptable approach for the project NIA.

121. However, the Commission requires SSI to consider sound directivity in the final project design and whenever feasible, orient inverter-transformer stations with the quiet side facing nearby receptors (in particular, dwellings that are predicted to have small compliance margins). Given the project design has not yet been finalized, the Commission imposes the following conditions of approval for the project.

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<sup>69</sup> ATCO Structures and Logistics. *Electric Stettler Substation 769S – Noise Impact Assessment*. June 17, 2011.

<sup>70</sup> Rule 012: *Noise Control*, PDF page 19.

- m. During detailed engineering and design, Stettler Solar Inc., wherever practical, shall orient inverter-transformer stations with the side emitting less noise towards the nearest receptor(s).
- n. As part of the final project update, Stettler Solar Inc. shall submit an updated noise impact assessment that incorporates the most up-to-date manufacturer data, including source directivity data, for the inverter-transformer stations. In particular, Stettler Solar Inc. shall confirm the inverter-transformer stations have been oriented to minimize noise levels at receptors or provide an explanation for why such orientation is not practical.

122. With respect to ground attenuation factor, the Commission notes that the updated NIA assumed the following ground attenuation factors for the study area:

- 0.7 for grassy areas within the project and for all land outside the project fenceline
- 0.4 for the energy storage facility area and the substation area
- 0.0 for water bodies

123. According to ISO 9613-2:2024, *Acoustics – Attenuation of sound during propagation outdoors – Part 2: Engineering method for the prediction of sound pressure levels outdoors*, if an area consists of both hard and porous ground, the appropriate ground factor for noise modelling takes on values ranging from 0 (the most reflective) to 1 (the most absorptive), with the specific value determined based on the fraction of the area that is porous. The standard also notes ground covered by grass, trees or other vegetation, and all other ground surfaces suitable for the growth of vegetation, such as farming land, should be modelled with a factor of 1.

124. The environmental evaluation for the project indicated that the project area consists of water bodies, cultivated lands, disturbed areas, native grasslands, tame pastures and wetlands, with cultivated land making up approximately 86 per cent of the project area.<sup>71</sup> As such, the Commission finds that the ground factors used in the updated NIA are reasonable because they are representative of the land cover in the project area and are consistent with ISO 9613-2.

125. With respect to noise from tracker motors, the issue is how to model sound sources that operate intermittently. Rule 012 requires that “intermittency of noise” be considered in the noise model.<sup>72</sup> Further, Rule 012 requires that “The predicted sound level for a facility operating intermittently for part of the daytime or nighttime period (e.g., solar project) is based on noise generated for the duration of the operation and must not be an average over the entire daytime or nighttime period.”<sup>73</sup> Finally, Rule 012 states that “The measured sound level for a facility operating intermittently such as wind turbines or peaking units is based on noise generated for the duration of the operation and must not be an average of the entire nighttime or daytime period.”<sup>74</sup>

126. Rule 012 requires computer models to represent facilities during periods when they are operating, and that noise from a facility that only operates intermittently should not be time-averaged across the complete daytime or nighttime period. However, the requirement to

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<sup>71</sup> Exhibit 29712-X0007, Appendix F\_SSI Environmental Evaluation, PDF page 27.

<sup>72</sup> Rule 012: *Noise Control*, PDF page 20.

<sup>73</sup> Rule 012: *Noise Control*, PDF page 22.

<sup>74</sup> Rule 012: *Noise Control*, PDF page 24.

model facilities during their operating periods does not mean that each and every source associated with a given facility needs to be modelled in continuous operation. Instead, Rule 012 allows the intermittency of individual noise sources to be accounted for in computer models. In the case of a solar power project, which may only operate during one or two hours of the nighttime period, modelling should predict noise levels and assess compliance with PSLs during the one or two hours of operation rather than time-averaging the predicted noise levels over the nine-hour nighttime period. However, the Commission acknowledges it is reasonable for modelling to account for the fact that individual tracker motors will come on and off intermittently during the operating period.

127. The updated NIA models major project noise sources (i.e., inverter-transformer stations, battery units and battery inverters) in continuous operation during the daytime and nighttime periods, but applies a conservative usage factor to the tracker motors since these sources will come on and off periodically during normal project operations. The Commission finds this approach to be reasonable and consistent with Rule 012.

128. While all noise models have some level of uncertainty, Rule 012 does not explicitly require an NIA to include uncertainty factors when assessing noise impacts. Instead, noise practitioners are required to make conservative assumptions about propagation conditions and project operations to account for the level of uncertainty inherent in predictive noise modelling.

129. The updated NIA has incorporated several conservative assumptions, including assumptions that major project sound sources (i.e., inverters, transformers and battery units) operate at full power all day and night and that all receptors are always downwind of all sound sources. As such, the Commission accepts RWDI's explanation that conservative assumptions used in the updated NIA likely account for the level of uncertainty inherent in the noise model developed for the project.

130. Overall, the Commission finds that SSI's NIA meets the requirements of Rule 012, and accepts the conclusion of the updated NIA that noise from the project will comply with Rule 012.

#### **4.9.2 Is it reasonable to conduct a post-construction noise survey for the project?**

131. Both SSPG and the County recommended SSI conduct a post-construction CSL survey to verify Rule 012 compliance, which SSI committed to do at receptors R1 and R4. RWDI recommended including one of R17 or R18 in the survey as well.

132. The nighttime cumulative sound levels are predicted to be 40.1 dBA, 38.8 dBA, 39.4 dBA and 39.1 dBA at receptors R1, R4, R17 and R18, respectively, which are equal to or very close to the nighttime PSL limit of 40 dBA. The project is also predicted to be a dominant sound source at these receptors. Although the project NIA predicts compliance with Rule 012 PSLs at all receptors, given the concerns raised by SSPG and the small compliance margins<sup>75</sup> predicted for a number of receptors, a post-construction CSL survey is useful to verify compliance with Rule 012 once the project commences operation.

133. Receptors R17 and R18 are close to each other (i.e., the distance between these two receptors is approximately 54 metres). Due to the short distance between R17 and R18, it is likely the existing acoustic environment at these two receptors is similar and that future noise

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<sup>75</sup> Compliance margin is permissible sound level minus cumulative sound level.

levels from project operations will also be similar. As such, the Commission finds there would be little value in collecting post-construction CSL data at both locations. SSI is to select one of these two receptors to include as a monitoring location for the CSL survey. The selection should consider direct exposure to noise from the project.

134. Therefore, the Commission imposes the following condition of approval for the project.

- o. Stettler Solar Inc. shall conduct a post-construction comprehensive sound level (CSL) survey, including an evaluation of low-frequency noise, at receptors R1, R4, and one of either R17 or R18. The post-construction CSL survey must be conducted under representative conditions and in accordance with Rule 012: *Noise Control*. Within one year after the project commences operations, Stettler Solar Inc. shall file a report with the Commission presenting measurements and summarizing the results of the post-construction CSL survey.

#### **4.9.3 How will Stettler Solar Inc. manage construction noise?**

135. SSPG had concerns about noise impacts from project construction. SSI committed to follow mitigation measures in Rule 012 to manage construction noise. In particular, SSI confirmed that it will limit construction to daytime hours, notify residents of significant noise-causing activities, and ensure engines are maintained with muffler systems. SSI also committed to promptly respond to noise complaints associated with project construction.

136. Regarding the project's pile design, SSI committed to use helical screw piles if they are viable and more cost effective than other viable options.<sup>76</sup> The type of piles to be used for project construction will be selected as part of detailed engineering, and that pile selection will be informed by a testing program that considers technical requirements and costs. SSI explained that helical screw piles are likely to be a viable and leading contender due to their common use in Alberta solar projects and their robust characteristics.

137. The Commission expects SSI will uphold its commitments to implement construction noise mitigation measures from Rule 012. More specifically, the Commission expects SSI to conduct noise-generating construction activities between the hours of 7 a.m. and 10 p.m. (i.e., daytime) and to promptly respond to noise complaints associated with project construction, and mitigate construction noise wherever feasible. The Commission also expects SSI to finalize the pile design for the project during detailed engineering and detail the pile type and rationale for its selection in the final project update.

## **5 Conclusion**

138. In accordance with Section 17 of the *Alberta Utilities Commission Act*, the Commission must consider whether approval of the project is in the public interest having regard to its social, economic, environmental and other effects. The Commission considers an application to be in

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<sup>76</sup> Exhibit 29712-X0201, SSI Commitment List, PDF page 12.

the public interest if it complies with existing regulatory standards, and the public benefits of the project outweigh its negative impacts.<sup>77</sup>

139. While the project is well sited in terms of mitigating or minimizing impacts such as environmental, glare and fire risks, given that the project will result in some negative impacts, the Commission must weigh these impacts against the project's overall public benefits to determine whether the project is in the public interest.

140. Based on the information submitted by SSI, the project would contribute to positive societal benefits, including emission-free electricity, approximately \$20-25 million in municipal tax revenues, construction jobs and increased demand for local businesses, and investment into the local economy through contracts for goods and services.<sup>78</sup> The project will produce 25 MW of renewable energy which is beneficial to reducing climate impacts for the province.

141. SSI also confirmed that it would set up two benefit funds: a \$200,000 shared benefit residence fund for property owners with eligible residences and a community benefit fund to contribute to local initiatives over the project's operational life.<sup>79</sup> The Commission acknowledges the County's concern that the project would only provide increased tax revenues for the County in the short term. Regardless, the Commission considers tax revenue as one of the project benefits.

142. For the reasons outlined in this decision, and subject to SSI's commitments and the conditions, the Commission finds that SSI has satisfied the requirements of Rule 007 and Rule 012, and that the negative impacts associated with the project are outweighed by the conditions and mitigations required and the expected benefits of the project. The Commission finds that the applications are in the public interest having regard to the purposes of the *Electric Utilities Act*, the *Hydro and Electric Energy Act*, and all other relevant considerations.

## 6 Decision

143. For reasons outlined in the decision, 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 Stettler Solar Inc.'s applications are in the public interest having regard to the social, economic, environmental and other effects of the project.

144. Under sections 11, 13.01(1) and 19 of the *Hydro and Electric Energy Act*, the Commission approves applications 29712-A001 and 29712-A002 and grants Stettler Solar Inc. the approval set out in Appendix 1 – Power Plant and Energy Storage Facility Approval 29712-D02-2025 to construct and operate the Stettler Solar and Storage Project power plant and energy storage facility.

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<sup>77</sup> Decision 27842-D01-2024: Aira Wind Power Inc. – Aira Solar Project and Moose Trail 1049S Substation, Proceeding 27842, Applications 27842-A001 and 27842-A002, March 21, 2024, paragraph 27; Decision 27486-D01-2023: Foothills Solar GP Inc. – Foothills Solar Project, Proceeding 27486, Applications 27486-A001 and 27486-A002, April 20, 2023, paragraph 22; Alberta Energy and Utilities Board Decision 2001-111: EPCOR Generation Inc. and EPCOR Power Development Corporation – 490-MW Coal-Fired Power Plant, Application 2001173, December 21, 2001, paragraph 22.

<sup>78</sup> Exhibit 29712-X0058, 2025-03-31 Stettler Solar - IR #2\_FINAL, PDF page 10.

<sup>79</sup> Exhibit 29712-X0058, 2025-03-31 Stettler Solar - IR #2\_FINAL, PDF page 10.

145. Under Section 18 of the *Hydro and Electric Energy Act*, the Commission approves Application 29712-A003 and grants Stettler Solar Inc. the order set out in Appendix 2 – Connection Order 29712-D03-2025 to connect the Stettler Solar and Storage Project to the ATCO Electric Ltd. distribution system.

146. The appendixes will be distributed separately.

Dated on October 27, 2025.

**Alberta Utilities Commission**

*(original signed by)*

Renée Marx  
Panel Chair

*(original signed by)*

Vincent Kostaskey  
Acting Commission Member

**Appendix A – Proceeding participants**

<b>Name of organization (abbreviation) Company name of counsel or representative</b>
<b>Stettler Solar Inc. (SSI)</b> Alice Zhang Robin Reese Dave Berrade  <b>Blake, Cassels &amp; Graydon LLP</b> Terri-Lee Oleniuk Jordan Prestie
<b>Stettler South Preservation Group (SSPG)</b> Darien Chapman Emerald Fakas Brant Stenlund Wayne and Patricia Stenlund Sarah and Clayton Rock Steven Kromm  <b>Ackroyd LLP</b> Richard Secord
<b>County of Stettler No. 6</b> Craig Teal
<b>Alberta Utilities Commission</b>  <b>Commission panel</b> Renée Marx, Panel Chair Vincent Kostaskey, Acting Commission Member  <b>Commission staff</b> Caitlin Graham, Commission counsel Alyssa Marshall, Commission counsel Joan Yu Glenn Harasym

**Appendix B – Registered appearances for oral hearing**

Name of organization (abbreviation) Name of counsel or representative	Witnesses
<b>Stettler Solar Inc.</b> Terri-Lee Oleniuk, Blake, Cassels & Graydon LLP, counsel Jordan Prestie, Blake, Cassels & Graydon LLP, counsel	<b>Corporate panel</b> Alice Zhang Robin Reese Dave Berrade  <b>Expert witnesses</b> Andy Edeburn Bryce Dawson Christopher Ollson Nick Petrakis
<b>Stettler South Preservation Group (SSPG)</b> Richard Secord, Ackroyd LLP, counsel	<b>Landowner panel</b> Darien Chapman Wayne and Patricia Stenlund Brant Stenlund Clayton Rock  <b>Expert witnesses</b> Cliff Wallis Jason Binding Marc Polivka
<b>County of Stettler No. 6</b> (Self-representative)	<b>Representative</b> Craig Teal

## Appendix C – Summary of Commission conditions of approval in the decision

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

The following are conditions of Decision 29712-D01-2025 that require subsequent filings with the Commission and will be included as conditions of Approval 29712-D02-2025:

- a. Stettler Solar Inc. shall submit an annual post-construction monitoring survey report to Alberta Environment and Protected Areas (AEPA) no later than January 31 of the year following the mortality monitoring period and submit the annual post-construction monitoring survey report and AEPA's post-construction monitoring response letter to the Commission within one month of its issuance to Stettler Solar Inc. These reports and response letters shall be subsequently filed with the same time constraints every subsequent year for which AEPA requires surveys pursuant to Section 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.
- c. Stettler Solar Inc. shall, at the time it submits the final project update, determine the minimum resting angle at which predicted yellow glare from the project would be eliminated within the 15-degree field of view for local roads and include this information in the final project update. Stettler Solar Inc. shall configure the project solar panels to use a resting angle greater than or equal to the minimum resting angle required to eliminate glare within the 15-degree field of view for local roads.
- d. Stettler Solar Inc. shall promptly address any complaints or concerns regarding glare from the project. Stettler Solar Inc. shall file a report with the Commission detailing any glare complaints/concerns during the first year of project operation, as well as Stettler Solar Inc.'s response to the complaints/concerns. In particular, the report shall specify if mitigation measures have been implemented in response to the complaint/concern. Stettler Solar Inc. shall file this report no later than 13 months after the project becomes operational.
- e. Once Stettler Solar Inc. has finalized its equipment selection for the power plant and energy storage facility, it must file a final project update with the Commission to confirm that the project has stayed within the final project update allowances for solar power plants and energy storage facilities specified in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*. The final project update must be filed at least 90 days prior to the start of construction.
- n. As part of the final project update, Stettler Solar Inc. shall submit an updated noise impact assessment that incorporates the most up-to-date manufacturer data, including source directivity data, for the inverter-transformer stations. In particular, Stettler Solar Inc. shall confirm the inverter-transformer stations have been oriented to minimize noise levels at receptors or provide an explanation for why such orientation is not practical.

- o. Stettler Solar Inc. shall conduct a post-construction comprehensive sound level (CSL) survey, including an evaluation of low-frequency noise, at receptors R1, R4, and one of either R17 or R18. The post-construction CSL survey must be conducted under representative conditions and in accordance with Rule 012: *Noise Control*. Within one year after the project commences operations, Stettler Solar Inc. shall file a report with the Commission presenting measurements and summarizing the results of the post-construction CSL survey.

The following are conditions of Decision 29712-D01-2025 that may or may not require subsequent filings with the Commission:

- b. Stettler Solar Inc. shall promptly respond to any concerns or complaints from the County of Stettler No. 6 or drivers on county roads about visual impacts from the project. Through the development permit process, Stettler Solar Inc. shall work with the County to develop a practical visual screening plan, considering other factors or impacts related to the project, such as impacts to energy capacity, fire risk, additional vegetation management, weed and erosion control, and agricultural activities at the site. Stettler Solar Inc. shall implement the visual screening plan developed with the County.
- f. Stettler Solar Inc. shall use lithium iron phosphate batteries for the energy storage facility. If an alternate battery chemistry is selected, the final project update submitted by Stettler Solar Inc. shall include specifications such as the cell combustion phase duration and peak temperature, along with confirmation the alternate chemistry possesses better thermal stability than lithium iron phosphate. Stettler Solar Inc. cannot proceed with construction of the energy storage facility until it receives written approval from the Commission.
- g. Stettler Solar Inc. shall install a remote monitoring and detection system that can be programmed to automatically notify emergency response providers, including the local fire station, immediately upon activation.
- h. Stettler Solar Inc. shall implement ongoing upgrades to improve the safety of the project energy storage facility, including but not limited to firmware and software enhancements, monitoring capability enhancement, process changes and safety standards as they are developed.
- i. Before the project commences operation, Stettler Solar Inc. shall include roadblocks as a mitigation option and develop and outline emergency notification protocols within the project-specific emergency response plan. In particular, Stettler Solar Inc. shall consult with the local fire departments and subject matter experts about the need for roadblocks and automatic shelter-in-place notification for nearby residents and implement these if instructed to do so by the local fire departments.
- j. When requested by local fire departments, Stettler Solar Inc. shall provide on-site training to local emergency responders.
- k. Stettler Solar Inc. shall continually, before and during construction and during operation, review and update the project-specific emergency response plan, and incorporate reasonable changes necessary to address concerns raised by the County of Stettler No. 6

and local fire departments, and other interested stakeholders such as local landowners. All consultation and decisions related to the emergency response plan must take into account the latest recommendations from the manufacturer's emergency response guide. The updated plans must be provided to the County of Stettler No. 6 and local fire departments.

- l. Stettler Solar Inc. must provide security to the Government of Alberta in accordance with the *Code of Practice for Solar and Wind Renewable Energy Operations* and otherwise comply with all conditions and terms of Stettler Solar Inc.'s registration with respect to the Stettler Solar and Storage Project.
- m. During detailed engineering and design, Stettler Solar Inc., wherever practical, shall orient inverter-transformer stations with the side emitting less noise towards the nearest receptor(s).