AUC
Alberta Utilities Commission

Saamis Solar Park Limited

Saamis Solar Park

July 18, 2024

Alberta Utilities Commission
Decision 27788-D01-2024
Saamis Solar Park Limited
Saamis Solar Park
Proceeding 27788
Applications 27788-A001 and 27788-A002

July 18, 2024

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1 Decision summary

1. In this decision, the Alberta Utilities Commission approves applications from Saamis Solar Park Limited (SSPL) to construct and operate the Saamis Solar Park, subject to certain conditions of approval. The project consists of a 325-megawatt (MW) solar power plant and the Grian 1056S Substation.

2. Journey Energy Inc., the Medicine Hat Concerned Citizens Group (MHCC), the Medicine Hat Land Developers Group (MHLD), and a number of other individual parties objected to the project. The Commission has weighed those concerns against the benefits of the project and various mitigative measures proposed by SSPL. The Commission's findings on why approval of the project is in the public interest are set out in detail in the decision. These findings include:

a. The Commission supports the siting of the project on brownfield lands and on lands identified by the City of Medicine Hat for development. Although a portion of the project is sited on native grassland, these lands have been identified by the City of Medicine Hat for industrial, commercial or residential development. Having considered these factors, along with the proposed mitigations and commitments by SSPL, the Commission is satisfied that the environmental impacts of the project will be adequately mitigated.

b. Interveners were concerned about the project's impacts to their existing operations and future development. The Commission acknowledged the potential for the project to impede Journey's emergency response measures and its supervisory control and data acquisition (SCADA) system and imposed conditions to mitigate those impacts. Journey and MHLD expressed concerns that the project will negatively affect their future development plans in the project area. The Commission was not persuaded that the project will adversely impact the future development potential of either party – future development of Journey's facilities will likely use horizontal drilling techniques from existing surface locations and the City of Medicine Hat considered future residential development when issuing the project's development permit.

c. The project's other impacts have been adequately mitigated. In particular, the Commission is satisfied with SSPL's commitment to further investigate the optimum resting angle to reduce glare from the project. The project's noise impact assessment meets the requirements of Rule 012: *Noise Control* and the project will be compliant with the permissible sound levels set out in Rule 012 at all receptors.

d. In relation to end-of-life management, SSPL committed to further investigate the timing and form of reclamation security. The Commission has directed SSPL to submit, as a condition of approval, a reclamation security plan with the Commission for review and approval.

e. The Commission understands that the project will result in economic and social benefits to the Medicine Hat area, including the generation of renewable electricity, creation of jobs, and revenue for Medicine Hat.

3. After considering the record of the proceeding, and for the reasons outlined in this decision, the Commission finds that approval of the project, as conditioned, is in the public interest having regard to the social, economic and other effects of the project, including its effect on the environment.

2 Introduction

2.1 SSPL's applications

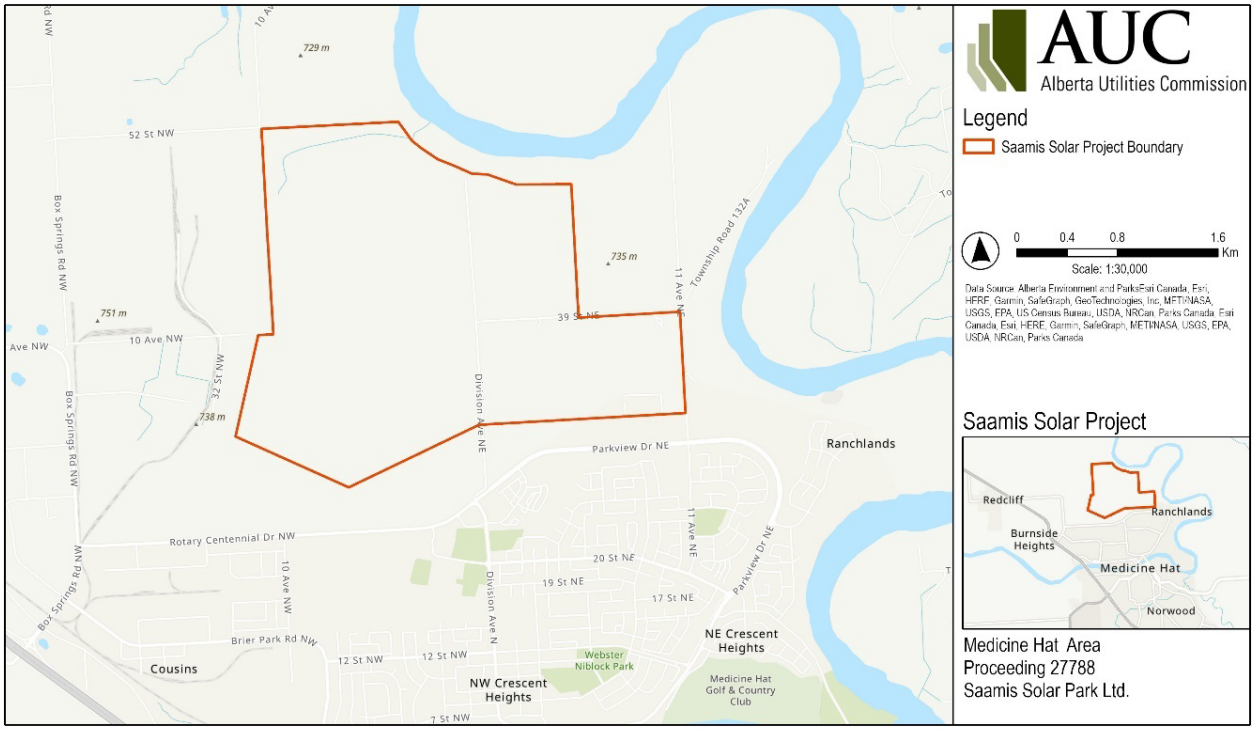
4. SSPL filed applications with the AUC for approval to construct and operate a 325-MW solar power plant and substation in the city of Medicine Hat, pursuant to sections 11, 14 and 15 of the *Hydro and Electric Energy Act*. These applications were registered on November 24, 2022, as applications 27788-A001 and 27788-A002.

5. The project is sited on approximately 662 hectares of private land within the urban limits of the city of Medicine Hat, as pictured in Figure 1 below. SSPL anticipated beginning construction before the end of 2024 and is targeting an in-service date of August 2026.[1]

6. SSPL stated that the project will result in numerous economic and social benefits. The project will generate municipal tax revenue and landowner revenue, and create jobs. The project will also generate a significant amount of renewable electricity, displacing generation from fossil fuels and contributing to the province's emission reduction goals. SSPL submitted that the project is sited efficiently as it uses a combination of brownfield land and lands zoned for future development including industrial, commercial and residential development. The project has received a development permit from the City of Medicine Hat (the City).

[1] Transcript, Volume 2, page 40, lines 11 to 18.

Figure 1. Project location



7. The power plant will consist of approximately 320,000 fixed-tilt solar panels and 310,000 single-axis solar panels, each with a power rating of 660 watts, a single-axis tracking system, 220 inverter/transformer units, a collector system, various fences, including a perimeter fence and internal access roads. The Grian 1056S Substation will be located in the southeast quarter of Section 13, Township 13, Range 6, west of the Fourth Meridian, and will consist of two 34.5/24 kilovolt (kV), 210-megavolt ampere transformers, three 240-kV circuit breakers, and associated substation equipment. The power plant will connect to the Grian substation by way of underground and above-ground collector cables.[2] SSPL plans to apply for the transmission line interconnection at a later date.

8. Because a portion of the project is sited on a capped phosphogypsum stack, as further described below, fixed-tilt solar panels will be used on the stack. These will be held in place by concrete ballast footings and direct current (DC) and alternating current (AC) electrical cabling will be located above ground. No excavation will occur within the stack area so as not to disturb the integrity of the phosphogypsum stack. The rest of the project site will use single-axis tracking panels held in place with driven piles. All infrastructure that requires excavation, such as the substation and control building, will be located outside of the phosphogypsum stack area.[3]

9. The Commission issued a notice of applications and granted standing to Journey, an oil and gas corporation with active operations in the project area; the MHCC, a group of landowners with primarily environmental concerns about the project; the MHLD, a group of property

[2] Exhibit 27788-X0019, appK_rpt_saamis_solar_cnr_20221123_fin, PDF page 9.
[3] Exhibit 27788-X0036, SSPL Response to IR Round 1, PDF page 13.

developers and individuals with concerns about the project's impacts to the future development of their land; and the following individual parties:

- Richard Humphries
- Justyna Kolodziej
- Daniel Maier
- C. Wickenheiser
- Rhonda Burry
- Eveleen Bute
- Gwendolyn and Ronald Bowerman

10. In June 2023, the Commission suspended the proceeding to allow SSPL to assess a newly identified ferruginous hawk nest within the project area. In July 2023, SSPL submitted an update for the project including mitigation measures and new proposed setbacks.[4] The Commission held a virtual hearing on April 9, 11, 12 and 16, 2024.

11. In the following sections of this decision, the Commission provides its findings on the applications. The Commission begins with a discussion of the legislative and evidentiary frameworks that guide its decision-making. The Commission then discusses specific concerns and factors that it has considered. These are the project's impacts on the environment, potential interference with the existing operations of Journey, including its impacts to Journey's safety and emergency response, the project's impacts to future development by Journey and MHLD, and other issues such as glare and noise impacts, reclamation security, and adequacy of the participant involvement program.

3 Legislative and evidentiary framework

3.1 The role of the Commission

12. When the Commission receives an application to construct and operate a power plant and substation, 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 give consideration to whether the proposed project is in the public interest, having regard to the social and economic effects of the project and its effects on the environment.

13. As a starting point, power plant and substation applications filed with the Commission must comply with Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines* and Rule 012: *Noise Control*. These rules provide a detailed set of requirements designed to produce a complete application that includes information required to allow the Commission to assess a project's impact on people, the economy and the environment.

14. The Commission must also take into consideration 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 electricity facilities and infrastructure, including power plants, considering the public interest, and set out a framework for a competitive

[4] Exhibit 27788-X0209, 2023-07-20 - LT AUC re application update - covering letter.

generation market. Decisions about whether and where to generate electricity are left to the private sector.

15. 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 subsurface rights holders.

16. The Commission has indicated in previous decisions that while the Commission's approval prevails over a municipality's planning decisions, the Commission will still consider the municipality's planning and land use decisions in assessing whether a project is in the public interest.[5] 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 Generations Approvals Pause Regulation

17. These applications were subject to the approvals pause mandated by the *Generation Approvals Pause Regulation*. While the pause was in effect, the Commission conducted an inquiry (the Module A inquiry) into several land use impact issues in accordance with Order-in-Council 171/2023. The issues considered in the Module A inquiry included: reclamation security for power plants, the impact of the development of power plants on specific types or classes of agricultural or environmental land, provincial Crown land and Alberta's pristine viewscapes. The Commission provided its report on the Module A inquiry (Module A report) to the Minister of Affordability and Utilities on January 31, 2024, and the report was publicly released on March 13, 2024.

18. On February 28, 2024, before the pause expired, the Government of Alberta signalled its intent to develop policy and legislative tools related to some topics in the Module A report. The Commission issued a bulletin confirming that each power plant application affected by the pause will be considered on its individual merits, and the Commission will assess each application to determine whether further process was required. The Commission determined that in this proceeding, the evidentiary record that was developed was sufficient, and no further process was needed.

4 Discussion and findings

19. The Commission has reviewed the applications and has determined that the information requirements specified in Rule 007 have been met. Additionally, the Commission finds that SSPL's participant involvement program satisfies the requirements of Rule 007.

[5] Decision 21973-D01-2017: Alberta Electric System Operator and AltaLink Management Ltd. – Chestermere 419S Substation and Balzac 391S Substation Modification Needs Identification Document Application and Chestermere 419S Substation and Interconnection Facility Application, Proceeding 21973, Applications 21973-A001 to 21973-A005, May 26, 2017, paragraph 131.

20. The Commission considers the Saamis Solar Park, which consists of a power plant and the Grian 1056S Substation, to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*, subject to the conditions described below. The Commission's approval of the applications is also premised on its understanding that commitments made by SSPL[6] are binding and will be treated as such.

21. In the following sections, the Commission considers the project's impacts to the environment, the current operations of Journey, the future development plans of Journey and MHLD, the project's glare and noise impacts, and SSPL's reclamation security program.

4.1 Siting

22. The project is sited on approximately 662 hectares of private land within the city limits of Medicine Hat. Specifically, it is located within portions of sections 11, 12 and 13 of Township 13, Range 6, west of the Fourth Meridian, as well as sections 7 and 18 of Township 13, Range 5, west of the Fourth Meridian.

23. During this proceeding, parties agreed that the area has significant pre-existing disturbances impacting some of the project lands. Located within sections 11, 12 and 13 of Township 13, Range 6, west of the Fourth Meridian, is a capped phosphogypsum stack, which is a sealed area under which the byproducts of fertilizer production have been buried. In addition, the project lands host a number of oil and gas facilities. In particular, the north half of Section 7 of Township 13, Range 5, west of the Fourth Meridian houses a pipeline corridor, an oil battery site and other associated surface infrastructure for oil and gas activities.

24. Within the Medicine Hat Master Plan, most of the project lands are in the "North Employment Sector," with the northeast quarter of Section 7 being within the "North Residential Sector."[7] The lands within the "North Employment Sector" are identified as being used for either heavy industrial or light/medium industrial. Various land uses surround the project. To the west, southwest and northwest, there are a number of heavy industrial uses, including the Medicine Hat industrial park. To the south, there is residential development, and to the east there are predominantly agricultural lands, including a portion of the South Saskatchewan River.

25. SSPL has received a development permit from the City for the project. To ensure the project aligns with the City's long-term development strategy, the City imposed a 40-year time limit from commercial operation on SSPL's use of the northeast quarter of Section 7 for the project. The intent being that after 40 years, the project lands in this quarter section are available for future development.

26. The Commission considers the siting of the project to be a key reason for its approval. The Commission notes that part of the project is sited on brownfield land (the phosphogypsum stack) which presents significant limitations for development due to its previous uses. To this end, most parties considered that portion of the proposed solar facility to be an acceptable use of otherwise vacant, brownfield land. Another portion of the project is sited on lands with significant oil and gas infrastructure and identified for future development by the City.

[6] Exhibit 27788-X0330, Bettles UT Response #8, Attachment 1.
[7] Exhibit 27788-X0225, Schedule "C" the City of Medicine Hat's "myMH – Medicine Hat Master Plan," PDF page 19.

27. The Commission considers the City's issuance of a development permit indicative that the project aligns with the City's land use plans in the area. This is further supported by the City's stipulation of a 40-year time limit for the project on the northeast quarter of Section 7, which indicates the City considered future use in its approval process.

28. Lastly, the project is sited within municipal boundaries and close to other developments including residential, industrial and transmission infrastructure. In the Commission's view, siting the project within a municipal area, on lands with some previous disturbance, adjacent to other developments, and identified for future development, are sound siting factors that favour this location.

4.2 Environment

29. This section first provides an overview of the project's environmental effects. It discusses siting of the project on some native grassland. Then, it discusses the distance of the project to the South Saskatchewan River, the encroachment of the project on a ferruginous hawk nest buffer, and the potential of the project to adversely impact pronghorn. Finally, it examines issues related to the siting of the project on a historically contaminated site.

30. Throughout the proceeding, parties differentiated the project into two areas, the western project lands dominated by the phosphogypsum stack and the eastern project lands. Not all parties used the same dividing point between the eastern and western project lands; however, for ease of reference the Commission will use the "eastern project lands" to refer to all areas east of the phosphogypsum stack and the "western project lands" to refer to the phosphogypsum stack area. Parties generally agreed the phosphogypsum stack and the eastern project lands had different issues associated with them and are therefore referenced as two distinct areas in the following sections.

4.2.1 Is the project within an urban area and how does the Wildlife Directive for Alberta Solar Energy Projects apply?

31. SSPL retained Stantec Consulting Ltd. to prepare an environmental evaluation, environmental protection plan, and initial conservation and reclamation plan for the project.[8] These outlined the existing environmental conditions of the project area, the proposed mitigations for reducing environmental impacts, and the initial plans for decommissioning. The environmental evaluation concluded that no significant environmental impacts will occur because of the project.

32. SSPL's environmental conclusions focused on the project's location within the city limits of Medicine Hat, adjacent to residential areas to the south as well as industrial facilities to the west.[9] SSPL contacted Alberta Environment and Protected Areas (AEPA) in preparing its environmental reports and AEPA provided a letter confirming that a referral report was not required for the project. AEPA directly stated in the letter:

> [AEPA] encourages the siting of solar projects within urban limits because urban solar projects typically have limited impact to wildlife and wildlife habitat, they reduce the

[8] Exhibit 27788-X0015, appI_rpt_saamis_solar_environmental evaluation_20221123_fin; Exhibit 27788-X0016, appJ_rpt_saamis_solar_epp_20221123_fin; and Exhibit 27788-X0019, appK_rpt_saamis_solar_cnr_20221123_fin.

[9] Exhibit 27788-X0337, MHCC Written Final Argument (2024-04-30), PDF page 39.

> requirements for transmission infrastructure, and they reduce the development pressure in locations with higher quality wildlife habitat.[10]

33. The *Wildlife Directive for Alberta Solar Energy Projects* (the Wildlife Directive) defines an urban area as:

> [a]ny location within the municipal boundaries of cities, towns and villages where subdivision development exists within 800 [metres] of the proposed facility.[11]

34. MHCC retained Cottonwood Consultants Ltd. to assess Stantec's environmental conclusions. Cottonwood suggested that the project did not follow the Wildlife Directive[12] recommendations. Specifically, Cottonwood stated:

- The project lands do not meet the definitions of an urban area as outlined in the Wildlife Directive because they are more than 800 metres from the edge of the nearest development.
- Stantec had misclassified the eastern project lands as tame pasture, when they were native grassland, and native grasslands are to be avoided.
- The project does not adhere to the Wildlife Directive's recommended 100-metre setback for valley breaks.
- The project encroaches on the Wildlife Directive's recommended 1,000-metre setback for a ferruginous hawk nest.
- The project may impact pronghorn populations.

35. Since not all of the project area met the definition of an urban area in Cottonwood's opinion, MHCC suggested the Wildlife Directive should be adhered to as much as possible. MHCC argued that the lands furthest from the developed areas still function as wildlife habitat and should therefore be protected by rigorously applying the standards outlined in the directive.

36. In response to MHCC's concerns, SSPL indicated it applied the definition of an urban area to the project as a whole, not individual pieces of project infrastructure, therefore it meets the definition of an urban area as defined by the Wildlife Directive. SSPL maintained that the project as sited is consistent with the Wildlife Directive because important wildlife habitat will not be present given the proximity to development.[13]

37. In this case, the Commission accepts AEPA's determination that a referral report was not required as the project is located within (or in) an urban area. However, AEPA did recommend that SSPL implement the standards and best management practices outlined in the Wildlife Directive as much as possible during construction and operation of the project to reduce

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10 Exhibit 27788-X0020, appM_AEP-WM Letter_Medicine Hat Solar_DP Energy_Urban area_2019-10-25.
11 Government of Alberta. 2017. Wildlife Directive for Alberta Solar Energy Projects. AEP Fish and Wildlife 2017 No. 5, PDF page 25.
12 *Wildlife Directive for Alberta Solar Energy Projects*, Alberta Environmental and Parks, effective October 4, 2017.
13 Exhibit 27788-X0338, SSPL - Reply Argument, PDF page 22.

the impact to any wildlife or habitat on site or in the immediate area. The Commission agrees with this recommendation.

38. While the Commission generally considers that projects sited within urban areas should be encouraged, the Commission recognizes that important wildlife habitat can occur within the boundaries of a municipality, and that environmental effects within urban areas should be considered. In this regard, the standards, recommendations, and techniques contemplated in the Wildlife Directive reflect current best practices in environmental management and can be applied to minimize effects to wildlife and wildlife habitat within an urban area. As a result, in the following sections, the Commission has considered the best practices in the Wildlife Directive, while also recognizing the environmental benefits associated with the project's siting in an area identified for future development.

39. AEPA requested that post-construction monitoring occur for the project.[14] Therefore, the Commission imposes the following condition of approval for the power plant:

a. SSPL shall submit an annual post-construction monitoring survey report to Alberta Environment and Protected Areas beginning no later than January 31 of the year following the mortality monitoring period and submit the annual post-construction monitoring survey report and the Alberta Environment and Protected Areas' post-construction monitoring response letter to the Commission within one month of its issuance to SSPL. These reports and response letters shall be subsequently filed with the same time constraints every subsequent year for which Alberta Environment and Protected Areas requires surveys pursuant to subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.

4.2.2 Is there native grassland in the project area? What are its characteristics and are the anticipated impacts acceptable?

40. In the environmental evaluation, SSPL originally submitted that the land cover for all project lands was tame pasture.[15] MHCC contested this land cover classification and provided quantitative vegetation surveys mapping most of the eastern project lands as native grassland.[16]

41. Standard 100.1.1 of the Wildlife Directive states that "[g]enerally, solar energy project[s] should not be sited in areas of native grasslands…" and defines native grasslands as "[a]n area of prairie in which natural vegetation consist primarily of perennial grasses [and] native species composition [is] greater than 30%."[17] MHCC opined that the negative adverse impacts to these habitats and their associated species outweighed the project's potential benefits to the public and recommended denying the project components sited on the eastern project lands.

42. MHCC identified errors SSPL had made in initially classifying all eastern project lands as tame pasture. However, when SSPL submitted additional mapping in response, it suggested that MHCC's mapping of the eastern project lands did not capture the fragmented nature of these

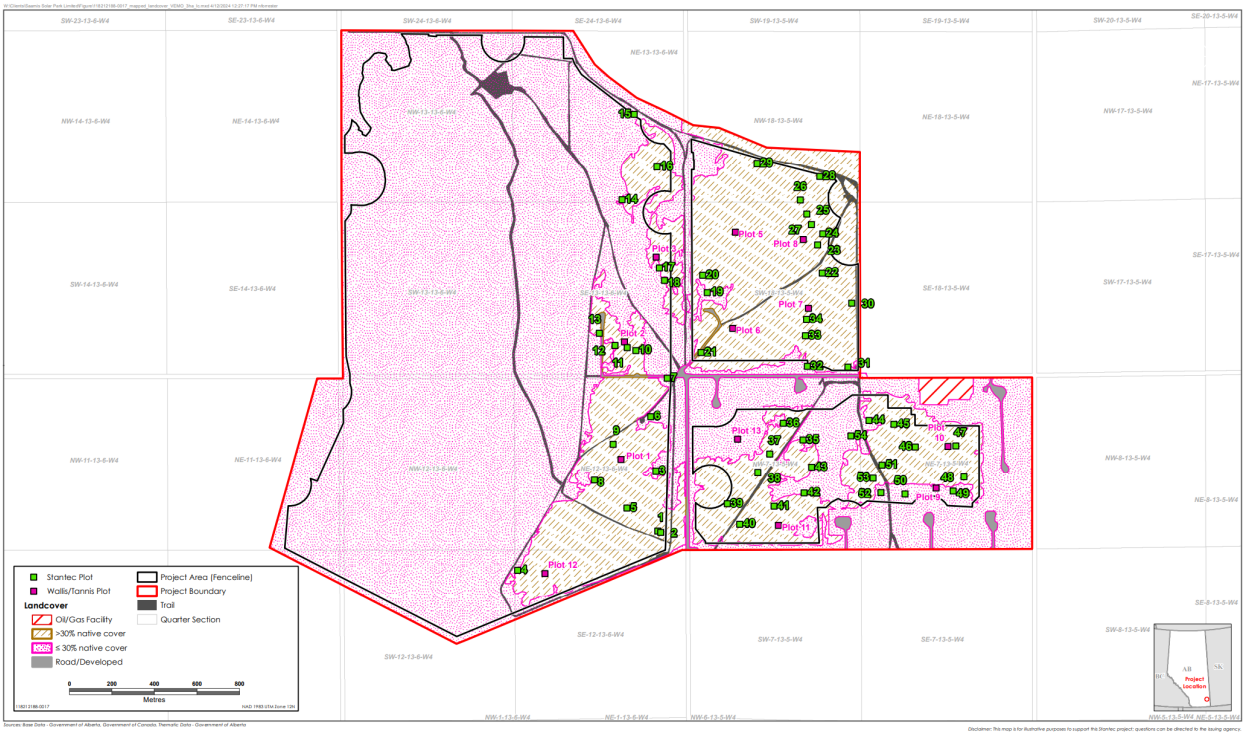
[14] Exhibit 27788-X0020, appM_AEP-WM Letter_Medicine Hat Solar_DP Energy_Urban area_2019-10-25, PDF page 1.
[15] Exhibit 27788-X0015, appI_rpt_saamis_solar_environmental evaluation_20221123_fin, PDF page 36.
[16] Exhibit 27788-X0176, Appendix E SaamiseevidenceofCottonwoodfinal2023May23withTannasReport, PDF pages 104 to 124.
[17] *Wildlife Directive for Alberta Solar Energy Projects*, Alberta Environment and Parks, effective October 4, 2017.

native grasslands. In SSPL's view, the areas of greater than 30 per cent native species cover in the project area are highly fragmented by previous disturbance from agricultural and industrial activity. Fragmentation reduces the ecological value of the native grass cover and the species that use it and make the habitats more susceptible to future decay.

43. MHCC challenged SSPL's assertions of fragmentation and pointed to standard practices for vegetation assessments outlined in the Grassland Vegetation Inventory (GVI) Specifications, which require a minimum polygon size of three hectares when conducting vegetation mapping.[18] These standard practices essentially state that if an area is less than three hectares in size, it is too small to be mapped as a distinct habitat area and should instead be classified the same as the habitat that surrounds it. MHCC suggested that SSPL's reliance on smaller than standard polygons contributed to an artificially fragmented view of the project lands.

44. In response to a request from the Commission, Stantec removed polygons that were smaller than three hectares. This updated mapping showed land cover classifications and delineations that were overall similar to MHCC's land cover mapping.[19] With updated mapping, both parties show that eastern project lands contain large portions of native grasslands (see Figure 2).

Figure 2. Mapping of native grassland within the project area[20]



[18] Exhibit 27788-X0337, MHCC Written Final Argument (2024-04-30), PDF pages 9 to 17.
[19] Exhibit 27788-X0315, De Carlo UT Response #2, Attachment 1 and Exhibit 27788-X0176, Appendix E SaamiseevidenceofCottonwoodfinal2023May23withTannasReport, PDF page 108.
[20] Exhibit 27788-X0315, De Carlo UT Response #2, Attachment 1.

45. While SSPL eventually conceded that much of the eastern project lands are native grassland, SSPL challenged the quality of the native grasslands stating that, in addition to being fragmented by historical and existing human disturbances, the lands had low species diversity.[21] In response, MHCC suggested that range health is not a criterion for determining whether the lands should be avoided under the Wildlife Directive. Additionally, MHCC pointed to species that have been historically recorded in the project area, including species of management concern and species at risk detected by SSPL.[22]

46. The Commission agrees with MHCC's position in this regard. AEPA requires that only 30 per cent of vegetative species be native species to qualify as native grasslands. This means grasslands can be considered native even with a high degree of degraded health. However, given the likelihood for future development of these native grasslands (see Section 4.3), the project's location within an urban area, and that the City has approved the project's location by issuing a development permit, the Commission accepts the siting of the project in this case.

47. While the Commission understands that these native grasslands will no longer function in the same manner as they currently do, the Commission expects SSPL to update the environmental protection plan to provide appropriate protections that would have been included had the lands been correctly classified in SSPL's application. The Commission therefore imposes the following condition:

b. SSPL shall update its environmental protection plan to reflect the reclassification of these lands as native grassland. This includes the modification or addition of mitigations that aim to protect soils, vegetation, and wildlife associated to construction and operation in native grassland areas, including commitments made to adherence of the Environment and Climate Change Canada (ECCC) B3 nesting period (April 21 to August 13) in information request responses.[23] SSPL shall submit this update as part of its final project update.

48. It is the applicant's responsibility to provide accurate and transparent evidence for the Commission to consider when assessing the public interest. The Commission views the misclassification of native grasslands by Stantec, SSPL's consultant, as a significant error in this proceeding, especially given the sensitivity of this habitat and its association to species at risk. Additionally, if native land cover is disturbed in a material way, then the Commission expects experts to provide adequate and correct information using Alberta's most relevant recommended methods.

4.2.3 Is the proposed South Saskatchewan River setback reasonable?

49. The project is located immediately south of the South Saskatchewan River. Standard 100.1.7 of the Wildlife Directive recommends projects adhere to a 100-metre setback from the top of a valley break[24] for large permanent watercourses.[25] The project has several areas

[21] Exhibit 27788-X0248, Tab 4 - Report of Nick de Carlo, PBiol.
[22] Exhibit 27788-X0337, MHCC Written Final Argument (2024-04-30), PDF pages 19 to 26.
[23] Exhibit 27788-X0036, SSPL Response to IR Round 1, PDF page 5.
[24] The point where change in slope of the ground demarks uplands from the [slopes] dropping into a valley bottom, which includes watercourses and coulees.
[25] *Wildlife Directive for Alberta Solar Energy Projects*, Alberta Environment and Parks, effective October 4, 2017, PDF pages 7, 22 and 25.

that encroach on the 100-metre setback (see Figure 3), the largest of which maintains a 70-metre setback.

50. SSPL opined that since the project is in an urban area, SSPL was only required to follow the requirements set in the City's development permit since a referral report was not required. Additionally, SSPL submitted that the project avoids the "environmental sensitive areas" described in the Medicine Hat Development Plan and meets the 30-metre setback prescribed in the Tri-Area Intermunicipal Development Plan.[26]

Figure 3. Distance to valley break from the project [27]

51. In consideration of the Wildlife Directive's river setbacks and its intention to protect wildlife, SSPL indicated that while the project is in an area known for high snake activity, SSPL recorded no snake hibernacula during wildlife surveys. However, due to the potential for snake encounters, SSPL provided a snake mitigation plan to limit the potential risks to snakes from the project.[28]

52. Given the project meets the 100-metre setback for a majority of the alignment, the proposed mitigations, the project's location within an urban area, and the City's issuance of a development permit, the Commission accepts the project's limited encroachment into the Wildlife Directive's recommended 100-metre setback.

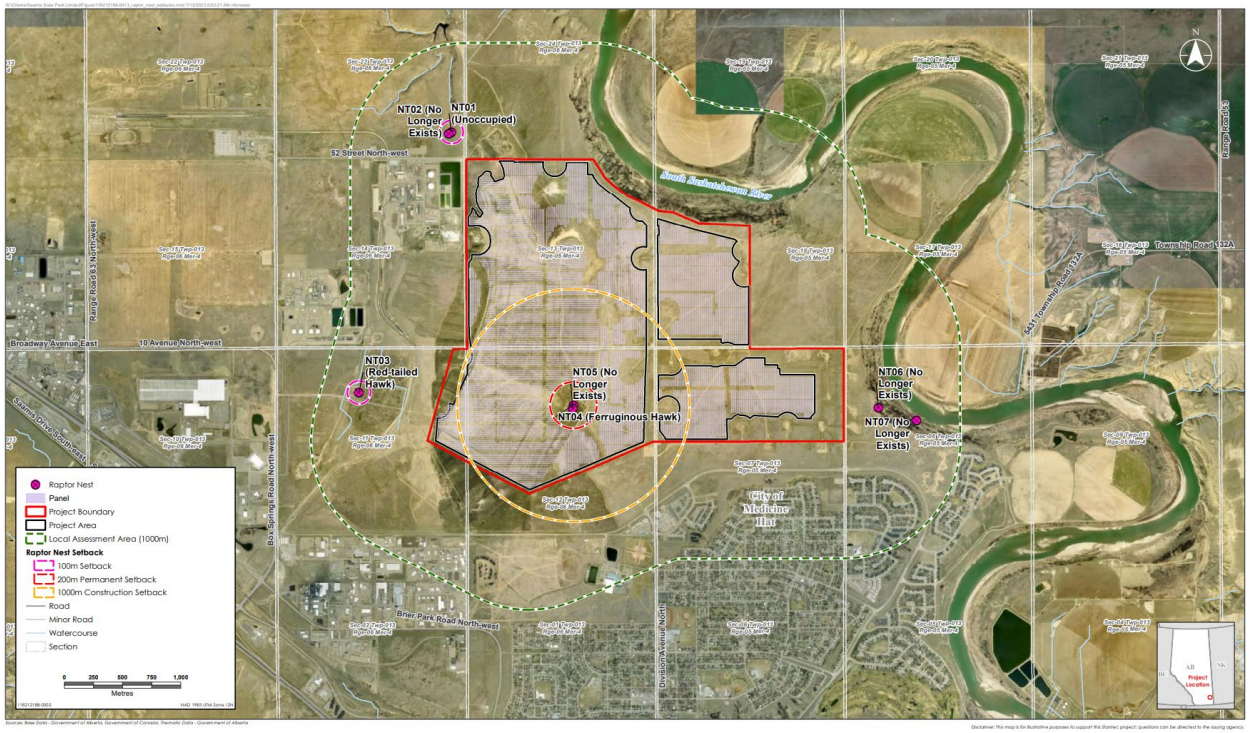
[26] Exhibit 27788-X0036, SSPL Response to IR Round 1, PDF page 7.
[27] Exhibit 27788-X0036, SSPL Response to IR Round 1, PDF page 34.
[28] Exhibit 27788-X0016, appJ_rpt_saamis_solar_epp_20221123_fin, PDF pages 22 and 31.

4.2.4 Is the proposed setback for the ferruginous hawk acceptable?

53. While updating wildlife surveys, SSPL discovered a ferruginous hawk occupying a historical Swainson's hawk nest. The Wildlife Directive recommends a 1,000-metre setback for ferruginous hawk nests; however, SSPL maintained its view that the setback does not apply as the project is sited within an urban area.

54. Instead, SSPL proposed a 200-metre setback (see Figure 4), based on the distance at which the ferruginous hawk showed defensive behaviour. In addition, SSPL committed to implementing a ferruginous hawk mitigation and monitoring plan, which included avoiding the 200-metre setback year-round, avoiding construction in the 1,000-metre setback during raptor breeding periods, and including the ferruginous hawk nest in post-construction monitoring and reporting. These mitigations will be in effect unless a different species nests there in subsequent years.[29]

Figure 4. Proposed 200-metre ferruginous hawk setback and 1,000-metre Wildlife Directive setback[30]



55. MHCC raised concerns with SSPL not adhering to the setback. MHCC stated that the 200-metre setback only accounted for direct disturbance of the ferruginous hawks but did not account for the availability of foraging habitat provided by the native grassland in close proximity to the nest. MHCC recommended adhering to the 1,000-metre setback and noted that avoidance of native grassland in the project area would generally align with avoidance of the 1,000-metre setback.[31] The Commission finds MHCC's concerns reasonable.

[29] Exhibit 27788-X0210, Attachment 1 - Memorandum re Raptor Nest Mitigation and Monitoring Plan, (July 18, 2023).

[30] Exhibit 27788-X0210, Attachment 1 - Memorandum re Raptor Nest Mitigation and Monitoring Plan (July 18, 2023), PDF page 8.

[31] Exhibit 27788-X0234, SaamisupdateevidenceofCottonwood2023December12final, PDF page 6.

56. The Commission must weigh the benefits of the project's siting within an urban area and partly on brownfield land, against the potential impacts of encroaching on the ferruginous hawk setback. Generally, the Commission expects parties to adhere to the standards and best management practices in the Wildlife Directive. However, the Commission finds that SSPL's approach reasonably reduces the potential for direct harm to the ferruginous hawk nesting in the project boundary in this case.

57. The Commission expects SSPL to strictly adhere to the mitigations and monitoring commitments, especially as they relate to construction periods when breeding ferruginous hawks and their offspring are present.

4.2.5 How will the project affect pronghorn?

58. MHCC submitted studies and historical records showing that the project is in a location where pronghorn have historically been observed, but it is likely not within a pronghorn migration corridor or major wintering area. Pronghorn are listed as sensitive in Alberta,[32] and MHCC raised concerns that constructing two-metre or higher chain-link fences around the project area may create impacts to pronghorn by altering typical movement patterns or restricting access to native grasslands. Based on these impacts, MHCC recommended denying the portions of project sited on native grassland and recommended a cumulative effects study be conducted to better understand pronghorn impacts in Alberta.[33]

59. SSPL opined that MHCC's pronghorn evidence was indirect or dated,[34] and that pronghorn are unlikely to be in the project area. SSPL based its opinion on a lack of historical records in the Alberta Fisheries and Wildlife Internet Mapping Tool (FWIMT), no pronghorn signs or recorded sightings during the 2018 to 2020 field surveys, the project's distance from migratory corridors or wintering areas, the steep, unstable slopes that surround the project, and the proximity of the project area to residential and commercial development.[35] During questioning, SSPL's expert witness, Nick De Carlo, acknowledged that a lack of historical records in the FWIMT does not indicate the absence of a species in the area, only that it has not been seen and recorded by a qualified biologist.[36]

60. Based on the evidence submitted, the Commission accepts that the chain-link fences are likely to create a barrier to pronghorn, but the project area is not a migration corridor or major wintering area for pronghorn, though pronghorn likely use the project area on occasion.

61. However, this project area is slated for development by the City. If the power plant is not approved, other development is expected to occur which could have similar or higher land use impacts. Due to the limited direct risk of mortality, the low number of pronghorn likely to be indirectly impacted, and the project's location within an urban area, the Commission finds that the beneficial aspects of the project's siting outweigh the limited risk to pronghorn.

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32 "Sensitive" denotes any species that is not as risk of extinction or extirpation but may require special attention or protection to prevent it from becoming at risk. (Government of Alberta, General Wildlife Status Designations and Definitions.)

33 Exhibit 27788-X0176, Appendix E SaamiseevidenceofCottonwoodfinal2023May23withTannasReport, PDF pages 27 to 45.

34 Exhibit 27788-X0338, SSPL - Reply Argument, PDF page 28.

35 Exhibit 27788-X0248, Tab 4 - Report of Nick de Carlo, PBiol, PDF pages 9 and 10.

36 Transcript Volume 2, page 223, lines 17 to 25; page 224, lines 1 to 8.

4.2.6 What are the environmental risks of construction on a phosphogypsum stack?

62. The western project lands are located in an area historically utilized in phosphate fertilizer production processes. The byproduct, phosphogypsum, has been buried and capped and the surface revegetated. Due to the nature of the phosphogypsum stack, controls are in place to manage risks to human and environmental receptors for air quality, radionuclides, soil quality, groundwater, surface water and ecological receptors.[37]

63. The phosphogypsum stack has been reclaimed. As part of the reclamation and approval process, a 330-millimetre compacted clay barrier and 370-millimetre soil layer were installed to control contaminants. The phosphogypsum stack is subject to ongoing conditions outlined in the *Environmental Protection and Enhancement Act* approval, including the production and implementation of a risk management plan, environmental monitoring, and annual reporting to AEPA.

64. The Commission issued information requests requesting further details on the phosphogypsum stack. In particular, the Commission wanted to understand how SSPL planned to reduce the chances of compromising the reclaimed phosphogypsum stack and which party would be responsible in the event of an accidental disturbance of the phosphogypsum stack.

65. SSPL provided further details on mitigations it will use to limit the potential for disturbance of the phosphogypsum stack. These included avoiding or minimizing topsoil stripping (i.e., one-lift soil handling), using surface-based racking and above-ground electrical cabling to avoid puncturing the compacted clay barrier, avoiding the phosphogypsum stack for infrastructure requiring excavation, and adhering to mitigations outlined in the environmental protection plan's contaminated site management section. In addition, SSPL confirmed that Viterra Inc., the landowner of the project site, will continue to be responsible for compliance with the *Environmental Protection and Enhancement Act* approval and will follow the contingency plan section of the risk management plan for any interactions with the compacted clay cap.[38]

66. In the Commission's view, siting part of the project on a historically contaminated site is beneficial. The Commission also finds that SSPL has proposed adequate measures to manage the risk associated with development on the phosphogypsum stack.

4.3 Journey's current operations

67. Journey Energy Inc. intervened in this proceeding to raise concerns regarding the project's potential impacts to Journey's interests in the area. Journey is a corporation that explores and produces oil and gas throughout the Western Canadian Sedimentary Basin. Journey currently engages in enhanced oil recovery operations[39] within Section 7 of Township 13, Range 5, west of the Fourth Meridian (Section 7), which is located in the eastern portion of the project, as illustrated in Figure 5 below. Journey's operations in Section 7 consist of directionally drilled water injection and oil production wells, and associated pipelines and surface infrastructure. Journey is concerned about the project's impacts to its emergency response measures, its

[37] Exhibit 27788-X0015, appI_rpt_saamis_solar_environmental evaluation_20221123_fin, PDF pages 3, 10 and 15.

[38] Exhibit 27788-X0036, SSPL Response to IR Round 1, PDF pages 11 to 14.

[39] Enhanced oil recovery involves the injection of fluids into a hydrocarbon reservoir to improve hydrocarbon recovery.

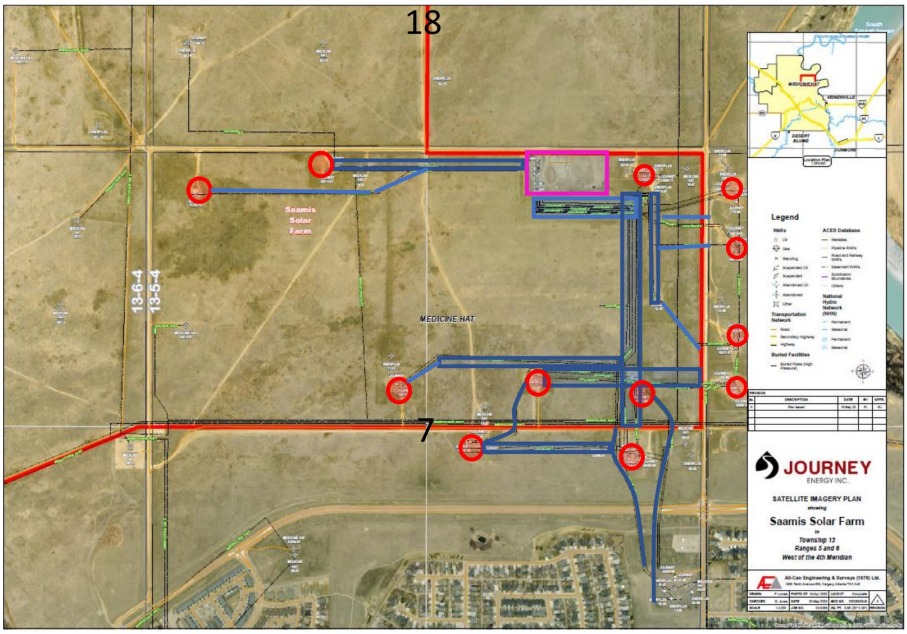
supervisory control and data acquisition (SCADA) system, and its potential to limit Journey's future development of oil and gas resources in the area.

Figure 5. Map of project boundary and Journey's existing infrastructure in the north half of Section 7[40]

Surface Access

Journey map with pipelines, facility/battery, and surface locations highlighted

Solar project boundary: red line
Facility/battery: pink outline
Surface locations: red circles
Pipelines: blue



68. Journey requested that the Commission deny the project or deny the portion of the project sited in Section 7.

69. SSPL engaged Ian Walker, a professional geologist, to speak to the characteristics of the oil production and subsurface access in the project area. SSPL also engaged Sheri Gilmour, Stantec's Canadian co-ordinator of emergency planning and response, who provided a report about emergency response at the project site.

4.3.1 How will the project impact Journey's safety and emergency response measures?

70. Journey expressed concerns about the project's potential impacts to the safe and efficient operation of its existing facilities on or near the project lands. Journey explained that the project will impede its ability to properly respond to a pipeline or well integrity issue in the future. Journey noted that the north half of Section 7, in addition to containing Journey infrastructure, is located adjacent to Journey's pipeline corridor. Journey expressed concern about off-lease or off-right-of-way releases within the project area, where the presence of project infrastructure, such as solar panels, will introduce considerable delays and complexities in any response efforts. Journey's infrastructure in the area transports and processes approximately 45,000 barrels per day of oil emulsion and produced water. Journey cautioned that a potential release could result in serious consequences if not responded to adequately.

71. SSPL submitted that the project should not prevent Journey's response activities but acknowledged that the project will require Journey to perform emergency response measures around solar panels and their foundations. SSPL suggested that maneuvering around SSPL's project infrastructure should be no more problematic than maneuvering around Journey's own

[40] Exhibit 27788-X0246, Tab 2, Schedule B – Figures, PDF page 17.

infrastructure. Journey disagreed and noted that the size and layout of the project's solar panels will increase the difficulty of any response maneuvers required.

72. The Commission finds Journey's concerns persuasive. It is reasonable to believe that constructing solar panels above Journey's existing facilities will affect Journey's ability to respond to a release, especially in terms of the time required to access (due to the project fencing) and resolve the issue.

73. At the same time, the Commission recognizes that events necessitating an emergency response are rare, that operators are expected to take all reasonable measures to avoid such events, and that the effects of such events can be mitigated through careful and site-specific emergency response planning. The Commission does not consider it reasonable that Journey's desire for unimpeded access for emergency response, as a subsurface mineral rights holder, should effectively preclude other lawful uses of the land by surface rights holders. This is particularly so given that, due to the development potential of Section 7, at some point Journey will have to address other forms of infrastructure being constructed above its subsurface facilities, even if the project were not approved.

74. It is commonplace across Alberta for subsurface infrastructure to coexist with surface activities. Though solar projects and the infrastructure related to them may represent an evolving industry in the province which requires different considerations, the Commission expects parties to co-ordinate safety and emergency response planning.

75. S. Gilmour recommended that SSPL open a formal line of emergency communication with Journey and include plant shutdown provisions in the final project emergency response plan. In response, SSPL committed to:

- opening a formal line of emergency communication with Journey;
- maintaining a mechanism for urgent contact between the two parties at an operational level; and
- including plant shutdown provisions in SSPL's final operational emergency response plan.[41, 42]

76. The Commission is satisfied that SSPL has committed to adopting these recommendations and expects SSPL and Journey to work together in the event of an incident or release.

4.3.2 What mitigations are required to avoid impacts on Journey's SCADA system?

77. Journey asserted that the project may impact the performance and functioning of its SCADA system, which is essential for the safe and effective operation of its wells and associated pipelines. Journey explained that its SCADA system relies on a line of sight between components to work effectively. The project, as currently designed, locates solar panels in the path of that line of sight, which could impede the system's ability to function properly.

[41] Exhibit 27788-X0242, 2024-02-02 - Rebuttal Evidence of Saamis Solar Park Ltd., PDF page 12.
[42] Exhibit 27788-X0330, Bettles UT Response #8, Attachment 1, PDF page 2.

The operation of the SCADA system is vital to Journey's operations as, in addition to controlling Journey's equipment, is also responsible for detecting spills or other integrity issues.

78. Journey anticipated that several of its SCADA transmitters on or near Section 7 will need to be raised or relocated should the project go forward. Journey's position is that any adjustment to its SCADA system necessitated by the addition of solar panels should be at SSPL's cost.

79. SSPL advised that the solar panels are anticipated to be approximately 4.2 metres (13.8 feet) at their highest point while the majority of Journey's SCADA equipment is mounted on 10-foot-high masts. This means the line of sight relied on by Journey's SCADA systems may be interrupted by solar panels.

80. SSPL noted that the most straightforward solution would be to raise the mast height of Journey's SCADA equipment, but did not commit to reimbursing Journey for the cost of any necessary modifications to its SCADA system required due to the project.[43] However, SSPL did commit to conducting a communication path study to understand the potential impacts of the project on the SCADA system.[44] Journey added that it is critical for such a study to be completed before project construction occurs, as interruptions to the system could result in significant negative impacts.

81. The Commission considers Journey's request for a communication path study, to be conducted before project construction occurs and at SSPL's expense, reasonable given the importance of the SCADA system to Journey's operations and the potential for the project to affect that system. The Commission therefore imposes the following condition of approval:

c. SSPL shall complete a communication path study to understand the potential impacts of the project on Journey Energy Inc.'s supervisory control and data acquisition system in the area, confirm that the study has been completed, and that it has provided the study to Journey. SSPL shall submit confirmation of these steps to the Commission prior to starting construction.

82. Although neither SSPL nor Journey provided evidence regarding the potential costs of raising the masts of Journey's SCADA system, the Commission considers it reasonable for SSPL to reimburse Journey for the reasonable costs associated with modifications required to ensure the uninterrupted operation of Journey's SCADA system. The Commission imposes the following condition of approval:

d. SSPL shall reimburse Journey Energy Inc. for the reasonable costs of modifications to Journey's supervisory control and data acquisition system necessitated by the power plant.

83. With the above conditions, the Commission is satisfied that the project's potential impacts to Journey's SCADA system will be identified and adequately mitigated.

[43] Transcript, Volume 1, page 175, lines 9 to 16.
[44] Transcript, Volume 2, page 215, lines 10 to 25; page 216, lines 1 to 2.

4.4 Future development

84. Journey and MHLD expressed concerns with the project's impacts to their future development plans. The Commission addresses these concerns below.

4.4.1 Will the project affect Journey's future development plans?

85. Journey was concerned that the project will impede its future development plans in Section 7. Journey explained that the project will either strand Journey's subsurface resources or significantly delay their development. Journey anticipated pursuing future developments in the north half of Section 7, including expanding its battery site, drilling additional wells from existing surface locations in the area, and constructing additional pipeline infrastructure to support the corresponding increases in production. Journey explained that, while drilling locations have not yet been determined, it was concerned that future drilling activities would be constrained by the presence of solar panels on the surface of the land. SSPL considered Journey's future development plans to be vague and speculative, as Journey could not provide specific details about where and how it intended to pursue development, or anticipated timelines.

86. Journey acquired its facilities in the project area in late 2022 and is still assessing and analyzing the development potential of Section 7. While the Commission expects project developers, such as SSPL, to work collaboratively with subsurface rights holders, the Commission accepts this has been difficult for SSPL given the minimal information Journey has provided regarding its future development plans.

87. In the Commission's view, Journey has not demonstrated whether, or how, its future development plans will be negatively impacted by the project. Despite the fact that specific details were not available, due to the reservoir characteristics in Section 7, future wells will likely be horizontally drilled from existing surface locations, similar to the design of Journey's existing development.[45] Given Journey's likely reliance on existing surface locations to support future production, it is not apparent that the presence of the power plant will be an impediment to development.

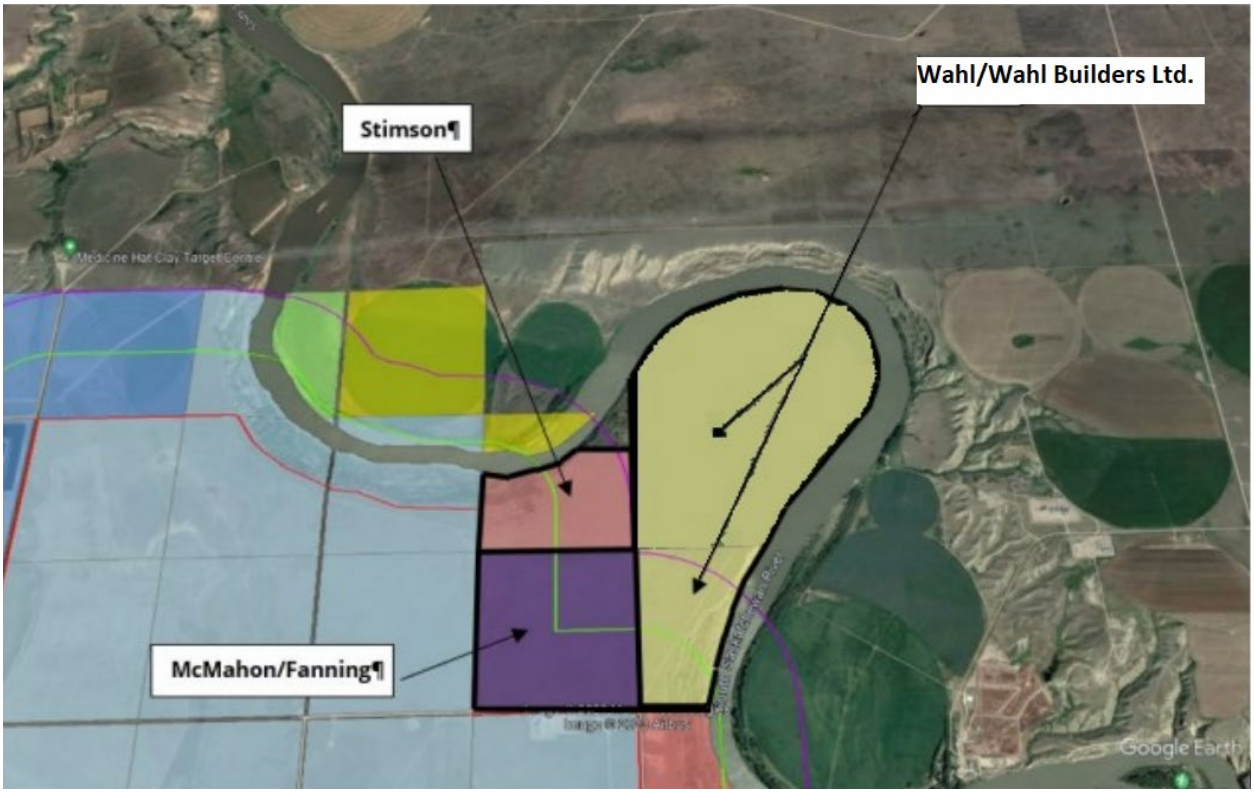
88. In any event, the Commission understands that the land on which the project is located is privately owned and identified by the City for future development. Journey will eventually have to address the possibility of other forms of infrastructure being constructed above and near its facilities, even if the proposed project were not approved.

4.4.2 Will the project prevent future residential development of lands owned by MHLD members?

89. MHLD objected to the project because of the impacts it could have on the development potential of their lands. MHLD is a group of property developers and individual landowners with interests in the lands adjacent to the project, as illustrated in Figure 6 below:

[45] Transcript, Volume 4, page 476, lines 14 to 16.

Figure 6. MHLD lands in relation to the project boundary[46]



90. MHLD requested that the Commission deny the applications altogether or alternatively approve a scaled-down version of the project located only to the west of Division Avenue. MHLD asserted that keeping the project to the west of Division Avenue will provide an adequate buffer between the project and future residential development on MHLD lands. MHLD submitted that if the project were to be approved on the eastmost project lands, it will sterilize development of their lands for the entire lifespan of the project.

91. MHLD hired Krista Lawson of Classic Valuations to prepare a report assessing the potential impact of the project on MHLD lands. The report concluded that the project will adversely impact MHLD's ability to develop its lands into future residential uses. The portion of the project in the northeast quarter of Section 7 (NE 7) is located adjacent to MHLD lands. K. Lawson noted that the City has a policy of discouraging the leapfrogging, or premature connection, of infrastructure services (such as water, storm and sanitary sewers) past undeveloped lands (the project lands in this case). In essence, should the project be approved, K. Lawson submitted that the City would not connect the MHLD lands to city infrastructure services while the project existed because of its policy on leapfrogging.

92. This view was also compounded by the development permit granted by the City with respect to this project in 2021, which includes a time limit condition that indicates the NE 7 can be used for generating renewable energy for up to 40 years.[47] K. Lawson concluded that this effectively means that if the project is approved, the MHLD lands will not be serviced until at least 40 years from the start of development for this project. MHLD submitted that this will

[46] Exhibit 27788-X0336, Reply Argument of Medicine Hat Land Developers (MHLD), PDF page 12.
[47] Exhibit 27788-X0158, MHLDG_Attachment E1_Development Permit.

effectively preclude the MHLD landowners from realizing on their investment in these lands during their lifetimes.

93. In response, SSPL stated that MHLD's request amounts to a request for the Commission to overrule the City's development permit process and decision. SSPL noted that the City has categorized MHLD's lands as "reserve lands (distant future)," which is the last stage of anticipated development, behind all other types of existing and short-, medium-, or long-term development land.[48] SSPL suggested that the 40-year time limit imposed for NE 7 supports SSPL's position that future development of the MHLD lands will only occur in the long term regardless of the project, and indicates the City has accounted for this in its development permit process.

94. SSPL retained Glen Doll of Serecon Consulting Inc. who responded to the Classic Valuations report. G. Doll concluded that potential solar development will not sterilize MHLD's properties as the City has ensured that potential development timelines are aligned. G. Doll also stated that there are no guarantees in land development and that landowners do not have an automatic right to potential development.[49]

95. The Commission notes that both SSPL and MHLD agree that any residential development near NE 7 will be in the long term; however, the parties disagreed about the definition of "long term." SSPL asserted that the City's 40-year time limit indicates development in the area will likely not occur for at least another 40 years. MHLD suggested, based on the descriptions in the Medicine Hat Master Plan, that its lands will likely be developable in approximately 30 years.[50]

96. The Commission notes that the planning horizon for the Medicine Hat Master Plan is 30 years, but the City has nevertheless imposed a development permit condition that will allow the project to operate for 40 years.[51] While the City's rationale for selecting a 40-year condition was not submitted on the record of this proceeding, the Commission considers it reasonable to assume that the City considered the anticipated timing of population growth and the need for residential development of the lands northeast of the project.

97. The Commission ultimately agrees with SSPL that the evidence discloses no basis for the Commission to challenge the City's development timelines. Regardless, given the long-term timing of future development in the area, the zoning of the lands in question, and the 40-year time limit on development for NE 7, the Commission is satisfied that the project is unlikely to significantly affect the future development of MHLD lands.

4.5 Other issues

98. In this section, the Commission describes other remaining issues included as part of the requirements under Rule 007 and Rule 012.

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48 Exhibit 27788-X0225, Schedule "C" the City of Medicine Hat's "myMH – Medicine Hat Master Plan", PDF page 64.

49 Exhibit 27788-X0243, Tab 1 - Report of Glen Doll, AACI, PAg, PDF page 8.

50 Exhibit 27788-X0336, Reply Argument of Medicine Hat Land Developers (MHLD), PDF page 19.

51 Exhibit 27788-X0225, Schedule "C" the City of Medicine Hat's "myMH – Medicine Hat Master Plan", PDF page 6.

4.5.1 What are the glare and noise impacts of the project?

99. SSPL retained Stantec to complete a solar glare assessment for the project. The solar glare assessment stated that "The analyses were separated into four blocks of arrays due to program limitations on the size of subarrays."[52] Stantec provided result tables showing predicted annual glare from individual project array blocks.[53] During the hearing, the Commission requested Stantec to provide the predicted annual glare from the entire project. Stantec explained that adding the annual glare from individual array blocks would require complex calculations that would take "days or weeks."[54] In the end, the Commission accepts the result tables that Stantec provided and acknowledges that these results indicate the glare a certain receptor is expected to receive from individual array blocks. However, the Commission emphasizes that it is common to see predicted results in terms of annual glare from the entire project, rather than from individual array blocks, in other solar power plant applications.

100. The glare assessment identified several receptors near the project, including eight road segments, 11 representative residences, a helipad at the Medicine Hat Regional Hospital, and the Medicine Hat Regional Airport. Rotary Centennial Drive N.W., which is a main road, is the most affected receptor and is predicted to receive at least 4,389 minutes of yellow glare[55] per year from the project. Stantec did not predict any glare for helicopters that use the helipad at the Medicine Hat Regional Hospital nor for the air traffic control tower, flight paths and runways at the Medicine Hat Regional Airport, except for one runway which will receive approximately 168 minutes of green glare per year.[56] SSPL consulted with the Medicine Hat Regional Airport, which confirmed it did not have any concerns regarding potential glare impacts. The Commission accepts that the project is unlikely to result in hazardous impacts to this runway, given the number of minutes of glare per year and that the glare predicted is green glare (i.e., low potential for temporary after-image).

101. As described in the introduction section of this decision, approximately half of the project's solar panels will be mounted on a single-axis tracking and half will be mounted on a fixed-tilt racking system. SSPL submitted that it would consider different glare mitigation measures for these two types of solar panel mountings, as discussed below.

102. The single-axis solar panels will have a backtracking function for the time when the sun is low in the sky (i.e., near sunrise or sunset) and a resting angle is defined to be the angle between the solar panels and the horizontal during the backtracking operation (i.e., between the sunset and sunrise). Stantec explained that adjusting the resting angle is a potential mitigation measure to reduce glare from single-axis panels. Throughout this proceeding, Stantec modelled a variety of different resting angles for the backtracking operation. SSPL noted that the optimal resting angle for the least amount of glare is 10 degrees for single-axis panels. However, as the project design has not yet been finalized, SSPL committed to exploring an optimum resting angle for the single-axis panels to reduce glare to the greatest extent possible and providing an

[52] Exhibit 27788-X0014, appG_rpt_Glare_Saamis_20220428_reduced, PDF page 18.
[53] Exhibit 27788-X0323, Brunty UT Response #2, Attachment 2.
[54] Transcript, Volume 1, page 37, lines 16 to 25, and page 38, lines 1 to 7.
[55] 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.

[56] Exhibit 27788-X0323, Brunty UT Response #2, Attachment 2, PDF page 1.

assessment of that in its final project update.[57] The Commission therefore imposes the following condition of approval:

e. SSPL shall, at the time it submits the final project update, provide the optimum resting angle based on the final project design to mitigate potential glare from the project. SSPL shall configure the single-axis panels to a resting angle greater than or equal to this minimum resting angle during backtracking operations.

103. The Commission understands that adjustment of individual resting angles is an effective mitigation measure to reduce glare from rotating panels. However, this mitigation measure is not effective for some receptors, because predicted glare at those receptors is primarily from the fixed-tilt panels.

104. SSPL confirmed that, should it receive any concerns or complaints about glare during project operation, it will promptly address them.[58] SSPL will also consider other mitigation measures such as planting trees or installing fencing to mitigate glare from the project in response to complaints or concerns about project glare. Accordingly, the Commission imposes the following conditions of approval:

f. SSPL shall promptly address complaints or concerns from stakeholders regarding solar glare from the project. In the event of complaints or concerns, SSPL shall file an annual report with the Commission detailing any complaints or concerns it receives regarding solar glare from the project during its first three years of operation, as well as SSPL's response to the complaints or concerns, with the first report submitted no later than 13 months after the project becomes operational. After Year 4 of operation, SSPL shall file a report with the Commission in any year where it is unable to resolve a complaint.

105. The Commission notes that predictions in the solar glare assessment were premised upon the use of solar panels with anti-reflective coating. Therefore, the Commission imposes the following condition of approval:

g. SSPL shall use solar panels with an anti-reflective coating for the project.

106. Given the results of the glare assessment, SSPL's commitments to minimize glare where possible, and the conditions above, the Commission expects that the solar glare from the project will be mitigated for the life of the project.

107. SSPL completed a noise impact assessment for the project, which predicted that the project will be compliant with the permissible sound levels set out in Rule 012 at all receptors. The Commission is satisfied that SSPL has demonstrated that the project will comply with Rule 012, and that SSPL will revisit its noise impact assessment after the project has been finalized.

108. The Commission understands that SSPL initially intended to use driven piles for the project; however, SSPL advised in an undertaking that the project will likely require nearly

[57] Transcript, Volume 2, page 208, lines 21 to 25; page 209, lines 1 to 2.
[58] Exhibit 27788-X0036, SSPL Response to IR Round 1, PDF page 22.

100,000 pilings.[59] During the hearing, SSPL indicated it will consider using screw piles in place of driven piles.[60] Given the proximity of the project to a large residential area, and that screw piles could reduce construction noise impacts to neighbouring landowners, the Commission requires SSPL to further investigate the potential for using screw piles. Therefore, the Commission directs SSPL to review the potential use of screw piles in place of some or all of the anticipated driven piles and provide an update to the Commission to further describe and provide support for its chosen method in its final project update, as described below.

109. The Commission notes that SSPL has not selected the final project equipment. In particular, SSPL has not finalized the pile design (i.e., screw piles or driven piles). The Commission therefore imposes the following conditions of approval:

h. Once SSPL has finalized its solar module selection, it must file a final project update with the Commission to confirm that the project is within the final project update specified allowances for solar power plants in accordance with 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. The final project update shall describe whether SSPL has selected screw piles or driven piles and in which project areas and explain the reasoning for the selection.

i. If the pile design is altered after the final project update, SSPL shall provide the Commission with a summary of those changes and explain what necessitated the changes no later than the start of construction.

4.5.2 Is SSPL's reclamation security plan adequate?

110. The Commission expects applicants to fully reclaim projects, and to bear the costs of doing so. Applicants are required to explain how they will ensure that sufficient funds are available at a project's end of life to cover the cost of decommissioning and reclamation.

111. For this project, SSPL stated that the decommissioning and reclamation costs of the project will be covered by funds saved in a reserve account over the final 10 years of operation. SSPL indicated that it would engage a qualified independent third-party engineer to prepare a detailed decommissioning scope and cost estimate in Year 20 of operation, assuming decommissioning in Year 30.[61] The decommissioning scope and cost estimate would quantify the decommissioning costs and salvage value.

112. SSPL proposed that it would calculate the amount of reclamation security required based on the detailed decommissioning scope and cost estimate. The reclamation security estimate would then be reviewed and adjusted on an annual basis until the project is decommissioned. The reclamation security would take the form of cash or cash equivalents held in a reserve account to be accessed solely for purposes of decommissioning activities.

[59] Exhibit 27788-X0311, Responses to Undertakings 5-7 given by Damian Bettles on April 11, 2024, at PDF page 1.
[60] Transcript, Volume 2, page 227, lines 12 to 13.
[61] Transcript, Volume 2, page 212, lines 5 to 13.

113. SSPL proposed that the reclamation security funds would begin to be deposited in the reserve account immediately once the reclamation security estimate has been calculated and would be available to be drawn upon from that date forward.

114. When asked about whether SSPL can be sure that the funds will remain available in the event of insolvency, SSPL explained that it would deposit the cash or cash equivalents into a sinking fund in place solely for the purpose of the decommissioning requirements of the project.[62] On further questioning, SSPL confirmed that it would consider alternative forms of reclamation security, such as an irrevocable letter of credit, that may be more secure in the event of insolvency. SSPL also confirmed that it was willing to consider providing funding earlier in the project lifespan.

115. SSPL noted that it will have reclamation obligations in its lease with Viterra, which is a landowner of a large portion of the project lands including the phosphogypsum stack, but it did not provide details of the lease provisions. SSPL stated that the project site will be reclaimed to the standard set out in the Government of Alberta's 2010 *Reclamation Criteria for Wellsites and Associated Facilities*, as updated, or such other standard as may apply to the project at the time of reclamation.

116. While this proceeding was underway, the Ministry of Affordability and Utilities indicated that it intends to develop a reclamation security regime for renewable energy projects. Specifically, the Minister provided a letter to the Commission[63] indicating that the "Government of Alberta will develop and implement the necessary policy and legislative tools to ensure developers are responsible for reclamation costs via bond or security" and the "new requirements will apply [to] all approvals issued on or after March 1, 2024."

117. Because this decision is being issued after March 1, 2024, the Commission anticipates that SSPL will be responsible for posting security in accordance with the reclamation security regime referenced above. However, the specific parameters and scope of this regime are not yet known. In the meantime, the Commission must assess whether the project is in the public interest, including whether SSPL's security program indicates that sufficient funds will be available to reclaim the project at its end of life.

118. In the current circumstances, the Commission is not satisfied with SSPL's proposal to begin funding reclamation security costs after 20 years of operation, nor is it satisfied with SSPL's choice of a self-funded reserve account containing cash or cash equivalents. Combined, these attributes of SSPL's security program are not sufficiently protective. The Commission considers that SSPL's end of life planning requires a greater degree of certainty and stringency.

119. As such, the Commission imposes the following condition of approval:

j. SSPL shall submit an updated reclamation security plan with the Commission for review and approval. The updated reclamation security plan shall include a report prepared by a third-party estimating the costs of reclaiming the project and the estimated salvage value of project components. The updated reclamation security plan shall also include a proposal for the form and timing of security, justifying why these attributes were

[62] Transcript, Volume 2, page 214, lines 17 to 20.
[63] Letter re Policy Guidance to the Alberta Utilities Commission (28 February 2024) from Nathan Neudorf, Minister Affordability and Utilities.

selected, with specific regard to how the secured party will be able to realize on the reclamation security should the project owner and operator be in default. The updated reclamation security plan must be filed prior to the start of construction. The Commission will determine at that time whether further process is necessary to consider the reclamation security plan.

4.5.3 Adequacy of participant involvement program

120. The interveners to the proceeding raised concerns about the adequacy of SSPL's participant involvement program (PIP). Journey submitted that SSPL's PIP was deficient as it had not conducted meaningful consultation with Journey to ensure the co-existence of Journey's facilities and the project. MHLD submitted that SSPL's consultation was inadequate, perfunctory, and failed to meet the standard of Rule 007, stating that SSPL did not make a meaningful attempt to address the MHLD's concerns. Rhonda Burry stated that she did not receive notification or notice of the project until a week before the "deadline of [the] project."[64] She noted that most people work during the day and are unable to answer door knocks during that time.

121. The Commission observes that, as part of its PIP, SSPL notified stakeholders within 800 metres of the project boundary, conducted personal consultation with stakeholders within 400 metres of the project boundary, held an open house, and notified or consulted with over 2,100 stakeholders.[65] The notification consisted of a project specific information packages being delivered by mail to stakeholders, including 23 condominium complexes within 800 metres of the project boundary and four complexes beyond the project boundary.[66] The Commission understands that it is common for applicants and interveners to have conflicting views regarding a project. Although SSPL has not resolved all the outstanding stakeholder concerns regarding the project, SSPL has demonstrated that it made reasonable efforts to identify, notify and engage with stakeholders about their concerns. The Commission finds that SSPL has met the PIP requirements outlined in Rule 007.

4.6 Conclusion

122. 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 the Saamis Solar Park is in the public interest having regard to the social, economic, and other effects of the project, including the effects on the environment.

123. Overall, the Commission finds that the applications are in the public interest, comply with existing regulatory standards including the information requirements in Rule 007, and that the negative impacts associated with the project are outweighed by the benefits of the project.

[64] Exhibit 27788-X0333, Final Argument Rhonda Burry, page 2.
[65] Exhibit 27788-X0331, SSPL - Final Argument, PDF page 14.
[66] Exhibit 27788-X0011, Saasmis Solar PIP Report Final, PDF page 4.

5 Decision

124. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves Application 27788-A001 and grants Saamis Solar Park Limited the approval set out in Appendix 1 – Power Plant Approval 27788-D02-2024 to construct and operate the Saamis Solar Park Power Plant.

125. Pursuant to sections 14 and15 of the *Hydro and Electric Energy Act*, the Commission approves Application 27788-A002 and grants Saamis Solar Park Limited the approval set out in Appendix 2 – Substation Permit and Licence 27788-D03-2024 to construct and operate the Grian 1056S Substation.

126. The appendixes will be distributed separately.

Dated on July 18, 2024.

Alberta Utilities Commission

(original signed by)

Renée Marx
Panel Chair

(original signed by)

Vincent Kostesky
Acting Commission Member

Appendix A – Proceeding participants

Name of organization (abbreviation) Company name of counsel or representative
Borden Ladner Gervais LLP Jordan Hulecki Matthew Schneider **Saamis Solar Park Limited** Damian Bettles
Ackroyd LLP Ifeoma Okoye Richard Secord **Medicine Hat Concerned Citizens Group (MHCC)** Brent Smith Gerry Elhert Catherine Linowski Ron Linowski Hazel Gray Grant McLeod
Bennett Jones LLP Daron Naffin Thomas Machell **Journey Energy Inc.** Richard Tracy
McLennan Ross LLP Gavin S. Fitch, K.C. Marika Cherkawsky **Medicine Hat Land Developers Group (MHLD)** Rick Wahl and Wahl Builders Ltd. Gary Stimson John McMahon and Bill Fanning
Richard Humphries
Justyna Kolodziej
Daniel Maier
C. Wickenheiser
Rhonda Burry

Name of organization (abbreviation) Company name of counsel or representative
Eveleen Bute
Gwendolyn and Ronald Bowerman

Alberta Utilities Commission

Commission panel

Renée Marx, Panel Chair
Vincent Kostesky, Acting Commission Member

Commission staff

Dale Johnston (Commission counsel)
Meghan Anderson (Commission counsel)
Olapeju Anozie (Commission Student-at-Law)
Kloria Wen
Glenn Harasym
Joan Yu
Hussain Shamji
Chad Bergeron

Appendix B – Oral hearing – registered appearances

Name of organization (abbreviation) Name of counsel or representative	Witnesses
Saamis Solar Park Limited Jordan Hulecki, Borden Ladner Gervais LLP, counsel Matthew Schneider, Borden Ladner Gervais LLP, counsel	Damian Bettles Nick De Carlo David Plumpton Sheri Gilmour Ian Walker Glen Doll Jennifer Brunty Paul Lawson
Medicine Hat Concerned Citizens Group (MHCC) Ifeoma Okoye, Ackroyd LLP, counsel Richard Secord, Ackroyd LLP, counsel	Brent Smith Gerry Ehlert Cliff Wallis
Journey Energy Inc. Daron Naffin, Bennett Jones LLP, counsel Thomas Machell, Bennett Jones LLP, counsel	Richard Tracy
Medicine Hat Land Developers Group (MHLD) Gavin S. Fitch, K.C., McLennan Ross LLP, counsel Marika Cherkawsky, McLennan Ross LLP, counsel	Rick Wahl Gary Stimson Bill Fanning Krista Lawson

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 27788-D01-2024 that require subsequent filings with the Commission and will be included as conditions of Power Plant Approval 27788-D02-2024:

a. SSPL shall submit an annual post-construction monitoring survey report to Alberta Environment and Protected Areas no later than January 31 of the year following the mortality monitoring period and submit the annual post-construction monitoring survey report and the Alberta Environment and Protected Areas' post construction monitoring response letter to the Commission within one month of its issuance to SSPL. These reports and response letters shall be subsequently filed with the same time constraints every subsequent year for which Alberta Environment and Protected Areas requires surveys pursuant to subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.

b. SSPL shall update its environmental protection plan to reflect the reclassification of these lands as native grassland. This includes the modification or addition of mitigations that aim to protect soils, vegetation, and wildlife associated to construction and operation in native grassland areas, including commitments made to adherence of the Environment and Climate Change Canada (ECCC) B3 nesting period (April 21 to August 13) in information request responses.[67] SSPL shall submit this update as part of its final project update.

c. SSPL shall complete a communication path study to understand the potential impacts of the project on Journey Energy Inc.'s supervisory control and data acquisition system in the area, confirm that the study has been completed, and that it has provided the study to Journey. SSPL shall submit confirmation of these steps to the Commission prior to starting construction.

e. SSPL shall, at the time it submits the final project update, provide the optimum resting angle based on the final project design to mitigate potential glare from the project. SSPL shall configure the single-axis panels to a resting angle greater than or equal to this minimum resting angle during backtracking operations.

h. Once SSPL has finalized its solar module selection, it must file a final project update with the Commission to confirm that the project is within the final project update specified allowances for solar power plants in accordance with 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. The final project update shall describe whether

[67] Exhibit 27788-X0036, SSPL Response to IR Round 1, PDF page 5.

SSPL has selected screw piles or driven piles and in which project areas and explain the reasoning for the selection.

i. If the pile design is altered after the final project update, SSPL shall provide the Commission with a summary of those changes and explain what necessitated the changes no later than the start of construction.

j. SSPL shall submit an updated reclamation security plan with the Commission for review and approval. The updated reclamation security plan shall include a report prepared by a third-party estimating the costs of reclaiming the project and the estimated salvage value of project components. The updated reclamation security plan shall also include a proposal for the form and timing of security, justifying why these attributes were selected, with specific regard to how the secured party will be able to realize on the reclamation security should the project owner and operator be in default. The updated reclamation security plan must be filed prior to the start of construction. The Commission will determine at that time whether further process is necessary to consider the reclamation security plan.

The following are conditions of Decision 27788-D01-2024 that may or do not require a subsequent filing with the Commission:

d. SSPL shall reimburse Journey Energy Inc. for the reasonable costs of modifications to Journey's supervisory control and data acquisition system necessitated by the power plant.

f. SSPL shall promptly address complaints or concerns from stakeholders regarding solar glare from the project. In the event of complaints or concerns, SSPL shall file an annual report with the Commission detailing any complaints or concerns it receives regarding solar glare from the project during its first three years of operation, as well as SSPL's response to the complaints or concerns, with the first report submitted no later than 13 months after the project becomes operational. After Year 4 of operation, SSPL shall file a report with the Commission in any year where it is unable to resolve a complaint.

g. SSPL shall use solar panels with an anti-reflective coating for the project.