



Proteus Alberta Solar 2 Ltd.

Proteus Alberta Solar 2 Project

April 11, 2025

Alberta Utilities Commission
Decision 29592-D01-2025
Proteus Alberta Solar 2 Ltd.
Proteus Alberta Solar 2 Project
Proceeding 29592
Applications 29592-A001 to 29592-A003

April 11, 2025

Published by the:

Alberta Utilities Commission
Eau Claire Tower
1400, 600 Third Avenue S.W.
Calgary, Alberta T2P 0G5

Telephone: 310-4AUC (310-4282 in Alberta)
1-833-511-4AUC (1-833-511-4282 outside Alberta)
Email: info@auc.ab.ca
Website: www.auc.ab.ca

The Commission may, no later than 60 days from the date of this decision and without notice, correct typographical, spelling and calculation errors and other similar types of errors and post the corrected decision on its website.

Contents

1	Decision summary	1
2	Applications	1
3	Findings	3
3.1	Are there concerns with the use of agricultural land for the project?	3
3.2	Does the project pose an unacceptable risk to the environment?	3
3.3	Will noise impacts from the project be compliant with Rule 012: Noise Control?	6
3.4	What are the glare impacts from the project and how will they be mitigated?	7
3.5	Will the energy storage facility be operated safely and responsibly?.....	8
3.6	Does the emergency response plan address the risks associated with operating a BESS?	9
3.7	Will there be a suitable reclamation security program in place?	10
4	Decision 12	
	Appendix A – Summary of Commission conditions of approval in the decision	13

List of figures

Figure 1.	Proposed project boundary	2
------------------	--	----------

Alberta Utilities Commission
Calgary, Alberta

Proteus Alberta Solar 2 Ltd.
Proteus Alberta Solar 2 Project

Decision 29592-D01-2025
Proceeding 29592
Applications 29592-A001 to 29592-A003

1 Decision summary

1. In this decision, the Alberta Utilities Commission approves applications from Proteus Alberta Solar 2 Ltd. (Proteus) to construct and operate the Proteus Alberta Solar 2 Project (PAS2) consisting of a solar power plant and a battery energy storage system (BESS), and project substation named South Hays 1088S Substation.

2 Applications

2. Proteus Alberta Solar 2 Ltd. filed applications with the Commission for approval to construct and operate PAS2 and the South Hays 1088S Substation.

3. Proteus explained that it has not finalized its equipment for PAS2; however, the solar power plant is planned to include approximately 203,625 solar modules panels utilizing single-axis tracking, inverters and other associated equipment, with a total generating capability of 100 megawatts. The BESS is planned to include up to 46 Sungrow ST2752 BESS units and 13 associated Sungrow SC50000UD-MV inverter/transformer charger stations, with a capability of 60 megawatts and storage capacity of 120 megawatt-hours.

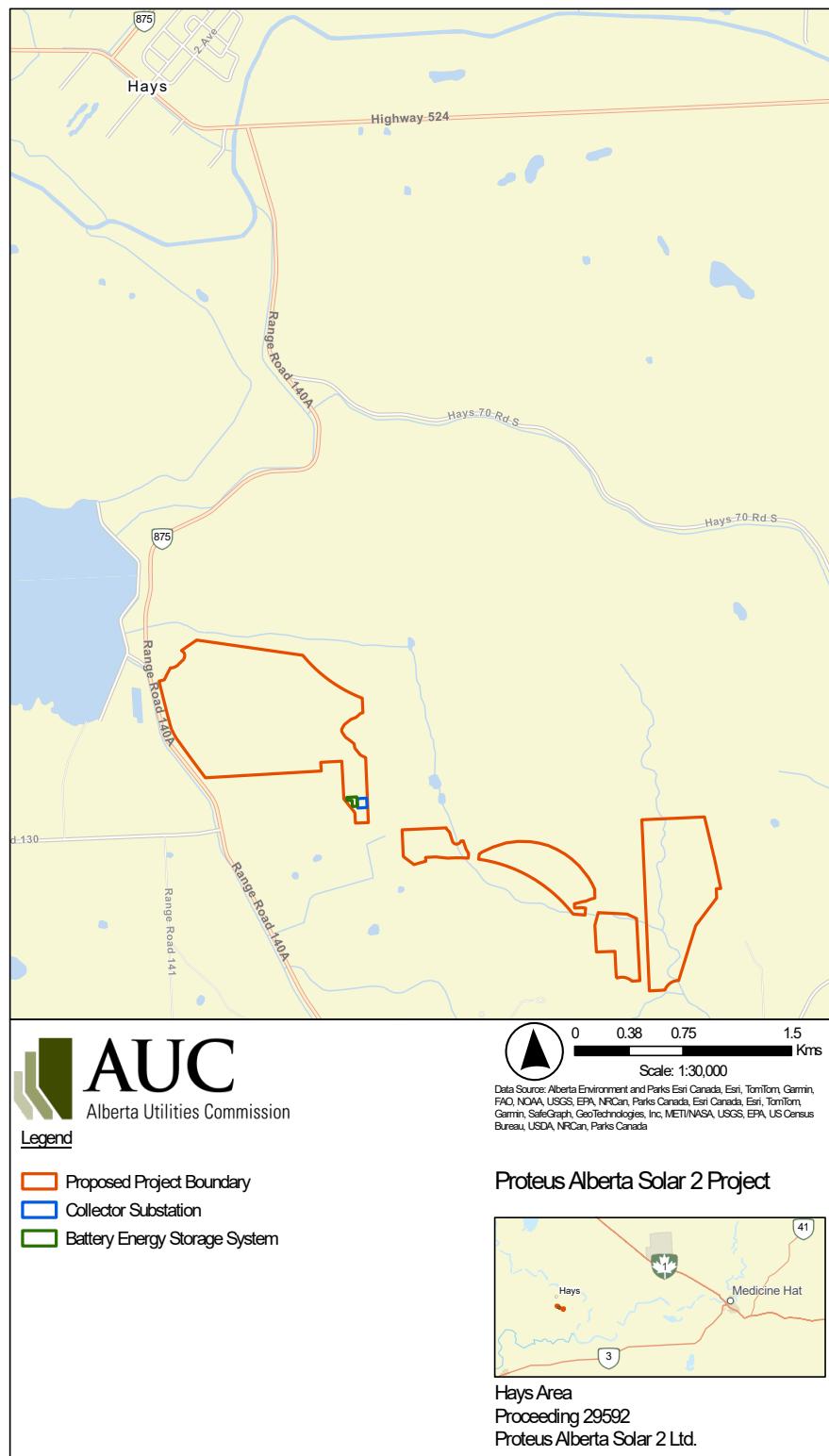
4. The South Hays 1088S Substation will include one 138-kilovolt (kV) circuit breaker, ten 34.5-kV breakers and one 34.5/138-kV, 125/167/208-megavolt ampere (MVA) transformer.

5. PAS2 is located approximately four kilometres south of Hays, in the Municipal District of Taber, within the following locations:

Quarter	Section	Township	Range	Meridian
NW, NE, SW, SE	1	13	14	W4
NW, NE, SE	31	12	13	W4
NW, SW	32	12	13	W4

6. The BESS and the substation will be located in the southeast quarter of Section 1, Township 13, Range 14, west of the Fourth Meridian. The project boundary is shown on the map in Figure 1.

Figure 1. Proposed project boundary



7. Proteus estimated that it would start construction in the third quarter of 2026 and requested a construction completion date in December 2027.

8. The Commission issued a notice of applications, and no submissions were received in response to the notice.

3 Findings

9. For the reasons outlined below, the Commission finds that approval of the project is in the public interest having regard to the social, economic, environmental and other effects. The Commission considers the applications to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*. The Commission has also weighed applicable policy, such as the Minister of Affordability and Utilities' February 28, 2024, letter to the Commission, amongst the variety of public interest factors it considers in each application before it.

10. The Commission has determined that the information requirements specified in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines* and Rule 012: *Noise Control* have been met. Proteus further provided all the additional information specified in the Commission's interim information requirements (set out in bulletins 2023-05 and 2024-08). Additionally, the Commission finds that Proteus's participant involvement program satisfied Rule 007 requirements.

3.1 Are there concerns with the use of agricultural land for the project?

11. The Land Suitability Rating System (LSRS) rates how suitable land is for growing agriculture. The LSRS for the project lands are 4M, 5M and 6M, meaning the project land has severe to extremely severe limitations that restrict the growth of specified crops. The Commission considers the project's impacts to agricultural land to be acceptable because of the agricultural suitability of the soils within the project area.

12. On December 6, 2024, 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. Although the *Electric Energy Land Use and Visual Assessment Regulation* came into force after these applications were filed, the Commission is mindful of the intent of the legislation and acknowledges that PAS2 is not sited on high-quality agricultural land and is not within the visual impact assessment zone as defined in the regulation.

3.2 Does the project pose an unacceptable risk to the environment?

13. This section of the decision discusses the environmental impacts of the project and their associated mitigations. The Commission ultimately determines that with PAS2's removal of infrastructure within native grassland habitats, the mitigations proposed and the conditions outlined below, the project is in the public interest.

14. In Decision 28325-D01-2024, the Commission denied PAS2 on the basis that its overall public benefits did not outweigh the environmental impacts created by the project's impacts to native grasslands. Approximately 24 per cent of the denied PAS2 project area was sited on native

grassland and Alberta Environment and Protected Areas (AEPA) evaluated these impacts to be a high risk to native and critical habitats.¹

15. The original AEPA referral report determined that the combined risk ranking for the AUC approved Proteus Alberta Solar 1 (PAS1), the AUC denied PAS2 and the AUC approved Proteus Alberta Solar (PAS 3) was moderate, with a high risk to native habitats, a moderate risk to sensitive amphibians and breeding birds, and a low risk to birds overall, raptor nests and other sensitive wildlife features.²

16. Following Decision 28325-D01-2024, Proteus redesigned PAS2 to remove all impacts to native grassland to address the concerns identified by the Commission and submitted a Renewable Energy Referral Report Amendment Submission to AEPA. AEPA issued a Renewable Energy Amendment Letter which determined the project maintained an overall moderate risk ranking.³

17. Six active wildlife features have setbacks encroached by the project, which include one ferruginous hawk nest, one sharp-tailed grouse lek, two cliff swallow colony, one Swainson's hawk nest and one plains spadefoot breeding pond. Proteus has committed to mitigation measures to reduce the potential for impacts or abandonment of these features, primarily avoiding construction within these setbacks during these species' associated breeding seasons.⁴ The Commission finds that the mitigation measures proposed are reasonable and considerate of reducing impacts during the phase of the project which pose the greatest risk to these features.

18. The contiguous projects (i.e., PAS1, PAS3, and proposed PAS2) are located approximately 201 metres from the Hays Reservoir Important Bird Area, which supports the largest breeding colony of American white pelicans in Alberta. Best Management Practice 200.1.1 of the *Wildlife Directive for Alberta Solar Energy Projects* states a “solar energy project should not occur within [1,000 metres] of a wetland based Important Bird Area...”⁵. In late 2024,⁶ the AUC released Bulletin 2024-24 which suspended post-construction monitoring for solar projects, unless they are located within 1,000 metres of a wetland based Important Bird Area or named lake.⁷

19. On April 7, 2025, the Commission requested that Proteus clarify whether it had any concerns on a requirement for the contiguous projects to conduct post-construction monitoring, due to their proximity to one another, and their proximity to the Hays Reservoir.⁸ In response, Proteus indicated that the proximity of the contiguous projects to the Hays Reservoir should not

¹ Decision 28325-D01-2024: Proteus Alberta Solar 1 Ltd. – Proteus Alberta Solar Projects, Proceeding 28325, Applications 28325-A001 to 28325-A006, June 18, 2024.

² Exhibit 29592-X0030, Appendix B - Original AEPA Referral Report.

³ Exhibit 29592-X0007, Appendix 6 - Environmental Amendment Memo, PDF pages 19 and 20.

⁴ Exhibit 29592-X0009, Appendix 8 - Environmental Protection Plan, PDF pages 13 and 14.

⁵ Government of Alberta, 2017, *Wildlife Directive for Alberta Solar Energy Projects*, PDF page 7.

⁶ Bulletin 2024-24 was updated in February 2025 for purposes of clarity, but no requirements for this bulletin materially changed.

⁷ Alberta Utilities Commission, 2024, *Bulletin 2024-24: Suspension of post-construction monitoring requirements at applicable solar power plants for the 2025 season*.

⁸ Exhibit 29592-X0036, AUC information request round 2.

require it to conduct post-construction monitoring in accordance with Bulletin 2024-24, because Hays Reservoir is neither a named lake, nor a wetland-based Important Bird Area.

20. The Commission has evaluated Proteus's response and finds that Proteus must conduct post-construction monitoring as described below because of the contiguous projects' proximity to Hays Reservoir.⁹ While the Commission can acknowledge that the Hays Reservoir is man-made, it ultimately still serves as a significant waterbird congregation zone. This decision was also made with consideration of the Hays Reservoir's public use within the province, the existing disturbances surrounding the contiguous projects, the referral report risk ranking for birds overall, the contiguous projects' maintenance of the 1,000-metre American white pelican colony setback, and an evaluation of the species present including their densities and conservation statuses.¹⁰

21. With recognition to the Commission's authority for determining which projects are or are not exempt, Proteus requested that, should post-construction monitoring be required, it be allowed to:¹¹

- If the contiguous projects are constructed concurrently, conduct post-construction monitoring on the entire combined project areas, following guidance from the *Post-Construction Survey Protocols for Wind and Solar Energy Projects*; or
- If the contiguous projects are constructed sequentially, it will consult with AEPA on the timing for the post-construction monitoring surveys, and follow their recommendation and direction to either assess the entire contiguous area (both constructed and not constructed), or assess only the constructed areas in each of the survey years, until such time all projects are completed, following guidance from the *Post-Construction Survey Protocols for Wind and Solar Energy Projects*.

22. The Commission finds this request to be reasonable. 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. The Commission considers PAS1, PAS2 and PAS3, to operate as one contiguous project, and expects post-construction monitoring to be conducted as one contiguous project. Therefore, the Commission imposes the following condition of approval:

- a. Proteus Alberta Solar 2 Ltd. shall submit an annual post-construction monitoring survey report or reports, which include results of monitoring for Proteus Alberta Solar 1, Proteus Alberta Solar 2, and Proteus Alberta Solar 3 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 the AEPA's post-construction monitoring response letter to the Commission within one month of its issuance to Proteus Alberta Solar 2 Ltd. These reports and response letters shall be subsequently filed with the same time constraints every subsequent year

⁹ Alberta Utilities Commission, 2024, *Bulletin 2024-24: Suspension of post-construction monitoring requirements at applicable solar power plants for the 2025 season*.

¹⁰ Exhibit 29592-X0031, Appendix C - Original AEPA Renewable Energy Submission Report; Exhibit 29592-X0030, Appendix B - Original AEPA Referral Report; Exhibit 29592-X0008, Appendix 7 - Environmental Evaluation.

¹¹ Exhibit X0037, Proteus Solar II - Response to AUC IR Round 2 - V1.0 (09.04.2025)_Final for Issue.

for which AEPA requires surveys pursuant to Section 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*. In regard to whether Proteus Alberta Solar 1, Proteus Alberta Solar 2, and Proteus Alberta Solar 3 are surveyed as a whole or in separation, the Commission requires Proteus Alberta Solar 2 Ltd. to consult with and adhere to the preferences of AEPA.

23. The Commission expects the approval holder¹² for PAS1 and PAS3 to submit an application requesting that the post-construction monitoring condition in those approvals¹³ be amended to be similar to the condition above.

24. The information and associated mitigations provided for consideration of potential impacts to soils, vegetation, agriculture, groundwater and surface water appear reasonable and result in no significant impacts.

3.3 Will noise impacts from the project be compliant with Rule 012: Noise Control?

25. Proteus retained Green Cat Renewables Canada Corporation (GCR) to complete a noise impact assessment (NIA) for the project in accordance with Rule 012.¹⁴ The NIA identified seven dwellings within 1.5 kilometres from the project boundary as receptors and determined permissible sound levels (PSLs) for the receptors to be 40 A-weighted decibels (dBA) nighttime and 50 dBA daytime.

26. The NIA identified baseline case facilities using the Alberta Energy Regulator databases and the AUC eFiling System and predicted that noise from the baseline case facilities is compliant with the PSLs at receptors. The NIA modelled 40 inverter/transformer stations, 46 battery energy units and associated charger stations, and a substation containing one 208-MVA transformer as project sound sources. Cumulative sound levels for each receptor were calculated as the sum of the baseline case sound levels and noise contribution from the project, and then were compared to the PSLs to predict project compliance. The NIA concluded cumulative sound levels will be compliant with the PSLs at receptors. The predicted nighttime cumulative sound level at the most affected receptor, R1, is 40 dBA, which is equal to the nighttime PSL of 40 dBA at this receptor (i.e., the compliance margin¹⁵ is zero).

27. The Commission finds that the NIA meets the requirements of Rule 012 and accepts the conclusion in the NIA that the project will comply with PSLs set out in the rule. However, the Commission notes that the project design has not been finalized yet. Further, given that Receptor R1 is predicted to have a zero-compliance margin during the nighttime, the Commission requires Proteus to conduct a post-construction noise survey to verify project compliance. Therefore, the Commission imposes the following conditions of approval.

- b. Once Proteus Alberta Solar 2 Ltd. has finalized its equipment selection for the solar power plant and energy storage facility, it must file a final project update to 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*

¹² Proteus Alberta Solar 1 Ltd.

¹³ Approval 28325-D02-2024, Proteus Alberta Solar 1 Power Plant, June 18, 2024; and Approval 28325-D04-2024, Proteus Alberta Solar 3 Power Plant, June 18, 2024.

¹⁴ Exhibit 29592-X0011, Appendix 10 – NIA, November 4, 2024.

¹⁵ Compliance margin is permissible sound level minus cumulative sound level.

Designations, Hydro Developments and Gas Utility Pipelines. The final project update must be filed at least 90 days prior to the start of construction.

- c. Proteus Alberta Solar 2 Ltd. shall conduct a post-construction comprehensive sound level (CSL) survey, including an evaluation of low frequency noise, at Receptor R1. 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, Proteus Alberta Solar 2 Ltd. shall file a report with the Commission presenting measurements and summarizing the results of the post-construction CSL survey.

3.4 What are the glare impacts from the project and how will they be mitigated?

28. Proteus retained GCR to conduct a solar glare assessment for the project.¹⁶ The solar glare assessment identified two dwellings and three transportation routes (Highway 875, Range Road 141 and Township Road 130) as receptors. No railways or aerodromes were identified within 800 metres or 4,000 metres, respectively, of the project.

29. The project solar panels will use a single-axis tracking system that includes a backtracking function. During backtracking periods (i.e., near sunrise or sunset when the sun is at low elevation angles), the trackers will gradually tilt away from the sun back toward horizontal. The resting angle is an angle measured from flat ground or horizon to the solar panel, which is the angle the solar panels rest at during backtracking periods. The glare assessment predicted that in the worst-case scenario (when the resting angle is zero), Highway 875 and Township Road 130 may receive up to 135 minutes of yellow glare per year from the project, and other receptors may receive no glare or only green glare from the project.¹⁷

30. GCR determined that when the project panels use a resting angle greater than or equal to three degrees, predicted glare from the project solar panels would be eliminated at all receptors. Subsequently, Proteus committed to limit resting angles to three degrees or greater to eliminate predicted glare. Further, GCR submitted that if glare is determined to be an issue for the drivers and/or residents during the project operation, potential mitigation measures may include modified backtracking behaviour, installing road signs, installing blinds over windows, planting vegetation or installing fencing or other visual barriers.

31. The Commission considers that the implementation of resting angle limits will be an effective mitigation measure to eliminate or mitigate potential glare at receptors. Therefore, the Commission imposes the following condition of approval.

- d. Proteus Alberta Solar 2 Ltd. shall configure the project solar panels using a resting angle greater than or equal to three degrees during the backtracking operation.

¹⁶ Exhibit 29592-X0006, Appendix 5 - Solar Glare Assessment.

¹⁷ 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.

32. The Commission requires Proteus to promptly address any concerns or complaints regarding glare from the project's operation and implement mitigation measures where necessary. Therefore, the Commission imposes the following condition of approval.

- e. Proteus Alberta Solar 2 Ltd. shall file a report with the Commission detailing any complaints or concerns it receives or is made aware of regarding solar glare from the project during its first year of operation, as well as Proteus Alberta Solar 2 Ltd.'s response to the complaints or concerns. Proteus Alberta Solar 2 Ltd. shall file this report no later than 13 months after the project becomes operational.

33. 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.

- f. Proteus Alberta Solar 2 Ltd. shall use solar panels with anti-reflective coating for the project.

34. Given the conservative nature of the glare assessment, Proteus's commitments to reduce or eliminate/mitigate glare caused by the project, and the conditions above, the Commission is satisfied that potential glare caused by the project will be adequately mitigated.

3.5 Will the energy storage facility be operated safely and responsibly?

35. Proteus stated that it has not completed final equipment selection for the BESS but that Sungrow ST2752 BESS units with lithium iron phosphate (LFP) chemistry are intended for the project. Proteus stated that this chemical composition is less prone to thermal runaway when compared to other battery compositions due to the stability of the phosphate-oxide bond. The BESS will also contain liquid cooling systems and thermal monitoring.

36. The Commission considers that the use of LFP batteries mitigates some safety concerns related to other battery technologies. This is consistent with previous Commission findings on energy storage facilities (ESFs), in which the Commission found LFP battery chemistry to be more stable than other commercially available chemistries and less likely to experience a thermal runaway event leading to a fire.¹⁸

37. Proteus retained Calvin Consulting Group Ltd. to conduct an air quality dispersion modelling assessment for the project, which concluded that in the event of a fire the maximum predicted air quality emissions at the closest residences to the ESF and along adjacent roadways will comply with the *Alberta Ambient Air Quality Objectives* and that the immediately dangerous to life or health values will not be exceeded at or beyond the ESF site fenceline.¹⁹

¹⁸ 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 and 12; and Decision 27109-D01-2022: TA Alberta Hydro Inc. – WaterCharger Battery Storage Facility, Proceeding 27109, Application 27109-A001, November 3, 2022, PDF page 10.

¹⁹ Exhibit 29592-X0029, Appendix A - Air Dispersion Modelling, PDF page 38.

38. The Commission finds that appropriate mitigation measures are in place to manage health and safety risks associated with ESF fires at the project and that the risks can be further minimized through measures and procedures in the site-specific emergency response plan (ERP).

39. The Commission notes that final equipment selection has not been completed for the project. If Proteus selects an alternate battery chemistry or vendor from what was considered in the application, an amendment application is required in accordance with Rule 007. In the amendment application, Proteus should provide specifications such as the cell combustion phase duration and peak temperature to the Commission, along with confirmation the alternate chemistry possesses better thermal stability than lithium iron phosphate.

40. Proteus stated that the thermal runaway monitoring system of the BESS will be monitored by the project's operation and maintenance personnel through the supervisory control and data acquisition system.

41. The Commission considers fire detection as an integral part of mitigating fire risks associated with ESFs and finds that Proteus is ultimately responsible for the effectiveness of system monitoring regardless of any third-party participation, including any manufacturer monitoring of the system.

42. As Proteus has stated it intends to employ remote monitoring and operations, the Commission imposes the following conditions of approval:

- g. Proteus Alberta Solar 2 Ltd. 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. Excluding emergency situations, the energy storage facility will not be operated without the system in use.
- h. Proteus Alberta Solar 2 Ltd. shall install a thermal imaging camera at each of the energy storage facility sites for continuous monitoring, and where appropriate, shall integrate the camera into its system alarms, shutdowns and emergency response planning.

3.6 Does the emergency response plan address the risks associated with operating a BESS?

43. Proteus provided a site-specific ERP, which included site-specific safety risks and emergency procedures related to medical emergency, fire response, pollution and hazardous materials, transportation and severe weather. The ERP included emergency procedures and responses to hazards such as BESS thermal runaway. The Commission finds that the ERP addresses ESF-related risks from the project.

44. The Commission considers co-ordination with local emergency response services as a core component of an effective ERP. Proteus stated that it developed the ERP in 2023 in consultation with the Municipal District of Taber Fire Department, Area Landman & Stakeholder Relations - Medicine Hat with Canadian Natural Resources Ltd. and the Bow River Irrigation District. Proteus committed to continued engagement and stated that it will continue to consult with emergency responders throughout the life of the project.

45. To promote continued co-ordination with local emergency services and effective emergency response, the Commission imposes the following conditions of approval:

- i. Proteus Alberta Solar 2 Ltd. shall continually, during construction and operation, and at a minimum annually, review and update the site-specific emergency response plan, and incorporate any reasonable changes necessary to address concerns received from local emergency services, the Municipal District of Taber, and other interested stakeholders such as local landowners. The updated plans are to be provided to the Municipal District of Taber and local fire departments.
- j. Proteus Alberta Solar 2 Ltd. and any subsequent operator, shall implement any ongoing upgrades to improve the safety of the project, including but not limited to firmware and software enhancements, monitoring capability enhancement, process changes and safety standards as they are developed.
- k. Proteus Alberta Solar 2 Ltd. shall develop and implement a reliable communication plan based on input from local residents and landowners.

46. The Commission considers it reasonable to require Proteus and subsequent operators to maintain adequate insurance coverage throughout the life of the project. Consequently, the Commission imposes the following condition of approval:

1. Proteus Alberta Solar 2 Ltd. and any subsequent operator, shall at all times during the construction and operation of the project, maintain insurance coverage that is sufficient to protect against any reasonably foreseeable liabilities.

3.7 Will there be a suitable reclamation security program in place?

47. 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.

48. Proteus stated that the reclamation security will be provided in a form acceptable to the hosting landowner, the Bow River Irrigation District, which includes a letter of credit, bond or guarantee from a creditworthy entity. On or before the commencement date of the surface lease agreement, Proteus will retain the option to provide the hosting landowner with a third-party corporate guarantee of fulfilment in lieu of a bond. Proteus stated that the reclamation security will be reassessed every five years, or as otherwise required by any reclamation security requirements that may be established by the Commission or the Government of Alberta.

49. Proteus stated that the terms of the lease agreement include a clause requiring Proteus to adhere to any stricter or higher standard for the decommissioning and reclamation plan, if required by applicable federal, provincial or local law.

50. Proteus retained SUNSET Renewable Asset Management Inc. to prepare a reclamation cost estimate report for the project. The report estimated a total reclamation cost of \$16,311,778 with an estimated salvage value of \$10,578,505, which results in a net reclamation cost of \$5,733,273. Proteus stated that salvage revenue over the life of a project can be affected by changes in commodity pricing, which are in turn affected by supply and demand and that salvage costs can fluctuate over time.

51. In response to an information request from the Commission, Proteus did not agree to commit to using 50 per cent of the estimated salvage value in all of the reclamation cost estimates for the proposed project. Proteus stated that the estimated salvage values in the SUNSET report were calculated by an expert based on project-specific details about equipment, locations and expected labour costs. In Proteus's view, this project-specific cost analysis should be accepted over the more general approach to apply a reduction in the salvage value. Proteus stated that it will follow any future directives related to reclamation security outlined by the Government of Alberta that are applicable to the project.

52. On February 28, 2024, 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 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." 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 Proteus' reclamation security program indicates that sufficient funds will be available to reclaim the project at its end of life.

53. The Commission finds that Proteus's approach to reclamation security does not adequately ensure funds will be available at the project's end of life. Specifically, the Commission is concerned that the third-party estimate is not sufficiently conservative, as it expects prospective salvage value to cover 65 per cent of the costs of reclamation. The Commission does not consider it sufficiently certain that the equipment will retain its commercial value, and therefore it is not prudent to allow almost the entire reclamation cost to be based on a prospective and uncertain salvage value.

54. The Commission's understanding is that the intention of the Government of Alberta is to put a reclamation security regime in place to require appropriate security. The effective date of March 1, 2024, suggests that Proteus would be captured by any such legislative/policy regime when it is issued. Should Proteus not be subject to the Government of Alberta's regime, the Commission requires an updated third-party estimate that uses no more than 50 per cent of the estimated salvage value in the overall net reclamation cost estimate. Accordingly, the Commission imposes the following condition of approval:

- m. At least 60 days prior to the start of construction, Proteus Alberta Solar 2 Ltd. shall submit an updated third-party reclamation cost estimate report that uses no more than 50 per cent of the estimated salvage value in the overall reclamation cost estimate. If the Government of Alberta's security regime is in place at that point, Proteus Alberta Solar 2 Ltd. may alternatively file a letter confirming Proteus Alberta Solar 2 Ltd. will be providing reclamation security directly to the Government of Alberta.

55. The Commission is currently satisfied with the proposed method of posting security, a bond or letter of credit with the hosting landowner as the beneficiary. Finally, the Commission considers it sufficiently protective that the reclamation security will be posted prior to the start of construction.

4 Decision

56. Under sections 11, 13.01(1), 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves applications 29592-A001 to 29592-A003 and grants Proteus Alberta Solar 2 Ltd. the approvals set out in:

- Appendix 1 – Power Plant and Energy Storage Facility Approval 29592-D02-2025 to construct and operate the Proteus Alberta Solar 2 Project and Energy Storage Facility.
- Appendix 2 – Substation Permit and Licence 29592-D03-2025 to construct and operate the South Hays 1088S Substation.

57. The appendixes will be distributed separately.

Dated on April 11, 2025.

Alberta Utilities Commission

(original signed by)

Michael Arthur
Commission Member

Appendix A – 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 29592-D01-2025 that require a subsequent filing with the Commission and will be included as conditions of Power Plant and Energy Storage Facility Approval 29592-D02-2025:

- a. Proteus Alberta Solar 2 Ltd. shall submit an annual post-construction monitoring survey report or reports, which include results of monitoring for Proteus Alberta Solar 1, Proteus Alberta Solar 2, and Proteus Alberta Solar 3 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 the AEPA's post-construction monitoring response letter to the Commission within one month of its issuance to Proteus Alberta Solar 2 Ltd. 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*. In regard to whether Proteus Alberta Solar 1, Proteus Alberta Solar 2, and Proteus Alberta Solar 3 are surveyed as a whole or in separation, the Commission requires Proteus Alberta Solar 2 Ltd. to consult with and adhere to the preferences of AEPA.
- b. Once Proteus Alberta Solar 2 Ltd. has finalized its equipment selection for the solar power plant and energy storage facility, it must file a final project update to 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.
- c. Proteus Alberta Solar 2 Ltd. shall conduct a post-construction comprehensive sound level (CSL) survey, including an evaluation of low frequency noise, at Receptor R1. 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, Proteus Alberta Solar 2 Ltd. shall file a report with the Commission presenting measurements and summarizing the results of the post-construction CSL survey.
- m. At least 60 days prior to the start of construction, Proteus Alberta Solar 2 Ltd. shall submit an updated third-party reclamation cost estimate report that uses no more than 50 per cent of the estimated salvage value in the overall reclamation cost estimate. If the Government of Alberta's security regime is in place at that point, Proteus Alberta Solar 2 Ltd. may alternatively file a letter confirming Proteus Alberta Solar 2 Ltd. will be providing reclamation security directly to the Government of Alberta.

The following are conditions of Decision 29592-D01-2025 that may not or do not require a subsequent filing with the Commission:

- d. Proteus Alberta Solar 2 Ltd. shall configure the project solar panels using a resting angle greater than or equal to three degrees during the backtracking operation.
- e. Proteus Alberta Solar 2 Ltd. shall file a report with the Commission detailing any complaints or concerns it receives or is made aware of regarding solar glare from the project during its first year of operation, as well as Proteus Alberta Solar 2 Ltd.'s response to the complaints or concerns. Proteus Alberta Solar 2 Ltd. shall file this report no later than 13 months after the project becomes operational.
- f. Proteus Alberta Solar 2 Ltd. shall use solar panels with anti-reflective coating for the project.
- g. Proteus Alberta Solar 2 Ltd. 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. Excluding emergency situations, the energy storage facility will not be operated without the system in use.
- h. Proteus Alberta Solar 2 Ltd. shall install a thermal imaging camera at each of the energy storage facility sites for continuous monitoring, and where appropriate, shall integrate the camera into its system alarms, shutdowns and emergency response planning.
- i. Proteus Alberta Solar 2 Ltd. shall continually, during construction and operation, and at a minimum annually, review and update the site-specific emergency response plan, and incorporate any reasonable changes necessary to address concerns received from local emergency services, the Municipal District of Taber, and other interested stakeholders such as local landowners. The updated plans are to be provided to the Municipal District of Taber and local fire departments.
- j. Proteus Alberta Solar 2 Ltd. and any subsequent operator, shall implement any ongoing upgrades to improve the safety of the project, including but not limited to firmware and software enhancements, monitoring capability enhancement, process changes and safety standards as they are developed.
- k. Proteus Alberta Solar 2 Ltd. shall develop and implement a reliable communication plan based on input from local residents and landowners.
- l. Proteus Alberta Solar 2 Ltd. and any subsequent operator, shall at all times during the construction and operation of the project, maintain insurance coverage that is sufficient to protect against any reasonably foreseeable liabilities.