AUC
Alberta Utilities Commission

Fox Meadows Wind Inc.

Fox Meadows Wind Project

June 20, 2025

Alberta Utilities Commission
Decision 29226-D01-2025
Fox Meadows Wind Inc.
Fox Meadows Wind Project
Proceeding 29226
Applications 29226-A001 to 29226-A003

June 20, 2025

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1 Executive summary

1. In this decision the Alberta Utilities Commission approves applications from Fox Meadows Wind Inc. (FMWI) to construct and operate a 165-megawatt (MW) wind power plant, a 70-MW/219.2-megawatt-hour (MWh) energy storage facility and the associated Spalding 1059S Substation, designated as the Fox Meadows Wind Project (the project), subject to certain conditions, but does not approve Turbine T24 in its requested location.

2. The Edgerton Land Advocates group (ELA) and the Municipal District of Provost No. 52 (MD of Provost) intervened in this proceeding, and both expressed concerns about the project. The ELA requested that the Commission deny FMWI's applications or, if approved, include specific conditions as outlined in their submissions. Similarly, the MD of Provost did not consider the project beneficial to the local community but if the Commission deemed the project to be in the public interest, it requested that certain conditions be included.

3. The Commission finds that Turbine T24 is within the MD of Provost's residential setback requirement, and could negatively impact nearest non-participating residents' enjoyment of their property and operation of their business. This turbine location is not approved.

4. The Commission has weighed the concerns raised by the interveners against the benefits of the project and various mitigative measures proposed by FMWI. The Commission's reasons for finding the project, with the exception of Turbine T24, to be in the public interest are set out in detail in this decision and summarized below:

- The agricultural impacts from the project are expected to be minimal. Further, FMWI has sufficiently demonstrated that agricultural impacts are adequately mitigated. The Commission expects that any loss of agricultural use of the project lands will be reversible at the project end of life.

- The Alberta Environment and Protected Areas renewable energy referral report for the project determined that the project poses an overall moderate risk to wildlife and wildlife habitat. The Commission accepts that the project is appropriately sited with respect to most *Wildlife Directive for Alberta Wind Energy Projects* standards and finds the environmental impacts of the project to be reasonable considering the mitigations committed to and conditioned in this decision.

- Fire risks associated with the energy storage facility are limited and will be mitigated by FMWI's monitoring systems and emergency response plan to an acceptable level. The Commission requires FMWI to continually review and update the site-specific emergency response plan.

- The project is predicted to comply with the permissible sound levels as defined in Rule 012: *Noise Control*.

- The project is not likely to create disruptive shadow flicker conditions for nearby residents and the Commission requires FMWI to promptly address complaints or concerns from residents regarding shadow flicker impacts during the project operations and implement mitigation measures where necessary.

- FMWI's participant involvement program generally achieved the purposes of consultation and notification set out in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*. The Commission acknowledges FMWI's commitment to continue to work with stakeholders throughout the life cycle of the project to address any concerns as they arise.

- The Commission considers and will continue to consider municipal requirements. The Commission encourages FMWI to continue to work with the local municipalities to facilitate the execution of the project.

- FMWI is expected to reasonably manage project impacts to weeds and clubroot in consultation with the local municipalities.

- The Commission finds that there can be a negative public perception of the project's effects on viewscapes that may translate into a negative effect on property value for some properties but is satisfied that these impacts are reasonable when balanced against the project's public benefits.

- The Commission accepts that FMWI's approach to reclamation is reasonable. FMWI is required to fully reclaim the project and bear the costs of doing so.

5. Overall, the Commission finds that with the exception of Turbine T24, approval of the applications, as conditioned, is in the public interest, having regard to the social, economic, environmental and other effects of the project.

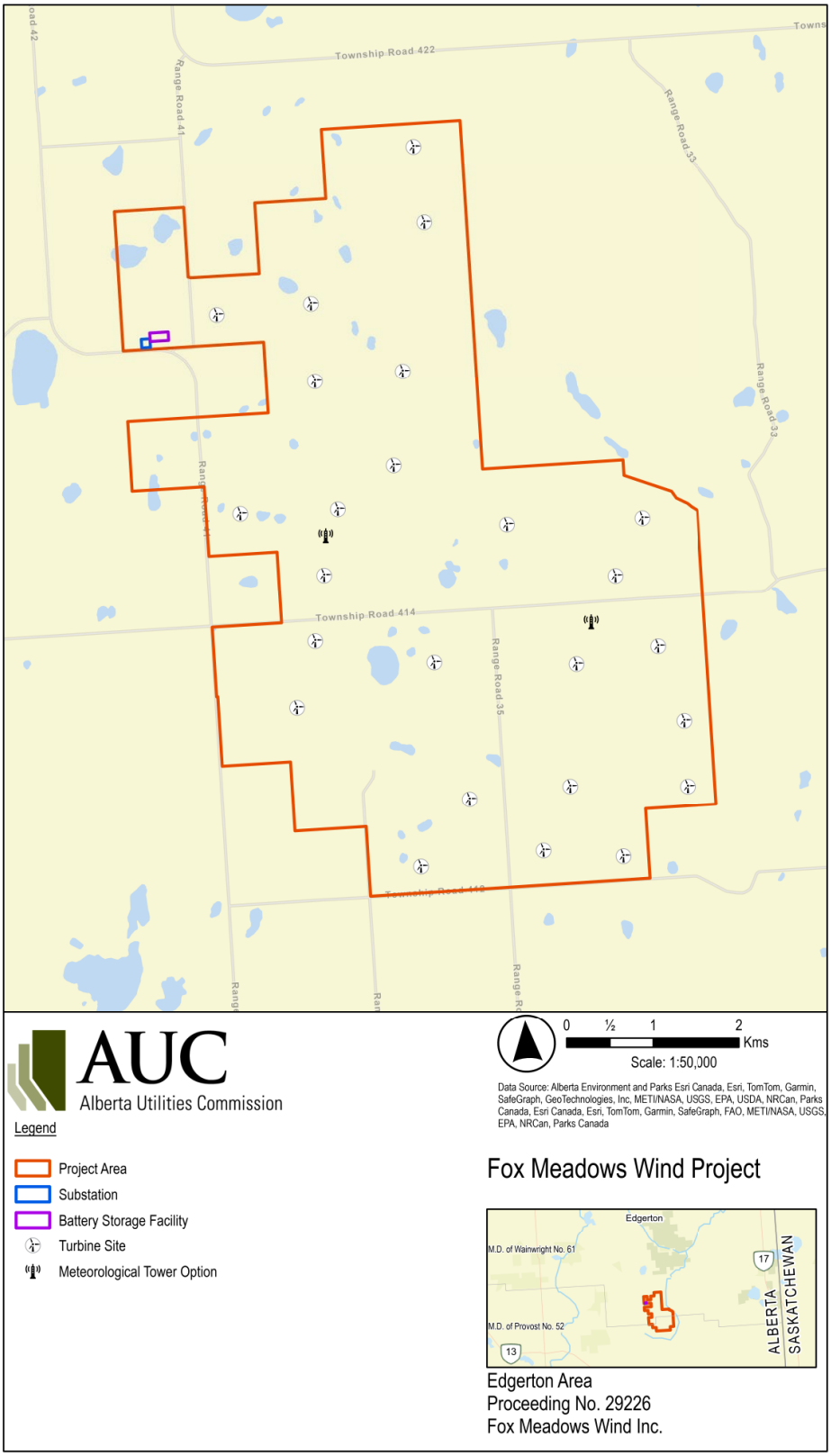
2 Introduction

2.1 Summary of Fox Meadows Wind Inc.'s applications

6. Fox Meadows Wind Inc. (FMWI) applied to construct and operate a 165-MW wind power plant, energy storage facility (ESF) and the associated Spalding 1059S Substation, designated as the Fox Meadows Wind Project (the project).

7. The project will be located in the Municipal District (MD) of Wainwright No. 61 and the Municipal District of Provost No. 52, approximately 17 kilometres south of the village of Edgerton and approximately 20 kilometres north of the town of Provost. Specifically, the project would be located within townships 41 and 42, ranges 3 and 4, west of the Fourth Meridian, with the Spalding 1059S Substation and ESF located in the southeast quarter of Section 2, Township 42, Range 4, west of the Fourth Meridian. The project location is shown in Figure 1.

Figure 1. Fox Meadows Wind Project, Spalding 1059S Substation and energy storage facility location



8. The power plant will consist of 25 wind turbines, with a total generating capability of 165 MW. The project turbines will have a hub height of 115 metres and a rotor diameter of 162 metres. The power plant will also include an underground collector system, which will be used for collecting the electric energy generated by each turbine and transmitting the electric energy to the associated Spalding 1059S Substation.

9. The ESF will consist of 90 energy storage containers, 18 inverter transformer stations and three 1-megavolt ampere (MVA) auxiliary transformers. The ESF will have a total discharging capability of 70 MW and storage capacity of 219.2 MWh. The ESF will charge from the project wind turbines and discharge to the Alberta Interconnected Electric System (AIES).

10. The substation will include one main step-up 138/34.5-kilovolt (kV) 120/133/167-MVA transformer, one 138-kV circuit breaker, six 34.5-kV circuit breakers with grounding switches, one 34.5-kV circuit breaker and one control building.

11. Additional infrastructure would include access roads and a meteorological tower. FMWI has identified two options for the location of the meteorological tower.

12. FMWI submitted that the project substation, located approximately 50 metres from the existing Transmission Line 749AL, would be the point of interconnection to the AIES. A separate application will be submitted in the future to the AUC by the Alberta Electric System Operator (AESO) and the transmission facility owner, AltaLink Management Ltd., for the transmission line and connection to the AIES.

13. FMWI submitted that the final schedule for the project construction has not been finalized with the AESO and AltaLink, but based on the information available, FMWI anticipates that it will start construction by July 1, 2026, and complete construction by September 1, 2029, with a planned in-service date of September 1, 2028, and a commercial operations date of March 1, 2029. FMWI explained that the in-service date is the date when the facility is energized and capable of producing electricity, though not yet operating at full commercial capacity, and it may be used for commissioning and testing purposes, while the construction completion date is when all construction activities are fully completed. FMWI is requesting a construction completion date of September 1, 2029, for any approvals that may be issued for the project to align with the anticipated commercial operations date plus a six-month buffer for any unforeseen delays.[1]

14. FMWI submitted that the project would contribute to positive societal benefits, including a reduction in carbon emissions, a community benefit fund, creation of employment, and tax revenue. FMWI believes the project will reduce carbon emissions during its lifetime of operation and contribute to Alberta's overall efforts to reduce carbon-related impacts on the environment.

15. FMWI submitted that it will set up two benefit funds: a $750,000 community benefit fund with local municipalities to support local organization and initiatives, and a project-specific shared residents benefit fund. FMWI estimated that there will be 75 to 100 local jobs created during construction of the project and tax revenues amounting to approximately $22 million for

[1] Exhibit 29226-X0194, FMWI Response to AUC Request for Updated Project Schedule; Exhibit 29226-X0196, Response to Requests for Additional Information on Construction Schedule.

the MD of Provost and $96 million for the MD of Wainwright will be generated over the life of the project.

2.2 Interveners

16. The Commission issued a notice of applications in accordance with Rule 001: *Rules of Practice*. In response, the Commission received statements of intent to participate from members of the Edgerton Land Advocates group (ELA) and the MD of Provost. The MD of Wainwright did not intervene or participate in the proceeding.

17. The Commission granted standing to some members of ELA and permitted persons who did not have standing to join ELA to participate in the proceeding. ELA submitted evidence and argument on topics including environmental and wildlife impacts, agricultural impacts, shadow flicker, infrasound, visual impacts, property value impacts, noise impacts, health and safety issues, fire safety issues, consultation, residential impacts, and construction and reclamation.

18. The MD of Provost's concerns included issues related to residential setback requirements, rezoning application denial, emergency response, and clubroot and weed management. The Commission granted the MD of Provost full participation rights.

19. The Commission held an oral hearing from February 24 to 27, 2025, to consider the applications. The registered proceeding participants and the registered appearances for the oral hearing can be found in appendixes A and B, respectively.

3 The approval process for the project

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

3.1 What is the role of the Commission?

21. The Commission is an independent regulator responsible for considering applications for power plants, substations and ESFs in accordance with the legislative framework.[2] The Commission must consider whether the proposed project is in the public interest, having regard to its social, economic, environmental and other effects.[3]

22. The applicant bears the onus of demonstrating that approval of its project is in the public interest. Interveners may attempt to show the applicant has not met its onus by demonstrating the effects of the project on their interests, and explaining what a better balancing of the public interest might be. The Commission's role is to test and assess the evidence before it and engage

[2] *Hydro and Electric Energy Act*, sections 11, 13.01, 14, 15 and 19.
[3] *Alberta Utilities Commission Act*, Section 17.

in a multifaceted analysis established by the regulatory regime, to determine if the project should be approved, and if so, whether any conditions should apply.

23. On December 6, 2024, The *Electric Energy Land Use and Visual Assessment Regulation*[4] was enacted. The regulation was established to protect high-quality agricultural land, irrigable land, and valued viewscapes from the impacts of electric energy generation development. Also, on June 4, 2025, the Government of Alberta issued the Code of Practice for Solar and Wind Renewable Energy Operations, effective May 31, 2025, which sets out the requirements for reclamation security provided directly to the government.

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

3.2 How does the Commission assess the public interest?

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

26. As a starting point, a power plant application 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 set out a comprehensive set of requirements that a facility application must contain.

27. The Commission also balances a variety of public interest considerations, taking into account the purposes of the *Hydro and Electric Energy Act* and the *Electric Utilities Act*. These statutes provide for the economic, orderly and efficient development of facilities and infrastructure, including power plants and ESFs, that are in the public interest. They also set out a framework for a competitive generation market, where decisions about whether and where to generate electricity are left to the private sector.[5]

28. 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.

[4] OIC 368/2024 (AB).
[5] *Hydro and Electric Energy Act*, sections 2 and 3; *Electric Utilities Act*, Section 5.

29. The Commission has previously affirmed that the public interest will be largely met if an application complies with existing regulatory standards, and the project's public benefits outweigh its negative impacts.

3.2.1 How does the Commission consider municipal planning instruments?

30. Municipalities play a unique role in land use planning and have a strong interest in upholding local objectives. The Commission considers their land use authority and planning instruments when determining if a project is in the public interest[6] and values the insights municipalities can provide on the potential effects of projects including the regional context of their planning instruments.[7] While the Commission considers municipal land use planning policies in making its public interest determination, these land use planning policies are also assessed against existing provincial laws, project impacts (social, economic and environmental effects), and compliance with Rule 007 and Rule 012.

31. Although the Commission endeavors to achieve consistency with municipal planning instruments, pursuant to sections 619 and 620 of the *Municipal Government Act*,[8] the Commission's decision on applications takes precedence over municipal planning instruments.[9] This approach aims to reduce regulatory burdens and ensures that issues heard and determined at the provincial level are not reheard at the municipal level.

4 Discussion and findings

32. The Commission considers the proposed power plant, except Turbine 24, substation and ESF to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act* and other applicable enactments, subject to the conditions described below. The Commission has reviewed the applications and has determined that the information requirements specified in Rule 007 and Rule 012 have been met.

33. For the reasons below, the Commission finds that approval of the project, except Turbine 24, is in the public interest having regard to its social, economic, environmental and other effects. In the following subsections, the Commission discusses its findings regarding agricultural impacts, environmental impacts, fire risks and emergency response plan, noise and infrasound, shadow flicker, public consultation, consultation with local jurisdictions, visual impacts, property value impacts, reclamation and project benefits.

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

7 Decision 28086-D01-2024: Three Hills Solar Power Corp. – Three Hills Solar Project, Proceeding 28086, Application 28086-A001, June 12, 2024.

8 *Municipal Government Act*, RSA 2000, c M-26, sections 619 and 620.

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

4.1 Are the impacts from the project to agricultural lands reasonable?

34. In this section, the Commission addresses whether the project creates unreasonable impacts to high-quality agricultural lands.

35. ELA submitted concerns regarding agricultural impacts from the project.[10] The Government of Alberta *Electric Energy Land Use and Visual Assessment Regulation*, which the Commission considered in making its decision, includes two agricultural productivity-related requirements for wind power projects on high-quality agricultural lands: (i) an agricultural impact assessment to be filed as part of the wind power project application; and (ii) a report confirming the agricultural productivity of the land to be filed within 36 months after the start of operations.[11] In addition to detailing the expected effect of the proposed wind power project on agricultural productivity, an agricultural impact assessment must include measures demonstrating that the wind power project is designed to achieve coexistence with agricultural land use.

36. The *Electric Energy Land Use and Visual Assessment Regulation*[12] was enacted on December 6, 2024. In Bulletin 2024-25,[13] the Commission provided direction on how it would apply this regulation to proceedings currently before it, for which a decision had not yet been issued. FMWI's applications were filed before the *Electric Energy Land Use and Visual Assessment Regulation* was enacted. Given this, the Commission considers that this project is not subject to the agricultural productivity-related requirements in the *Electric Energy Land Use and Visual Assessment Regulation*. However, from a policy perspective, in considering the project, the Commission is mindful of the intent of the regulation, which aims to ensure that wind power projects on lands of demonstrable high quality have an adequate approach to achieving the coexistence of agriculture and wind power generation.

37. To that end, after assessing the record of this proceeding, the Commission is satisfied that FMWI has adequately demonstrated that the project can coexist with agricultural activities in the area. The project's permanent disturbance is limited given the small size of the turbines' footprints and the proposal to use existing roads as much as reasonable. While temporary impacts from wind power projects have the potential to reduce agricultural productivity, the Commission finds that these risks can be suitably avoided through the proper implementation of mitigations outlined in the environmental protection plan and current provincial regulations (e.g., *Soil Conservation Act*, *Weed Control Act*).

38. ELA also raised concerns surrounding microplastic shedding from turbine blades. In response, FMWI retained Dr. Christopher Ollson, an environmental health specialist from Ollson Environmental Health Management. Dr. Ollson submitted a review of these concerns and spoke to the types of contaminants, their concentrations and states at various stages of manufacturing and operation, and how this should be considered when assessing health risks. Dr. Ollson concluded that microplastics were not a risk to health, or the health of livestock, due to the chemical properties of wind turbines, safety protocols requiring turbine blades be replaced,

[10] Exhibit 29226-X0117, 2024-12-20 ELA Group Submissions.
[11] *Electric Energy Land Use and Visual Assessment Regulation*, sections 4 and 5.
[12] OIC 368/2024 (AB).
[13] Bulletin 2024-25, Changes to interim information requirements for power plant applications, December 18, 2024.

and microplastic concentrations if degradation were to occur.[14] The Commission accepts this conclusion as accurate and reasonable.

39. Considering the above, the Commission finds that the project will have low agricultural impact.

4.2 Environmental impacts

40. In this section, the Commission discusses the project's impacts to the environment, specifically to wildlife, native grasslands, and water wells, and determines that, with the commitments made by FMWI and the conditions below, the project is unlikely to cause significant adverse impacts to the environment.

4.2.1 How does the project impact wildlife?

41. The Alberta Environment and Protected Areas (AEPA) renewable energy referral report determined that the project poses an overall moderate risk to wildlife and wildlife habitat, with high risks for breeding raptors, birds[15] and bat mortality; moderate risks for wetlands and sensitive amphibians, and breeding birds; and low risks for sharp-tailed grouse and native habitat.[16]

42. Both FMWI and ELA retained their own independent witnesses to discuss wildlife risks of the project. Andy Edeburn from Maskwa Environmental Consulting Ltd. represented FMWI, and Cliff Wallis from Cottonwood Consulting and Dr. Robert Barclay from the University of Calgary represented ELA for overall wildlife concerns and bats respectively.

4.2.1.1 Are the risks from the project to birds acceptable?

43. C. Wallis raised concerns surrounding the project's impacts to birds, primarily that: high concentrations of migratory water birds travelled through the area; the relaxation of wetland setbacks should be disallowed due to the importance of these wetlands for biodiversity and species of management concern; the aerial footprint for the project may not be appropriately considered or mitigated; the project is located within the whooping crane migration corridor; and concerns for cumulative effects to wildlife populations due to increased renewable energy development provincially.[17]

44. Based on these concerns, C. Wallis recommended: the project adhere to 100-metre setbacks for Class III+ wetlands; AUC and AEPA conduct a cumulative impacts study on renewable energy impacts to wildlife and wetlands; regulatory bodies consider nocturnal migrant bird studies; the Commission require curtailment during migration periods; other operational mitigation options be researched and implemented; a snake protection protocol be developed; post-construction monitoring occur for the life of the project; and mortality reporting be made publicly accessible.

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[14] Exhibit 29226-X0146, Appendix D - Ollson Reply Evidence, PDF pages 28 and 29.

[15] For clarification, AEPA includes an overall bird risk which reflects other risk ranking categories including migrating birds, breeding birds, raptor nest, and species at risk risks.

[16] Exhibit 29226-X0010.01, Attachment G_Environmental Evaluation, PDF pages 88-96, APPENDIX B Renewable Energy Referral Report and Amendment Letter.

[17] Exhibit 29226-X0119, Appendix B - Evidence of Cliff Wallis, PDF pages 2 to 4.

Has the project minimized or avoided impacts to the wetlands?

45. C. Wallis raised concerns surrounding the level of wetland impacts, and the encroachments into setbacks for Class III+ wetlands. C. Wallis specifically included statements that rotor-swept areas for turbines should be considered in wetland encroachments.

46. Both FMWI and C. Wallis provided tables and mapping which, together, details the area of wetland impacts separated by wetland class and infrastructure type.[18] In review of this evidence, it is apparent to the Commission that FMWI has reasonably attempted to avoid wetland impacts by using existing roads for upgrades and routing collector lines to avoid most wetlands. With regard to consideration of rotor-swept areas and their inclusion in wetland encroachments, the Commission notes that AEPA has assessed the project infrastructure in its entirety and the referral report determined a moderate risk to wetlands.

47. C. Wallis additionally raised specific concerns surrounding the project's proximity to Black Creek, a particularly large wetland complex to the northwest of the project area. C. Wallis argued that Black Creek provides diverse and productive bird habitat which makes it a wetland bird congregation area. Based on the quality of this habitat, C. Wallis recommended that a 1,000-metre setback be applied to Black Creek, and on this basis, recommended denial of project turbines 1, 2, 4 and 11, which were approximately located between 300 metres and 950 metres from Black Creek.[19]

48. FMWI did determine that Black Creek had higher bird activity during spring and fall migration surveys, due to high numbers of Canada goose and snow goose.[20] However, FMWI asserted that the 1,000-metre setback recommended by C. Wallis was not appropriate for Black Creek and only a 100-metre setback was required,[21] as the *Wildlife Directive for Alberta Wind Energy Projects* (Wildlife Directive) only requires wetland setbacks of 1,000 metres for named lakes listed by Natural Resources Canada (NRCan) and specific environmental features associated to colonial nesting birds.[22]

49. While the Commission does view Black Creek to be a relatively high-quality wetland complex, the Commission accepts FMWI's reasoning as to why only a 100-metre setback would be required.

50. Based on the considerations above, the Commission finds that the proposed project siting in relation to wetlands is reasonable considering other project constraints and considerations, adherence to applicable guidelines from the Wildlife Directive, and mitigation commitments made by FMWI.

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18 Exhibit 29226-X0010.01, Attachment G_Environmental Evaluation, PDF pages 40, and 215 to 220; and Exhibit 29226-X0119, Appendix B - Evidence of Cliff Wallis, PDF page 33.

19 Exhibit 29226-X0119, Appendix B - Evidence of Cliff Wallis, PDF pages 4, 27, 34 and 48; and Exhibit 29226-X0006, Attachment C_Keyhole markup language data file.

20 Exhibit 29226-X0010.01, Attachment G_Environmental Evaluation, PDF page 142.

21 Exhibit 29226-X0143, Appendix A - Maskwa Reply Evidence, PDF page 25.

22 Government of Alberta, 2017, *Wildlife Directive for Alberta Wind Energy Projects*, Standard 100.2.8 and Appendix A.

Does the project create an unacceptable risk to whooping crane?

51. Whooping crane (*Grus americana*) is listed as "Endangered" federally and "At Risk" provincially and is generally known to be a significant species from a conservation perspective.[23] C. Wallis raised concerns as FMWI had a direct observation of one whooping crane during its wildlife surveys and the project is known to be located in the whooping crane migration corridor. C. Wallis specifically stated concerns about the cumulative impacts of wind power projects on whooping crane, including mortality at power lines, which are known to be a high mortality source for the species.[24]

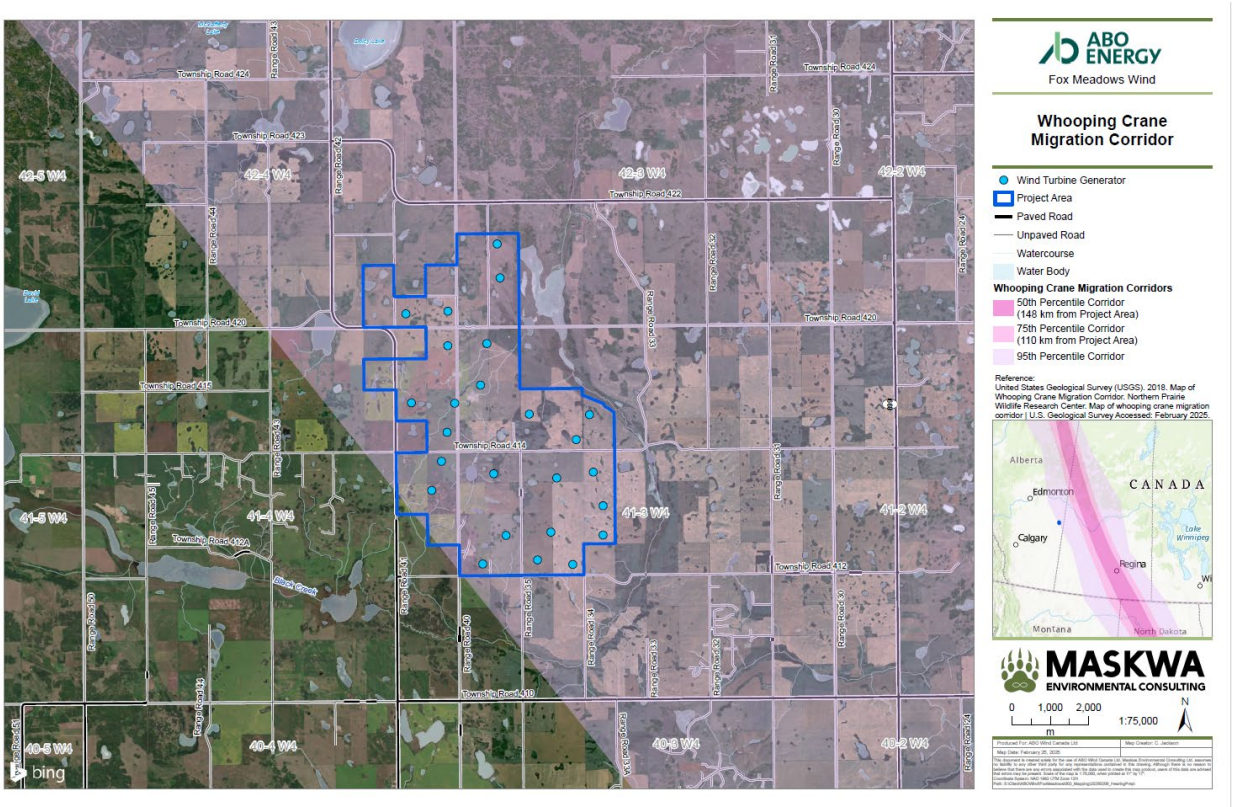
52. In response, FMWI stated that it did not believe power lines were a particular issue for the project as a majority of the collector lines would be underground. FMWI also emphasized that only one whooping crane was observed in the project area and no historical whooping crane records were identified in the Fish and Wildlife Information in the Fisheries and Wildlife Management Information System (FWMIS) database for the area.[25] In response, C. Wallis specifically stated that the number of whooping crane observations should not be a focus for determination of the risk to this species, as they currently have low numbers.

53. The Commission notes that the FWMIS database does not prove an absence of species, as it is dependent on qualified biologists having historically conducted surveys in an area of focus and then those observations must be submitted to AEPA. Therefore, while FWMIS can be a proof of potential presence, it will not be accepted as a proof of absence. Additionally, the Commission considers that a population that is listed as Endangered, and with numbers as low as whooping crane numbers, would naturally be present less than other species. Therefore, the Commission gives little weight to how many observations of whooping crane occurred relative to other species of wildlife.

54. Submissions in C. Wallis's evidence included a figure showing historical records of whooping crane near the project area. However, the Commission noted that concentrations of observations were primarily east of the project, and areas of extended use were absent in Alberta, with the exception of their breeding grounds in northern Alberta.[26] The Commission requested an undertaking for geospatial maps which showed the likelihood that whooping crane would travel through the project area. A map was submitted to the record which showed that the project was located in the 95th percentile corridor, meaning that 95 per cent of the population travelled within the bounds of this area (see Figure 2).[27]

[23] Exhibit 29226-X0119, Appendix B - Evidence of Cliff Wallis, PDF page 42.
[24] Exhibit 29226-X0119, Appendix B - Evidence of Cliff Wallis, PDF page 43.
[25] Transcript, Volume 4, page 518, lines 14 to 25, and page 519, lines 1-4.
[26] Exhibit 29226-X0119, Appendix B - Evidence of Cliff Wallis, PDF pages 49 and 50.
[27] Exhibit 29226-X0192, Attachment FMWI Undertaking Response 6 - Whooping Crane Migration Corridor.

Figure 2. Project area and whooping crane migration corridor



55. In the Commission's view, it is important to explain Figure 2 for clarity. Instead of interpreting this figure as showing that 95 per cent of whooping cranes will travel through the project area, it is important to consider the 50th percentile corridor and 75th percentile corridor in conjunction with the 95th percentile corridor. As a whole, this figure is showing that a majority of the population migrates in a concentrated corridor east of the project, with a very clear focal point through Saskatchewan and northern Alberta, and occasionally individuals will stray from this concentrated migration corridor towards the 95th percentile corridor. However, as distance from the 50th percentile corridor increases, population stray becomes less likely.

56. In consideration of the evidence, the Commission determines that both FMWI's and C. Wallis's arguments are reasonable. Ultimately, the Commission believes that whooping crane deserves additional consideration over other species due to their low population size and conservation importance. However, in consideration of the risk that the project has to whooping cranes, the Commission finds that the project does not create an unreasonable risk due to the project being located near the western boundary of the 95th percentile migration corridor, and an absence of extended-use habitat near the project.

57. However, the Commission acknowledges C. Wallis's recommendations that cumulative impacts to whooping crane should be considered for wind projects, including the risk that power lines present. The Commission will consider any wind development proposed within any percentile of the whooping crane migration corridor and if necessary, impose related conditions.

58. Based on these concerns, the Commission imposes the following conditions of approval on the project to address cumulative impacts to whooping crane and power line risks:

a. Fox Meadows Wind Inc. 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 Alberta Environment and Protected Areas' post-construction monitoring response letter to the Commission within one month of its issuance to Fox Meadows Wind Inc. 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 Section 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*. Post-construction monitoring must include a survey of the power lines and transmission lines that service the project and are located within any percentile of the whooping crane migration corridor.

b. In addition, due to the increase in wind project development in the province and the potential for cumulative impacts to whooping crane in the future, Fox Meadows Wind Inc. will be required to comply with any current and future requirements, recommendations and directions provided by Alberta Environment and Protected Areas as they relate to cumulative impacts. This includes participation in a working group and the future implementation of any additional monitoring and mitigation that Alberta Environment and Protected Areas considers necessary to address cumulative impacts occurring from two or more projects within the whooping crane migration corridor.

c. All overhead power lines and transmission lines will have strike diverters, or additional superior mitigations, installed with the intention of avoiding whooping crane collisions. Fox Meadows Wind Inc. must ensure that a mitigation plan, which specifically addresses transmission line collision risk for whooping crane, is submitted during the future application for the transmission line associated to the project, and Alberta Environment and Protected Areas must be informed of, and provided a copy of, this mitigation plan.

4.2.1.2 What is the project's risk to bats?

59. Both FMWI and ELA retained their own independent witnesses for bats, with A. Edeburn representing FMWI and Dr. Barclay representing ELA. These witnesses discussed evidence surrounding the rates of migratory bat population declines, the current science surrounding wind turbines as a mortality source for bats, the pre-construction and post-construction survey methods for bats, and the details of bat mortality mitigation strategies.

60. Three species of migratory bats make up most fatalities in Alberta: hoary bat (*Lasiurus cinereus*), silver-haired bat (*Lasionycteris noctivagans*) and eastern red bat (*Lasiurus borealis*). All three migratory bat species have recently had their species status upgraded to Endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).[28] Various decline rates have been suggested, but Dr. Barclay estimates population declines for hoary bats could be

[28] The Commission notes that COSEWIC is a qualified independent, arms-length advisory panel to the Minister of Environment and Climate Change Canada. COSEWIC listings do not carry legal protections but are taken into consideration when establishing the official list of wildlife species at risk under the *Species at Risk Act*.

as much as 50 per cent by 2028.[29] However, in review of the evidence the Commission finds that there are still many unknowns about these species, such as their overall populations, which ultimately makes conservation decisions difficult.

What is Alberta's process for determining bat risks from wind projects and associated mitigations?

61. The Commission generally notes that Alberta's bat detection and mitigation strategies are complex. Therefore, this process is outlined below for context (steps in a sequential order):

(1) The applicant conducts pre-construction bat surveys using audio detectors prior to a project's construction. These surveys are guided by methods outlined in the *Handbook of Inventory Methods and Standard Protocols for Surveying Bats in Alberta* and are generally intended to give a representative understanding of bats in and near the project area.[30]

(2) These results and methods are submitted to AEPA for its determination of the risk that a project poses to bats, and AEPA determines a risk ranking using the guidance outlined in the *Bat Mitigation Framework for Wind Power Development*.[31] This risk ranking is considerate of whether methods were appropriately followed, as outlined in the *Renewable Energy Risk Framework*.[32]

(3) The Commission reviews this bat risk ranking as part of the public interest test and determines if a project is approved, approved with conditions, or denied.

(4) Assuming the project is approved, the project is constructed in accordance with any conditions outlined by the Commission and commitments outlined by the applicant.

(5) Following project construction, post-construction monitoring is conducted by qualified biologists, in accordance with Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* and the *Post-construction Survey Protocols for Wind and Solar Energy Projects.*[33] This AEPA guidance protocol outlines the standardized methods for searching for bird and bat mortalities and adjusting the numbers of found mortalities to correct for unfound mortalities, ultimately known as corrected mortalities. This gives a more accurate estimate of mortalities and provides the degree of statistical error involved in the surveys. AEPA outlines in the *Bat Mitigation Framework for Wind Power Development* that a project which exceeds eight bat mortalities per turbine per year (corrected mortality) will be expected to provide mitigations to get the project below the eight bat mortalities per turbine per year threshold.

[29] Exhibit 29226-X0121, Appendix D - Evidence of Dr. Robert Barclay.
[30] Alberta Fish and Wildlife Division, 2010, Handbook of inventory methods and standard protocols for surveying bats in Alberta.
[31] Alberta Environment and Sustainable Resource Development, 2013, *Bat Mitigation Framework for Wind Power Development*.
[32] Alberta Environment and Protected Areas, 2023, *Renewable Energy Risk Framework.*
[33] Government of Alberta, Post-construction Survey Protocols for Wind and Solar Energy Projects, issued on January 10, 2020.

(6) The applicant then submits these post-construction survey results to AEPA. If the project is above eight bat mortalities per turbine per year, the applicant is expected to propose a mitigation plan in order to achieve the eight bat mortalities per turbine per year. AEPA reviews this mitigation plan and provides a letter to the Commission, discussing their opinions on the proposed mitigation plan. Currently, it is generally accepted that implementing some form of curtailment during the fall bat migration period is the most successful mitigation strategy for reducing bat mortality.

(7) The applicant conducts these post-construction surveys for a minimum of three years but is expected to increase mitigations and increase the three-year monitoring period if they are unable to achieve the eight bat mortalities per turbine per year threshold and show its consistency through follow-up years. Usually, applicants do not implement mitigations until the second year of operation. This gives an unbiased dataset on bat mortality rates at a project but can come with the risks of increased unmitigated mortality numbers.

(8) Once mitigations are determined appropriate, the applicant must uphold these mitigations for the lifespan of the project.

(9) A qualified biologist from the AUC reviews all steps above to provide expert opinion on all portions of this process and all parties' determinations. If applicants are not adhering to this process, the Commission has the opportunity to engage enforcement options.

Was the project's bat risk appropriately determined and reasonable?

62. Dr. Barclay opined that FMWI's pre-construction bat surveys were not conducted appropriately, due to issues with the bat detectors. A. Edeburn responded that AEPA had assessed the project as having a high risk ranking for bats and the issues with these surveys were acknowledged in AEPA's determination of this risk ranking (see steps (1) and (2) above).

63. However, both A. Edeburn and Dr. Barclay agreed that pre-construction bat surveys are poor predictors of post-construction mortality and that post-construction surveys are ultimately a better indicator. They both also agreed that curtailment is the most successful strategy for addressing concerning mortalities of migratory bats at wind projects, and, that the climate benefits of wind power projects should be acknowledged.

64. After considering this evidence, the Commission finds that given the conclusions by both witnesses that pre-construction surveys are poor indicators of post-construction bat mortality rates, discussions on the deficiencies of pre-construction survey methods are less relevant.

65. To address concerns with bat mortalities, FMWI committed to creating and implementing an Operational Curtailment Mitigation Plan. Curtailment at 4.5 metres per second would start the first year of operation from August 1 to September 10.[34] The Commission recognizes that this commitment goes above and beyond the standard post-construction monitoring and mitigation protocols, which usually do not apply mitigation during the first year of project operation.

[34] Exhibit 29226-X0193, FMWI Commitment List, PDF page 2.

66. Despite the above, the Commission is concerned about wind projects' contributions to bat population declines, the rates of these declines and the unknowns surrounding these declines. Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* requires approval holders to submit to AEPA and the AUC annual post-construction monitoring survey reports. The post-construction monitoring requirements specified in Condition a at paragraph 58 of this decision are applicable to bat mortality surveys and are therefore not relisted in this section. Due to the unknowns and the rate at which information is evolving surrounding bat populations, the Commission imposes the following conditions of approval for the power plant:

d. If a mitigation plan is required to bring the project below the bat mortality thresholds determined by Alberta Environment and Protected Areas, Fox Meadows Wind Inc. shall file this mitigation plan with the Commission by March 31, for each year a mitigation plan is required.

e. Due to the increase in wind project development in the province and the potential for cumulative impacts, and to address the unknowns of population data, Fox Meadows Wind Inc. will be required to abide by any current and future requirements, recommendations and directions provided by Alberta Environment and Protected Areas as they relate to cumulative impacts. This includes participation in a working group and the future implementation of any additional monitoring and mitigation that Alberta Environment and Protected Areas considers necessary to address cumulative impacts occurring from two or more projects within the local area, as defined by Alberta Environment and Protected Areas.

4.2.2 Does the project create an unreasonable risk to water wells and dugouts?

67. The next issue the Commission addresses is whether the project creates an unreasonable risk to water wells and dugouts.

68. ELA expressed concerns surrounding the potential for the project to impact water wells and dugouts due to vibrations from the wind turbines.[35] While the Commission acknowledges the concerns from ELA regarding the value of water and its apprehension that the water wells will be damaged, there is no evidence on record supporting this. ELA's submissions on this issue were not supported by academic studies, data or a professional opinion.

69. Water well mapping was provided in the environmental evaluation based on desktop database searches. This review found 35 groundwater wells near the project and included a recommendation that groundwater wells be field verified prior to construction.[36] The Commission finds desktop assessments reasonable for determining the general water well risk a project presents, prior to AUC approval. However, the Commission is also aware that not all water wells, or their exact locations, will be listed in desktop assessments. The Commission therefore expects FMWI to know the location of water wells within the project area prior to construction, so appropriate assessments of risk and associated mitigations can be applied (e.g., setbacks, decommissioning). Given that the project design has not yet been finalized, the Commission will not require FMWI to conduct field-verification surveys for water wells at this

[35] Transcript, Volume 3, page 439, lines 11-14, and page 457, lines 8-11; and Exhibit 29226-X0118, Appendix A - Landowner Submissions.

[36] Exhibit 29226-X0010.01, Attachment G_Environmental Evaluation, PDF page 46.

time. Instead, the Commission imposes the following conditions of approval for the power plant and ESF:

f. Once Fox Meadows Wind Inc. has finalized its equipment selection for the power plant and energy storge facility, it must file a final project update with the Commission to confirm that the project has stayed within the final project update allowances for wind 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. The final project update must specify the final location of the meteorological tower.

g. Prior to construction, Fox Meadows Wind Inc. shall conduct field-verification surveys, including communication with project landowners and nearby landowners, to locate water wells which could be impacted by the project. A map of field-verified water wells shall be submitted to the Commission as part of the final project update. An assessment shall be completed by third-party qualified professionals on water wells to ascertain the risks and mitigations appropriate for protection of groundwater resources. If further mitigations are required by those professionals beyond those committed to by Fox Meadows Wind Inc., the environmental protection plan shall be updated for inclusion of these mitigations.

70. Considering the above, the Commission is satisfied that water wells or groundwater resources will not be affected by the project.

4.3 Fire risks and emergency response plan

71. ELA raised concerns regarding safety risks related to the ESF, including chemical exposure, potential fires and contamination, and associated air quality modelling. ELA retained Integrated Modelling Inc. (IntMod) to review FMWI's air quality dispersion modelling report and to complete a new dispersion modelling report.

72. FMWI retained RWDI to conduct air quality dispersion modelling for the project, and retained Bryce Dawson from RWDI and Dr. Hesam Yazdanpanahi from BBA Consultants to respond to ELA's concerns and to review IntMod's evidence regarding battery safety and air quality dispersion modelling.

73. Several risk management strategies and mitigations were presented by FMWI to prevent, monitor and mitigate fire risks. In addition, FMWI confidentially filed a large-scale burn test report prepared for the battery manufacturer Sungrow Power Supply Co., Ltd. and Sungrow USA Corporation (collectively, Sungrow), in relation to the proposed battery model to be used for the project.[37]

74. After close of record, the Commission accepted the Sungrow PowerTitan Battery Emergency Response Guide (Guide) as evidence,[38] finding it relevant and applicable to the proposed battery model to be used for the project.[39] The Guide outlines emergency response

[37] Exhibit 29226-X0159-C, Appendix H - Confidential Sungrow Large Scale Burn Test.
[38] Exhibit 29226-X0198, Attachment to ELA Motion - Battery Emergency Response Guide_X29712-0078.
[39] Exhibit 29226-X0204, Ruling on the Edgerton Land Advocates group's motion requesting to reopen the record of the proceeding.

measures, including evacuation protocols for hazards associated with the proposed Sungrow lithium-ion technology.

75. In this section, the Commission considers potential fire risks and related factors, including battery chemistry, equipment design and equipment siting, reviews the evidence about FMWI's detection and monitoring systems, and assesses mitigation measures and procedures in the emergency response plan (ERP). The Commission finds that fire risks associated with the ESF are limited and will be mitigated to an acceptable level by FMWI's monitoring systems and ERP. The Commission also requires FMWI to finalize the site-specific ERP ensuring it incorporates emergency response measures provided by Sungrow in its Guide (as revised) and consult with related municipalities and local fire departments.

4.3.1 What are the potential fire risks associated with the energy storage facility?

76. For the reasons set out below, the Commission makes the following findings related to the potential fire risks and associated air quality dispersion modelling for the ESF: (i) the use of lithium iron phosphate (LFP) batteries mitigates some safety concerns associated with other battery technologies; (ii) both scenarios modelled by FMWI and ELA expert witnesses provide value to the Commission's public safety analysis; (iii) Acute Exposure Guideline Levels (AEGL) Level 2 (AEGL-2) with 60 minutes exposure time (24 parts per million [ppm])[40] is an appropriate threshold for assessing toxic gas emissions from the project ESF; and (iv) ESF siting is an important preventative mitigation measure for safety and fire control.

77. First, the Commission will evaluate the stability properties of the LFP technology proposed for the project ESF.

78. FMWI submitted that the LFP technology has a superior chemical stability, lower risk of thermal runaway, and lower temperature rise during a thermal runaway than other types of lithium-ion batteries such as nickel manganese cobalt, which was previously deployed in Alberta for utility-scale battery facilities. FMWI emphasized that the higher chemical stability and other superior features have made LFP the current technology trend in utility-scale battery energy storage systems across the world.[41]

79. Dr. Yazdanpanahi explained that thermal runaway for the LFP technology starts within one module and typically stops after a few cell-to-cell propagations. However, for other types of lithium-ion batteries, the entire module can become involved in thermal runaway.[42] Further, Dr. Yazdanpanahi clarified that while hydrogen fluoride (HF) may be detected during thermal

[40] United States Environmental Protection Agency's AEGLs are dictated by the severity of the toxic effects caused by the exposure, with Level 1 being the least and Level 3 being the most severe. Specifically, the three AEGL levels are defined below:
- AEGL-1: Notable discomfort, irritation, or certain asymptomatic non-sensory effects, little or no risk of adverse health effects for the general population.
- AEGL-2: Irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.
- AEGL-3: Life-threatening or result in death.

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

[41] Exhibit 29226-X0046.01, FMWI Response to AUC Round 1 IRs - September 27, 2024, PDF page 20.

[42] Transcript, Volume 2, page 282, lines 15-25.

runaway of a single LFP cell, based on the large-scale burn test results, HF may not be detected during an actual fire event.[43]

80. IntMod submitted that the confidential Sungrow large-scale burn test results filed in the proceeding are the most direct data that are equipment-specific (i.e., specific to the battery model) to the project.[44] Further, IntMod submitted that it believes that the large-scale burn test is intended to bridge a gap in current testing standards by simulating real-life fire conditions[45] and confirmed that it is not aware of any real-world fire incidents involving the battery model proposed for the project.[46]

81. The Commission finds that the use of LFP batteries mitigates some safety concerns associated with other battery technologies, because LFP battery units are resistant to fire propagation from one module to another. This finding is consistent with previous Commission decisions on ESFs, in which the Commission found the LFP battery chemistry to be more stable than other commercially available options and less likely to experience thermal runaway leading to a fire.[47] Further, the Commission heard that the large-scale tests suggest that HF may not be emitted from LFP batteries during a fire event,[48] which would further mitigate safety concerns about toxic emissions in battery failure cases.

82. Second, the Commission will consider whether RWDI's air quality dispersion modelling assessment was based on a reasonable emission scenario.

83. IntMod was concerned that RWDI's modelling "arbitrarily calculated" emissions based on a theoretical scenario; instead, IntMod evaluated a "worst-case emissions scenario" based on Canadian Standards Association (CSA) TS-800:24 Large-Scale Fire Test Procedure. In response, B. Dawson explained the worst-case scenario recommended by IntMod would involve a catastrophic release, or the release of the greatest possible amount of material, and did not consider how such a catastrophic release might occur or the probability that such a release would occur. B. Dawson explained that the alternative scenarios modelled in RWDI's assessment are more realistic (i.e., more accurately reflect an actual release from the project ESF). Furthermore, B. Dawson explained that the worst-case scenario from CSA TS-800:24 assumes that battery units are purposely ignited under an "abuse" condition with heaters, open flames and/or other means used to consume the unit in a fire and suggested that it is not appropriate to use large-scale fire test results representing an absolute worst-case scenario

43 Dr. Yazdanpanahi confirmed that he had consent from the battery energy storage system (BESS) manufacturer to disclose on the public record that no HF was detected during the large-scale burn test. Transcript, Volume 4, page 522, lines 15-17.

44 Transcript, Volume 2, page 378, lines 1-11; page 377, lines 19-22; page 378, lines 1-12.

45 Exhibit 29226-X0123, Appendix F - Evidence of Integrated Modelling Inc., PDF page 36; Transcript, Volume 2, page 375, lines 1-15.

46 Transcript, Volume 2, page 379, lines 1-12.

47 Previous decisions include Decision 28845-D01-2024: Warwick Gas Storage Ltd. – Warwick Battery Storage Facility, Proceeding 28845, Applications 28845-A001 and 28845-A002, June 11, 2024, PDF page 7; Decision 27971-D01-2023: Sunnynook Solar Energy Inc. – Sunnynook Solar + Energy Storage Project, Proceeding 27971, Applications 27971-A001 and 27971-A002, June 2, 2023, PDF pages 11-12; and Decision 27109-D01-2022: TA Alberta Hydro Inc. – WaterCharger Battery Storage Facility, Proceeding 27109, Application 27109-A001, November 3, 2022, PDF page 10.

48 Transcript, Volume 2, page 289, lines 21-24; Transcript, Volume 4, page 522, lines 9-17.

(i.e., a purposeful abuse condition) to determine contaminant emission rates for dispersion modelling assessment or to inform emergency response plans.[49]

84. Although fire events may be rare for the LFP battery technology, the Commission does not accept FMWI's contention that IntMod's worst-case scenario is inappropriate because the scenario is unlikely to occur. Rather, the Commission finds that both RWDI and IntMod modelled different scenarios for the thermal runaway/fire events and both modelling scenarios provide value to the Commission's public safety analysis. Nevertheless, the Commission is satisfied that IntMod's modelling scenario is more conservative but less likely to occur when compared to RWDI's scenario.

85. Third, the Commission will consider which threshold(s) are appropriate for evaluating air quality dispersion modelling results for the project ESF and whether the modelled concentration of potentially harmful chemicals at the closest residence are below the threshold(s).

86. Both RWDI and IntMod used the United States Environmental Protection Agency's AEGL-2 to assess public exposure to toxic HF concentrations that would be generated in a potential thermal runaway or fire at the ESF. But these parties disagreed about which duration should be used. RWDI used AEGL-2-60 minutes (24 ppm) as the exposure threshold to evaluate HF concentrations, while IntMod used AEGL-2-4 to eight hours (12 ppm) as the threshold.

87. B. Dawson explained that RWDI selected the one-hour (or 60-minute) exposure limit based on a conservative peak emission rate, which was described by B. Dawson as an instantaneous or short-term exposure emission rate followed by a rapid decay (consistent with a very quick release). B. Dawson further explained that the four-hour limit could be used if the source (i.e., the burning battery) is emitting consistently for four hours; however, an exposure limit of four or more hours would imply a relatively stable emission rate over the period, and in this case, an assumption should be made that meteorological conditions, including the wind speed and the Pasquill-Gifford atmospheric stability class, would remain constant during the release. B. Dawson added that it would be very unlikely to observe constant (or near-constant) environmental conditions over a four-hour period.[50]

88. The Commission finds B. Dawson's explanation acceptable that AEGL-2-60 minutes (24 ppm) is an appropriate threshold for assessing toxic gas emissions from the project ESF. This finding is consistent with previous Commission decisions on ESFs, in which the Commission used AEGL-2-60 minutes when evaluating battery safety and associated air quality dispersion modelling results.[51]

89. Both RWDI and IntMod predicted concentrations at the closest residence, which is located approximately 985 metres from the project ESF. As discussed above, RWDI modelled a realistic emissions scenario, while IntMod modelled a more conservative worst-case scenario.

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[49] Exhibit 29226-X0149, Appendix G - RWDI Reply Evidence (REDACTED), PDF pages 3 and 5.

[50] Transcript, Volume 2, page 284, lines 9-25, and page 285, lines 1-8.

[51] Previous decisions include Decision 27216-D01-2022: Concord Coaldale GP2 Ltd. – Coaldale Solar Project Battery Energy Storage System Addition, Proceeding 27216, Application 27216-A001, November 4, 2022, PDF page 8; Decision 27191-D01-2022: Concord Monarch GP2 Ltd. – Monarch Solar Project Battery Energy Storage System Addition, Proceeding 27191, Application 27191-A001, November 4, 2022, PDF page 8; and Decision 27205-D01-2022: Georgetown Solar Inc. – Georgetown Solar + Energy Storage Project, Proceeding 27205, Applications 27205-A001 and 27205-A002, November 2, 2022, PDF page 14.

IntMod's more conservative modelling predicted a maximum one-hour concentration of 4.8 ppm at the nearest residence, which is below the AEGL-2-60 minutes threshold of 24 ppm.

90. Finally, the Commission considers that ESF siting is an important preventative mitigation measure for safety and fire control. The Commission understands that the ESF will be sited at a location with gravel hardscaping and an absence of vegetative fuel.[52] This design limits the risk of grass or wildfires from reaching the proposed ESF. The closest residence to the ESF is located approximately 985 metres away and the next closest residence is located more than 3.4 kilometres from the project ESF.[53] Furthermore, the Commission considers that health and safety risks in the event of a thermal runaway or fire can be further minimized through measures and procedures in FMWI's ERP, which is discussed in Section 4.3.3 of this decision.

91. The assessments and analysis conducted by FMWI, and the discussion between the parties regarding ESF fire risks, were premised upon the use of the Sungrow battery units. Given that the project equipment has not yet been finalized, if the chemistry and/or battery vendor for the final project design are different than those described in the current applications, then such changes would require an amendment application in accordance with Rule 007.

4.3.2 How will fire risks from the energy storage facility be monitored?

92. FMWI submitted that the project ESF will incorporate a battery management system (BMS), which serves as an automated control and monitoring system. If the project experiences abnormal conditions, the BMS will transmit notifications to operational personnel to intervene manually or remotely to enact protection modes, shut-offs or other protection as needed.[54] Specifically, the BMS has one battery management unit for each battery module and each energy storage container is equipped with thermal, flammable gas and smoke sensors. If any issue is observed, the BMS will automatically isolate that module, and the system operator will be notified of the alarms from the management units and sensors by a supervisory control and data acquisition (SCADA) system.[55]

93. ELA recommended that FMWI implement thermal camera monitoring on site for fire detection. Dr. Yazdanpanahi did not believe it is necessary to implement thermal camera monitoring, because the battery model for the project already contains multiple thermo-sensors, flammable gas detectors and smoke detectors, which is not the case for other ESF facilities, where the vendor recommends the use of outdoor thermal camera monitoring.[56]

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

h. Fox Meadows Wind Inc. shall install a remote monitoring and detection system that can be programmed to automatically notify emergency response providers, including the local fire station, immediately upon activation.

[52] Transcript, Volume 4, page 525, lines 21-24.
[53] Exhibit 29226-X0142, FMWI Reply Evidence Submission, PDF page 15.
[54] Exhibit 29226-X0008, Attachment E_Emergency Response Plan, PDF page 17.
[55] Exhibit 29226-X0046.01, FMWI Response to AUC Round 1 IRs - September 27, 2024, PDF page 28.
[56] Transcript, Volume 2, page 293, lines 18-25, and page 294, lines 1-8.

i. Fox Meadows Wind Inc., and any subsequent operator, shall implement ongoing upgrades to improve the safety of the project energy storage facility, including but not limited to firmware and software enhancements, monitoring capability enhancement, process changes and safety standards as they are developed.

95. The Commission acknowledges that the ESF will be equipped with automated monitoring systems that are connected to sensors for each battery container. However, the Commission believes that a thermal imaging camera that does not rely on the monitoring systems embedded in the ESF would be an appropriate supplemental means of independently monitoring overall conditions at the facility. Specifically, thermal imaging cameras can monitor the ESF as a whole, while sensors and detectors proposed by FMWI monitor individual battery units or blocks. In summary, outdoor thermal cameras would provide an additional layer of protection to the site. Therefore, the Commission imposes the following condition of approval for the ESF:

j. Fox Meadows Wind Inc. shall install thermal imaging cameras at the energy storage facility site for continuous monitoring, and to the extent possible, shall integrate the cameras into its system alarms, shutdowns and emergency response planning.

96. Finally, the Commission notes FMWI's commitment with respect to insurance coverage, and therefore imposes the following condition of approval for the ESF:

k. Fox Meadows Wind Inc., and any subsequent operator, shall at all times during construction and operation of the project energy storage facility, maintain insurance coverage that is sufficient to protect against any reasonably foreseeable liabilities.

4.3.3 How does the emergency response plan address fire risks of the energy storage facility?

97. FMWI developed a draft site-specific ERP that describes practices and procedures to be used in the event of medical aid, serious injury, fire, explosion or other emergency situations.[57] Also, FMWI stated that it will update the ERP with specific guidelines and technical sheets from the ESF supplier with these documents outlining the recommendations from the supplier for hazards related to safety and emergency response.[58]

98. The Commission finds FMWI's ERP acceptable to mitigate fire risks from the project, with the imposition of additional conditions as described below.

99. ELA expressed concerns about the adequacy of FMWI's ERP for the project and provided recommendations on how to improve the ERP. First, ELA recommended roadblocks be established at the nearest practicable intersection, to allow for efficient rerouting of traffic in the event of toxic plume and battery fire. ELA explained that based on FMWI's dispersion modelling, a portion of Township Road 420 (i.e., the local road running south of the project ESF) will be within the distance at which the AEGL-2-60 minutes threshold (i.e., the threshold for irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape) may be exceeded. ELA suggested that access to a three-way intersection to the south of the facility be blocked to prevent the public from driving through a toxic plume during a thermal runaway or fire event at the ESF, to allow for vehicle maneuvering (i.e., slow down, stop and

[57] Exhibit 29226-X0008, Attachment E_Emergency Response Plan.
[58] Exhibit 29226-X0008, Attachment E_Emergency Response Plan, PDF page 16.

U-turn) while other traffic may be approaching at speed, and to cordon off the area so emergency personnel can work with fewer distractions.[59]

100. FMWI committed to use roadblocks if, through consultation with the relevant MD, the local fire departments, incident responders, etc., it is determined that they are required for emergency response purposes.[60]

101. Second, ELA recommended that residents within 1.5 kilometres of the ESF be automatically notified of incidents to aid early shelter-in-place actions. FMWI confirmed that it will notify residents within 1.5 kilometres of the ESF if there is a fire at the site. More generally, FMWI committed to develop and outline emergency notification protocols within the project-specific ERP.[61]

102. Finally, FMWI confirmed that it has shared the ERP with local emergency responders and incorporated and addressed preliminary concerns. The ERP will be a living document and will be revised, as needed, in consultation with the MD of Provost and MD of Wainwright and applicable fire and emergency response agencies.

103. With respect to the implementation of the ERP, FMWI clarified that during the construction phase, the ERP will be overseen by the engineering, procurement, and construction management company that is contracted by FMWI. During the operations phase, a site operations manager will assume responsibility for implementation of the ERP and emergency services. Project alarms can be programmed to automatically notify emergency responders.[62]

104. With respect to emergency-related resourcing and training, FMWI is willing to provide training to local emergency responders to address a battery emergency. The level of training provided by FMWI to respond to thermal runaway events will be determined in consultation with the local fire departments. FMWI added that depending on final equipment selection, the ESF equipment manufacturer will provide specific firefighting instructions and emergency response information for the applicable battery model.[63]

105. The Commission considers fire detection and response planning to be an integral part of mitigating fire risks associated with ESFs and is satisfied that FMWI is able to mitigate fire risks associated with the ESF and other emergency events to a satisfactory level through continuous and multiple monitoring systems and through continuous improvement of emergency response procedures in consultation with related municipalities and local fire departments. However, given ELA's concerns and recommendations and that the ERP is in draft form, the Commission imposes the following conditions of approval for the power plant, substation and ESF:

l. Fox Meadows Wind Inc. shall continually, before and during construction and during operation, review and update project-specific emergency response plan, and incorporate reasonable changes necessary to address concerns received from the Municipal District of

[59] Exhibit 29226-X0133, 2025-01-27 Information Responses from ELA Group to AUC - ELA Group-AUC-2025JAN13-001 to 003, PDF pages 3-4.
[60] Transcript, Volume 2, page 293, lines 3-11; Exhibit 29226-X0193, FMWI Commitment List, PDF page 7.
[61] Exhibit 29226-X0193, FMWI Commitment List, PDF page 7.
[62] Exhibit 29226-X0046.01, FMWI Response to AUC Round 1 IRs - September 27, 2024, PDF pages 25-26.
[63] Exhibit 29226-X0193, FMWI Commitment List, PDF page 7.

Wainwright No. 61 and Municipal District of Provost No. 52 and local fire departments, and other interested stakeholders such as local landowners. The updated plans are to be provided to the municipal districts and the local fire departments.

m. Before the project commences operation, Fox Meadows Wind Inc. shall consult with the Municipal District of Wainwright No. 61 and Municipal District of Provost No. 52 and the local fire departments about the necessity for roadblocks; if it is determined that roadblocks are required for emergency response purposes, Fox Meadows Wind Inc. shall install roadblocks in response to an emergency at locations identified by the municipal districts and the local fire departments. All consultation and determination must take into account the latest recommendations from Sungrow in its emergency response guide.

n. Before the project commences operation, Fox Meadows Wind Inc. shall develop and outline emergency notification protocols within the project-specific emergency response plan. In particular, Fox Meadows Wind Inc. shall consult with the Municipal District of Wainwright No. 61 and Municipal District of Provost No. 52 and the local fire departments about automatic shelter-in-place notifications for nearby residents, and implement the notification as instructed by the municipal districts and the local fire departments. All consultation and determination must take into account the latest recommendations from Sungrow in its emergency response guide.

o. When requested by local fire departments, Fox Meadows Wind Inc. shall provide on-site training as required.

4.4 Noise impacts

106. ELA expressed concerns about potential noise impacts from the project, including potential impacts of inaudible noise (infrasound) on humans and animals.[64] ELA retained James Farquharson from FDI Acoustics Inc. to review FMWI's noise impact assessment (NIA) and provide expert evidence on potential noise and infrasound impacts from the project. If the project is approved, J. Farquharson recommended that FMWI conduct a post-construction comprehensive sound level (CSL) survey to verify project compliance with Rule 012 and measure and document the infrasound environment before and after project construction.

107. FMWI retained Green Cat Renewables Canada Corporation (GCR) to complete an NIA for the project in accordance with Rule 012,[65] and retained Merlin Garnett from GCR and Dr. Ollson from Ollson Environmental Health Management to respond to ELA's noise concerns.

108. In this section, the Commission accepts FMWI's NIA conclusion that noise from the project will comply with Rule 012; the Commission requires FMWI to conduct a post-construction CSL survey at receptors R1 and R6 to verify project compliance; and the Commission finds that because the project is predicted to comply with Rule 012 and is expected to have no low frequency noise conditions, measuring or evaluating infrasound is unlikely to provide helpful information for the purpose of assessing noise impacts.

[64] Exhibit 29226-X0117, 2024-12-20 ELA Group Submissions, PDF pages 21.

[65] Exhibit 29226-X0013, Attachment J_Noise Impact Assessment. Prediction results were updated in Exhibit 29226-X0147, Appendix E - GCR Reply Evidence, PDF page 7.

4.4.1 Is noise from the project expected to comply with Rule 012?

109. The NIA predicted that noise from the project will comply with permissible sound levels (PSLs) set out in Rule 012 and indicated that the project is not expected to produce low frequency noise effects.

110. Predicted compliance with Rule 012 was premised upon the use of noise mitigation measures, including (i) serrated trailing edges on the turbine blades; and (ii) noise reduction kits for the power conversion stations. Given that the project design has not yet been finalized, the Commission will not require FMWI to implement these mitigation measures at this point in time. Instead, the Commission imposes the following condition of approval for the power plant and ESF:

p. In the final project update, Fox Meadows Wind Inc. shall submit an updated noise impact assessment based on the final project layout and equipment selection. The updated noise impact assessment shall specify whether noise mitigation measures (e.g., serrated trailing edges, noise reduction kits) are required for project turbines, power conversion stations, or other equipment to achieve compliance with Rule 012: *Noise Control*. If noise mitigation measures are required, the final project update shall confirm that these measures will be implemented during project construction and/or operations (as appropriate).

111. With respect to construction noise, FMWI has committed to use reasonable efforts to limit construction to daytime hours and to promptly respond to noise complaints received in association with project construction. Additionally, FMWI confirmed that, in certain circumstances, when construction may need to take place outside daytime hours due to weather or technical constraints it will notify potentially impacted stakeholders of construction activities, including any reasonably foreseeable circumstance requiring construction activities during the nighttime period.[66]

112. The Commission expects that FMWI will uphold its commitments to implement mitigation measures from Rule 012 to manage noise impacts from construction to promptly respond to concerns or complaints from residents, and to mitigate construction noise wherever feasible.

113. Overall, the Commission finds that FMWI's NIA meets the requirements of Rule 012 and accepts the conclusion of the NIA that noise from the project will comply with Rule 012 and that project-related low frequency noise conditions are not expected.

4.4.2 Is it necessary to conduct a post-construction noise survey for the project?

114. With respect to the post-construction CSL survey suggested by J. Farquharson, M. Garnett's opinion is that given conservative assumptions incorporated into the NIA, there is no reason to expect the project will not comply with Rule 012 and, therefore, a post-construction noise survey is unnecessary. However, if the Commission decides to order a noise survey, M. Garnett recommended two receptors for the survey: R1 and one of R5 or R6.

[66] Exhibit 29226-X0193, FMWI Commitment List, PDF page 5.

115. The Commission notes that nighttime cumulative sound levels are predicted to be 39.3 A-weighted decibels (dBA), 39.7 dBA and 39.8 dBA at receptors R1, R5 and R6, respectively, which are close to the nighttime PSL of 40 dBA. Moreover, the project is predicted to be a dominant sound source at these receptors. Although the project NIA predicts compliance with Rule 012 PSLs at all receptors, given the concerns raised by ELA and the relatively small compliance margin[67] predicted for a number of receptors, the Commission will require FMWI to conduct a post-construction CSL survey to verify compliance with Rule 012 once the project commences operation.

116. Further, receptors R5 and R6 are close to each other (i.e., the distance between these two receptors is approximately 80 metres). Due to the short distance between R5 and R6, it is likely the existing acoustic environment at these two receptors are similar and that future noise from project operations will also be similar. As such, the Commission finds there would be little value in collecting post-construction CSL data at both locations. Because the noise contribution from the project is predicted to be slightly higher at R6 than at R5, the Commission considers R6 to be a better monitoring location for the purpose of testing project noise compliance.

117. Therefore, the Commission imposes the following condition of approval for the power plant and ESF:

q. Fox Meadows Wind Inc. shall conduct a post-construction comprehensive sound level (CSL) survey, including an evaluation of low frequency noise, at receptors R1 and R6. 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, Fox Meadows Wind Inc. shall file a report with the Commission presenting measurements and summarizing the results of the post-construction CSL survey.

4.4.3 Is it necessary to measure or evaluate infrasound for the project?

118. ELA members expressed concerns about potential infrasound from the project and its impact to health. J. Farquharson suggested that FMWI measure infrasound levels before and after project construction and evaluate potential project-related infrasound effects. J. Farquharson explained that a pre-development infrasound monitoring study would document the existing infrasound environment for comparison to the results of a post-commissioning infrasound sound monitoring assessment. Advancements in monitoring instrumentation permit measurement of the infrasound environment coupled with the audible noise environment. The completion of infrasound sound monitoring would provide additional information on the overall noise environment and the impact of the project.

119. J. Farquharson added that infrasound measurements could be done in conjunction with the regular post-construction CSL survey, either by the same instrument or two instruments. He added the measurement would be for information purposes and need not be a highly scientific study.[68]

[67] Compliance margin is permissible sound level (PSL) minus cumulative sound level.
[68] Transcript, Volume 2, page 412, lines 23-25; page 413, lines 1-12.

120. M. Garnett and Dr. Ollson disagreed with J. Farquharson's recommendation to measure and evaluate infrasound. They clarified that given that the project is predicted to be compliant with Rule 012 PSLs and low frequency noise is predicted to be below Rule 012 thresholds, infrasound measurements would not provide any valuable or helpful information.

121. M. Garnett and Dr. Ollson further explained that infrasound measurements would require specialized equipment and training and would be expensive to undertake.[69] Dr. Ollson submitted that there are studies in literature for infrasound measurements close to turbines, but these studies have been conducted under controlled conditions that would be difficult to replicate in the field. Dr. Ollson reviewed the available literature and concluded that limiting audible sound levels to 40 dBA ensures that infrasound levels remain below a level of concern. In this case, the infrasound levels are orders of magnitude less than the levels at which adverse health effects may occur.

122. The Commission has previously determined[70] that if a project compiles with Rule 012, it is unlikely that infrasound will be detected by nearby residents, or, in the event that infrasound is detected, it would likely be at levels that would not impact the residents.

123. In this proceeding, the Commission found no compelling evidence on potential infrasound impacts from wind turbines. Given that the project is predicted to comply with Rule 012 and is not expected to have low frequency noise conditions, consistent with its findings in previous decisions, the Commission finds that measuring or evaluating infrasound is unlikely to provide helpful information for the purpose of assessing noise impacts. As such, the Commission determines that FMWI is not required to measure or evaluate infrasound before construction of the project or as part of the post-construction CSL survey.

4.5 What are potential shadow flicker impacts from the project and how will they be mitigated?

124. ELA raised concerns about the shadow flicker assessment completed by FMWI's experts and the potential health effects from shadow flicker. ELA did not retain an expert on shadow flicker or its associated health effects.

125. FMWI retained GCR to conduct a shadow flicker assessment for the project,[71] and retained Alex Van Horne from GCR and Dr. Ollson to respond to ELA's shadow flicker concerns.

126. In this section, first, the Commission discusses modelling results from the shadow flicker assessment and accepts that it is reasonable to apply the threshold of 30 hours per year to the adjusted-case scenario when evaluating the necessity for mitigation. Second, the Commission imposes conditions that require FMWI to implement mitigation measures to reduce the duration

[69] Transcript, Volume 2, page 300, lines 3-25; page 301, lines 1-9.

[70] Decision 3329-D01-2016: E.ON Climate & Renewables Canada Ltd. – Grizzly Bear Creek Wind Power Project, Proceeding 3329, Applications 1610717-1 and 1610717-2, May 19, 2016; Decision 22665-D01-2018: EDP Renewables SH Project GP Ltd. – Sharp Hills Wind Project, Proceeding 22665, Applications 22665-A001 to 22665-A004, September 21, 2018; and Decision 22966-D01-2018: BHEC-RES Alberta G.P. Inc. – Forty Mile Wind Power Project, Proceeding 22966, Application 22966-A001, August 30, 2018.

[71] Exhibit 29226-X0009, Attachment F_Shadow Flicker Assessment.

of shadow flicker below 30 hours per year based on the final project design and to promptly respond to complaints or concerns about shadow flicker.

127. GCR considered two scenarios in its shadow flicker assessment: worst-case scenario and adjusted-case scenario. Both scenarios assumed that there are no obstructions between the turbines and receptors and that receptors are susceptible to shadow flicker from all directions (i.e., known as greenhouse mode). The difference between the two scenarios is that the worst-case scenario assumed the sky is clear during all daylight hours, the turbine rotors are always perpendicular to the sun and the turbine blades are always rotating; in contrast, the adjusted-case scenario used statistical weather data to account for times when the sun is not shining and/or the orientation of the turbines (due to local wind direction) is not perpendicular to the sun.

128. Rule 007 does not specify limits for acceptable shadow flicker durations at receptors. Dr. Ollson submitted that 30 hours per year for actual or adjusted-case shadow flicker for non-participants on an annual basis is an appropriate benchmark to be considered in determining the need for mitigation measures and emphasized that this is almost a universal standard applied across North America.[72]

129. The Commission accepts that it is reasonable to apply the threshold of 30 hours per year to the adjusted-case scenario when assessing the need for shadow flicker mitigation, because the adjusted-case scenario provides a more accurate prediction of annual shadow flicker exposure than the worst-case scenario, while still employing conservative assumptions. Specifically:

- The worst-case scenario substantially overestimates annual shadow flicker exposure since it fails to account for cloudy periods or for changes to turbine orientation in response to local wind direction. It is inconceivable that there would be no cloudy days over the course of a complete year and/or that local wind direction would maintain a turbine rotor as face-on to a receptor for a complete year.

- The adjusted-case scenario uses monthly statistical weather data (i.e., sunshine and wind direction) to produce more representative predictions. Further, conservative assumptions remain: the adjusted-case scenario assumes receptors are sensitive to shadow flicker in all directions (i.e., greenhouse mode) and does not account for screening by obstructions between turbines and receptors (e.g., vegetation or outbuildings).

130. The shadow flicker assessment predicted that all receptors, except R6, will receive less than 30 hours of shadow flicker per year. Receptor R6 is a project participating landowner's residence, and it is predicted to receive slightly more than 30 hours of shadow flicker per year (i.e., 30.9 hours per year).

131. If shadow flicker is determined to be an issue, FMWI indicated that mitigation measures to reduce shadow flicker impacts could include: (i) curtailments of relevant turbines during times when shadow flicker is predicted for specific receptors; and (ii) installation of visual screening, including vegetative screening close to the affected receptors and/or shutters or external shading elements for the affected windows.[73]

[72] Exhibit 29226-X0146, Appendix D - Ollson Reply Evidence, PDF page 7.
[73] Exhibit 29226-X0046.01, FMWI Response to AUC Round 1 IRs - September 27, 2024, PDF page 21.

132. As discussed above, the Commission specifies that it is reasonable to apply the threshold of 30 hours per year to the adjusted-case scenario when assessing the need for shadow flicker mitigation. Therefore, the Commission requires FMWI to proactively implement shadow flicker mitigation for residences that are predicted to exceed 30 hours per year in the adjusted-case scenario, unless otherwise agreed to by owners or residents of the affected residences. Given that the project design has not yet been finalized, the Commission imposes the following condition of approval for the power plant:

r. In the final project update, Fox Meadows Wind Inc. shall submit an updated shadow flicker assessment based on the final project layout and equipment selection. If adjusted-case shadow flicker durations are predicted to exceed 30 hours per year for nearby residences, Fox Meadows Wind Inc. shall determine mitigation measures that could be implemented to reduce the duration of shadow flicker below 30 hours per year, unless otherwise agreed to by owners or residents of the affected residences. If mitigation measures are determined necessary, Fox Meadows Wind Inc. shall evaluate the effectiveness and feasibility of the mitigation measures by modelling in the updated shadow flicker assessment. Fox Meadows Wind Inc. shall also confirm in the final project update that shadow flicker mitigation measures will be implemented during project construction and/or operations (as appropriate).

133. In addition to proactively implementing mitigation measures to reduce shadow flicker below 30 hours per year for receptors, the Commission requires FMWI to promptly respond to complaints or concerns regarding shadow flicker during project operations and implement mitigation measures if shadow flicker is determined to be an issue. The Commission imposes the following condition of approval for the power plant:

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

134. Given FMWI's commitment and the conditions the Commission imposes in this section, the Commission finds that shadow flicker impacts from the project are limited and will be mitigated to an acceptable level.

4.6 Is Fox Meadows Wind Inc.'s consultation adequate?

135. In this section, the Commission concludes that FMWI's participant involvement program (PIP) for the project complied with Rule 007. In particular, the Commission considers FMWI's consultation and notification activities with landowners and the MD of Provost reasonable and adequate.

136. ELA expressed concerns about the adequacy of FMWI's consultation efforts. In particular, Bernadette Lawes requested that FMWI host a third open house, in addition to the two already held before submitting its applications to the Commission. B. Lawes clarified that her request for the third open house was primarily to raise community awareness that the project was

still proceeding, rather than due to any lingering concerns.[74] ELA members also indicated that some of them had little to no personal contact with anyone from FMWI.[75]

137. FMWI submitted that throughout project development, FMWI has continually and purposefully engaged with stakeholders, including the general public, Indigenous communities, industrial interest holders, government agencies, the MD of Wainwright, the MD of Provost, and persons that own lands within the applicable notification and consultation boundaries.

138. During its PIP, FMWI mailed project-specific information packages to stakeholders in July 2022, December 2022, July 2023 and May 2024; conducted one-on-one consultation with landowners within the project's notification and consultation radius; and hosted open houses in August 2022 and March 2023.[76]

139. FMWI submitted that it has provided extensive information regarding the project and associated effects and impacts, and it has addressed concerns from stakeholders about environmental effects, visual impacts, safety, noise, consultation, construction, and decommissioning and reclamation. FMWI committed to continue engaging with stakeholders throughout project development, construction, operation and end of life.[77]

140. With respect to ELA members' concern that they received inadequate responses to their questions, FMWI explained that the record of consultation and evidence in this proceeding demonstrates that FMWI's PIP activities generally achieved the purpose of consultation by providing stakeholders with sufficient information to understand the nature of the project and inviting them to discuss any concerns with a goal of minimizing potential effects and resolving concerns.[78]

141. The Commission acknowledges that some stakeholders may prefer face-to-face discussions, and that consultation will not always address every individual's concern to their satisfaction. The Commission is satisfied, that FMWI conducted effective consultation by providing information to, and answering questions from, stakeholders by phone, text communication and open houses.

142. With respect to FMWI's open house events, the Commission notes that FMWI conducted the first open house in August 2022 (i.e., at the beginning of its consultation process) and conducted the second open house in March 2023 (i.e., following the project layout updates). Both of these open houses were advertised through phone calls, newspaper announcements, radio announcements, and posts on the project website. FMWI representatives and third-party technical experts attended these open houses, presented poster board material explaining the project, and discussed concerns and answered questions from attendees. The Commission considers hosting an open house as an appropriate method of supplementing personal consultation and notification. While it may have been helpful for FMWI to consider holding a third open house when requested, the Commission is satisfied that FMWI's two open house events reasonably and adequately served their purpose.

[74] Transcript, Volume 3, page 482, lines 1-25, page 483, lines 1-2.
[75] Exhibit 29226-X0117, 2024-12-20 ELA Group Submissions, PDF page 22.
[76] Exhibit 29226-X0020, Attachment L-1_Participant Involvement Program.
[77] Exhibit 29226-X0193, FMWI Commitment List, PDF page 4.
[78] Exhibit 29226-X0142, FMWI Reply Evidence Submission, PDF page 17.

143. The Commission encourages active consultation and emphasizes that FMWI's consultation responsibilities to stakeholders do not end when the applications are submitted or approved. The Commission acknowledges and is satisfied with FMWI's commitments to ongoing communication and consultation with all stakeholders throughout the project development, construction and operation to address concerns as they arise. The Commission expects FMWI to uphold its commitment and continue consulting stakeholders proactively and in good faith as it constructs and operates the project.

144. In summary, although FMWI was unable to resolve all outstanding concerns raised by stakeholders, the Commission is satisfied, based on review of the consultation records and the evidence in this proceeding, that FMWI's PIP generally achieved the objectives of consultation and notification set out in Rule 007.

145. FMWI raised concerns about the MD of Provost's failure to initially provide reasons for denying its rezoning application,[79] as well as a lack of transparency in communications related to the increased residential setback requirement.[80] FMWI also expressed disappointment that it was not directly notified about the June 13 public hearing concerning land use changes that would have directly impacted its project.[81]

146. The MD of Provost confirmed that FMWI did not ask for any additional clarification on the rezoning application denial[82] and submitted that the rezoning application was denied because the proposed use of the project lands for a wind farm would not be in conformity with how the surrounding lands are being used, and because landowners living adjacent to the project lands oppose the project, believing it would be detrimental to the use and enjoyment of their respective properties.[83] In addition, the MD of Provost submitted that it gave notice of its June 13 public hearing in accordance with the requirements set out in the *Municipal Government Act*.[84]

147. The Commission acknowledges that the MD of Provost took reasonable steps in notifying the public about its June 13 hearing, where proposed amendments to the municipal development plan (MDP) and land use bylaw (LUB) (collectively referred to as land use planning policies), including increased residential setback requirements, were discussed. The Commission encourages applicants and municipalities to maintain open and transparent communication, thoroughly discussing any concerns related to proposed projects.

4.7 How does the Commission consider the municipal districts' setback requirements and other concerns?

148. In this section, the Commission discusses how it considers the MD of Provost's and the MD of Wainwright's setback requirements, including the MD of Provost's requests and FMWI's commitments on weed management, clubroot control and implementation of the ERP.

[79] Exhibit 29226-X0081, FMWI Response to AUC Round 2 IRs – November 7, 2024, PDF page 2.
[80] Exhibit 29226-X0142, FMWI Reply Evidence Submission, PDF page 7.
[81] Transcript, Volume 1, page 48, lines 1-25; page 55, lines 1-18; page 57, lines 12-23.
[82] Transcript, Volume 1, page 48, lines 11-18.
[83] Exhibit 29226-X0113, Written Evidence of MD of Provost, PDF page 4.
[84] Exhibit 29226-X0136, Proceeding 29226 - MD Provost - Information Responses to FMWI - Jan 27, 2025, PDF page 8; Transcript, Volume 1, page 73, lines 2-11.

4.7.1 MD of Wainwright setback requirements

149. The MD of Wainwright did not intervene or file any evidence in this proceeding. Nevertheless, the Commission notes that setback requirements from the MD of Wainwright include 220 metres from road right-of-way (ROW) and 177.5 metres from property line.[85] Seven turbines infringe on the MD of Wainwright's setback requirements. Specifically, three turbines (T09, T11 and T13 do not comply with the MD of Wainwright's ROW setback requirement and seven turbines (T04, T07, T09, T10, T11, T13 and T17) do not comply with the MD of Wainwright's property line setback requirement.

150. Regarding compliance with the MD of Wainwright's setback requirements, FMWI submitted that the proposed turbine locations have been selected to minimize interference with neighbouring properties and agricultural operations and conform with the existing agricultural uses for the land. These locations were also determined in consideration of a number of other factors, including environmental avoidance, collector line routing, economic viability, siting constraints, and potential project impacts such as noise and shadow flicker.[86]

151. The Commission observes that the seven turbines that do not comply with the MD of Wainwright's property line setback requirement are sited on lands of the hosting landowners. Additionally, the road allowances that are impacted by T09, T11 and T13 are all undeveloped and have no current use.[87] In the circumstances, the Commission is satisfied with the rationales and locations of these turbines. FMWI believes that it has strong justification for the proposed turbine locations and that the MD of Wainwright will consider the requested variances in light of the merits of the proposed project to the MD and local residents. The Commission acknowledges FMWI's stated willingness to continue to engage with the MD of Wainwright, specifically that if the MD of Wainwright expresses concern regarding turbine locations requiring a setback variance that was otherwise approved by the Commission, FMWI will continue to engage with the MD of Wainwright to determine whether minor shifts (less than 100 metres) to turbine locations will resolve such concerns within the parameters of FMWI's final project update.[88]

152. The Commission expects and encourages FMWI to work with the MD of Wainwright to obtain appropriate setback variances for turbines not in compliance with the MD of Wainwright's ROW and property line setback requirements.

4.7.2 MD of Provost setback requirements

153. In June 2024, the MD of Provost's updated land use planning policies (i.e., MDP 2324 and LUB 2323) came into force.[89] These land use planning policies were not in effect at the time FMWI was consulting with the MD of Provost and when the MD of Provost denied FMWI's rezoning application through a letter dated January 13, 2023. The MD of Provost

[85] MD of Wainwright No 61, Land Use Bylaw No. 1695 [LUB1695], ss 10.1.27 and 10.1.28.
[86] Exhibit 29226-X0081, Fox Meadows Wind Inc. response to AUC IRs Round 2, PDF pages 7 and 8.
[87] Exhibit 29226-X0081, Fox Meadows Wind Inc. response to AUC IRs Round 2, PDF pages 7 and 8.
[88] Exhibit 29226-X0081, Fox Meadows Wind Inc. response to AUC IRs Round 2, PDF pages 7 and 8.
[89] Exhibit 29226-X0113, Written Evidence of MD of Provost, PDF page 4.

submitted that these land use planning policies are the applicable land planning instruments if FMWI reapplies for project lands rezoning.[90]

154. Specifically, the MD of Provost confirmed that it has increased its residential setback requirements for wind energy projects under LUB 2323, raising the distance from 1.0 kilometre to 1.6 kilometres.[91] The MD of Provost explained that in updating the LUB, its consideration was not limited to health and safety concerns; instead, it increased the residential setback after hearing from citizens about a wide range of concerns, including the impact that wind projects would have on their viewscapes and their ability to have quiet enjoyment of their land and homes.[92] The Commission notes that there are four residences located within the MD of Provost with turbines proposed to be located within the 1.6-kilometre setback requirements: three are participating landowners and one (i.e., Dean and Bernadette Lawes) is a non-participating landowner. The Lawes are interveners in this proceeding and the nearest turbine (Turbine T24) to their residence is proposed to be located 1,279 metres from their property.[93]

155. In its closing submissions, the MD of Provost submitted that in the event that the Commission finds the project to be in the public interest, the Commission should condition FMWI's approval by requiring that:

(1) the MD of Provost's 1.6-kilometre setback be honoured for Turbine T24;

(2) all vehicles coming onto the project lands are clean and documented as such by a qualified individual at the project gate;

(3) FMWI use best efforts to do clubroot testing on the project lands and, if those test results are either positive or inconclusive, that FMWI employ Class 3 with a sump cleaning for vehicles leaving the project lands; and

(4) FMWI's ERP, as filed in the proceeding be adopted.[94]

156. Regarding the 1.6-kilometre setback requirement, FMWI submitted that the distances between project turbines and non-participating residences were fully compliant with the one-kilometre setback requirement in the LUB that was effective when FMWI submitted its rezoning application. FMWI further explained that the project has been sited in a way that balances many competing constraints, and it should not be required to comply with the MD of Provost's blanket setback requirements for wind turbines from receptors. Also, FMWI submitted that Dr. Ollson's recommended setback distance of 1.1 times the total turbine height is sufficient to protect the safety of neighbouring residences, and based on the turbine model proposed for this project, the recommended safety setback would be 218 metres. FMWI added that noise and shadow flicker impacts are among the factors considered by the Commission when evaluating distances between project turbines and residences. FMWI pointed out that noise from the project is predicted to comply with Rule 012 and the Lawes residence is predicted to experience no

[90] Exhibit 29226-X0134, Proceeding 29226 - MD Provost - Information Responses to AUC - Jan 27, 2025, PDF page 2.
[91] Municipal District of Provost No. 52, Land Use Bylaw No. 2323, June 2024, s 40.18(6)(b)(i).
[92] Transcript, Volume 4, page 577, lines 6-22; Exhibit 29226-X0113, Written Evidence of MD of Provost, PDF page 4.
[93] Exhibit 29226-X0097.01, FMWI Response to ELA Group IR Round 1, PDF page 1.
[94] Transcript, Volume 4, page 579, lines 1-19.

shadow flicker. For these reasons, FMWI's position is that the updated LUB blanket setback of 1.6 kilometres from residences is unreasonable and unnecessary.[95]

157. The Commission acknowledges FMWI's effort to balance siting constraints while complying with the one-kilometre setback requirement in the LUB that was effective when FMWI initially submitted its rezoning application.

158. Although Rule 012 does not mandate physical setbacks between facilities and residences, applicants must ensure that facilities are located far enough from adjacent dwellings that noise levels at these dwellings do not exceed PSLs as set out in Rule 012. Therefore, Rule 012 implicitly requires distance or physical setbacks between facilities and residences, with the size of the setback determined by the magnitude of noise emissions from the facility. Notwithstanding that the project is expected to comply with Rule 012 at nearby residences, and the Commission has directed FMWI to conduct a CSL survey to verify compliance, the Commission finds it necessary to take into account the MD of Provost's setback requirement in its assessment of the project.

159. The *Municipal Government Act* and the *Hydro and Electric Energy Act* both encourage the economic and orderly development of Alberta's landscape. What distinguishes these public interest mandates is the perspective through which each is viewed; a focused, regional or local perspective for municipalities and a broader, provincial perspective for the AUC. The Commission acknowledges that setbacks may be prescribed by local authorities, such as municipalities and counties, in their bylaws and planning documents and understands and appreciates the regional perspective through which municipal planning instruments were enacted.

160. The MD of Provost stated that council increased residential setback requirements for commercial wind farms from one kilometre to 1.6 kilometres in response to residents' concerns that the previous distance was inadequate to safeguard their properties from commercial land use impacts and to maintain their peaceful enjoyment of the land.[96] The proposed siting of Turbine T24 does not conform to the MD of Provost's LUB 1.6-kilometre setback requirement, falling short by approximately 0.3 kilometres.

161. The Commission acknowledges FMWI's efforts to comply with the MD of Provost's previous one-kilometre setback requirement. However, there is no evidence on record indicating that FMWI considered or attempted to adjust its project layout to accommodate Turbine T24 in accordance with the MD of Provost's new 1.6-kilometre setback requirement, even though only one turbine (T24) requires adjustment or relocation for municipal setback compliance.

162. In addition, the Commission recognizes the concerns raised by the Lawes whose residence (R7) is the closest residence to T24 with T24 infringing on the MD of Provost's setback requirement. In particular, the Lawes expressed concerns about the project impacts to their farming and ranching business, Five XM Ranching Ltd., including interference with the use and enjoyment of their land.[97]

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[95] Transcript, Volume 4, pages 529-531.

[96] Exhibit 29226-X0113, Written Evidence of the MD of Provost, PDF page 4, paragraph 30; Transcript, Volume 3, pages 434-438,

[97] Exhibit 29226-X0118, Appendix A - Landowner Submissions, PDF page 1.

163. Municipal land planning policies are considered by the Commission in its public interest determination and despite timing issues raised by FMWI, the Commission is satisfied that the MD of Provost's 1.6-kilometre setback requirement together with the potential negative social impacts associated with T24 being in proximity to the Lawes residence aligns with the Commission's consideration of municipalities land use authority and planning instruments in determining if a project is in the public interest.

164. The Commission distinguishes between the setback requirements of the MD of Wainwright and that of the MD of Provost. Considering the facts of this proceeding, the Commission is satisfied that the effects of the MD of Wainwright's setback requirements differ from those of the MD of Provost in certain key aspects. Regarding property line setbacks, FMWI's non-compliant project turbines in the MD of Wainwright encroach upon the property lines of hosting landowners,[98] whereas the siting of T24 is proposed within the residential setback of a non-participating landowner who objected to the project in this proceeding. Additionally, regarding the municipal road ROW setback requirements, FMWI's non-compliant project turbines in the MD of Wainwright encroach on undeveloped municipal roads that are not currently in use, in contrast to T24 which is proposed to be sited in proximity to an existing residential dwelling (Lawes residence or R7).[99]

165. For all of the reasons above, in these circumstances, the Commission finds it is in the public interest to apply the MD of Provost's setback requirement and deny T24 in its current location. The Commission emphasizes that its decision to apply the MD of Provost's setback requirement for T24 is specific to this proceeding, based on the project layout and the evidence presented.

166. The Commission considers and will continue to consider municipal requirements, including LUBs, planning bylaws, and/or setbacks when evaluating project applications and encourage the participation of municipalities. As the project has been largely approved by the Commission with conditions, the Commission encourages FMWI to continue to work with the MD of Provost and the MD of Wainwright to facilitate the execution of the project. In particular, if a project is unable to satisfy municipal LUBs or setback requirements, wherever necessary and practical, the applicant is responsible for obtaining an approval for land use rezoning or setback variances from the relevant municipality. In accordance with Rule 007, applicants must consult with relevant municipalities, and requirements, concerns and/or questions must be addressed during continuous consultation with the municipalities.

167. Regarding, the MD of Provost's condition on weeds and clubroot management, the Commission notes FMWI's commitment to ensure that vehicles and equipment will arrive at the project clean and free of weeds and a monitor will be on site throughout key construction phases to ensure cleaning protocols are being followed. Also, for clubroot, FMWI has committed to follow best management practices from the Alberta Clubroot Management Plan.[100] The Commission finds FMWI's commitment on weeds and clubroot management to be reasonable and expects FMWI to uphold these commitments.

[98] T04, T07, T09, T10, T11, T13 and T17; Exhibit 29226-X0081, Fox Meadows Wind Inc. response to AUC IRs Round 2, PDF pages 7 and 8.

[99] The Lawes residence: R7 in the noise impact assessment.

[100] Exhibit 29226-X0193, FMWI Commitment List, PDF pages 7 and 10.

168. Lastly, concerning the MD of Provost's request that FMWI should adopt the ERP as filed on the record. FMWI raised no objection but pointed out that the ERP is a living document that will be updated as the project progresses and will be made in consultation with the MD of Wainwright and the MD of Provost, and applicable fire and emergency response agencies for the project.[101] The ERP filed in the proceeding is still in draft and FMWI would like the opportunity to refine the ERP following the Commission's decision on the project prior to finalizing it.

169. The Commission agrees that the project-specific ERP that FMWI filed on the record is in draft form. As specified in Section 4.3.3, the Commission requires FMWI to continually review and update the site-specific ERP, and incorporate changes necessary to address concerns received from local emergency services, the municipalities, and other interested stakeholders (including local landowners). The Commission requires that FMWI provide the updated plans to the MD of Provost and MD of Wainwright and local fire departments. FMWI is required to implement the finalized ERP during project construction, operation and end-of-life.

170. The MD of Provost only set out its proposed conditions of approval in its closing submissions. The Commission expects municipalities to actively engage with applicants and submit proposed approval conditions early in the hearing process. This approach enables applicants to assess their ability and willingness to comply, streamlining issues and optimizing hearing time. In this case, the Commission has decided to consider the MD of Provost's request as part of the Commission's public interest determination, but notes that this is specific to this proceeding and in light of the evidence already on record.

4.8 How does the Commission consider the project impacts on viewscape and property value?

171. In this section, the Commission finds that impacts on viewscape and property value are a consequence of the project that needs to be balanced against the project's public benefits.

172. ELA members raised concerns about the unsightliness of the turbines and their potential to affect the resale values of their lands, and they fear the project will prohibit them from enjoying the views they currently enjoy. Some ELA members suggested that viewscapes in the project area are "pristine," and requested that FMWI conduct a visual impact assessment (VIA) and visual simulations from the viewpoints of all ELA members.[102]

173. FMWI retained GCR to prepare 12 representative visualizations, among which, six visualizations were submitted with the PIP report and the other six were provided among the responses to the information requests from ELA. In addition, FMWI confirmed that all stakeholders who requested visualizations were provided visualizations from representative locations at or near their residences.

174. As previously set out, FMWI filed its applications before the *Electric Energy Land Use and Visual Assessment Regulation* came into force. Nonetheless, the Commission considered the underlying policy intent of the regulation in its assessment of the project. The Commission recognizes that the regulation intends to ensure applicants proposing power plants within a visual impact assessment zone submit a VIA with their application. FMWI's project is not located

[101] Exhibit 29226-X0193, FMWI Commitment List, PDF pages 6 and 7.
[102] Exhibit 29226-X0117, 2024-12-20 ELA Group Submissions, PDF pages 9, 21 and 22.

within a VIA-designated zone under the *Electric Energy Land Use and Visual Assessment Regulation* and considering the policy intent, a VIA is not required.[103]

175. The Commission accepts that the visualizations conducted by FMWI demonstrate representative and reasonable visual impacts from the project. The Commission acknowledges that large wind projects alter the landscape and may result in visually unattractive impacts for nearby residents, but this is a factor that needs to be and has been balanced against the project's public benefits.

176. With respect to property value impacts and rental value concerns, the Commission accepts that change to viewscapes is one factor that may influence an individual's perception of the area as a place to reside or rent. The Commission finds that there can be a negative public perception of the project's effects on viewscapes, and this may translate into a negative effect on property value for some properties. Despite this, the Commission recognizes that impacts to property value due to the project needs to be and has been balanced against the project's public benefits.

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

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

178. Effective May 31, 2025, applicants for wind and solar energy projects in Alberta - including FMWI - must obtain a registration under the *Environmental Protection and Enhancement Act.*[104] One of the requirements to obtain registration, set out in the *Code of Practice for Solar and Wind Renewable Energy Operations*, is to provide reclamation security either to: (i) the Government of Alberta; or (ii) landowners as part of a negotiated agreement, as long as the Commission considers that security adequate; or (iii) a combination of the two options. FMWI has confirmed that it has chosen to provide security directly to the government for the entirety of the project. This means that the Commission will not assess the adequacy of FMWI's proposed reclamation security under the *Code of Practice for Solar and Wind Renewable Energy Operations*, and that the Commission can be reasonably assured that funds will be available to reclaim the project at its end of life. The Commission accordingly imposes the following condition of approval:

t. Fox Meadows Wind Inc. must provide security to the Government of Alberta in accordance with the *Code of Practice for Solar and Wind Renewable Energy Operations* and otherwise comply with all conditions and terms of Fox Meadows Wind Inc.'s registration with respect to the Fox Meadows Wind Project.

[103] *Electric Energy Land Use and Visual Assessment Regulation*, Section 7(2) and Section 8.
[104] Code of Practice for Solar and Wind Renewable Energy Operations, Government of Alberta, Effective May 31, 2025.

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

5 Conclusion

180. In accordance with Section 17 of the *Alberta Utilities Commission Act*, and in addition to any other matters that the Commission may or must consider, the Commission must consider whether approval of the project is in the public interest having regard to its social, economic, environmental and other effects. The Commission considers an application to be in the public interest if it complies with existing regulatory standards, and the public benefits of the project outweigh its negative impacts.[105]

181. Given that the project will result in some negative impacts, the Commission must weigh these impacts against the project's public benefits, in order to determine whether the project is in the public interest. The benefits of the project include its ability to generate emissions-free electricity, to generate municipal tax revenue, the community benefit funds and to create employment opportunities.

182. Overall, for the reasons outlined in this decision, and subject to the conditions in Appendix C, the Commission finds that FMWI has satisfied the requirements of Rule 007 and Rule 012, and that the negative impacts associated with the project are outweighed by the conditions and mitigations required and the expected benefits of the project. The Commission finds that the applications, except Turbine T24, are in the public interest having regard to the purposes of the *Electric Utilities Act*, the *Hydro and Electric Energy Act*, and all other relevant considerations.

6 Decision

183. 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 Fox Meadows Wind Inc.'s applications, except Turbine T24, are in the public interest having regard to the social, economic, environmental and other effects of the project.

184. Under sections 11, 13.01(1) and 19 of the *Hydro and Electric Energy Act*, the Commission approves applications 29226-A001 and 29226-A003, except Turbine T24, and grants Fox Meadows Wind Inc. the approval set out in Appendix 1 – Power Plant Approval 29226-D02-2025, to construct and operate the Fox Meadows Wind Project Power Plant and Energy Storage Facility.

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

185. Under sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 29226-A002 and grants Fox Meadows Wind Inc. the permit and licence set out in Appendix 2 – Substation Permit and Licence 29226-D03-2025, to construct and operate the Spalding 1059S Substation.

186. The appendixes will be distributed separately.

Dated on June 20, 2025.

Alberta Utilities Commission

(original signed by)

Cairns Price
Panel Chair

(original signed by)

Vera Slawinski
Commission Member

Appendix A – Proceeding participants

Name of organization (abbreviation) Company name of counsel or representative
Blake, Cassels & Graydon LLP Terri-Lee Oleniuk Elyse Bouey **Fox Meadows Wind Inc.** Emma Wilson Robin Reese
Ackroyd LLP Ifeoma Okoye Heather Beyko **Edgerton Land Advocates Group (ELA)** Bernadette Lawes Five XM Ranching Ltd. (acting through its directors Bernadette and Dean Lawes) Donald Austin Casey and Makayla Lawes Norma and Walter Chapman Wes and Sarah Kuntz Robert (Dale) Scott (one-third owner, RS Half Diamond Ltd.) Karen Milligan Karen Phillips Bill and Sherry Creech (Hill 70 Quantock Ranch Ltd.) Richard Hammond Alexis Jackson Jim and Jenn Kraft Carly Axley Jesse Lawes George and Marilynn Bishop Jason Bishop Joy and Dean Kemper Charlene Hager Deandra Hager Craig and Angie Pickard Alberta Wilderness Association
Carscallen LLP Michael Niven Sarah Howard **Municipal District of Provost No. 52** Tyler Lawrason
Alberta Utilities Commission **Commission panel** Cairns Price, Panel Chair Vera Slawinski, Commission Member **Commission staff** Peju Anozie (Commission counsel) Matthew Parent (Commission counsel) Joan Yu Glenn Harasym

Appendix B – Oral hearing – registered appearances

Name of organization (abbreviation) Name of counsel or representative	Witnesses
Fox Meadows Wind Inc. Terri-Lee Oleniuk, Blake, Cassels & Graydon LLP, counsel Elyse Bouey, Blake, Cassels & Graydon LLP, counsel	Emma Wilson Robin Reese Dave Berrade Andy Edeburn Alex Van Horne Cameron Sutherland Merlin Garnett Bryce Dawson Dr. Hesam Yazdanpanahi Dr. Christopher Ollson Rob Telford
Edgerton Land Advocates Group (ELA) Ifeoma Okoye, Ackroyd LLP, counsel Heather Beyko, Ackroyd LLP, counsel	Bernadette Lawes Casey Lawes Robert (Dale) Scott Cliff Wallis Dr. Robert Barclay James Farquharson Jason Binding Marc Polivka
Municipal District of Provost No. 52 Michael Niven, Carscallen LLP, counsel Sarah Howard, Carscallen LLP, counsel	Tyler Lawrason

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 29226-D01-2025 that require subsequent filings with the Commission and will be included as conditions of Approval 29226-D02-2025:

a. Fox Meadows Wind Inc. 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 Alberta Environment and Protected Areas' post-construction monitoring response letter to the Commission within one month of its issuance to Fox Meadows Wind Inc. 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 Section 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*. Post-construction monitoring must include a survey of the power lines and transmission lines that service the project and are located within any percentile of the whooping crane migration corridor.

d. If a mitigation plan is required to bring the project below the bat mortality thresholds determined by Alberta Environment and Protected Areas, Fox Meadows Wind Inc. shall file this mitigation plan with the Commission by March 31, for each year a mitigation plan is required.

f. Once Fox Meadows Wind Inc. has finalized its equipment selection for the power plant and energy storge facility, it must file a final project update with the Commission to confirm that the project has stayed within the final project update allowances for wind 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. The final project update must specify the final location of the meteorological tower.

g. Prior to construction, Fox Meadows Wind Inc. shall conduct field-verification surveys, including communication with project landowners and nearby landowners, to locate water wells which could be impacted by the project. A map of field-verified water wells shall be submitted to the Commission as part of the final project update. An assessment shall be completed by third-party qualified professionals on water wells to ascertain the risks and mitigations appropriate for protection of groundwater resources. If further mitigations are required by those professionals beyond those committed to by Fox Meadows Wind Inc., the environmental protection plan shall be updated for inclusion of these mitigations.

p. In the final project update, Fox Meadows Wind Inc. shall submit an updated noise impact assessment based on the final project layout and equipment selection. The updated noise impact assessment shall specify whether noise mitigation measures (e.g., serrated trailing edges, noise reduction kits) are required for project turbines, power conversion stations, or other equipment to achieve compliance with Rule 012: *Noise Control*. If noise mitigation measures are required, the final project update shall confirm that these measures will be implemented during project construction and/or operations (as appropriate).

q. Fox Meadows Wind Inc. shall conduct a post-construction comprehensive sound level (CSL) survey, including an evaluation of low frequency noise, at receptors R1 and R6. 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, Fox Meadows Wind Inc. shall file a report with the Commission presenting measurements and summarizing the results of the post-construction CSL survey.

r. In the final project update, Fox Meadows Wind Inc. shall submit an updated shadow flicker assessment based on the final project layout and equipment selection. If adjusted-case shadow flicker durations are predicted to exceed 30 hours per year for nearby residences, Fox Meadows Wind Inc. shall determine mitigation measures that could be implemented to reduce the duration of shadow flicker below 30 hours per year, unless otherwise agreed to by owners or residents of the affected residences. If mitigation measures are determined necessary, Fox Meadows Wind Inc. shall evaluate the effectiveness and feasibility of the mitigation measures by modelling in the updated shadow flicker assessment. Fox Meadows Wind Inc. shall also confirm in the final project update that shadow flicker mitigation measures will be implemented during project construction and/or operations (as appropriate).

The following are conditions of Decision 29226-D01-2025 that do not or may require subsequent filings with the Commission:

b. In addition, due to the increase in wind project development in the province and the potential for cumulative impacts to whooping crane in the future, Fox Meadows Wind Inc. will be required to comply with any current and future requirements, recommendations and directions provided by Alberta Environment and Protected Areas as they relate to cumulative impacts. This includes participation in a working group and the future implementation of any additional monitoring and mitigation that Alberta Environment and Protected Areas considers necessary to address cumulative impacts occurring from two or more projects within the whooping crane migration corridor.

c. All overhead power lines and transmission lines will have strike diverters, or additional superior mitigations, installed with the intention of avoiding whooping crane collisions. Fox Meadows Wind Inc. must ensure that a mitigation plan, which specifically addresses transmission line collision risk for whooping crane, is submitted during the future application for the transmission line associated to the project, and Alberta Environment and Protected Areas must be informed of, and provided a copy of, this mitigation plan.

e. Due to the increase in wind project development in the province and the potential for cumulative impacts, and to address the unknowns of population data, Fox Meadows Wind Inc. will be required to abide by any current and future requirements, recommendations and directions provided by Alberta Environment and Protected Areas as they relate to cumulative impacts. This includes participation in a working group and the future implementation of any additional monitoring and mitigation that Alberta Environment and Protected Areas considers necessary to address cumulative impacts occurring from two or more projects within the local area, as defined by Alberta Environment and Protected Areas.

h. Fox Meadows Wind Inc. shall install a remote monitoring and detection system that can be programmed to automatically notify emergency response providers, including the local fire station, immediately upon activation.

i. Fox Meadows Wind Inc., and any subsequent operator, shall implement ongoing upgrades to improve the safety of the project energy storage facility, including but not limited to firmware and software enhancements, monitoring capability enhancement, process changes and safety standards as they are developed.

j. Fox Meadows Wind Inc. shall install thermal imaging cameras at the energy storage facility site for continuous monitoring, and to the extent possible, shall integrate the cameras into its system alarms, shutdowns and emergency response planning.

k. Fox Meadows Wind Inc., and any subsequent operator, shall at all times during construction and operation of the project energy storage facility, maintain insurance coverage that is sufficient to protect against any reasonably foreseeable liabilities.

l. Fox Meadows Wind Inc. shall continually, before and during construction and during operation, review and update project-specific emergency response plan, and incorporate reasonable changes necessary to address concerns received from the Municipal District of Wainwright No. 61 and Municipal District of Provost No. 52 and local fire departments, and other interested stakeholders such as local landowners. The updated plans are to be provided to the municipal districts and the local fire departments.

m. Before the project commences operation, Fox Meadows Wind Inc. shall consult with the Municipal District of Wainwright No. 61 and Municipal District of Provost No. 52 and the local fire departments about the necessity for roadblocks; if it is determined that roadblocks are required for emergency response purposes, Fox Meadows Wind Inc. shall install roadblocks in response to an emergency at locations identified by the municipal districts and the local fire departments. All consultation and determination must take into account the latest recommendations from Sungrow in its emergency response guide.

n. Before the project commences operation, Fox Meadows Wind Inc. shall develop and outline emergency notification protocols within the project-specific emergency response plan. In particular, Fox Meadows Wind Inc. shall consult with the Municipal District of Wainwright No. 61 and Municipal District of Provost No. 52 and the local fire departments about automatic shelter-in-place notifications for nearby residents, and implement the notification as instructed by the municipal districts and the local fire

departments. All consultation and determination must take into account the latest recommendations from Sungrow in its emergency response guide.

o. When requested by local fire departments, Fox Meadows Wind Inc. shall provide on-site training as required.

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

t. Fox Meadows Wind Inc. must provide security to the Government of Alberta in accordance with the *Code of Practice for Solar and Wind Renewable Energy Operations* and otherwise comply with all conditions and terms of Fox Meadows Wind Inc.'s registration with respect to the Fox Meadows Wind Project.