



**Alberta Electric System Operator
Needs Identification Document Application**

**ATCO Electric Ltd.
Facility Applications**

Hughes 2030S Substation

May 8, 2017

Alberta Utilities Commission

Decision 21761-D01-2017: Hughes 2030S Substation

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Application 21761-A001

ATCO Electric Ltd.
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Applications 21761-A002 to 21761-A004

Proceeding 21761

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1 Decision summary

1. In this decision, the Alberta Utilities Commission must decide whether to approve a needs identification document application from the Alberta Electric System Operator and facility applications from ATCO Electric Ltd. to construct a new 144/25-kilovolt (kV) point-of-delivery substation, designated as the Hughes 2030S Substation, and a new 144-kV double-circuit transmission line, designated as transmission line 7L22/7L197, in the Grande Prairie area. After considering the record of the proceeding, and for the reasons outlined in this decision, the Commission finds the Alberta Electric System Operator's assessment of the need to be correct and finds that approval of the substation and transmission line along the preferred route is in the public interest having regard to the social, economic, and other effects of the project, including its effect on the environment.

2. In reaching the determinations set out in this decision, the Commission has considered all relevant materials comprising the record of this proceeding, including the evidence, argument, and reply argument provided by each party. Accordingly, references in this decision to specific parts of the record are intended to assist the reader in understanding the Commission's reasoning relating to a particular matter and should not be taken as an indication that the Commission did not consider all relevant portions of the record with respect to that matter.

2 Introduction and background

3. The Alberta Electric System Operator (AESO) filed an application pursuant to Section 34 of the *Electric Utilities Act* for approval of the Hughes 2030S Substation needs identification document. The application was registered on June 24, 2016, as Application 21761-A001.

4. ATCO Electric Ltd. (ATCO Electric) filed facility applications with the Commission for approval to meet the need identified by the AESO, including the construction of the Hughes 2030S Substation and associated double-circuit transmission line 7L22/7L197 in the Grande Prairie area. The applications, filed pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, were registered on July 25, 2016 as applications 21761-A002 to 21761-A004.

5. A hearing was held from January 17 to 18, 2017 at the Holiday Inn Hotel & Suites Grande Prairie before Panel Chair Neil Jamieson and Acting Commission Member Kate Coolidge.

3 AESO needs identification document

3.1 Legislative framework

6. Two approvals from the Commission are required to build a new substation and transmission line in Alberta, except in the case of critical transmission infrastructure identified in the *Electric Utilities Act*. First, an approval of the need for expansion or enhancement to the Alberta Interconnected Electric System pursuant to Section 34 of the *Electric Utilities Act* is required. Second, a permit to construct and a licence to operate a transmission facility pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act* must be obtained.

7. The AESO is responsible for preparing and filing the needs identification document (need application) with the Commission for approval. Section 11 of the *Transmission Regulation* and Section 6.1 of Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments* describe the information that the AESO must include in a need application, including an assessment of current transmission capacity, load and generation forecasts, studies and analysis that identify the timing and nature of the need for new transmission, and a technical and economic comparison of the technical solutions considered by the AESO. A need application must also state which technical solution the AESO preferred.

8. Subsection 38(e) of the *Transmission Regulation* requires the Commission to consider the AESO's assessment of need to be correct, unless an interested person satisfies the Commission that the assessment is technically deficient, or that approval of the need application would not be in the public interest.

9. Section 34(3) of the *Electric Utilities Act* provides that the Commission has three options when deciding a need application: approve the application, deny it, or refer it back to the AESO with directions or suggestions for changes or additions.

3.1.1 The Hughes 2030S Substation need application

10. The need application was prepared by the AESO in response to a request from ATCO Electric for system access service to reliably meet growing demand for electricity in the Grande Prairie area. The request included a Rate DTS, *Demand Transmission Service*, contract capacity of approximately 15.5 megawatts for new system access service. The AESO directed ATCO Electric, in its role as the transmission facility owner in the project area, to assist in the preparation of the need application pursuant to Section 39 of the *Electric Utilities Act* and Section 14 of the *Transmission Regulation*.

11. The AESO's proposed transmission development included:

- Adding a new 144/25-kV substation, designated the Hughes 2030S Substation, with one 144/25-kV transformer rated at approximately 50 megavolt-amperes (MVA), three 144-kV circuit breakers, and seven 25-kV circuit breakers.
- Adding two 144-kV circuits to connect the proposed Hughes 2030S Substation to the existing 144-kV transmission line 7L22 using an in-and-out configuration.

12. In addition to the proposed Hughes 2030S Substation, the AESO considered two transmission alternatives, which it rejected due to unacceptable reliability risk according to the distribution facility owner. In addition to the proposed in-and-out configuration on the 144-kV transmission line 7L22, the AESO considered five alternatives to connect the proposed Hughes 2030S Substation, which it rejected for various reasons, including routing constraints, the distribution facility owner's reliability criteria, and increased transmission development requirements.

13. The AESO conducted power flow, voltage stability and short-circuit studies to assess the impact that the proposed transmission development and its associated load would have on the transmission system, which identified some performance issues that could be mitigated by real-time operational practices. The AESO stated that it determined that there would be no system-related costs associated with the proposed transmission development.¹

3.1.2 Commission findings

14. The Commission has reviewed the AESO's need application and is satisfied it contains all the information required by the *Electric Utilities Act*, the *Transmission Regulation* and Rule 007.

15. No party filed an objection, intervention or statement of intent to participate which objected to the need for the proposed transmission facilities. As such, no interested party has demonstrated that the AESO's assessment of the need to construct and operate the proposed Hughes 2030S Substation is technically deficient or that approval of the need application is not in the public interest. Pursuant to Section 38(e) of the *Transmission Regulation*, the Commission must therefore consider the AESO's assessment of need to be correct. The Commission is satisfied that the AESO's proposed transmission development is in the public interest and the requirements of Section 34 of the *Electric Utilities Act* have been met.

16. For these reasons, the Commission approves the AESO's proposed transmission development which includes the Hughes 2030S Substation and two 144-kV circuits connecting to the existing transmission line 7L22.²

4 ATCO Electric facility applications

4.1 Legislative framework

17. For applications under sections 14 and 15 of the *Hydro and Electric Energy Act*, the Commission must consider whether the project is in the public interest. Section 17(1) of the *Alberta Utilities Commission Act* reads:

17(1) Where the Commission conducts a hearing or other proceeding on an application to construct or operate a hydro development, power plant or transmission line under the *Hydro and Electric Energy Act* or a gas utility pipeline under the *Gas Utilities Act*, it shall, in addition to any other matters it may or must consider in conducting the hearing or other proceeding, give consideration to whether construction or operation of the

¹ Exhibit 21761-X0010, Hughes 2030S Substation NID Application, paragraphs 2.3.

² Exhibit 21761-X0010, Hughes 2030S Substation NID Application, Section 2.2.

proposed hydro development, power plant, transmission line or gas utility pipeline is in the public interest, having regard to the social and economic effects of the development, plant, line or pipeline and the effects of the development, plant, line or pipeline on the environment.

18. Decision 2009-028³ provides the Commission's view on what the "public interest" means in the context of a transmission line development under Section 17(1):

The Commission recognizes that there is no universal definition of what comprises the "public interest" and that its meaning cannot be derived from strictly objective measures. The Commission acknowledges that the ultimate determination of whether a particular project is in the "public interest" will largely be dictated by the circumstances of each transmission facility application.

In the Commission's view, assessment of the public interest requires it to balance the benefits associated with upgrades to the transmission system with the associated impacts, having regard to the legislative framework for transmission development in Alberta. This exercise necessarily requires the Commission to weigh impacts that will be experienced on a provincial basis, such as improved system performance, reliability, and access with specific routing impacts upon those individuals or families that reside or own land along a proposed transmission route as well as other users of the land that may be affected. This approach is consistent with the EUB's historical position that the public interest standard will generally be met by an activity that benefits the segment of the public to which the legislation is aimed, while at the same time minimizing, or mitigating to an acceptable degree, the potential adverse impacts on more discrete parts of the community.⁴

19. The extensive regulatory oversight of the development of electric facilities in Alberta is also essential to the Commission's consideration of this application. This includes Rule 007, Rule 012: *Noise Control*, guidelines for the construction of transmission lines from Alberta Environment and Parks, application of the *Water Act* as well as notifications and applications to Alberta Culture and Tourism, Alberta Transportation, municipalities and federal government departments.

4.2 Issues

20. The Commission received formal interventions from one individual and five families⁵ who raised a number of issues with either the preferred route (the preferred route) or the alternative western route (the alternative route) or the proposed substation location. These issues included: ATCO Electric's consultation, impacts on farming operations, impacts on residences such as views and property values, flooding, health concerns and negative effects on wildlife, birds mostly, and wetlands. Two interveners proposed variations to the applied-for routes or argued for different alignments, and two interveners submitted that the substation should be relocated further away from lands zoned for residential use.

³ Decision 2009-028: AltaLink Management Ltd. - Transmission Line from Pincher Creek to Lethbridge, Proceeding 19, Application 1521942, March 10, 2009.

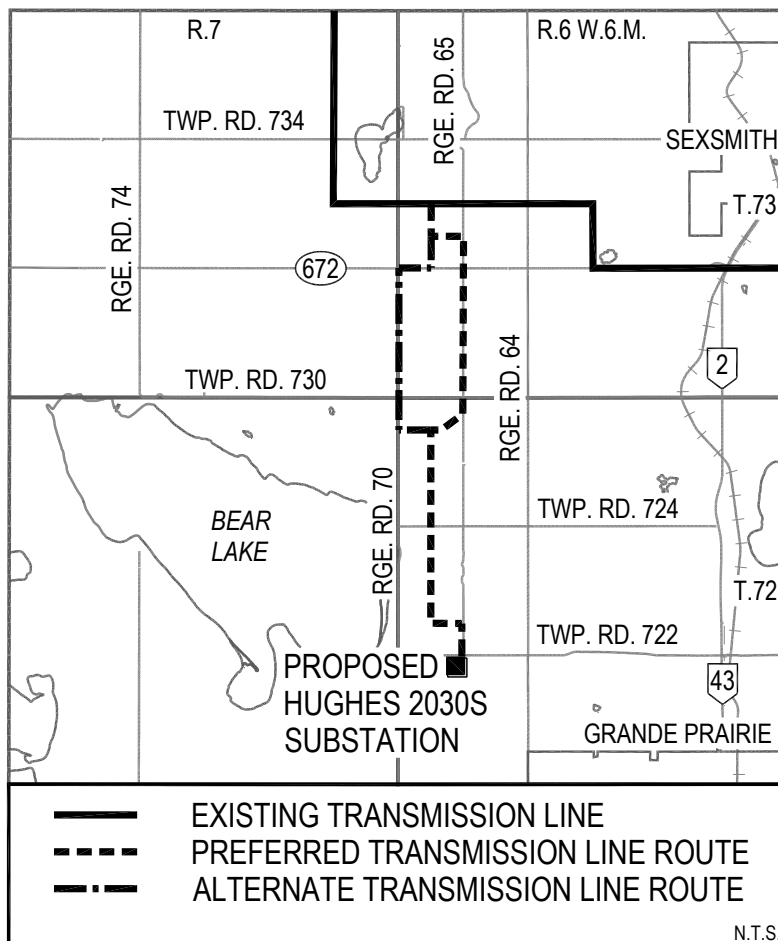
⁴ Decision 2009-028, paragraphs 32 and 33.

⁵ As listed in Appendix A – Proceeding participants.

21. The Commission will consider the following matters in arriving at its decision:
- methodology in developing the preferred and alternative routes and substation location
 - impacts on farming operations
 - impacts on residences including property values, health concerns, and viewsapes
 - impacts on wildlife and wetlands and the overall environment
 - consultation conducted by ATCO Electric

4.3 Preferred and alternate routes and substation location

22. ATCO Electric proposed a preferred route and an alternative route for the 144-kV double-circuit transmission line and one site for the proposed Hughes 2030S Substation. Both routes travel through largely agricultural lands for a distance of approximately 14 kilometres from the Hughes 2030S Substation in the south to the existing 144-kV transmission line 7L22 in the north between Poplar Hill 790S and Clairmont Lake 811S substations as shown in the map below. Both routes were developed taking account of geographical, environmental and social constraints and for the most part they parallel existing roads, quarter section lines and other property boundaries.



23. ATCO Electric's evidence demonstrated that it used a number of routing principles intended to minimize disturbances to residences, farm operations, other land users and the environment, including:

- use of existing linear developments such as roads or other transmission lines
- following quarter section lines and property lines
- keeping line length as straight as practical to reduce length and expensive corner structures
- minimizing line length through wet areas and steep slopes

24. In selecting the two routes, ATCO Electric first established a study area, with dimensions of 8 by 16 kilometres, within the boundaries of both the City of Grande Prairie and the County of Grande Prairie No. 1 (County). The area is primarily agricultural land, including cereal grains and pasture, with some mixed wood forests, wetlands, and other watercourses. Landscape features were used to identify any geographical impediments to construction of the transmission line. ATCO Electric also identified more specific constraints, including private occupied residences within 150 metres and 800 metres of the line, populated areas, trumpeter swan zones, environmentally sensitive areas, watercourses and wetlands, planned transportation networks, and municipal development plans.

25. By the fall and winter of 2015, ATCO Electric had eliminated several conceptual routes for various reasons: too close to residences, too great an impact on farming operations, too many costly corner structures required, unsuitable ground conditions or too many water crossings. Three preliminary routes remained which were described as the West, Central and East routes. All shared a common alignment starting from the proposed Hughes 2030S Substation site and travelling north across Township Road 722, paralleling the west side of Range Road 65 for approximately 800 metres before heading west to parallel an existing oil and gas access road for 800 metres. The common alignment then turns north following the quarter section line for 4.8 kilometres and crosses Township Road 724. At this point, identified as node A12, the common alignment split into the West, Central and East routes.

26. These three preliminary routes were outlined to landowners and other interested parties in ATCO Electric's first round of notification and consultation, although prior to the first round of notification and consultation, there had already been extensive discussions with two landowners who owned the majority of parcels of land in the northern portion of the preliminary routes. ATCO Electric testified that landowners were mostly concerned with the proximity of the preliminary routes to residences and impacts to farming operations. There was a strong objection by landowners to the East route because of the greater impacts to agricultural activities and watercourses, higher cost and longer distance. ATCO Electric dropped the East route after the initial round of consultation. ATCO Electric continued its consultation with landowners and other stakeholders, taking into account site specific and other concerns.

4.3.1 Substation

27. The AESO initially directed ATCO Electric to examine the area around LSD 8 of Section 8, Township 72, Range 6, west of the Sixth Meridian as a site for the Hughes 2030S Substation. Substations require a sufficient land base with flat terrain, well-drained soils and all-weather access for construction and ongoing operations. Site selection must also take into consideration proximity to residences, sensitive environmental areas and future planned land

uses. This initial site did not meet these criteria and as a result, ATCO Electric looked for another suitable site.

28. A preliminary south site option in the southeast quarter of Section 7, Township 72, Range 6, west of the Sixth Meridian was next identified for the substation, which was the basis for early consultations with landowners and other stakeholders. However, ATCO Electric could not acquire the land from the owner, Alberta Transportation.

29. Ultimately, ATCO Electric settled on a location directly north of the south site option and north of the future Highway 43X in the northeast quarter of Section 7, Township 72, Range 6, west of the Sixth Meridian, south of Township Road 722 and west of Range Road 65. The site had suitable ground conditions, access to an all-weather road and was acceptable to the City of Grande Prairie which had designated the area for future commercial and industrial development. Further advantages included minimal impact on agricultural operations, no residences within 400 metres and no significant impacts on the environment. As well, the location resulted in a reduced overall length of the transmission line.

30. As a result of its planning process, ATCO Electric applied for two routes, the preferred route and the alternative route, as well as one site for the Hughes 2030S Substation.

4.4 Transmission line routing development

4.4.1 Preferred route

31. Starting from the Hughes 2030S Substation, the preferred route exits north across Township Road 722, then parallels the west side of Range Road 65 for approximately 800 metres before turning west to parallel an existing oil and gas access road for 800 metres.⁶ At this point, the route travels north following the quarter section line for 4.8 kilometres, crossing Township Road 724. It then turns east and angles northeast to the west side of Range Road 65 continuing north for 4.4 kilometres before turning west to parallel the quarter section line for 800 metres. The final segment then turns north and parallels the quarter section line for 800 metres to the tap point on the existing transmission line 7L22.

32. ATCO Electric submitted that the preferred route merited approval because it created the fewest impacts to farming operations, including cross-cultivation or parcel fragmentation impacts and was:

- shorter than the alternative route
- accepted by owners on whose lands most of the line would be built
- comparable in cost to the alternative west route

33. The route also had a low impact on the environment avoiding sensitive wetlands and crossing only one watercourse as well as requiring the least amount of tree removal. ATCO Electric submitted that it was the environmentally preferred route.

⁶ Exhibit 21761-X0017, Application, paragraph 94, July 2015.

34. ATCO Electric also pointed out that the closest residence to the centre line was over 200 metres away and that only three residences were situated within 400 metres of the centre line. Routing criteria were met by following roads or quarter section lines and numerous existing access roads reduced the need for new access trails.

4.4.2 Alternative route

35. ATCO Electric's alternative route initially shares the same alignment as the preferred route. The alternative route starts from the proposed Hughes 2030S Substation and travels north across Township Road 722. The route then parallels the west side of Range Road 65 for approximately 800 metres before heading west to parallel an existing oil and gas access road for 800 metres. The route then turns north following the quarter section line for 4.8 kilometres and crosses Township Road 724 where it turns west and parallels the quarter section line for 800 metres before turning north and paralleling the east side of Range Road 70 for 4.0 kilometres. At this point, the route turns east, paralleling Highway 672 for 800 metres before turning north and crossing Highway 672. The route follows the quarter section line for 1.6 kilometres to the tap point on the existing transmission line 7L22. The alternative route follows roads or quarter section lines. Multiple access roads already existed, eliminating the need for new access trails to the right-of-way.

4.4.3 Route comparison

36. ATCO Electric asserted that there were minor differences between the alternative route and the preferred route. The alternative route was about the same length, somewhat less costly and created more or less the same impacts to agricultural operations and the environment. The Andreiuk residence, located 40 metres from the centre line, was the only residence within 200 metres of the centre line. To some extent, vegetation blocked the view of the route from the residence. In the hearing, Mr. Andreiuk (northwest quarter of Section 31, Township 72, Range 6 and northeast quarter of Section 36, Range 72, Range 7, west of the Sixth Meridian) confirmed that the vegetation screening was minimal, with a row of four spruce trees on the northeast side of residence and caragana shrubs with a few small alder trees between the house and the road allowance. Four residences are located within 400 metres of the alternative route, including the Andreiuk residence.

37. ATCO Electric's evidence included a table comparing various routing factors, which is reproduced as Table 1 below in a modified form:

Table 1. Summary of Transmission Line 7L22/7L197 Routing Factors⁷

Routing Factor	Alternative	Preferred
Line length (km)	13.75	13.50
Area of ROW (ha)	24.76	24.32
Number of minor turns (<45°)	5	6
Number of major turns (≥45°)	6	6
Paralleling existing transmission line ROW (km)	0	0
Following parcel lines (km)	7.51	6.71
Follows Government Road Allowance	5.67	5.29
Cross-Country (km)	0.54	1.15
Adjacent access (km) (Access Points and Actual Built Roads)	7.70	7.69
Residences within 100 m of ROW:	1	0
Residences within 200 m of ROW:	1	0
Residences within 400 m of ROW:	4	3
Residences within 800 m of ROW:	19	22
Nearest Residence (km)	0.04	0.20
Watercourse Crossings	1	1
Area of Canvec Wetlands (ha)	0.15	0.43
Cross-Cultivation Length (km)	3.2	2.4
Area Treed (ha)	0.90	1.04
Percentage of ROW by ownership	Private: 100	Private: 100
Cultivated lands within ROW (ha)	23.72	24.27
Pasture lands within ROW (ha)	0.19	0
Total number of landholder objections ≤ 100 m of ROW	13	16
Total number of landholder objections ≤ 800 m of ROW	13	16
Total number of land parcels with objections ≤ 100 m of ROW	23	13

38. ATCO Electric submitted that both the preferred route and alternative route met accepted routing requirements, but it favoured the preferred route because it had less impact on residences (nearest residence is located over 200 metres away from the centre line) and less overall impact on cultivated land.

39. Another important consideration was that a significant portion of the preferred route was located on lands owned by persons who accepted the route on their property:

Of the ten parcels along the preferred route, the landowners on nine of those ten parcels are accepting of the preferred route, with the tenth voice -- with the tenth voicing no opinion.

Conversely, of the ten parcels on the alternative route, there are no landowners accepting of the alternative route.⁸

⁷ Modified from Exhibit 21761-X0017, Application, Table 9: Summary of Transmission Lines 7L22/7L197 Routing Factors, July 2015.

⁸ Transcript, Volume 2, pages 180-181, lines 24-5.

4.4.4 Commission findings

40. The Commission finds that ATCO Electric conducted a satisfactory route planning and substation siting exercise which took into account established routing principles where possible, including:

- proximity to nearby residences
- impact on agricultural activities
- environmental impacts
- utilization of existing corridors
- cost

41. ATCO Electric, for the most part, also solicited the concerns of individual landowners and others whose properties or interests would be affected by the construction and operation of the transmission line and substation. Not all landowner views could be accommodated. Provincial government departments, the County and the City of Grande Prairie were also consulted about the routing of the line and location of the substation. After examining a number of conceptual routes, three alignments were selected – the preferred route, the alternative route and the rejected east route – with the rejected east route being eliminated after its initial presentation to landowners because of their opposition. Overall, ATCO Electric’s planning activities were sufficient for the purpose of this application.

4.5 Agricultural and land impacts

4.5.1 Views of ATCO Electric

42. The proposed site for the Hughes 2030S Substation is located on land currently utilized for agricultural purposes. ATCO Electric’s application states that the proposed site is acceptable to the landowner and occupant as it minimizes impacts to agricultural operations.

43. ATCO Electric favoured the preferred route because it has the lowest impacts to farming and avoids parcel fragmentation while aligning with transmission line routing criteria. The northern section of the preferred route (nodes B1 to B4) was developed in collaboration with affected stakeholders, and follows the quarter section line and Range Road 65 in order to remove an agricultural and fragmentation issue while keeping all transmission facilities solely on the affected stakeholders’ properties. ATCO Electric’s reply evidence states that it has selected its route to follow the boundaries of fields, along quarter section lines, or near existing linear features in order to allow structures to have the least possible impact on farming operations. Where reasonable, construction activities will be scheduled to avoid preferred fieldwork periods. ATCO Electric also submitted that the alternative route was considered a viable alternative to the preferred route in part due to comparable impacts to farming.

44. ATCO Electric stated that the County indicated a general preference for a 10-metre setback of the transmission line alignment when paralleling existing municipal roadways. ATCO Electric committed to the 10-metre offset where approved road widening plans were in place; however, on range roads 65 and 70, ATCO Electric proposed a 1.5-metre setback because a 10-metre setback would cause unduly increased impacts to agricultural activities and received negative landowner feedback to the offset alignment.

45. In its reply evidence, ATCO Electric stated that it has adopted the government of Alberta's best management practice for clubroot, and incorporated it into ATCO Electric's Best Management Practice – Clubroot and Soil Borne Diseases. ATCO Electric's best management practices include standard equipment cleaning measures to reduce the spread of noxious weeds and clubroot.

4.5.2 Views of the parties

46. Concerns were raised by a number of interveners relating to the potential agricultural impacts arising from the project. These concerns included impacts to farming caused by structure placement, the spread of noxious weeds and crop disease caused by the project's construction, operation and maintenance, and the loss of farm revenue caused by the project.

47. Mr. Sears raised concerns with respect to the project's potential impacts on farming operations, particularly his concerns that a significant portion of both the preferred route and alternative route would impact property owned by his family and Redwood Acres Inc., which Mr. Sears was also representing at the hearing. Collectively, they own 14 parcels of land that would be affected by the alternative route including the south half of Section 24, Township 73, Range 7, the southeast quarter of Section 13, Township 73, Range 7, the northeast, southeast and northwest quarters of Section 12, Township 72, Range 7, the northeast quarter of Section 1, Township 73, Range 7, the north half of Section 7, Township 73, Range 6, the southwest quarter of Section 17, Township 73, Range 6, the northwest, southwest, southeast quarters of Section 18, Township 73, Range 6, and the northwest quarter of Section 31, Township 73, Range 6, all of which are west of the Sixth Meridian. Mr. Sears opposed the alternative route in part because it would run directly through a half-section of his cross-cultivated agricultural land. This increases the risk of accidental contact between farming equipment and the transmission line, decreases efficiency and increases weed control effort and the likelihood of introducing noxious weeds such as clubroot.⁹ With respect to weed control efforts, ATCO Electric confirmed that its proposed level of equipment cleaning was based on discussions with local agricultural fieldmen, and its environmental protection plan includes mitigation measures to reduce the risk of introducing noxious weeds to the area.

48. The Halwas (northwest quarter of Section 17, Township 72, Range 6, west of the Sixth Meridian and the northwest quarter of Section 8, Township 72, Range 6, west of the Sixth Meridian) and the Pelsters (southwest quarter of Section 17, Township 72, Range 6, west of the Sixth Meridian) raised concerns with respect to the substation's impacts on their agricultural operations. In particular, both the Pelsters the Halwas did not want to live with the noise and dust generated from construction and ongoing operation of the transmission line and substation. During the hearing, counsel for the Pelsters and Halwas submitted that the City of Grande Prairie intended the area around the proposed substation site to be developed for residential purposes according to its Intermunicipal Development Plan.¹⁰ Additionally, the Pelsters and Halwas submitted that the substation location should be moved within the highway setback area of the planned future Highway 43X in order to minimize interference with other land uses.¹¹

⁹ Exhibit 21761-X0089, AUC Filing 2, November 2016.

¹⁰ Exhibit 21761-X0162, IDP Map for the Grande Prairie Area.

¹¹ Exhibit 21761-X0161, Future Highway 43X Reference Map.

49. Mr. Groner (southeast quarter of Section 31, Township 72, Range 6, west of the Sixth Meridian) objected to the preferred route because of its potential impacts on wetlands and trumpeter swans in the area and his concerns with ATCO Electric's consultation package, among others. Mr. Groner provided four alternative route options in his opening statement in order of preference.¹² His most preferred option would turn directly west from node B11B for one quarter section, then turn north to follow the alternative route. This option is detailed in Exhibit C6-C6A of Mr. Groner's written evidence and labelled as C6A (Groner Proposed Route 1).¹³ Mr. Groner was also concerned with the project's impacts on future road widening in the area. ATCO Electric responded that it did not adhere to the 10-metre setback from range roads 65 and 70 because it received feedback from the County that there were no approved road-widening plans in place for those roads.

50. Mr. Sallis (northeast quarter of Section 31, Township 72, Range 6, west of the Sixth Meridian) objected to the preferred route because of its proximity to his property, its potential impacts on drainage ditches and the wetland on and near his property, noise and visual impacts, property value impacts and the conduct of land agents. He proposed that the line should connect nodes A12 and B9 directly across the quarter section in a northeast diagonal line (Sallis Proposed Route).¹⁴ The Sallis Proposed Route would traverse a quarter section owned and cultivated by a landowner who did not participate in the proceeding.



¹² Exhibit 21761-X0144, Opening Statement of Chester Groner, page 4, January 2017.

¹³ Exhibit 21761-X0122, Exhibit C6-C6A of Chester Groner Evidence Submission, December 2016.

¹⁴ Exhibit 21617-X0115, Written Submissions of Ward Sallis, paragraph 19.

¹⁵ The Sallis Proposed Route as submitted in Exhibit 21761-X0115, page 8.

4.5.3 Commission findings

51. The Commission finds that ATCO Electric's setbacks for range roads 65 and 70 are acceptable as the County indicated to ATCO Electric that there were no approved road-widening plans in place, and because larger setbacks would increase the project's impacts to agricultural operations.

52. The Commission finds that the potential impacts to agricultural operations caused by the project have been adequately delineated in ATCO Electric's application. ATCO Electric has proposed reasonable mitigation measures in its environmental protection plan to address such impacts.

53. The Commission finds that the alternative routes proposed by Mr. Groner and Mr. Sallis would pose increased impacts to agricultural operations by segmenting additional cross-cultivated parcels, increasing time, effort and risk in cultivating those parcels by increasing the need to navigate farming equipment around structures.

54. The Commission accepts that the preferred route and the alternative route have comparable, but not identical, impacts to farming operations. The alternative route would traverse one cross-cultivated parcel, where the preferred route follows quarter-sections and does not traverse a cross-cultivated parcel. The Commission finds that the impacts to agricultural operations caused by the preferred route are slightly lower than those impacts caused by the alternative route.

55. The Commission finds that the overall impacts to landowners are lower on the preferred route. As noted by ATCO Electric, the landowners of nine out of 10 parcels on the preferred route accepted the route, whereas there were no landowners of the 10 parcels on the alternative route that accepted the route. Additionally, the closest residence to the preferred route is more than 200 metres away from the centre line, and the closest residence to the alternative route is 40 metres away from the centre line.

4.6 Environment

4.6.1 Views of the applicant

56. The project's footprint consists primarily of cultivated land, with the substation located entirely on cultivated land and the proposed routes traversing a mixture of cultivated, pastured and forested lands. ATCO Electric's analysis of the environmental impacts and proposed mitigation measures for the project are outlined in its application.¹⁶ ATCO Electric retained Integrated Environments Ltd. to prepare a Vegetation and Wetlands Field Report (Wetlands Report) and a Wildlife Surveys Field Report for the project (Wildlife Report).¹⁷

¹⁶ Exhibit 21761-X0017, Application, paragraphs 108-110, July 2015; Exhibit 21761-X0018.01, Application Attachment 2: Environmental Evaluation, July 2016 as revised December 13, 2016; Exhibit 21761-X0033, Environmental Protection Plan.

¹⁷ Exhibit 21761-X0079, ATCO Electric GP POD and Substation Site Project: Wildlife Surveys Field Report, October 31, 2016; Exhibit 21761-X0080, Grande Prairie POD and Substation Site Project: Vegetation and Wetlands Field Report, October 31, 2016.

57. ATCO Electric conducted a desktop assessment using a spatial environmental evaluation dataset and conducted site visits in July and September of 2015. ATCO Electric also stated in its application that the datasets used to refine the project's study area included environmentally significant areas, trumpeter swan zones, watercourses, water bodies and wetlands, among others. ATCO Electric stated that the project footprints for the preferred route, alternative route, and rejected east route do not intersect any open water wetland or sensitive wildlife ranges, other than some overlap on the rejected east route with a Trumpeter Swan Breeding Lake setback.

58. ATCO Electric's application states that the preferred route was deemed the environmentally preferred route. The total project footprint is 50.75 hectares for the preferred route and 51.52 hectares for the alternative route.

59. There are 1.67 hectares of wetlands within the preferred route project footprint, and 0.58 hectares of wetlands within the alternative route project footprint. Subsequent site visits indicated that the wetland area within the project footprints is limited, and permanent impacts to wetlands are avoidable. The Wetlands Report confirmed 15 wetland locations were encountered intersecting the proposed project, 14 of which were found along the preferred route, and 11 along the alternative route. Of the 15 wetlands encountered, 10 of the wetlands were found in both routes.

60. Any permanent disturbance or alteration of wetlands (i.e., a structure placed within the boundary of a wetland) would require approval from Alberta Environment and Parks under the *Water Act*. In its reply evidence, ATCO Electric stated that it will seek to place structures outside of wetland boundaries where possible to minimize potential impacts identified in the Wetlands Report. ATCO Electric proposed a minor alteration to the preferred route to avoid impacting an existing wetland located partly on Mr. Sallis's property. This alteration would shift the structure located at node B9B slightly north, moving it outside the boundary of the existing wetland and thereby removing the need to obtain *Water Act* approval for that impact.¹⁸ This alteration would also move the proposed line slightly further from Mr. Sallis's house. ATCO Electric intends to file an amendment for this change, should the Commission approve the preferred route.

61. ATCO Electric also stated in its application that the construction and operation of the project may result in species-specific responses, and potential impacts towards many avian species have been minimized through general avoidance of wetlands and suitable habitat. ATCO Electric's application states that it worked with Alberta Environment and Parks during the conceptual routing stage to discuss routing constraints, including trumpeter swan setback areas.

62. Integrated Environments Ltd. conducted a survey with respect to raptor signets, but did not conduct breeding bird or waterfowl flight path surveys in relation to trumpeter swans. ATCO Electric stated that Alberta Environment and Parks did not indicate a need to complete additional surveys, as both the preferred route and alternative route were outside of the trumpeter swan buffer for waterbodies adjacent to the study area for the project. ATCO Electric stated in its application that it will install bird diverters at certain locations along the transmission line, and will continue to work with Alberta Environment and Parks to develop specific mitigation measures to protect birds as requested or required.

¹⁸ Exhibit 21761-X0141, Reply Evidence of ATCO Electric Ltd., January 13, 2017.

4.6.2 Views of the parties

63. Mr. Sallis retained Jay White of Aquality Environmental Consulting Ltd. to review the Wildlife Report and the Wetlands Report prepared by Integrated Environments Ltd. and submitted by ATCO Electric in support of its application. The results of this review of the reports are contained in the Aquality Report prepared by Mr. White. In his written submissions, Mr. Sallis stated that the alternative route or the Sallis Proposed Route would minimize line length through wet areas and steep slopes for better access and to reduce environmental impacts.¹⁹

64. Mr. White testified that the Wetlands Report does not include certain types of analysis, such as completion of the Alberta Wetland Rapid Evaluation Tool (Wetland Evaluation Tool), a determination of the replacement value of wetland loss, and a determination of compensation value.

65. Mr. White cited a number of deficiencies with the Wetlands Report, including:

- uncertainty about the type of wetlands present in the area
- omission of a historical photograph analysis in the wetland classification study
- insufficient collection of point-in-time wetlands data to perform wetland boundary assessments
- lack of water quality data collected
- whether the Wetlands Report was prepared by a qualified wetland science practitioner

66. The Aquality Report also contained the finding that the preferred route crosses or is adjacent to more potential wildlife habitat than the alternative route, thus increasing the risk of avian line collisions although Mr. White said that ATCO Electric's evidence with respect to diverting birds away from transmission lines was outside his area of expertise.

67. Mr. Groner stated that ATCO Electric's environmental evaluation was flawed in relation to the proximity of trumpeter swan habitat to the preferred route.²⁰ He testified that trumpeter swans regularly used his property as habitat but were not considered in ATCO Electric's environmental assessment.

4.6.3 Commission findings

68. As pointed out by counsel for Mr. Sallis during the hearing, the authors of the Wetlands Report and the Wildlife Report were not made available for cross-examination, which posed difficulties in testing the conclusions of those reports. Notwithstanding the unavailability of the authors, the Commission finds that no evidence was brought to demonstrate that the conclusions in the reports were materially deficient.

69. ATCO Electric's application included both specific and general measures to reduce the project's potential impacts to the environment, and the Wetlands Report contained information

¹⁹ Exhibit 21761-X0115, Written Submissions of Ward Sallis, Review of "Grande Prairie POD Substation Site Project: Vegetation and Wetlands Field Report" and "ATCO Electric GP POD and Substation Site Project: Wildlife Surveys and Field Report", December 9, 2016.

²⁰ Exhibit 21761-X0117, Written Submission from Chester Groner, December 16, 2016.

on the delineation of wetlands and the potential impacts of the project. Although Mr. White raised concerns that historical aerial photographs and the Wetland Evaluation Tool were not used, ATCO Electric's environmental evaluation of the project's potential impacts included aerial imagery and geospatial data to identify wetlands, among others, and its desktop study was supplemented by field surveys. ATCO Electric noted in its application that the project footprints for the preferred and alternative routes do not intersect any open water wetland or sensitive wildlife ranges. ATCO Electric confirmed in testimony that the Wetlands Report and the Wildlife Report confirmed the findings of its environmental evaluation, which was used to develop the mitigation measures in its environmental protection plan. Finally, ATCO Electric has committed to applying for *Water Act* approvals where necessary, which as noted above would require further scrutiny, including a review of historical aerial photographs and the Wetland Evaluation Tool.²¹

70. The Commission finds that Mr. White's testimony did not demonstrate that ATCO Electric's assessment of the potential impacts to trumpeter swans and other avian species was insufficient or inaccurate. As noted, Mr. Groner also testified that trumpeter swans regularly used his property as habitat, and thus ATCO Electric's failure to take this information into account was insufficient. Mr. Groner provided a photograph as evidence of the presence of trumpeter swans on this property. ATCO Electric stated in the hearing that it will employ mitigative measures to reduce potential environmental impacts along the approved route as per the environmental protection plan. In response to one of the Commission's information requests, ATCO Electric stated that this project would include the installation of Firefly™ Bird Flight Diverters approximately every 10 metres between nodes A12 and B20. ATCO Electric further stated that it would re-evaluate avian collision risk as new information becomes available, in consultation with Alberta Environment and Parks, to determine the need for additional bird diverters.²² Assuming that Mr. Groner's assessment of the presence of trumpeter swans on his property during flooded conditions is correct, the Commission finds that ATCO Electric's proposed mitigation measures, including the installation of bird flight diverters, acceptably minimize the potential impacts to avian species arising from the project. However, in light of the information provided by Mr. Groner, the Commission directs ATCO Electric to reassess the potential for collisions with trumpeter swans in the vicinity of Mr. Groner's property, as promised in ATCO Electric's response to the Commission's information request.²³

71. The Commission is satisfied that the potential adverse impacts to the environment along or near the preferred route and the alternative route have been adequately delineated and discussed in ATCO Electric's application, the Wetland Report, and the Wildlife Report. The difference between the total project footprint of the preferred route and the alternative route is only 0.77 hectares. The difference between the wetlands within the project footprint of the preferred route and the alternative route is only 1.09 hectares. The Commission finds that although the project footprint for the preferred central route is larger than the alternative west route, the differences between the environmental impacts of the two routes are minimal.

72. As discussed above, the Commission must consider whether a project is in the public interest when determining whether to grant approval under the *Hydro and Electric Energy Act*. This public interest assessment requires the Commission to balance the project's potential

²¹ Exhibit 21761-X0165, ATCO Electric Commitment List, February 7, 2017.

²² Exhibit 21761-X0063, Information Request Response, ATCO Electric to AUC, 5(c).

²³ Ibid.

impacts versus its benefits, including the potential for adverse environmental effects to occur. The Commission's public interest determination is also affected by the extensive regulatory oversight of such projects by other government agencies, which includes Alberta Environment and Parks' responsibility over wetlands in the province. If permanent impacts to wetlands by the project cannot be avoided, ATCO Electric would be required to apply for approval under the *Water Act*. Should such approval be necessary, Alberta Environment and Parks would then be responsible for detailed scrutiny of ATCO Electric's further evaluation of specific impacts to wetlands caused by the project.

73. In consideration of the evidence brought by ATCO Electric and the interveners, including oral testimony, the Commission finds that it has sufficient information before it to assess the potential adverse impacts to the environment that may result from the construction and operation of the project, and to compare the preferred and alternative routes. ATCO Electric's application states that the preferred route is the environmentally preferred route. With respect to wetlands, the application also notes that the project footprints for the preferred and alternative routes do not intersect any open water wetland or sensitive wildlife ranges.

74. The Commission is satisfied that the potential adverse impacts to the environment along or near the preferred route and the alternative route have been adequately delineated and discussed in ATCO Electric's application, the Wetland Report, and the Wildlife Report, and through oral testimony. The difference between the total project footprint of the preferred route and the alternative route is only 0.77 hectares. The difference between the wetlands within the project footprint of the preferred route and the alternative route is only 1.09 hectares. The Commission finds that although the project footprint for the preferred route is larger than the alternative west route, the differences between the environmental impacts of the two routes are minimal. The Commission confirms ATCO Electric's intention to avoid the wetland in the vicinity of node B9B and to file an amendment to move the structure if the preferred route is approved.

4.7 Consultation

4.7.1 Views of the applicants

75. The AESO directed ATCO Electric to assist the AESO in conducting a participant involvement program between November 2015 and June 2016. The AESO notified the public located in the subject area of its intention to file the need application with the Commission. The AESO was not aware of any outstanding concerns or objections regarding the need for the proposed project. ATCO Electric stated that it undertook a comprehensive participant involvement program for the project in accordance with Section 7 and Appendix A of Rule 007 to inform and consult with all persons who may be affected. It notified landholders, residences, agencies, and other potential interested parties located within 800 metres of the proposed Hughes 2030S Substation site and within 800 metres of the preferred and alternative route options for the transmission line. Part of its efforts included individual consultation with all landholders, occupants, residences, agencies, industries and other interested parties directly affected and adjacent to the proposed route options' rights-of-way and Hughes 2030S Substation site either in person, by phone or through email correspondence based on the preference of the participant. ATCO Electric also hosted a project open house in the city of Grande Prairie on December 8, 2015.

76. ATCO Electric stated that it was committed to working with potentially impacted and other interested parties to discuss options, address questions and concerns and, where practicable, resolve issues.

4.7.2 Views of the parties

77. Multiple parties discussed ATCO Electric's participant involvement program.

78. Mr. Sallis stated that he was often left confused after discussion with ATCO Electric land agents. Counsel for Mr. Sallis indicated that on July 7, 2016, Mr. Sallis and an ATCO Electric representative had a meeting where a follow-up was requested but no follow-up was made until Mr. Sallis phoned ATCO Electric on October 6, 2016.

79. Mr. Groner stated that ATCO Electric meetings were not consultation but were rather meetings to inform him of what decisions were already made. He gave two examples. First, the two routing options were already shown on a map when he attended the first information session. Second, when he questioned ATCO Electric on why he had not been consulted prior to the route options being decided, he learned that ATCO Electric had consulted with one landowner and made its decisions based on that consultation.

80. Mr. Groner also indicated that the brochure that was mailed out to stakeholders was misleading. A stock photo of a 72-kV pole roughly 10 metres tall was shown on page two of the brochure,²⁴ even though in reality the proposed poles would be 24 metres tall. Mr. Groner believed that the misleading brochure limited the input from affected landowners. Mr. Groner noted a conversation with a neighbour who was not concerned until he was shown an accurate photo of the proposed transmission line poles.

4.7.3 Commission findings

81. A participant involvement program is a mechanism for stakeholders to express their concerns about the proposed project and to provide site-specific input in an effort to reduce the impacts of a proposed project. A participant involvement program will be effective and consequently will meet Rule 007 requirements if it has allowed stakeholders an opportunity to understand the proposed transmission facility and its potential impacts. An effective participant involvement program may not resolve all stakeholder concerns.

82. One of the purposes of the participant involvement program is to allow stakeholders to provide input into the process in order to reduce the impacts of a proposed project. As noted in the routing section above, in this case ATCO Electric had consulted extensively with two landowners who owned the majority of parcels in the northern portion of the preliminary routes before the first round of notification and consultation occurred. Mr. Groner indicated that by the time he was consulted about the project, ATCO Electric had already decided on the preferred route option and the alternate route option. In Mr. Groner's view, ATCO Electric had already decided on these route options and was not willing to consider alterations of the routes. At the hearing, Mr. Groner proposed multiple alternative route options; ATCO Electric should have provided more opportunity for meaningful stakeholder input and considered other route alternatives based on that input at an earlier date.

²⁴ Exhibit 21761-X0041, Attachment12 Project Information November 2015, PDF page 2.

83. A participant involvement program should be project-specific in order to provide effective communication to stakeholders. ATCO's use of "stock" photographs for the purpose of its information brochure for the project unnecessarily created a risk that landowners would be misled as to the nature of the project. Use of generic depictions of projects should be avoided wherever possible, in favour of materials which more accurately capture the nature of the specific project in each case. In light of the overall participant involvement program conducted by ATCO Electric, the Commission finds that the use of a stock photograph in this case does not render ATCO Electric's participant involvement program materially deficient.

84. Although the Commission acknowledges the concerns expressed by interveners regarding ATCO Electric's consultation, it must assess the participant involvement program as a whole, in light of the nature and scope of the project. The Commission finds that for the most part, ATCO Electric's participant involvement program met the principles and requirements reflected in Rule 007. ATCO Electric generally took stakeholder concerns into account when planning the project, including development of the preferred and alternative route options, elimination of the rejected east route due to landowner opposition, and the substation siting process. Any consultation program intended to inform and engage a large number of stakeholders will contain flaws in its process, and ATCO Electric must pay attention to the examples of defects in its program which have been pointed out by landowners. In particular, Mr. Groner's perception that ATCO Electric had already decided on the project's routing, and therefore his concerns were not adequately incorporated, merits some attention from ATCO Electric.

85. Notwithstanding the above noted flaws, the Commission is satisfied that overall, ATCO Electric consulted meaningfully with potentially affected stakeholders in respect of the proposed project.

4.8 Other considerations

86. Registered parties brought up other concerns and considerations throughout the proceeding including noise concerns, electrical and health considerations, property value and visual impacts, project costs and dust and traffic concerns.

4.8.1 Views of ATCO Electric

87. ATCO Electric stated that it had provided information on electric and magnetic fields (EMF) to stakeholders at an open house. ATCO Electric provided information from the World Health Organization and Health Canada and stated how, to date, the weight of scientific evidence does not support a cause and effect relationship between general health symptoms and exposure to EMF. The following is an excerpt from the open house material provided by ATCO Electric:

Following a 10-year review of scientific research on effects from exposure to electromagnetic fields, the World Health Organization's International EMF Project states:

"In the area of biological effects and medical applications of non-ionizing radiation approximately 25,000 articles have been published over the past 30 years. Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals. Based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences

from exposure to low level electromagnetic fields. However, some gaps in knowledge about biological effects exist and need further research.”²⁵

87. In its application, ATCO Electric stated that, for magnetic field exposure, the International Commission on Non-Ionizing Radiation Protection (ICNIRP), recommends a public exposure guideline of 2,000 milligauss (mG), and an occupational (worker) exposure of 10,000 mG. For electric field strength, ICNIRP recommends a public exposure guideline of 4.2 kV/m and an occupational (worker) exposure of 8.3 kV/m. The expected EMF levels for the proposed transmission line would be well below the public exposure guidelines at the edge of the right-of-way.

88. ATCO Electric retained Innova Global Ltd. (Innova) and provided a noise impact summary form. Innova found that the Hughes 2030S Substation would not pose any low frequency noise issues and demonstrated that the substation would comply with the nighttime permissible sound level (PSL) set out in Rule 012.

89. The Noise Impact Assessment Summary Form submitted indicated that the most impacted dwelling is located 544 metres east-northeast of the proposed facility and has a nighttime PSL of 40 dBA L_{eq} . At a distance of 544 metres, the sound level contribution from the proposed facility alone is 27 dBA L_{eq} , resulting in a predicted cumulative sound level of 36 dBA L_{eq} nighttime. This is below the PSL by a margin of 4 dBA.

90. ATCO Electric stated that visual impacts were taken into consideration during the routing of the transmission line which is why it attempted to maintain separation from residences while still satisfying other routing criteria. In its reply evidence, ATCO Electric stated that the preferred route’s visual impacts on Mr. Sallis’ viewscape would be minimized by an existing vegetative screen.

91. With regard to the visual impacts of the routes, ATCO Electric stated that:

Having regard to the proximity of residences, ATCO Electric submits that the preferred route is more favourable in terms of visual impacts than the alternative west route. However, should the alternative route be approved, ATCO believes it can mitigate impacts that may arise in relation to the Andreiuk residence by consulting with the Andreiuks regarding structure placement and the relocation of the existing distribution line.²⁶

4.8.2 Views of the parties

92. Mr. Pelster stated that he was concerned with the proposed Hughes 2030S Substation due to health and noise concerns as well as the increase in traffic and dust as a result.

93. Mr. Groner expressed concerns that the preferred route would impact his ability to subdivide his property with the transmission line being on two sides of the property. Similarly, Mr. Halwa also expressed concerns with his ability to subdivide a sliver of property that is already going to be impacted by the future Highway 43X which would be even more of an issue with the Hughes 2030S Substation near the land.

²⁵ Exhibit 21761-X0038, Attachment12_OpenHouseMaterial_GPPOD, PDF page 29.

²⁶ Transcript, Volume 2, PDF page 198, lines 17-25.

94. Mr. Sallis was concerned that the preferred route would impact his property value due to the visual impact of the transmission line.

95. During the hearing, Mr. Sears provided photographs (Exhibit 21761-X0164) showing the views around his property that would be impacted by the transmission line if the alternative route was selected.

96. In his evidence, Mr. Sallis provided evidence that the Sallis Proposed Route would be preferable because it limits the number of turns and resulting non-typical structures which cost between \$85,000 and \$135,000 each.

97. Mr. Groner stated that ATCO Electric provided disinformation regarding the cost comparison between overhead and underground transmission line.²⁷

4.8.3 Commission findings

98. ATCO Electric filed evidence on the topic of health effects of electric and magnetic fields that was uncontroverted by any other person with relevant expertise in this field. The Commission accepts ATCO Electric's assertion that the expected EMF levels will be below the public exposure guidelines.

99. The cumulative sound level of the proposed facility is predicted to be in compliance with the PSL values of Rule 012 at the most impacted dwelling at a distance of 544 metres from the facility. The Noise Impact Assessment Summary Form for the ATCO Electric Ltd. Hughes 2030S Substation is considered complete.

100. Given the close proximity to the Andreiuks' residence, the Commission finds that the alternative route would have a greater visual impact in comparison to the preferred route.

101. The Commission accepts that the Sallis Proposed Route would incur less costs but would also unnecessarily impact the farming operation of the land it traverses.

5 Conditions

102. As in most electric facility applications, ATCO Electric made a number of commitments regarding mitigation of impacts on land use, environmental and other impacts resulting from its project. During the hearing, ATCO Electric's witnesses explained their understanding of commitments:

- | | |
|---|---|
| 1 | A. MR. SMART: I think, like you said, if we're |
| 2 | going to get into legalities, we might not be the right |
| 3 | people to address that. But when we commit to doing |
| 4 | that, we are saying we're going to do it. We have an |
| 5 | approval that's based on, in some part, the commitments |
| 6 | that we're making that we're going to mitigate as we |
| 7 | have said we will. |

²⁷ Transcript, Volume 2, PDF pages 82-83, lines 17-7.

1 Well, what should happen if you don't adhere to your
2 commitments?
3
4 A. MR. SMART: I'm not too sure what the context
5 of that may be specifically, but if anybody sees that
6 we're not abiding by our commitments, we definitely
7 want to talk that over with them to understand where we
8 might be differing on an opinion.
9 And if for some reason we aren't, then we would
10 like to rectify that situation. But it's our intention
11 to follow our commitments. We made them knowing that
12 we intend to follow them. We haven't made those
13 commitments lightly.²⁸

103. In argument, ATCO Electric's counsel stated that although the Commission could choose to impose a condition on its approval rather than simply accepting an applicant's commitment, he cautioned that transforming a commitment into a condition would be problematic from an enforcement perspective because some commitments had a subjective element to their interpretation and implementation. Counsel noted that making ATCO Electric's environmental protection plan a condition of the approval would be a departure from past historical practices of the Commission. Counsel concluded:

But as I've said, to the extent that ATCO makes commitments, in ATCO's view, that's all that's necessary, it's not needed to be a condition of the approval. As I've said, ATCO fully intends to comply and follow through with any commitment it makes.²⁹

104. Further to an undertaking given at the hearing, ATCO Electric compiled the various commitments in the application and filed it after the hearing had ended.³⁰ ATCO Electric agreed that its environmental protection plan was a commitment, but did not itemize the specific commitments in the plan in response to the undertaking.³¹

105. The distinction between conditions and commitments is important. Conditions are an integral part of the Commission's approval and if breached, may result in formal Commission enforcement action. In contrast, commitments are undertakings from the applicant to landowners, usually in connection with some mitigation activity, and do not form part of the approval. Failure to meet a commitment may not result in enforcement action, but may trigger the Commission's review of the applicant's approval, as the Commission took account of the commitments among other considerations in granting an approval.

106. The Commission generally agrees with the view of the Alberta Energy Regulator in a recent Alberta Court of Appeal decision involving a permission to appeal one of the regulator's decisions. The difference between commitments and conditions, and the implications of such, were described as follows:

Conditions generally are requirements in addition to or otherwise expanding upon existing regulations and guidelines. An applicant must comply with conditions or it is in

²⁸ Transcript, Volume 1, PDF pages 224-220.

²⁹ Transcript, Volume 2, PDF page 464, lines 10-14.

³⁰ Exhibit 21761-X0165, ATCO Electric Commitment List.

³¹ Transcript, Volume 1, page 224, line 16 to page 225, line 11.

breach of its approval and subject to enforcement action by the Alberta Energy Regulator (AER). Enforcement of an approval includes enforcement of the conditions attached to that approval. Sanctions imposed for the breach of such conditions may include the suspension of the approval, resulting in the shut-in of a facility. The conditions imposed on the licences and approvals are summarized below.

The AER notes that Pembina Pipeline Corporation (Pembina) has made certain undertakings, promises, and commitments (collectively referred to as commitments) to parties involving activities or operations that are not strictly required under AER requirements. These commitments are separate arrangements between the parties and do not constitute conditions of the AER's approval of the applications. The commitments that have been given some weight by the AER in arriving at its decision are summarized below.

The AER expects the applicant to comply with commitments made to all parties. However, while the AER has considered these commitments in arriving at its decision, the AER cannot necessarily enforce them. If the applicant does not comply with commitments made, affected parties may alert the AER of such noncompliance. At that time, the AER will assess whether the circumstances regarding any failed commitment warrant a reconsideration of the original approvals.³²

107. In this case, the Commission places considerable weight on ATCO Electric's commitments in determining that the project's approval is in the public interest. The environmental protection plan, for example, deals with the implementation of site-specific mitigation measures, roles and responsibilities within the company to ensure compliance with the plan, pre-construction and construction activities and post-construction operation and maintenance. All of the mitigative measures in the environmental protection plan are essential to the avoidance or reduction of impacts to the environment, wildlife, and in some cases to farming and other operations, on or along the route. The right-of-way measures and activities outlined in the plan's Operations and Maintenance section give a sense of the importance and extent of these commitments. This section includes the protocols and techniques that will be utilized to reduce what might otherwise be deleterious effects on the environment. Among others, the measures outlined relate to access roads, watercourse monitoring, workspace requirements, vegetation establishment, hazard trees, working near wetlands, erosion and sediment controls, waterbody crossings, snow management, wildlife habitat and brushing. Extensive measures are also set out for pre-construction and construction activities.³³

108. ATCO Electric's commitments given outside the environmental protection plan, in the undertaking response provided, are also fundamental to the Commission's consideration of the application and its approval. There are 24 commitments described on ATCO Electric's list.³⁴ While some of the items (i.e., commitments one through four) are requirements under legislation or other statutory instruments, others are irrelevant to this decision, the balance of the commitments address impacts to landowners' farming operations, monitoring of wildlife, electric impacts (grounding of metal fences and buildings), notification with respect to the timing of

³² *Bokenfohr v Pembina Pipeline Corporation*, 2017 ABCA 40, paragraph 8.

³³ Exhibit 21761-X0033, Environmental Protection Plan, PDF pages 32-34.

³⁴ Exhibit 21761-X0165, ATCO Electric Commitment List.

construction activities, location of structures to minimize visual impacts and other measures intended to respect landowner concerns.

109. ATCO Electric's commitments were a compelling part of its overall application and are critical to the Commission's decision to approve the substation and transmission line, because without them the impacts on landowners, the environment and wildlife may be too great. In these circumstances, both the environmental protection plan and items listed on the attached Appendix A shall be conditions of the Commission's approval.

110. A breach of a condition may result in a Commission enforcement proceeding. However, the Commission can only find that a contravention has occurred after considering the matter in a hearing. Any person subject to an enforcement proceeding has full procedural fairness rights in that event, as well any defences that may be available, including the ambiguity or subjectivity of the condition in question.

6 Decision

111. After careful consideration of the record of the proceeding, and for the reasons provided elsewhere in this decision, the Commission finds that approval of the need application and the preferred route for transmission line 7L22/7L129 is in the public interest, having regard to the social and economic effects of the development and its effect on the environment.

112. Pursuant to Section 34 of the *Electric Utilities Act*, the Commission approves the need application, as filed by the AESO, and grants the AESO the approval set out in Appendix 1 – Needs Identification Document Approval 21761-D02-2017 – May 8, 2017.

113. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves the facility applications with the conditions outlined in the above section, and grants ATCO Electric the following approvals:

- Appendix 2 – Hughes 2030S Substation – Permit and Licence 21761-D03-2017 – May 8, 2017.
- Appendix 3 – Transmission Line 7L22 – Permit and Licence 21761-D04-2017 – May 8, 2017.
- Appendix 4 – Transmission Line 7L129 – Permit and Licence 21761-D05-2017 – May 8, 2017.

114. The appendices will be distributed separately.

Dated on May 8, 2017.

Alberta Utilities Commission

(original signed by)

Neil Jamieson
Panel Chair

(original signed by)

Kate Coolidge
Acting Commission Member

Appendix A

Item	Condition
1	NAV Canada has requested structure design data for the proposed transmission lines. The data will be provided following completion of transmission line design.
2	Standard construction practices for the right-of-way, travel lanes, access, and workspace areas will be implemented in frozen and dry operating conditions. ATCO Electric will modify general and standard construction practices depending upon environmental conditions or the presence of environmentally sensitive features. Mitigation measures to be employed during Project construction are described in the environmental evaluation and environmental protection plan.
3	Prior to final structure placement, pre-construction surveys for geotechnical, wildlife, vegetation, and wetlands will be conducted. Upon completion of these surveys, structure locations and structure assembly workspaces will be finalized and marked.
4	ATCO Electric will construct and maintain the proposed transmission facilities adhering to AEP's R&R/11-03, Environmental Protection Guidelines for Transmission Lines and in accordance with the terms and conditions of the right-of-way agreements and easements.
5	ATCO Electric shall protect avian resources. Monitoring for bird mortality will be conducted simultaneously with annual line inspections. ATCO Electric will install bird diverters at certain locations along the transmission line. ATCO Electric will continue to work with Alberta Environment and Parks (AEP) to develop specific mitigation measures to protect birds as requested or required.
6	Work in proximity to any sites with Historic Resource Value that may be discovered during construction will be suspended pending notification to and direction from Alberta Culture and Tourism.
7	The maximum field intensity of radio noise produced by the proposed transmission line (in fair weather, at 15 m from the outer phase), will not exceed the RI limit of 53 dB above 1uV/m for 200 to 300-kV systems. In general, electrical interference has not been a problem for ATCO Electric's facilities; however, in the event that problems are reported, ATCO Electric will work with the affected parties to identify the sources of the interference and to mitigate any interference that may be caused by the proposed facilities.
8	ATCO Electric will work with TELUS Communications Inc. before and after construction to identify and mitigate any electrical noise and/or induced voltages on telephone lines as a result of the Project.
9	Where necessary, metal fences, buildings, and structures will be grounded by ATCO Electric in order to minimize induced voltages.
10	Well bores that are drilled subsequent to the application date but prior to securing land rights will be appropriately accommodated, along with their associated developments, in the design of the Project.
11	Those stakeholders on the approved route and substation site will be advised of the construction schedule and details prior to construction.
12	ATCO Electric shall share EMF research with customers, employees, government officials or any other interested parties as requested.
13	When finalizing the proposed structure locations, ATCO Electric will work with landowners to make adjustments where feasible to minimize visual impacts. ATCO Electric endeavors to work with landowners to determine the most efficient

	location of structures, where practicable, to provide physical clearances that are safe across various types of access situations, allowing for agricultural patterns and topographical features.
14	Where reasonable, construction activities are scheduled to avoid preferred fieldwork periods, namely during seeding, harvesting, and cultivation. If this is not achievable, then compensation is provided to offset the loss of use and associated impacts.
15	Should any of the wetlands within 100 metres of the proposed transmission line be identified as amphibian breeding ponds, ATCO Electric will work with AEP to determine the appropriate mitigation measures.
16	For this project, wherever practical and appropriate, Firefly™ Bird Flight Diverters will be installed every 10 metres (within manufacturer recommendations), between nodes A1 2 and B20. Final spacing and installation will consider line engineering requirements, manufacturer specifications and site-specific conditions. ATCO Electric, in consultation with AEP, will re-evaluate avian collision risk as any new information becomes available to determine the need for additional bird diverters, and will install them accordingly. ATCO Electric confirms that should injured or dead trumpeter swans be found within the right-of-way of the proposed transmission facility, ATCO Electric will investigate the incident and report it to AEP.
17	ATCO Electric will consult with landowners and has consulted with the local district Agricultural Fieldmen to determine appropriate vehicle and equipment cleaning measures to be employed for the project.
18	In the event that deviations to daytime hours of construction are required, ATCO Electric will communicate with municipalities and landowners as appropriate.