



ENMAX Power Corporation

Downtown Calgary Transmission Reinforcement Project

November 9, 2018

Alberta Utilities Commission

Decision 23157-D01-2018

ENMAX Power Corporation

Downtown Calgary Transmission Reinforcement Project

Proceeding 23157

Applications 23157-A001 and 23157-A002

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1 Decision summary

1. In this decision, the Alberta Utilities Commission considers whether to approve facility applications from ENMAX Power Corporation for a transmission development project in the downtown Calgary area. After considering the record of the proceeding, and for the reasons outlined in this decision, the Commission finds that approval of the facility applications is in the public interest having regard to the social, economic, and other effects of the project, including its effect on the environment.

2 Introduction and background

2.1 Applications before the Commission and project description

2. Except in the case of critical transmission infrastructure, two approvals from the Commission are required to build new transmission capacity in Alberta. First, approval of a needs identification document (NID) application advanced by the Alberta Electric System Operator (AESO) seeking expansion or enhancement of the Alberta Interconnected Electric System 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 by the transmission facility owner to whom the AESO has assigned the project. Approval of the AESO's NID for transmission reinforcement in the downtown Calgary area having been granted by the Commission in Decision 21038-D01-2016,¹ it is the second approval (approval to construct and operate the transmission facilities), that ENMAX Power Corporation (ENMAX) seeks in this proceeding.

3. On March 1, 2016,² pursuant to Section 35(1) of the *Electric Utilities Act*, the AESO directed ENMAX to prepare and submit a facility application to the Commission to meet the need for the following system developments identified in the AESO's NID:

- one new 138-kilovolt (kV) transmission circuit between the existing ENMAX No. 2 and No. 8 substations, with a minimum capacity in the order of 300-megavolt amperes (MVA)
- one 138-kV circuit breaker at the ENMAX No. 8 Substation
- other associated equipment as more particularly described in the application

¹ Decision 21038-D01-2016: Alberta Electric System Operator - Downtown Calgary 138-kV Transmission System Reinforcement, Proceeding 21038, Application 21038-A001, June 1, 2016.

² Exhibit 23157-X0003, Appendix A – AESO Documents - Appendix A-2.

4. On November 30, 2017, ENMAX filed applications with the Commission for approval to construct and operate the Downtown Calgary Transmission Reinforcement Project (the project). The applications for the project, brought pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act*, were registered in Proceeding 23157 as applications 23157-A001 and 23157-A002.

5. In its applications, ENMAX sought approval to:

- Construct approximately 5.3 kilometres of new underground single-circuit 138-kV transmission line from ENMAX No. 2 Substation to ENMAX No. 8 Substation.
- Add one new 138-kV circuit breaker to the ENMAX No. 8 Substation and complete associated alterations to accommodate the proposed transmission line.
- Alter the ENMAX No. 2 Substation to accommodate the proposed transmission line.

6. The ENMAX No. 2 Substation is located at 3120 Ninth Street S.E., Calgary. Its legal land description is the southwest quarter of Section 11, Township 24, Range 1, west of the Fifth Meridian. ENMAX proposed to alter the existing protection and control equipment of the ENMAX No. 2 Substation to accommodate the safe and reliable connection of the new transmission line to be designated 138-2.84L. The proposed alteration would not require an expansion of the existing ENMAX No. 2 Substation fenceline and all work would be conducted within the existing substation yard and building.

7. The ENMAX No. 8 Substation is located at 903 Fourth Avenue S.W., Calgary. Its legal land description is the northeast quarter of Section 16, Township 24, Range 1, west of the Fifth Meridian. At the ENMAX No. 8 Substation, ENMAX proposed to install a new 138-kV circuit breaker within the existing substation building. The installation of a new breaker would not require an expansion of the existing ENMAX No. 8 Substation fenceline and all work would be conducted within the existing substation building.

8. ENMAX proposed one route for transmission line 138-2.84L and that the line be completely underground. In the downtown area, the proposed route from the ENMAX No. 8 Substation would travel south on Ninth Street S.W., east on 14th Avenue S.W., south on Centre Street, east on 18th Avenue S.W., and south on First Street S.E., before following 25th Avenue to the ENMAX No. 2 Substation. The following map shows ENMAX's proposed route for the transmission line.³

³ Exhibit 23157-X0002, ENMAX Facility Application, PDF page 8.

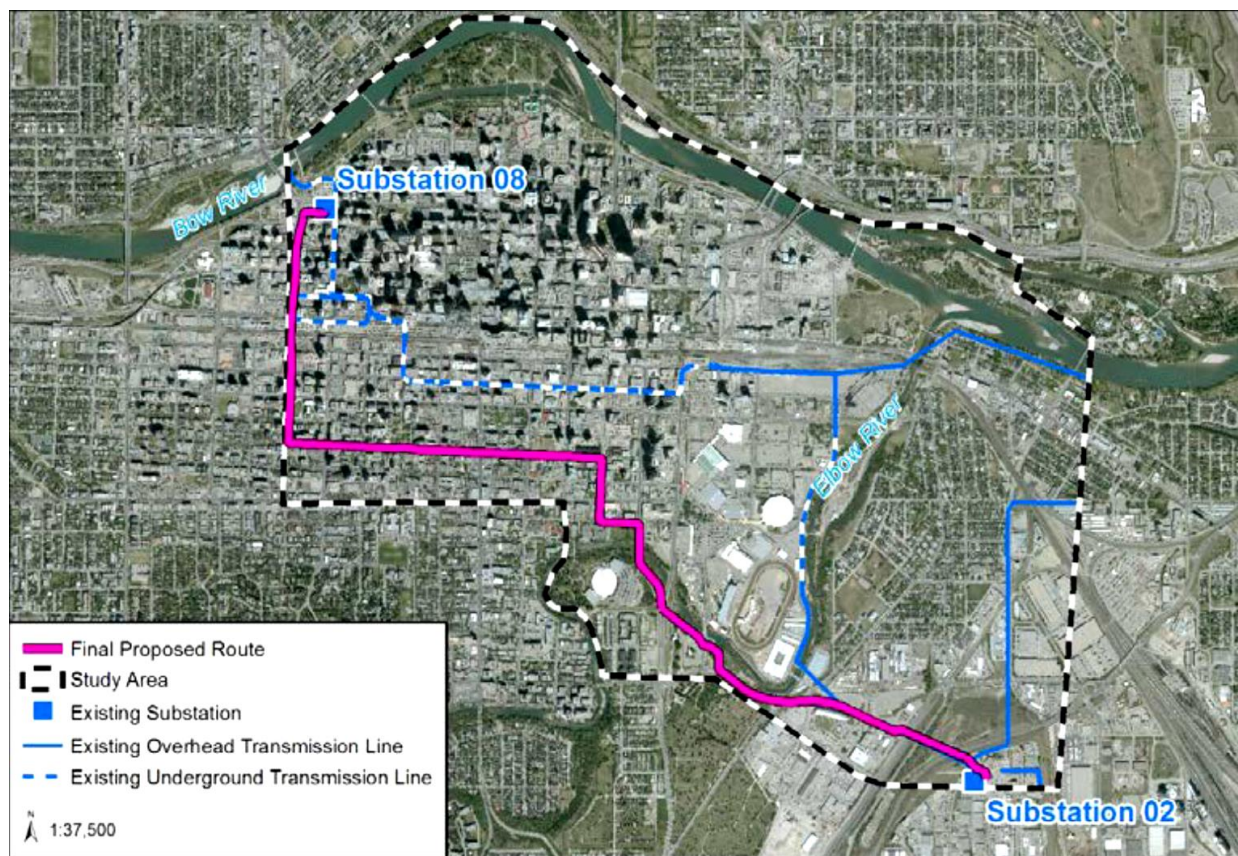


Figure 1 – Final proposed route

9. ENMAX stated the project would use a combination of open trench and trenchless installation methods. In particular, ENMAX noted that trenchless solutions would be employed where the transmission line would be required to go beneath infrastructure such as LRT, Canadian Pacific Railway Limited rail lines, and rivers. Further, ENMAX submitted that all proposed work associated with the project would take place in the city of Calgary on city-owned lands and road corridors, rights-of-way on private land, Canadian Pacific Railway Limited lands or ENMAX owned lands.

10. ENMAX approximated the total cost of the project to be \$101.7 million with an accuracy tolerance of plus 20 per cent to minus 10 per cent. ENMAX identified March 31, 2021, as the proposed in-service date for the project.

2.2 Procedural summary

11. The Commission issued notice of the applications for Proceeding 23157 on February 21, 2018, and April 4, 2018. The notice was mailed directly to stakeholders in the vicinity of the project. The notice was also published in the Calgary Herald and the Calgary Sun on February 27, 2018, and posted on the AUC website.

12. The Commission received statements of intent to participate from a number of interested parties who own, reside, or have an interest in land in the vicinity of the project.

13. In a ruling on May 31, 2018, the Commission granted standing to Michelle Beaujot, Elizabeth Budny, John Retallack (who later formed the Calla Condo Owners Group), Hafiz Karmali and Steinbock Development Corporation Ltd. Of those granted standing, only Hafiz Karmali did not actively participate in the proceeding.
14. The Commission issued a notice of hearing on May 31, 2018. The notice was mailed directly to stakeholders in the vicinity of the project and was also published on the AUC website. It informed interested persons that a hearing was scheduled to commence on August 15, 2018, and outlined the process schedule leading up to the hearing.
15. The Commission held an oral hearing in Calgary, Alberta, on August 15 and 16, 2018.
16. In reaching the determinations set out within 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.

3 Legislative and regulatory framework

17. Applications to construct and operate new transmission facilities are made under sections 14 and 15 of the *Hydro and Electric Energy Act*. Section 2 of that act sets out its purposes, which include the provision of economic, orderly and efficient development and operation, in the public interest, of generation and transmission of electric energy in Alberta.
18. Section 17 of the *Alberta Utilities Commission Act* directs that when considering an application for transmission facilities, the Commission must assess whether the proposed transmission facilities are in the public interest having regard to the social and economic effects of the transmission facilities and the effects of the transmission facilities on the environment.
19. The Commission has consistently described its mandate under Section 17 as follows:

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

⁴ Decision 2009-028: AltaLink Management Ltd. - Transmission Line from Pincher Creek to Lethbridge, March 10, 2009, Application 1521942, Proceeding 19, Section 2, paragraph 33.

20. Pursuant to its authority under Section 76(1) of the *Alberta Utilities Commission Act*, the Commission has established Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments* and Rule 012: *Noise Control*. Both these rules apply to applications for the construction and operation of power plants, substations and transmission lines governed by the *Hydro and Electric Energy Act* and establish requirements for such applications. These requirements include the requirement for information on public consultation as well as environmental and other land-use information.

21. In addition, an applicant must obtain all approvals required by other applicable provincial or federal legislation.

4 Consultation - participant involvement program

4.1 Views of ENMAX

22. ENMAX's participant involvement program included notification and engagement of landowners, residents, utilities, municipal authorities, and the general public located adjacent to the project. ENMAX noted that the proposed route traverses some of the most densely populated and developed real estate in Alberta with more than 2,500 landowners adjacent to the route.⁵

23. ENMAX advised that its participant involvement program involved stakeholder identification, distribution of project information, personal engagement, and five public open house sessions held on June 26, June 27 and June 29, 2017.⁶ ENMAX stated that information provided by all stakeholders was considered, and where feasible, incorporated into the routing, configuration, and construction methodology decisions. ENMAX submitted that the information collected from stakeholders during the participant involvement program was integral to the selection of the proposed route.⁷

4.2 Views of the Calla Condo Owners Group

24. During the hearing, the Calla Condo Owners Group (Calla Group) stated that the Commission and the project proponent endeavored to encourage landowners, residents and various other business and government level organizations to participate in the process. The Calla Group observed that one difficulty with the stakeholder engagement process is that the impacts of the project were not always fully described by the proponent. As such, the Calla Group stated that stakeholder understanding of the project components and their potential impact was also limited.

25. Further, the Calla Group stated that while the engagement process involved mailing out thousands of information packages, ENMAX and Commission open houses and many attempts at face-to-face engagement, there was in general, very limited traction. As an example, the Calla Group stated that the five ENMAX open houses averaged approximately five attendees per session and the Commission open houses seemed to fare the same. The Calla Group suggested

⁵ Transcript, Volume 2, page 165.

⁶ The five open house sessions were held as follows: one session was held on June 27, 2017, and two open house sessions were held on each of June 27 and June 29, 2017.

⁷ Exhibit 23157-X0070, 2018-08-14-EPC-Opening Statement – DCTRP Hearing, ENMAX Opening Statement, PDF page 2.

that the stakeholder process could be improved to more fully encourage stakeholder participation by holding information sessions directly in the lobby of the affected building or by setting up face-to-face scheduled appointments with residents to provide opportunities for questions. This would allow residents a better understanding of the project implications.⁸

4.3 Commission findings

26. Rule 007 states that a participant involvement program must be conducted before a facility application is filed with the Commission. It is therefore a fundamental component of any facility application. The applicant is responsible to meet the notification and consultation requirements under Rule 007.

27. Effective consultation allows parties to understand the nature of a proposed project, identify areas of concern and engage in meaningful dialogue and discussion with the goal of eliminating, or mitigating to an acceptable degree, the affected parties' concerns about the project.

28. While the Calla Group offered observations concerning the challenges associated with the stakeholder engagement process and suggestions for possible improvements, neither the Calla Group nor any other party challenged the sufficiency of ENMAX's participant involvement program. The Commission is therefore satisfied that ENMAX's participant involvement program meets the informational requirements of Rule 007.

5 Environment and other requirements

5.1 Views of ENMAX

29. ENMAX retained MASKWA Environmental Consulting Ltd. (MASKWA) to assess the existing land use conditions of the project area and to identify potential adverse environmental effects that could be caused by the project. To achieve this, MASKWA completed an environmental evaluation of valued ecosystem components that could potentially be affected by construction associated with the installation of an underground transmission line.

30. For all valued ecosystem components assessed (such as soil and terrain, vegetation species and communities, surface water bodies and hydrology, groundwater, and fish and wildlife), MASKWA concluded that any residual effects of the project would be insignificant, provided that effective mitigation measures are implemented during construction of the project.

31. ENMAX stated that mitigation measures recommended by MASKWA would be incorporated into the environmental management plan between ENMAX and the awarded contractor, and would be implemented prior to and during construction. ENMAX committed to conduct regular inspections to ensure that the environmental management plan would be adhered to and effective.

32. ENMAX identified the environmental-related legislation applicable to the project and indicated it would comply with those legislative requirements for the project, as well as the Alberta Environment and Parks *Environmental Protection Guidelines for Transmission Lines*.

⁸ Exhibit 23157-X0069, Opening Statement by Calla Condo Owners Group.

ENMAX submitted that the proposed route and configuration avoid or mitigate potential environmental impacts.

33. ENMAX stated that the facilities proposed as part of the project do not generate noise.

34. ENMAX advised that it received *Historical Resources Act* clearance for the project from Alberta Culture and Tourism on August 29, 2017.

5.2 Views of the parties

35. None of the parties challenged ENMAX's environmental assessment of the project.

5.3 Commission findings

36. The Commission understands that ENMAX is subject to, and will comply with, relevant sections of the *Environmental Protection and Enhancement Act*, the *Environmental Protection Guidelines for Transmission Lines* and other applicable statutes, regulations, rules and guidelines listed in the facility applications.

37. The Commission accepts ENMAX's commitment to follow the mitigation measures recommended in MASKWA's environmental evaluation report and incorporated in ENMAX's environmental management plan. The Commission is satisfied that, given the nature and location of the project, and the mitigation measures proposed, the environmental impacts of the project can be minimized to an acceptable degree.

38. The Commission is also satisfied that the technical and environmental aspects of the project, as submitted by ENMAX, fulfill the requirements of Rule 007. Further, it finds that a noise impact assessment under Rule 012 was not required as no noise producing equipment is proposed.

6 Route selection

6.1 Views of ENMAX

6.1.1 Siting methodology

39. ENMAX submitted that to connect the ENMAX No. 2 and ENMAX No. 8 substations, the proposed route would navigate through one of the most developed urban environments in the province.⁹ MASKWA, retained by ENMAX, provided professional routing and siting support in relation to the development and implementation of the overall siting approach for the project. ENMAX stated that it collaborated with MASKWA to develop a project-specific siting methodology that was then applied to identify a route that posed the lowest overall potential impacts when compared to other routing alternatives.

⁹ Exhibit 23157-X0070, 2018-08-14-EPC-Opening Statement – DCTRP Hearing, ENMAX Opening Statement, PDF page 1.

40. ENMAX explained that the siting methodology process was designed to incorporate jurisdictional land use planning principles, engineering requirements for the project, technical information provided by ENMAX, as well as information provided by other potentially affected stakeholders. Potential environmental effects and environmental factors were also considered important criteria in determining the feasibility of transmission line routes.

41. ENMAX stated that the siting methodology process was also designed to allow ongoing routing refinements throughout the process, including at the route corridor development stage (conceptual routing stage), preliminary route development stage, detailed route development stage, and the final route development stage. ENMAX stated that the siting methodology used a staged progression from preliminary routing through detailed routing to final routing to avoid and mitigate potential impacts of the project where possible.

42. ENMAX explained that the conceptual routing stage identified those areas (route corridors) where transmission facility siting would be most compatible and constructible from an overall development and land use perspective. ENMAX noted that in identifying route corridors of higher compatibility and constructability, both short-term impacts (i.e., during initial construction of facilities) and long-term impacts (i.e., during the operation and maintenance of the facilities once in-service) were taken into account. The result was the identification of a route corridor that presented the highest potential for compatibility with transmission infrastructure for the project. ENMAX stated that project-specific considerations, such as land use and traffic volumes drove the route corridor development.

43. ENMAX advised that at the preliminary route development stage, preliminary routes were developed within the identified route corridor with the goal of avoiding or minimizing potential conflicts and impacts. At this stage, ENMAX identified three complete routing options with some overlapping segments. These three route options were then provided to ENMAX's internal departments and stakeholders for further refinement in the detailed route development stage.

44. As an example of how ENMAX assessed potential routes in the downtown Calgary area, in its information request responses to Ms. Beaujot, ENMAX provided reasons as to why the proposed route could not follow an alternative route, such as north on Centre Street and west on 11th Avenue. ENMAX stated the following:

Portions of Centre Street, 11th Avenue, and 9th Street were considered at the Preliminary Route Development stage and each of these areas were assessed at the Corridor Route Development stage.

The engineering design team assessed the portion of Centre Street between 10th Avenue and 11th Avenue during the Preliminary Route Development stage to connect to an east / west alley. However, as discussed at section 5.1.8.1 of Appendix G-2, page 29, the entire segment along the alley was retired from consideration because the engineering design work concluded that in numerous locations, there was insufficient workspace to construct an underground duct between existing infrastructure or to enable the duct to be placed deep enough, without undermining adjacent structures.

This portion of 11th Avenue was also assessed. As discussed in section 4.2.2.1 of Appendix G-2 (page 9), portions of the study area with higher traffic volumes were dropped from consideration where comparable portions with lower traffic volumes were

present. Further, it was noted early in the routing process that there is an existing 138kV underground transmission line in the southern sidewalk along 11th Avenue and therefore, routing the Project along 11th Avenue would result in a longer construction schedule, creating additional cost and impact.

Information provided by the City of Calgary Greenline LRT project also identified potential conflicts with the Greenline LRT project due to additional crossings at 12th Avenue and Centre Street, and at 11th Avenue and 2nd Street.¹⁰

45. ENMAX stated that the purpose of the detailed route development stage was to further refine the routes through consideration of overall constructability and the route's potential impacts. The proposed route was the final route resulting from the siting methodology process.

46. In its final argument, ENMAX summarized how it arrived at its proposed route through the siting methodology process as follows:

ENMAX and Maskwa identified three preliminary routes, as summarized in paragraph 76 of the application. These preliminary routes were assessed to develop detailed routes. Through this assessment, ENMAX and Maskwa eliminated segments that they concluded would not be technically feasible or would be impractical, would result in greater impacts, or pose risks to reliability and operations. They also identified areas where modification of route segments would result in an improved overall configuration or route. These refinements included small adjustments to avoid newly identified underground infrastructure, but also larger realignments to adjacent corridors and to take into account stakeholder input and feedback. Potential route segments were progressively eliminated or altered to avoid or minimize conflicts and impacts. At the end of this process, you have heard the evidence that only one practical and feasible route remained. That is the route which is proposed and before you for your consideration. Through the detailed route assessment process, ENMAX and Maskwa further refined the route and configuration in order to improve constructability and to further avoid or reduce conflicts and impacts.¹¹

47. In an information request response to the Commission, ENMAX provided a similar rationale for only proposing one route for consideration by the Commission:

ENMAX explored a number of possible routes and configurations. Ultimately, ENMAX only proposed a single route because only one route enabled all of the identified concerns and issues to be avoided or minimized having regard to the Project's social, economic, and environmental impacts, as well as addressing all technical and reliability considerations.¹²

¹⁰ Exhibit 23157-X0048, 2018-06-27-EPC Responses to Beaujot IRs, part a, PDF pages 1 and 2.

¹¹ Transcript, Volume 2, pages 167-168.

¹² Exhibit 23157-X0019, 2018-03-07-EPC Response to AUC IRs, PDF pages 10 and 11.

6.1.2 Hybrid transmission line route considered but rejected

48. ENMAX indicated that it had initially considered a hybrid route consisting of a combined overhead and underground transmission line (the hybrid line). The route associated with the hybrid line is shown in the figure below.¹³

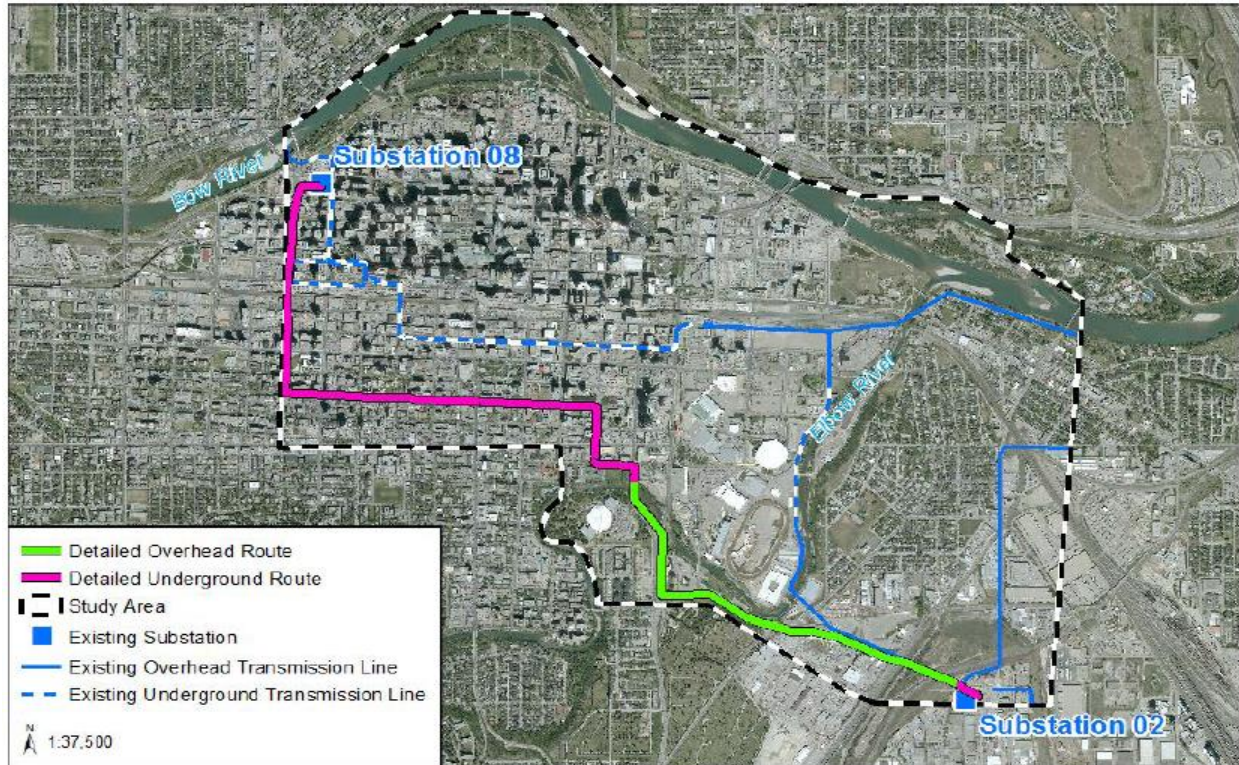


Figure 2 – Hybrid transmission line route

49. During the hearing, ENMAX described the hybrid line as follows:

Basically the hybrid option was an option that saw a portion of the line built as overhead followed by the bulk of the line being underground through the densest part of the downtown core.¹⁴

50. ENMAX further explained that the overhead portion of the hybrid line started at Elbow River at First Street S.E. and ended at the top of the hill above Blackfoot Trail near the ENMAX No. 2 Substation.¹⁵

51. ENMAX stated that following the June 2017 open houses and subsequent engagement, stakeholders identified concerns with the overhead section of the hybrid line, which required alignment and configuration adjustments. These concerns included matters related to land availability, parcel restrictions, land use considerations, as well as future development details in the area of the overhead section near Macleod Trail and 25th Avenue. As an example of parcel restrictions identified by stakeholders, ENMAX stated that in July 2017 it received information

¹³ Exhibit 23157-X0002, ENMAX Facility Application, PDF page 32.

¹⁴ Transcript, Volume 1, pages 72-73.

¹⁵ Transcript, Volume 1, page 73.

from the Calgary Stampede and The City of Calgary concerning the requirement for a 30-metre setback from the top of the Elbow River bank for any buildings on the Calgary Stampede's parcel.

52. Additionally, through ongoing evaluation, ENMAX engineers concluded that from a system reliability point of view, the hybrid line presented a greater risk of failure and greater operational liability. This is because of the potential requirement for multiple transitions from overhead to underground configurations within a small area and the shorter length of overhead transmission line within a hybrid configuration.¹⁶ ENMAX offered further explanation of these concerns in response to an information request. ENMAX stated that overhead to underground cable transitions are more susceptible to catastrophic failure than other transmission infrastructure; and, termination locations and exposed cables associated with overhead to underground cable transitions are generally considered to be at greater risk of failure. Further, ENMAX asserted that hybrid transmission lines incorporate the worst characteristics of both overhead and underground configurations. It explained that with hybrid lines, faults are more common (as with overhead lines) but require longer outages to confirm the actual fault location and determine the required corrective measures (as with underground lines). ENMAX added that it is because of a hybrid transmission line's lower reliability that there is increased operational risk than would be the case with a fully underground transmission line.¹⁷

53. In its testimony, ENMAX reaffirmed that the engineering evaluation of the reliability and operation of the hybrid line led to its retirement because the hybrid line became technically unfeasible.¹⁸

6.1.3 Fully underground transmission line route proposed

54. ENMAX stated that during consultation with The City of Calgary and the Calgary Stampede, a fully underground construction option that avoided many of the stakeholder concerns and the technical challenges associated with the hybrid construction, emerged. The fully underground line option, developed during the final route development stage, followed 25th Avenue, Macleod Trail, 18th Avenue, Centre Street, 14th Avenue and Ninth Street and became the proposed route for the project. ENMAX stated that the proposed route was developed based on siting considerations (avoiding traffic impacts, avoiding other underground facilities)¹⁹ and posed lower overall impacts than any other route considered throughout the route development process. On that basis, it was identified as the proposed route and all other route options were retired.

55. ENMAX further explained with respect to the assessment of impacts, that in dense urban environments such as Calgary's downtown area, overhead lines are typically associated with a higher potential for long-term visual, residential, commercial, environmental and electrical impacts. It added that these higher impacts are often assessed against the lower cost of materials and construction of an overhead line. ENMAX stated that an underground line in these types of areas is generally of lower impact when a collective assessment of all potential impacts is undertaken.

¹⁶ Exhibit 23157-X0019, 2018-03-07-EPC Response to AUC IRs, PDF page 4.

¹⁷ Exhibit 23157-X0019, 2018-03-07-EPC Response to AUC IRs, part b, PDF pages 4-5.

¹⁸ Transcript, Volume 1, page 87.

¹⁹ Exhibit 23157-X0019, 2018-03-07-EPC Response to AUC IRs, PDF page 4.

56. ENMAX noted MASKWA's conclusion that an underground configuration of the proposed route is the only feasible option in this densely developed and urban environment because it would avoid construction risks associated with the slopes near ENMAX No. 2 Substation; minimize disruptions at road, rail, and river crossings; avoid induction issues and minimize the private property land rights needed for the line. In addition, ENMAX stated that the proposed underground routing alignment reduces workspace requirements, avoids additional fragmentation of land, and minimizes tree removal.²⁰

57. ENMAX also asserted that the proposed fully underground transmission line would be more reliable than a hybrid transmission line because none of its components would be above ground, where they would be exposed to weather events, industrial accidents, or anything on the surface that could impact the reliability or operation of the line.²¹ ENMAX stated that during the final route development stage, a completely underground transmission line was selected for two primary reasons. It would provide the lowest impacts in a densely populated environment and a hybrid transmission line in the project area is not technically feasible. ENMAX testified that the proposed route was the only technically feasible option.

6.1.4 Hybrid line and underground line cost comparison

58. In an information request, the Commission asked ENMAX to provide a cost comparison between the hybrid line originally considered and the proposed fully underground transmission line. In its response²² ENMAX provided the following cost comparison:

ESTIMATED COST COMPARISON	FULL UNDERGROUND	HYBRID LINE
Overhead Transmission	\$ -	\$ 6,698,387
Underground Transmission	\$ 57,224,903	\$ 40,508,519
Substation	\$ 4,460,630	\$ 4,460,630
Owners Cost	\$ 11,306,008	\$ 12,496,008
Distributed Costs	\$ 17,225,408	\$ 15,688,443
Other Costs	\$ 11,477,111	\$ 10,236,216
Total	\$ 101,694,060	\$ 90,088,205

59. ENMAX also compared the difference in cost per metre between an overhead and an underground line segment from the Elbow River to a pothead structure near the ENMAX No. 2 Substation:²³

Line segment from Elbow River to pothead structure near ENMAX No. 2 Substation	Line Length (m)	Cost/m
Overhead	2135	\$ 7,233
Underground	2035	\$ 13,320

²⁰ Transcript, Volume 2, page 166.

²¹ Transcript, Volume 1, pages 74-75.

²² Exhibit 23157-X0019, 2018-03-07-EPC Response to AUC IRs, PDF page 14.

²³ Exhibit 23157-X0019, 2018-03-07-EPC Response to AUC IRs, PDF page 14.

60. In an information response, ENMAX explained why the costs of the hybrid line and the proposed underground line were similar. ENMAX stated:

The Project area has unique characteristics, such as the high cost of land for construction and rights of way, non-typical structures, existing utility conflicts, high traffic volumes and LRT accommodations, electrical induction and slopes, among others, that cause the cost for overhead segments in the Project area to be higher than the costs for typical 138 kV transmission lines. Therefore, a hybrid transmission line would result in similar costs to that of the proposed Project, while providing lower reliability and higher social and environmental impacts. The Project costs are consistent with the cost estimate in the approved NID, and ENMAX determined that no other route or configuration was available that avoided or minimized the potential social and environmental impacts to this extent, and was able to address all technical and reliability considerations.²⁴

61. At the hearing, ENMAX's witness Mr. Mark Kefford testified that the cost difference of \$11 million between the hybrid line and the underground line represented ENMAX's analysis before ENMAX received the technical information that ultimately led to the retirement of the hybrid line alternative around the July 2016 or 2017 time frame.

62. Mr. Kefford stated that the additional analysis and enquiry which resulted in ENMAX's decision to retire the hybrid line alternative, identified technical conflicts and landowner issues that would have required some sort of mitigation had the hybrid line remained feasible. Mr. Kefford testified that the \$11 million cost difference at the time did not reflect the additional mitigation costs that would have been associated with these additional mitigation measures:

And does the number that's reflective of the cost of that hybrid line at the time that it was retired reflect the mitigation costs that would be required to deal with the various conflicts you have identified had the hybrid line remained a feasible option?

Mr. Kefford: No, sir. It only dealt with the cost to mitigate those known circumstances. The technical information that came to light in 2016 or 2017 would have surpassed that \$11 million and ultimately became technically unfeasible. You just wouldn't go move buildings. You would not move bridge abutments or divert the Elbow River to make space for the transmission line.²⁵

6.2 Commission findings

63. Based on the record and in the absence of evidence or argument to the contrary, the Commission is satisfied that ENMAX's facility applications to construct and operate the project are consistent with the need identified by the AESO and approved by the Commission in Decision 21038-D01-2016.

64. With respect to routing, the Commission recognizes that in some circumstances, there may exist only one viable route for new transmission facilities. In such circumstances, it is essential that the applicant provide as much information as possible to explain why other, potential alternatives were eliminated from consideration.

²⁴ Exhibit 23157-X0019, 2018-03-07-EPC Response to AUC IRs, PDF pages 10 and 11.

²⁵ Transcript, Volume 1, pages 120-122.

65. Based on ENMAX's responses to the Commission's information requests and the testimony of the ENMAX witnesses, the Commission accepts ENMAX's explanation for why the hybrid line was retired as an alternative and why only one route was proposed for the Commission's consideration. More specifically, the Commission is satisfied that ENMAX's route determination process provided an effective means to identify and mitigate many stakeholder concerns in a densely populated urban area; a fully underground transmission line, as proposed, was a reasonable alternative; and, the proposed route is the only technically feasible solution that lowered the operational and reliability risks associated with the project, minimized social and environmental impacts and addressed stakeholder concerns to the greatest degree reasonably possible.

66. The Commission accepts the ENMAX evidence and conclusion that the hybrid line was not a technically feasible alternative and observes that, in any event, based on the initial ENMAX calculation which does not include the cost of mitigations required to respond to the technical and landowner concerns that led to the retirement of the hybrid line alternative, the costs associated with the fully underground route are not materially greater than the estimated costs of the hybrid line.

7 The concerns of the Calla Condo Owners Group

7.1 Views of the Calla Condo Owners Group

67. The Calla Condo Owners Group (Calla Group) consists of Mr. John Retallack, Ms. Elizabeth Budny and Ms. Michelle Beaujot. All three members own and reside in condominium units in the Calla building, which is located adjacent to the proposed route on 14th Avenue between Fifth Street S.W. and Sixth Street S.W.

68. The Calla Group did not dispute the need for the project, the proposed route or its fully underground configuration. Rather, the Calla Group raised a number of concerns related to the construction of the project such as the availability of parking, construction hours, noise, building access, and the impact on access to and the safety of bicycle lanes. The Calla Group also expressed concern with electric and magnetic fields (EMF) associated with the proposed transmission line.

69. The Calla Group was concerned that construction of the project would have a negative effect on area parking. It stated that construction of the project along its block would result in the loss of approximately 30 on-street parking spots during the construction period. Members of the Calla Group also submitted that rolling street closures for construction in areas near their building would displace parking from those streets and make it more difficult to park near their building during the construction period. This shortage of parking spots could result in additional parking costs for some area residents and inconvenience to visitors.

70. The members of the Calla Group acknowledged that they each had underground parking in the Calla building. However, they observed that some building residents own two cars and use on-street parking for their second car.

71. Access to the Calla building was another issue for the Calla Group. It stated that unimpeded access is necessary from a safety perspective to allow emergency services access to

the building at all times. The group also emphasized that good access is necessary to accommodate the numerous deliveries taken to the building's main entrance. The Calla Group's primary access concern related to the expectation of a fenced, open trench separating 14th Avenue from the entrance to the Calla building during the construction period. The Calla Group acknowledged that ENMAX intends to "bridge" the trench in certain locations with steel road plates, but noted that the proposed fence breaks were not directly adjacent to the Calla building entrance.

72. The Calla Group also raised concerns about the impact of construction noise on residents of the Calla building. It understood that construction would be scheduled to occur during daylight hours (defined as 7 a.m. to 10 p.m.) seven days per week. The Calla Group submitted that this posed an unreasonable burden on area residents and would have considerable impact on shift workers, small children and the elderly.

73. The Calla Group submitted that it would be reasonable for ENMAX to limit its construction hours to 7 a.m. to 5 p.m., Monday to Friday. The Calla Group argued that this reduction of construction hours would substantially mitigate the noise impacts for residents without unreasonably extending the length of the project. The Calla Group further submitted that ENMAX should be required to conduct noise monitoring throughout construction to ensure compliance with The City of Calgary's noise bylaw and to share that information with the Calla Group on a daily basis.

74. The Calla Group also expressed general concern about the potential impact that construction of the proposed transmission line could have on the 14th Avenue bicycle lane, observing that the bicycle lane is used heavily, especially during rush hour. The group was concerned that the rolling, block-by-block elimination of bicycle lanes as construction progresses could create safety issues.

75. The Calla Group also explained its concerns about the EMF associated with the operation of the proposed transmission line. It stated that construction of the line would result in continuous increased EMF exposure for building residents, especially those occupying ground floor units, and asserted that there is a significant difference between the EMF produced by household appliances and the EMF produced by the proposed transmission line because the transmission line results in continuous exposure. The Calla Group cited several studies on the health impacts of EMF in its written evidence but provided no expert evidence on this topic. It noted ENMAX's offer to conduct EMF measurements before and after the proposed line is constructed, if the project receives Commission approval, and proposed that ENMAX use an independent contractor to ensure unbiased data collection.

76. Ms. Budny expressed some views on the project that were independent of the other members of the Calla Group. She explained that she would be uniquely affected by the construction of the project because she has a two storey, corner unit on the ground floor of the Calla building that would be subject to more noise, dust, and other inconveniences than other building occupants. Ms. Budny proposed that ENMAX relocate her or compensate her for loss of enjoyment of her property during the construction period.

7.2 Views of ENMAX

77. ENMAX acknowledged the Calla Group's concerns about the loss of on-street parking during project construction. It explained that construction would take place on a block-by-block basis and that each block would take two to four weeks to complete. ENMAX noted that the Calla building has 178 parking stalls that would be unaffected by project construction. While it confirmed that street parking would be unavailable in front of and across the street from the Calla building during construction, ENMAX noted that parking would continue to be available in adjacent and nearby blocks.

78. ENMAX stated that it would maintain access to the Calla building at all times during construction. It explained that there would be three vehicular breaks in the fence adjacent to the Calla building; there would be breaks at Fifth Street and Sixth Street and a break at the driveway entrance located to the east of the Calla building. ENMAX noted that there would continue to be pedestrian access to the building from the sidewalk throughout the construction period. ENMAX explained in its reply evidence that emergency crews and delivery services would continue to have access to the Calla building during construction.²⁶ It further stated that access to the fire hydrant near the Calla building would be maintained.

79. With respect to construction noise, ENMAX confirmed that it would follow applicable City of Calgary noise bylaws and that it would comply with Rule 012. ENMAX acknowledged that while Rule 012 does not prescribe construction noise levels, it does include a complaint mechanism that would allow area residents to make complaints in the event that they believe the construction noise is unreasonable.²⁷

80. ENMAX explained that its construction plan was designed to minimize the length of time parties may be affected by construction. It stated that the majority of construction would take place during daylight hours and, where possible, between 7 a.m. and 7 p.m. ENMAX confirmed that the installation of manholes and road plates may take place in off-peak hours, during the evenings or weekends but noted that it would not be installing a manhole near the Calla building.²⁸

81. ENMAX acknowledged that construction of the project would result in the closure of the 14th Avenue bicycle lane on a block-by-block basis. It confirmed that it had consulted with The City of Calgary about the effects of construction on bicycle lanes and that The City of Calgary would be responsible for any associated bicycle lane detours.

82. ENMAX acknowledged that operation of the proposed transmission line would produce EMF. It explained that the shielding of the proposed line would eliminate the line's electrical field and that the magnetic field would decrease quickly as one moved away from the line, both horizontally and vertically.²⁹ ENMAX also stated that its design minimized the magnetic field associated with the line by using a delta configuration for the three underground cables and by optimizing the spacing of those cables.³⁰

²⁶ Exhibit 23157-X0064, EPDC Reply Evidence, paragraphs 16 and 17.

²⁷ Transcript, Volume 2, pages 174-175.

²⁸ Transcript, Volume 1, page 107.

²⁹ Exhibit 23157-X0002, Facility application, paragraph 55.

³⁰ Transcript, Volume 1, pages 110-111.

83. ENMAX estimated the magnetic field strengths expected at the Calla building at various distances away from the proposed line. It concluded that “even under the forecasted peak load, which is not expected until 2037, the highest magnetic field reading at the exterior of the Calla building is predicted to be only 6.5 milligauss.”³¹ In its reply evidence,³² ENMAX provided the following table showing the magnetic field levels of common house-hold items and appliances at various distances from source:

Sources of Magnetic Fields (mG)*									
	Distance from source					Distance from source			
	6"	1'	2'	4'		6"	1'	2'	4'
Kitchen Sources									
BLENDERS					Kitchen Sources				
					ELECTRIC OVENS				
Lowest	30	5	–	–	Lowest	4	1	–	–
Median	70	10	2	–	Median	9	4	–	–
Highest	100	20	3	–	Highest	20	5	1	–
CAN OPENERS					ELECTRIC RANGES				
Lowest	500	40	3	–	Lowest	20	–	–	–
Median	600	150	20	2	Median	30	8	2	–
Highest	1500	300	30	4	Highest	200	30	9	6
COFFEE MAKERS					REFRIGERATORS				
Lowest	4	–	–	–	Lowest	–	–	–	–
Median	7	–	–	–	Median	2	2	1	–
Highest	10	1	–	–	Highest	40	20	10	10
DISHWASHERS					TOASTERS				
Lowest	10	6	2	–	Lowest	5	–	–	–
Median	20	10	4	–	Median	10	3	–	–
Highest	100	30	7	1	Highest	20	7	–	–
FOOD PROCESSORS									
Lowest	20	5	–	–	Bedroom Sources				
Median	30	6	2	–	DIGITAL CLOCK****				
Highest	130	20	3	–	Lowest		–	–	–
GARBAGE DISPOSALS					Median		1	–	–
Lowest	60	8	1	–	High		8	2	1
Median	80	10	2	–	ANALOG CLOCKS				
Highest	100	20	3	–	(conventional clockface)****				
MICROWAVE OVENS***					Lowest		1	–	–
Lowest	100	1	1	–	Median		15	2	–
Median	200	4	10	2	Highest		30	5	3
Highest	300	200	30	20	BABY MONITOR (unit nearest child)				
MIXERS					Lowest		4	–	–
Lowest	30	5	–	–	Median		6	1	–
Median	100	10	1	–	Highest		15	2	–
Highest	600	100	10	–					

³¹ Transcript, Volume 2, page 183.

³² Exhibit 23157-X0064, EPDC Reply Evidence, Appendix A, PDF page 16.

84. ENMAX submitted that there was no credible evidence filed in the proceeding to suggest that there would be adverse impacts from the EMF produced by the proposed line. In response to an information request from Ms. Beaujot on EMF monitoring, ENMAX stated:

Health Canada monitors research on EMF and human health. This statement is from their website:

“Health Canada does not consider that any precautionary measures are needed regarding daily exposures to EMFs at ELF’s [extremely low frequencies] . There is no conclusive evidence of any harm caused by exposures at levels found in Canadian homes and schools, including those located just outside the boundaries of power line corridors.”

There are currently no requirements to monitor and remedy EMF readings. However, ENMAX will continue to monitor EMF related developments through its work with the Canadian Electricity Association’s EMF task group.³³

85. ENMAX agreed to conduct pre- and post-construction EMF modelling for the members of the Calla Group and other area residents, should the project be approved.

86. ENMAX acknowledged that the project could result in increased dust for some of the Calla building units on the ground floor. In response to a question from the Calla Group on how ENMAX would address such issues, Mr. Kefford, responded as follows:

MR. KEFFORD: ENMAX is a corporate citizen in The City of Calgary. We don't leave messes. So if we cause dust and debris outside of our construction zone, we do clean it up, and our contractors are committed to that.³⁴

7.3 Commission findings

87. The Commission observes that the majority of the Calla Group’s concerns are transient, construction-related impacts that are expected to occur over a two- to six-week period and finds that these impacts can be minimized or mitigated to a reasonably acceptable degree. In the Commission’s view, ENMAX’s construction plan, which progresses construction activities on a block-by-block basis, minimizes the impacts on area residents to an acceptable degree.

88. The Commission recognizes that construction of the project will result in a decrease in the number of parking spots along 14th Avenue during construction. It understands that this impact on the Calla Group is likely to be greatest when construction is underway in front of the Calla building and that there will also be a reduction of parking spots when construction is nearby as a result of parkers displaced from those areas. However, the Commission is not persuaded that the loss of parking will materially affect the members of the Calla Group given that each member will have continued access to their on-site underground parking. While the loss of parking may result in some temporary inconvenience for visitors to the Calla building and residents who do not have any or sufficient on-site underground parking, parking in adjacent

³³ Exhibit 23157-X0048, 2018-06-27-EPC Responses to Beaujot IRs, EPC-BEAUJOT-2018JUN13-004(a), PDF page 11.

³⁴ Transcript, Volume 1, page 61.

blocks will remain available. While not determinative, the Commission also observes that no concerns about parking were raised other than by the Calla Group.

89. The Commission finds that ENMAX's plan to have three proximal fence breaks for the building will reasonably ensure the continued availability of building access for emergency services. Likewise, it is satisfied that delivery service to the Calla building during the construction period will not be unreasonably restricted.

90. Section 2.7 of Rule 012 states as follows with respect to construction noise.

- (1) Licensees must manage the impact of construction noise on nearby dwellings. The following mitigating measures should be used:
 - (a) conduct construction activity between the hours of 7 a.m. and 10 p.m. to reduce the duration impact from construction noise
 - (b) advise nearby residents of significant noise-causing activities and schedule these events to reduce disruption to them
 - (c) ensure that all internal combustion engines are well maintained with muffler systems
- (2) Should a noise complaint be filed during construction, the licensee must respond expeditiously and take prompt action to address the complaint.

91. The Commission finds that ENMAX's plan to limit construction hours to daylight hours and, where possible, between 7 a.m. and 7 p.m. is consistent with Rule 012 and reasonable in the circumstances. Moreover, the circumstances in which ENMAX may operate outside of those hours at the Calla building are limited to the installation or removal of road plates for access to driveways and intersections. In the Commission's view, these are isolated, short-term impacts that are unlikely to materially affect the Calla Group or other area residents from a noise perspective.

92. The Commission expects ENMAX to comply with the requirements of Rule 012: as well as with the applicable City of Calgary noise bylaws as set out in The City of Calgary Community Standards Bylaw.

93. The Commission finds that ENMAX has taken reasonable steps to mitigate, to the degree possible, the magnetic field associated with the proposed transmission line through its design configuration and spacing of the transmission cables. The evidence before the Commission is that even under the maximum forecast load, the magnetic field generated at the exterior of the Calla building will be 6.5 milligauss, and that the field will decline as one moves into and upward in the building. ENMAX offered to provide pre- and post-construction EMF readings to the members of the Calla Group and other area residents. The Commission expects ENMAX to fulfill this commitment if and when such a request is received.

94. While ENMAX and the Calla Group each discussed EMF-related health impacts in their written and oral evidence, neither filed expert evidence on this topic. In the absence of such

evidence, the Commission relies on Health Canada's statement on EMFs, as referenced in ENMAX's responses to Ms. Beaujot's information requests:³⁵

Exposure in Canadian homes, schools and offices present no known health risks.

There have been many studies on the possible health effects from exposure to EMFs at ELF. While it is known that EMFs can cause weak electric currents to flow through the human body, the intensity of these currents is too low to cause any known health effects. Some studies have suggested a possible link between exposure to ELF magnetic fields and certain types of childhood cancer, but at present this association is not established.

The International Agency for Research on Cancer (IARC) has classified ELF magnetic fields as "possibly carcinogenic to humans". The IARC classification of ELF magnetic fields reflects the fact that some limited evidence exists that ELF magnetic fields might be a risk factor for childhood leukemia. However, the vast majority of scientific research to date does not support a link between ELF magnetic field exposure and human cancers. At present, the evidence of a possible link between ELF magnetic field exposure and cancer risk is far from conclusive and more research is needed to clarify this "possible" link.

Health Canada is in agreement with both the World Health Organization and IARC that additional research in this area is warranted.

...

Health Canada does not consider that any precautionary measures are needed regarding daily exposures to EMFs at ELF. There is no conclusive evidence of any harm caused by exposures at levels found in Canadian homes and schools, including those located just outside the boundaries of power line corridors.³⁶

95. In light of Health Canada's statement, the Commission considers that no precautionary measures to address the EMF from the proposed line are necessary for the residents of the Calla building or other area residents along the proposed route.

96. The Commission recognizes the Calla Group's concerns about the potential impact that construction of the proposed transmission line could have on the 14th Avenue bicycle lane. The Commission is satisfied that ENMAX has adequately consulted The City of Calgary about the potential impacts of construction on bicycle lanes and agrees with ENMAX that The City of Calgary would be responsible for any associated bicycle lane detours.

97. The Commission has no jurisdiction to order ENMAX to compensate Ms. Budny or provide her with alternate accommodation during the construction period. Furthermore, ENMAX's project plan, including its focus on working between the hours of 7 a.m. and 7 p.m., and its commitment to clean dust and debris outside of its construction zone will minimize or mitigate the short-term impacts on Ms. Budny to an acceptable degree.

³⁵ Exhibit 23157-X0048, 2018-06-27-EPC Responses to Beaujot IRs, EPC-BEAUJOT-2018JUN13-004(a), PDF page 11.

³⁶ <https://www.canada.ca/en/health-canada/services/home-garden-safety/electric-magnetic-fields-power-lines-electrical-appliances.html>.

98. The Commission concludes that the Calla Group's concerns regarding the project, which relate primarily to construction activities immediately adjacent to the Calla building, can be minimized or mitigated to an acceptable degree.

8 The concerns of Steinbock Development Corporation Ltd.

8.1 Views of Steinbock Development Corporation Ltd.

99. Steinbock Development Corporation Ltd. (Steinbock) owns a parcel of land located on the south side of Ninth Avenue S.W. at 1009 Ninth Avenue S.W. (the Steinbock land). The Steinbock land is currently used as a parking lot. The transmission line route proposed by ENMAX crosses the Steinbock land near its western edge as depicted in red in Figure 3 below.³⁷ ENMAX also intends to place a manhole near the northern edge of the right-of-way, immediately adjacent to Ninth Street S.W., to access the transmission line. The proposed transmission line right-of-way would be immediately west of an existing ATCO Gas and Pipelines Ltd. (ATCO Gas) right-of-way.



Figure 3 – Steinbock land with proposed ENMAX right-of-way (in red)

100. Steinbock stated that it intends to develop the land in the future and expressed concern about the impact of the proposed right-of-way on its development plans. In his testimony, Mr. Naim Ali, the president and chief executive officer of Steinbock, explained that the long-term development plan for the land is to build and operate a mixed-use hotel. He confirmed that Steinbock has not filed any development plans for the site with The City of Calgary and that there is no fixed time frame for the site's development.³⁸ He stated that the current economic climate is not supportive of Steinbock's development plans.³⁹

101. Steinbock retained Marshall Tittlemore Architects (MTA) to prepare a study to determine the impact of the project on the development potential of the Steinbock land. The study identified

³⁷ Exhibit 23157-X0055, page 7.

³⁸ Transcript, Volume 1, pages 145-146.

³⁹ Transcript, Volume 1, page 146.

four development scenarios and described the impact of the project on the development potential of the Steinbock land in each scenario.

102. Steinbock explained that its attempts to negotiate an acceptable right-of-way with ENMAX had been unsuccessful to date, and noted that ENMAX had only recently acknowledged that it would allow vehicles on its proposed right-of-way to access the site and for parking. It submitted that ENMAX should have agreed to such concessions a long time ago.⁴⁰ Steinbock stated that it was encouraged by ENMAX's commitment in its reply evidence to work with it toward a mutually agreeable solution, and asked the Commission to direct ENMAX to engage in meaningful negotiations to achieve a right-of-way agreement that addresses Steinbock's future development concerns.⁴¹

8.2 Views of ENMAX

103. ENMAX explained that it chose the proposed route across the Steinbock land so that after passing beneath the Canadian Pacific Railway Limited rail lines, the transmission line right-of-way would be located on public lands owned by The City of Calgary. ENMAX stated that if its proposed right-of-way were moved to the east of the existing ATCO Gas right-of-way on the Steinbock land, as suggested by Steinbock and the MTA report, it would be necessary to cross additional private lands on the other side of the rail lines.

104. ENMAX described the different limitations associated with the ductbank right-of-way and the manhole right-of-way across the Steinbock land. It explained that the ductbank right-of-way is primarily a stale right-of-way and is more flexible in terms of what can be built around and above it. ENMAX added that the ductbank right-of-way has no active parts or real-time access requirements and that surface access would therefore not be required. ENMAX explained that in contrast, the manhole right-of-way does have components that require surface access for line maintenance testing and checks as well as construction and repair, if required. ENMAX further stated that the manhole right-of-way would require immediate access for such things as trucks and cable reels.⁴²

105. ENMAX asserted that it has taken reasonable steps to minimize the impact of the transmission line on the Steinbock land, and explained that its manhole spacing was dictated by the transmission cable lengths available to it, which are 600 to 650 metres.⁴³ It stated that it moved the location of the proposed manhole to the northern boundary of the property, immediately adjacent to Ninth Avenue S.W., at the request of Steinbock to minimize development impacts. ENMAX explained that it could not locate the manhole on Ninth Avenue, as proposed in the MTA development study, because of the high traffic volumes on Ninth Avenue and conflicts with existing utility infrastructure under Ninth Avenue.

106. ENMAX noted that the Steinbock land is already subject to development limitations as a result of the ATCO Gas right-of-way and that its proposed route parallels that right-of-way to minimize future development limitations.

⁴⁰ Transcript, Volume 2, page 191.

⁴¹ Transcript, Volume 2, page 192.

⁴² Transcript, Volume 1, page 114.

⁴³ Transcript, Volume 1, page 111.

107. ENMAX submitted that the Steinbock development plans are at the conceptual stage. It noted Steinbock's evidence that it has not filed development plans with The City of Calgary, that current economic conditions do not support development at this time and that there is no time frame associated with the development plans. ENMAX stated that, given the uncertainty of Steinbock's development plans, it is difficult to negotiate any specific accommodations. However, ENMAX committed to work with Steinbock to obtain the necessary land rights over the Steinbock land if the project is approved.⁴⁴

8.3 Commission findings

108. The Commission acknowledges that routing a transmission line through downtown Calgary is a complex and challenging endeavor. The Commission finds that the route chosen by ENMAX across the Steinbock land is reasonable as it minimizes, to the degree possible, impacts on the development potential of the Steinbock land while allowing ENMAX to maximize the use of public property owned by The City of Calgary.

109. In the Commission's view, ENMAX took reasonable steps to mitigate the impact on the Steinbock land by relocating the proposed manhole to the northwest portion of the Steinbock land. In addition, ENMAX made reasonable efforts to minimize the impact of the project on the future development of the Steinbock land by proposing a route that parallels an existing right-of-way. ENMAX also expressed a willingness to work with Steinbock to obtain the necessary land rights over its land. The Commission encourages ENMAX and Steinbock to work towards a right-of-way agreement that would satisfy ENMAX's obligation to operate the transmission line in a safe and reliable manner, while allowing Steinbock to maximize the development potential of its land.

⁴⁴ Transcript, Volume 2, page 181.

9 Decision

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

111. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves the applications and grants ENMAX the following approvals:

- Appendix 1 – Transmission Line Permit and Licence 23157-D02-2018 – November 9, 2018, to construct and operate Transmission Line 138-2.84L.
- Appendix 2 – Substation Permit and Licence 23157-D03-2018 – November 9, 2018, to alter and operate ENMAX No. 8 Substation.

112. The appendices will be distributed separately.

Dated on November 9, 2018.

Alberta Utilities Commission

(original signed by)

Carolyn Hutniak
Panel Chair

(original signed by)

Anne Michaud
Vice-Chair

(original signed by)

Joanne Phillips
Commission Member

Appendix A – Proceeding participants

Name of organization (abbreviation) Company name of counsel or representative
ENMAX Power Corporation (ENMAX) Mr. Lou Cusano Mr. Evan Dickinson
Calla Condo Owners Group (Calla Group) Mr. John Retallack Ms. Elizabeth Budny Ms. Michelle Beaujot
Steinbock Development Corporation Ltd. (Steinbock) Mr. Naim Ali Mr. Raymond Bastedo

Alberta Utilities Commission Commission panel Carolyn Hutniak, Panel Chair Anne Michaud, Vice-Chair Joanne Phillips, Commission Member Commission staff JP Mousseau (Commission counsel) Kal Elkassem Conrad Dalsin

Appendix B – Oral hearing – registered appearances

Name of organization (abbreviation) Name of counsel or representative	Witnesses
ENMAX Power Corporation (ENMAX) Mr. Lou Cusano Mr. Evan Dickinson	R. Desrosiers M. Kefford M. Campbell B. van Elslande K. Hawrelko
Calla Condo Owners Group (Calla Group)	J. Retallack E. Budny M. Beaujot
Steinbock Development Corporation Ltd (Steinbock) Mr. Raymond Bastedo	N. Ali

Appendix C – Abbreviations

Abbreviation	Name in full
AESO	Alberta Electric System Operator
AUC or the Commission	Alberta Utilities Commission
Calla Group	Calla Condo Owners Group
EMF	electric and magnetic field or electromagnetic field
ENMAX	ENMAX Power Corporation
IARC	The International Agency for Research on Cancer
kV	kilovolt
MTA	Marshall Tittlemore Architects
MASKWA	MASKWA Environmental Consulting Ltd.
MVA	megavolt ampere
NID	needs identification document
Rule 007	<i>Rule 007: Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments</i>
Rule 012	<i>Rule 012: Noise Control</i>
Steinbock	Steinbock Development Corporation Ltd.