



City of Medicine Hat

East Ring Enhancement Project – Transmission Line MH-60L Rebuild

February 19, 2025

Alberta Utilities Commission

Decision 29537-D01-2025

City of Medicine Hat

East Ring Enhancement Project – Transmission Line MH-60L Rebuild

Proceeding 29537

Application 29537-A001

February 19, 2025

Published by the:

Alberta Utilities Commission

Eau Claire Tower

1400, 600 Third Avenue S.W.

Calgary, Alberta T2P 0G5

Telephone: 310-4AUC (310-4282 in Alberta)

1-833-511-4AUC (1-833-511-4282 outside Alberta)

Email: info@auc.ab.ca

Website: www.auc.ab.ca

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

1 Decision summary

1. In this decision, the Alberta Utilities Commission approves an application from the City of Medicine Hat (the City) to decommission, salvage and rebuild approximately 4.3 kilometres of the existing 69-kilovolt (kV) Transmission Line MH-60L.

2 Background

2. Since 2014, the City has been undertaking a phased conversion of its transmission system from a 69-kV standard to a 138-kV standard to meet increasing load requirements and improve overall system reliability.

3. Phases 1 and 2 were comprised of rebuilding transmission lines MH-10L¹ and MH-20L,² respectively. Phase 3 is a multi-part project, referred to as the East Ring Enhancement Project, and is comprised of rebuilding transmission lines MH-30L and MH-40L,³ and MH-60L. Phase 4 involves upgrading Transmission Line MH-50L at a later date.

3 Introduction

4. The City, under Permit and Licence 22746-D03-2017,⁴ is the operator of the 69-kV Transmission Line MH-60L between the Brier Park MHS-7 Substation and the NE Crescent Heights MHS-5 Substation.⁵

5. The City applied to the Commission to rebuild approximately 4.3 kilometres of Transmission Line MH-60L to a 138-kV standard, while maintaining its initial energization at 69 kV until future system requirements necessitate energization at 138 kV. The project area is located on the north side of Medicine Hat along Rotary Centennial Drive N.W.⁶ as shown on the map in Figure 1, and is adjacent to industrial, commercial and residential developments.

¹ Decision 2014-112: The City of Medicine Hat – Transmission Line MH-10L Upgrade Project, Proceeding 2987, Application 1610187, April 17, 2014.

² Decision 2014-349: City of Medicine Hat Electric Utility – Transmission Line MH-20L Upgrade Project, Proceeding 3168, Application 1610463, December 17, 2014.

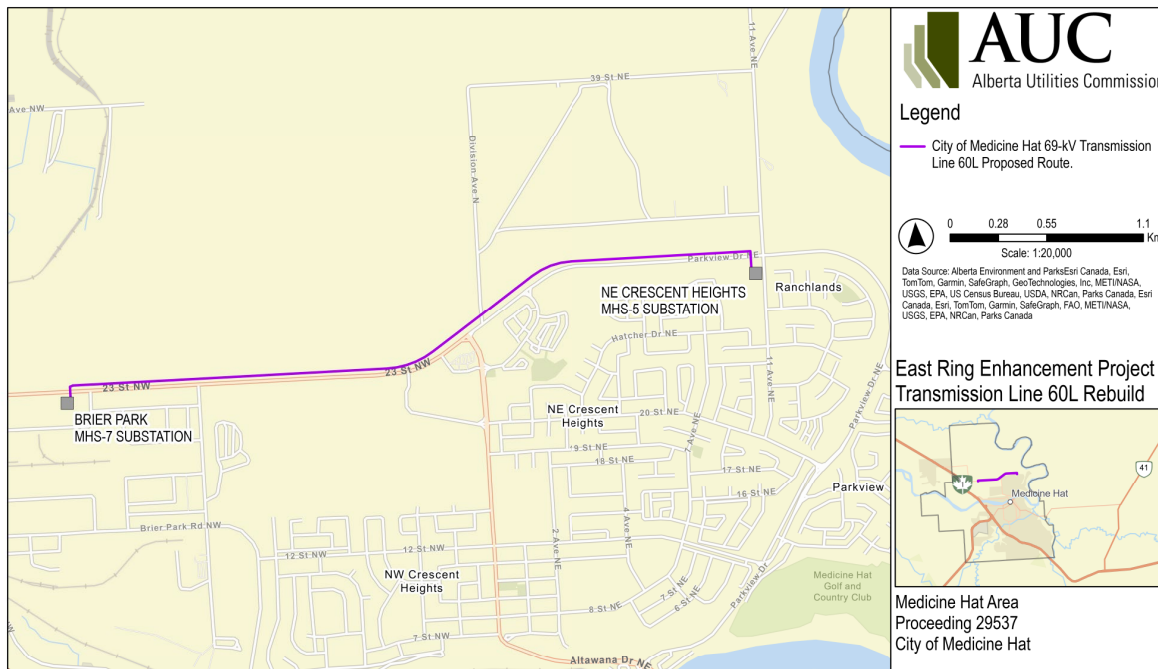
³ Proceeding 29538, East Ring Enhancement Project - Transmission Lines MH-30L and MH-40L Rebuild, October 15, 2024.

⁴ Transmission Line Permit and Licence 22746-D03-2017, Proceeding 22746, Application 22746-A002, July 5, 2017.

⁵ Previously referred to as MH69S-5 Substation.

⁶ Rotary Centennial Drive is shown as 23 Street N.W. in Figure 1.

Figure 1. Proposed Transmission Line MH-60L rebuild location



6. The City stated that Transmission Line MH-60L imports electricity from the Alberta Interconnected Electric System through AltaLink Management Ltd.'s 321S Substation, which is located adjacent to and connected to the City's Brier Park MHS-7 Substation. The City forecasts indicate that Transmission Line MH-60L is at risk of becoming overloaded in the next 10 years during N-1⁷ import and load scenarios, as it distributes load to the northwest industrial park, where the City expects significant future load growth. The City has received industrial load inquiries for the northwest industrial park, and according to the City's assessment, these inquiries cannot be fully accommodated without exceeding the existing transmission line's capacity. The proposed rebuild is intended to mitigate current and anticipated overload issues and facilitate the longer-term transition of the City's transmission system to a 138-kV standard. The total cost estimate for the project is \$5.12 million.

7. The proposed rebuild would follow the existing transmission line alignment, which is currently located one metre inside public road allowances. At the Brier Park MHS-7 Substation connection, the City proposed a short underground transmission line segment to cross Rotary Centennial Drive N.W. The proposed rebuild would consist primarily of single-pole wood structures in a pole-for-pole replacement configuration. Existing structure heights range between 14 metres and 20 metres and would be replaced with structures where the height ranges between 17 metres and 25 metres.

8. The proposed rebuild would include a distribution line underbuild attached to the structures for approximately 3.3 kilometres of its 4.3-kilometre length. An existing right-of-way (ROW) on adjacent private property does not exist; however, the City intends to acquire new permanent ROW, approximately 15 metres wide where portions of the transmission line will

⁷ A transmission system's reliability is assessed against what is referred to as an N minus 1 event (N-1) where "N" refers to the normal operation of the transmission system and the event refers to the loss of an essential element in the delivery of electricity.

have a distribution line underbuild, and approximately 20 metres wide where there is no distribution line underbuild. The City proposed a wider ROW to accommodate an increased span length between structures where there is no distribution line underbuild. In addition, the City identified locations where it requires temporary workspace for construction and access, which it intends to reclaim upon completion of construction activities.

9. The City proposed that the project would be completed and operating by December 31, 2029.

4 Findings

10. For the reasons outlined below, the Commission finds that approval of the project is in the public interest having regard to the social, economic and other effects of the project, including its effect on the environment.

11. The Commission has reviewed the application and has determined that the information requirements specified in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines* have been met. Further, the Commission acknowledges that the City has provided information regarding the need for the rebuild.

12. The Commission finds that each transmission line rebuild project in Phase 3 (Transmission Line MH-60L rebuild and transmission lines MH-30L and MH-40L rebuild) are not completely dependent on each other. From an overall electrical system configuration, Transmission Line MH-60L is electrically independent from transmission Lines MH-30L and MH-40L. Each transmission line rebuild project in Phase 3 has independent needs, both in terms of reliability/load growth and reaching end of life.

13. The City conducted a participant involvement program and notified stakeholders directly affected and directly adjacent to the existing transmission line, including stakeholders within 800 metres north of Rotary Centennial Drive N.W. The City also confirmed that it consulted with Indigenous groups. The Commission finds that the participant involvement program for the proposed project meets the requirements of Rule 007 and is satisfied there are no outstanding concerns as no submissions were received in response to the AUC's notice.

14. The Commission finds that environmental effects of the proposed project are expected to be minimal considering the City's commitment to the proposed mitigation measures. The Commission recognizes that rebuilding the transmission line in the existing alignment will further mitigate impacts. However, the City identified that sensitive rare plant species were observed in proximity to the project, and specifically the presence of tiny cryptantha (*Cryptantha minima*). The Commission expects the City to adhere to its responsibilities for this endangered species as defined in the *Species at Risk Act*. To facilitate the execution of conservation efforts, the Commission expects that all documented locations of tiny cryptantha are provided confidentially within the environmental protection plan prior to construction and is available for all phases of the project.

15. Based on the foregoing, the Commission considers the project to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

5 Decision

16. Pursuant to sections 14, 15, 19 and 21 of the *Hydro and Electric Energy Act*, the Commission approves Application 29537-A001 and grants the City of Medicine Hat the approval set out in Appendix 1 – Transmission Line Permit and Licence 29537-D02-2025 to alter and operate Transmission Line MH-60L.

17. The appendix will be distributed separately.

Dated on February 19, 2025.

Alberta Utilities Commission

(original signed by)

Douglas A. Larder, KC
Vice-Chair