

May 18, 2017

**Decision 22624-D01-2017**

ENMAX Power Corporation  
151 – 50 Avenue S.E.  
Calgary, Alberta T2G 4S7

Attention: Debbie Kovacs  
Regulatory Manager, Facilities Applications

**ENMAX No. 11 Substation Alteration  
Proceeding 22624  
Application 22624-A001 to 22624-A003**

**Letter of enquiry approval**

1. ENMAX Power Corporation (ENMAX) filed a letter of enquiry with the Alberta Utilities Commission to construct a new substation control building, replace the outdoor 13.8-kilovolt (kV) switchgear equipment with indoor arc resistant switchgear, install a 138-kV bus tie breaker, and re-terminate transmission lines 138-11.81L and 138-11.83L at the ENMAX No. 11 Substation. The proposed work is related to facilities previously constructed and operating in accordance with approval granted in permits and licences 3575-D03-2015,<sup>1</sup> U2010-2<sup>2</sup> and U2010-250.<sup>3</sup> Approval is required for this work under Section 11 of the *Hydro and Electric Energy Regulation*.
2. ENMAX has conducted arc flash studies for the ENMAX No. 11 Substation and concluded that there is a potential risk of arc flash energy levels exceeding the energy resistance threshold of protective equipment used by ENMAX personnel. In addition, ENMAX observed that the deteriorating condition of the outdoor switchgear equipment has increased the probability of the arc flash exposure for crews performing maintenance. ENMAX submitted that new arc resistant switchgear would enhance safety for personnel and equipment, and ensure continued system reliability.
3. The new indoor switchgear would be housed within a new control building in a new south section of the substation. The substation fence would be moved approximately 18 metres south, on ENMAX-owned land, to encompass the new control building. The building dimensions would be approximately 30 metres long by 14 metres wide by seven metres tall. One existing wood transmission structure on transmission line 138-11.81L would be replaced with one steel structure and relocated to the east to accommodate the new building location.

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<sup>1</sup> Substation Permit and Licence 3575-D03-2015, Application 1611081-1, Proceeding 3575, March 13, 2015.

<sup>2</sup> Transmission Line Permit and Licence U2010-2, Application 1605392, January 8, 2010.

<sup>3</sup> Transmission Line Permit and Licence U2010-250, Application 1606261, 669, June 18, 2010.

4. The project also includes the installation of a 138-kV bus tie breaker between the existing bus disconnect switches and re-termination of transmission line 138-11.83L from the south 138-kV bus section to the north 138-kV bus section. Three existing wood transmission structures that currently act as a dead-end pole for transmission line 138-11.83L would be replaced with one steel structure located at the northern end of the substation. ENMAX submitted that this proposed work to sectionalize the substation will improve system reliability by mitigating load loss under a single element contingency.
5. ENMAX conducted a participant involvement program for the proposed project. The participant involvement program included a project specific newsletter sent to stakeholders within the first row of development surrounding the proposed project. The newsletter was also emailed to the Huntington Hills Community Association, city councillor Sean Chu and MLA Karen McPherson. ENMAX also conducted personal consultations with occupants, residents and landowners adjacent to the project site. ENMAX stated that there were no objections raised about the project.
6. ENMAX did not anticipate any environmental impacts from the project since the substation expansion would be within the existing substation property boundary. ENMAX submitted that any construction noise would be intermittent and in full compliance with Rule 012: *Noise Control*.
7. ENMAX stated that the project is expected to be energized by May 29, 2018.
8. ENMAX has provided information respecting the need, nature, extent, land affected, land ownership and timing of the work in accordance with the requirements of Section 12 of the *Hydro and Electric Energy Regulation*. ENMAX has also stated that no environmental impact will be caused by the proposed work.
9. Based upon the information provided, ENMAX has demonstrated that the proposal is of a minor nature, no other person is directly and adversely affected by the proposal and no adverse environmental impact will be caused by the proposed alterations, thereby meeting the requirements of Section 11 of the *Hydro and Electric Energy Regulation*.

10. The Commission approves the application. Permit and Licence 22624-D02-2017 and Permit and Licence 22624-D03-2017 are attached. A new permit and licence is being issued for transmission line 138-11.83L to correct typographical errors on Permit and Licence U2010-250. Due to the nature of the application, a new permit and licence is not required for transmission line 138-11.81L.

**Alberta Utilities Commission**

*(original signed by)*

Wade Vienneau  
Executive Director, Facilities Division  
On behalf of the Alberta Utilities Commission

Attachments