



**ENMAX Power Corporation**

**ENMAX No. 31 Substation Alteration**

**May 25, 2017**

**Alberta Utilities Commission**

Decision 22562-D01-2017

ENMAX Power Corporation

ENMAX No. 31 Substation Alteration

Proceeding 22562

Application 22562-A001

May 25, 2017

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## **1 Decision summary**

1. In this decision, the Alberta Utilities Commission must decide whether to approve an application from ENMAX Power Corporation to alter and operate ENMAX No. 31 Substation. After consideration of the record of the proceeding and for the reasons outlined in this decision, 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.

## **2 Introduction and background**

2. ENMAX Power Corporation (ENMAX), pursuant to Permit and Licence 20850-D03-2015,<sup>1</sup> has approval to alter and operate the ENMAX No. 31 Substation in the Calgary area. ENMAX filed Application 22562-A001 with the AUC seeking approval to alter and operate the substation. The application was filed pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act* and registered on April 12, 2017.

3. No notice of application was issued because the alterations at the ENMAX No. 31 Substation were proposed to occur entirely within the fenced area at the existing substation property and because a previous notice of applications was issued for the project in Proceeding 20850. No submissions were received in response to the notice of applications in Proceeding 20850.

4. On May 3, 2017, the Commission issued information requests to ENMAX to obtain additional details about the facility application. ENMAX submitted its responses on May 5, 2017.

## **3 Discussion**

5. The existing ENMAX No. 31 Substation is located in the southeast quarter of Section 28, Township 23, Range 29, west of the Fourth Meridian, in the city of Calgary. The municipal address is 3515 80 Avenue S.E.

6. On September 23, 2015, in the project's previous proceeding, ENMAX submitted Application 20850-A002 to the Commission for approval to meet a need outlined by the Alberta Electric System Operator (AESO) that included the addition of two 13.8-kilovolt (kV) circuit breakers at the ENMAX No. 31 Substation. On December 10, 2015, the Commission

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<sup>1</sup> Substation Permit and Licence 20850-D03-2015, Proceeding 20850, Application 20850-A002, December 10, 2015.

approved ENMAX's application and issued Permit and Licence 20850-D03-2015 to alter and operate the ENMAX No. 31 Substation.

7. On October 28, 2016, ENMAX notified the Commission that the approved alteration could not be completed by the required date of October 28, 2016 or the alternative date of April 28, 2017. ENMAX explained that during the final design stages, it discovered that the vendors could not supply feeder breakers that fit within the space constraints of the existing building without compromising safety or reliability.

8. By Application 22562-A001, registered on April 12, 2017, ENMAX proposed a revised project scope to rectify the problem that included an expansion of the substation building, reconfiguration of the breaker and bus design and completion of the construction at a later date than approved previously.

9. Specifically, the revised project scope included the addition of the two previously approved 13.8-kV circuit breakers and the addition of two new 13.8-kV circuit breakers. ENMAX would relocate two distribution feeders and connect new distribution feeders to the new 13.8-kV circuit breakers. Further, ENMAX proposed to upgrade two existing feeder breakers and current transformers and convert them to bus-tie breakers. In its information request responses, ENMAX explained that the additional equipment and upgrades were required for safety and reliability purposes due to the reconfiguration of the breaker and bus design. The existing substation building would also be expanded by approximately 10 metres by 14 metres to accommodate the new 13.8-kV circuit breakers. ENMAX stated that as with the original project, all work would be completed within the substation fence line.

10. On January 31, 2017, the AESO filed a letter with the Commission confirming its review of the revised project scope. The AESO stated that the transmission development approved for the project in Need Identification Document Approval 20850-D02-2015<sup>2</sup> (the NID approval) continues to be its preferred technical solution. The AESO stated that an amendment to the NID approval was not required. The updated project change proposal reflecting the schedule change was received by the AESO on March 9, 2017 and was approved on April 4, 2017.

11. Upon completion of the project, the ENMAX No. 31 Substation would include the following major equipment:

- a) one 138/13.8-kV, 13/24/30/33.6-megavolt-ampere (MVA) transformer
- b) two 138/13.8-kV, 30/40/50-MVA transformers
- c) four 138-kV circuit breakers
- d) one 138-kV, 50-megavolt-ampere reactive capacitor bank
- e) 26 13.8-kV circuit breakers
- f) an enclosure surrounded by a chain-link fence and other substation equipment as described in the application and other previous approvals pertaining to the substation

12. ENMAX conducted a second participant involvement project for all 41 stakeholders potentially affected by the changes of the project scope. The participant involvement program

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<sup>2</sup> Needs Identification Document Approval 20850-D02-2015, Proceeding 20850, Application 20850-A001, December 10, 2015.

included notification and personal engagement. ENMAX stated that the results of the engagement included questions and concerns from stakeholders in relation to construction effects, most notably the potential for electrical outages during construction. ENMAX stated there were no outstanding concerns related to the project.

13. ENMAX did not anticipate any environmental effects occurring as a result of the project. ENMAX added that construction activities would be contained within the existing substation yard and there would be no disturbance to any of the surrounding properties.

14. In Proceeding 20850, ENMAX did not submit a noise impact assessment because no noise-producing equipment was added to the ENMAX No. 31 Substation.

15. The revised cost breakdown for the project was \$3,905,043 (within +20 per cent /-10 per cent accuracy), composed of customer costs. ENMAX explained that the project costs increased due to the additional work and material required for the change in project scope.

16. The proposed in-service date for the project is November 12, 2018.

#### **4 Findings**

17. The Commission finds that ENMAX's facility application complies with the information requirements prescribed in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments*. The Commission accepts the AESO's submissions that the revised project scope and the approved transmission development in the NID approval continue to be the AESO's preferred technical solution.

18. The Commission is satisfied that the participant involvement program undertaken by ENMAX meets the requirements of Rule 007. The Commission notes that there were no outstanding public or industry concerns from directly and adversely affected parties.

19. The Commission is also satisfied that the technical and environmental aspects of the project, as submitted by ENMAX, fulfill the requirements of Rule 007 and that no significant issues were identified.

20. As stated by ENMAX in Proceeding 20850, the Commission accepts that a noise impact assessment is not required, pursuant to Rule 012: *Noise Control*, since there is no noise-producing equipment proposed to be added to the substation.

21. The Commission is satisfied that there are no outstanding social, economic or environmental concerns associated with the project.

22. Given the considerations discussed above, the Commission finds the project to be in the public interest, pursuant to Section 17 of the *Alberta Utilities Commission Act*.

## 5 Decision

23. Pursuant to sections 14, 15, and 19 of the *Hydro and Electric Energy Act*, the Commission approves the application to alter and operate the substation and grants ENMAX the approval set out in Appendix 1 – Substation Permit and Licence 22562-D02-2017 – May 25, 2017 (Appendix 1 will be distributed separately).

Dated on May 25, 2017

### **Alberta Utilities Commission**

*(original signed by)*

Henry van Egteren  
Commission Member