



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

**Cenovus FCCL Ltd.
Facility Application**

Boreal 193S Substation

December 22, 2015

Alberta Utilities Commission

Decision 20537-D01-2015: Boreal 193S Substation

Alberta Electric System Operator
Needs Identification Document Application
Application 20537-A001

Cenovus FCCL Ltd.
Facility Application
Application 20537-A002

Proceeding 20537

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1 Introduction and background

1. The Alberta Electric System Operator (AESO) filed a needs identification document (NID) application with the Alberta Utilities Commission, pursuant to Section 34 of the *Electric Utilities Act*, for approval to connect Cenovus FCCL Ltd.'s (Cenovus) proposed Boreal 193S substation to the 240-kilovolt (kV) transmission system in the Christina Lake area. The application was registered on June 11, 2015, as Application 20537-A001.

2. Cenovus filed substation and transmission line interconnection applications with the Commission for approval to construct and operate a 240/25-kV substation to be designated as Boreal 193S substation to serve its Narrows Lake Thermal Project, and to connect that substation to the Alberta Interconnected Electric System. The applications were filed pursuant to sections 14, 15 and 18 of the *Hydro and Electric Energy Act*, and registered on June 12, 2015 as Applications 20537-A002 and 20537-A003.

3. AltaLink Management Ltd. (AltaLink) filed a facility application with the Commission for approval to construct and operate a single-circuit 240-kV transmission line, designated as 971AL, to connect Cenovus' proposed Boreal 193S substation to existing transmission line 971L. The application was filed pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act*, and registered on June 15, 2015 as Application 20537-A004.

4. Pursuant to Section 15.4 of the *Hydro and Electric Energy Act*, the AESO and AltaLink requested that the Commission consider the needs identification document application and the AltaLink facility application jointly. The Commission advised the AESO and AltaLink that the needs identification document application and AltaLink's application had been combined and were being considered jointly as Proceeding 20537. Because of the correlation of the projects, the Commission decided to also consider Cenovus' applications in Proceeding 20537.

5. On July 10, 2015, the Commission issued information requests to Cenovus and AltaLink to clarify details of their respective applications. AltaLink and Cenovus responded to the information requests on July 20, 2015 and July 23, 2015 respectively.

2 Notice and standing process

6. The Commission issued a notice of applications for Proceeding 20537 on July 10, 2015. The notice was sent directly to landowners, occupants, agencies and other interested parties identified by Cenovus and AltaLink as being located within 800 metres of the project area. The notice was published in the Fort McMurray Connect on July 16, 2015, on the AUC website, and notification was automatically emailed to eFiling users that had chosen to be notified of notices of application issued by the Commission.

7. In the notice of applications, the Commission directed any person who had concerns or objections to the applications, or who wished to support the applications to file a submission by August 4, 2015. The Commission received one submission from the Chipewyan Prairie Déné First Nation (CPDFN) in response to the notice of applications.

8. On August 27, 2015, the Commission granted the CPDFN permission to file a technical report in support of its statement of intent to participate on or before September 15, 2015.

9. The CPDFN submitted its technical report in support of its statement of intent to participate on September 15, 2015.

10. On September 21, 2015, the applicants were provided an opportunity to comment on whether the CPDFN should be granted standing in relation to the applications.

11. The AESO and AltaLink provided comments on the standing of the CPDFN on September 28, 2015. The CPDFN provided comments in response on October 5, 2015.

12. The Commission issued its standing ruling on November 2, 2015. The Commission denied standing to the CPDFN for the AESO needs identification document application and the Cenovus facility applications. It granted standing to the CPDFN for the AltaLink application, because the Commission found that the CPDFN had shown that its members may be directly and adversely affected by the Commission's decision on the AltaLink application.

13. The Commission issued a notice of hearing to consider AltaLink's application on November 2, 2015. On November 12, 2015, AltaLink and the CPDFN jointly requested an adjournment of the hearing until April 2016 to allow for the two parties to meet and further discuss the project with the aim of addressing the concerns of the CPDFN.

14. The Commission granted the requested adjournment, suspended the process steps established for the proceeding, and issued a notice of hearing cancellation on November 16, 2015.

15. In this decision, the Commission is considering the AESO's needs identification document application, Application 20537-A001 and Cenovus' substation application, Application 20537-A002. The Commission is deferring its decision on Cenovus Application 20537-A003 for the interconnection of the proposed Boreal 193S substation to the Alberta Interconnected Electric System, which it will consider at the same time as AltaLink's application for the construction and operation of transmission line 971AL, the subject of Application 20537-A004.

3 Applications

3.1 Needs identification document application

16. The needs identification document application was prepared by the AESO in response to a request from Cenovus for transmission system access service to connect its proposed Boreal 193S substation to the transmission system.

17. The AESO directed AltaLink, in its role as the transmission facility owner in the project area, to assist in the preparation of the needs identification document application pursuant to Section 39 of the *Electric Utilities Act* and Section 14 of the *Transmission Regulation*.

18. The AESO's proposed transmission development to respond to this transmission system access service request included the following:

- a) The addition of one new 240-kV transmission circuit to connect the proposed Boreal 193S substation to the existing 240-kV transmission line 971L using a T-tap configuration; and
- b) To modify, alter, add or remove equipment, including disconnect switches, and any operational, protection, control and telecommunication devices required to undertake the work as planned and ensure proper integration with the transmission system.

19. The AESO stated that it had considered three other alternatives to meet the transmission system access service. The first alternative included a radial connection of the proposed Boreal 193S substation to the Black Spruce 154S switching substation. The second alternative included a radial connection of the proposed Boreal 193S substation to the Leismer 72S substation. The third alternative included a radial connection of the proposed Boreal 193S substation to the Kettle River 2049S substation. These three alternatives were rejected by Cenovus because each would require materially more transmission facilities at a higher cost as compared to the proposed transmission development.

20. 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 and concluded that the proposed transmission development would not adversely impact the transmission system performance.

21. The AESO worked with AltaLink to carry out a participant involvement program to notify stakeholders of the project. The AESO posted a need overview document describing the need for the development on its website and included an overview with AltaLink's participant involvement package. The AESO stated that no concerns or objections were raised regarding the need for the project.

22. The AESO determined that there would be no system-related costs associated with the proposed transmission development.

3.2 Cenovus' facility application

23. Cenovus applied for approval to construct and operate the proposed Boreal 193S substation. The proposed substation would be located within LSD 16, Section 5, Township 77, Range 6, west of the Fourth Meridian, within the Regional Municipality of Wood Buffalo, about ten kilometres east of the town of Conklin. The proposed substation would be wholly located within the Cenovus Narrows Lake oilsands lease boundary and would provide capacity to serve the site load of Cenovus' Narrows Lake Thermal Project.

24. Cenovus submitted that the proposed substation is a private asset and accordingly a direct assignment letter from the AESO is not required.

25. Cenovus stated that the proposed substation would be located in an area of industrial oil and gas activity. There is no public access, and there are no residences or recreation facilities within 800 metres of the proposed substation location.

26. The proposed substation would contain the following major equipment:

- two 240/25-kV, 50/67/83 megavolt-ampere transformers
- five 240-kV circuit breakers
- 15 25-kV circuit breakers
- associated substation equipment

27. Cenovus conducted a participant involvement program that included notification and consultation with agencies and industry stakeholders within a minimum of 800 metres of the proposed substation. Cenovus consulted with representatives from the Regional Municipality of Wood Buffalo and the County of Lac La Biche. Cenovus stated that it notified CPDFN, Conklin Resource Development Advisory Committee, Heart Lake First Nation, Beaver Lake First Nation, Chard Metis Society and Christina River Dene Nation Council.

28. Cenovus stated that there were no concerns from stakeholders related to the proposed substation.

29. Cenovus submitted a noise impact assessment for the project scope that included the proposed substation, in accordance with the requirements Rule 012: *Noise Control*. The noise impact assessment concluded that the proposed substation would be in compliance with the permissible sound level requirements of Rule 012 at all of the receptor locations that were assessed.

30. Cenovus received *Historical Resources Act* approval from Alberta Culture and Tourism for the proposed project.

31. Cenovus stated that the proposed substation would comply with *Environmental Protection Guidelines for Transmission Lines*, pursuant to the *Environmental Protection and Enhancement Act* and associated regulations.

32. Cenovus stated that the proposed substation is within the Lower Athabasca Regional Plan (LARP) and that no conservation or provincial recreation areas established by the LARP are associated with the proposed substation. No triggers or limits related to air quality, surface water

or groundwater management frameworks would be exceeded by the proposed substation. No vegetation clearing is proposed as part of the substation development.

33. The cost estimate for the proposed substation was not provided in Cenovus' application because the substation would be a privately-owned asset.

4 Findings

34. The Commission is satisfied that the needs identification document application filed by the AESO contains all the information required by the *Electric Utilities Act*, the *Transmission Regulation* and Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments*.

35. The Commission finds that the participant involvement program undertaken by the AESO meets the requirements of Rule 007.

36. No interested party demonstrated that the AESO's assessment of the need to connect the Boreal 193S substation is technically deficient or that approval of the needs identification document application is not in the public interest. Therefore, the Commission considers the AESO's assessment of the need to be correct in accordance with subsection 38(e) of the *Transmission Regulation*, and approves the AESO's needs identification document application.

37. The Commission is satisfied that the Cenovus application contains all the information required by Rule 007.

38. The Commission finds that the participant involvement program undertaken by Cenovus meets the requirements of Rule 007.

39. The Commission accepts Cenovus' statement that the potential for the proposed substation to create adverse environmental effects is negligible because the project is proposed to be located in an area of industrial oil and gas activity with no public access, residences or recreation facilities within 800 metres.

40. The noise impact assessment submitted by Cenovus is in compliance with Rule 012 because the cumulative sound level of the proposed facility is predicted to be in compliance with the permissible sound level values at the receptor locations that were assessed.

41. The Commission is satisfied that there are no outstanding technical or environmental concerns associated with the construction and operation of the Boreal 193S substation, nor are there any outstanding public or industry concerns because no person had standing in relation to the application.

42. Given the considerations discussed above, the Commission finds Cenovus' proposed substation to be in the public interest pursuant to Section 17 of the *Alberta Utilities Commission Act*.

5 Decision

43. Pursuant to Section 34 of the *Electric Utilities Act*, the Commission approves the need outlined in Needs Identification Document Application 20537-A001 and grants the AESO the approval set out in Appendix 1 – Needs Identification Document Approval 20537-D02-2015 – December 22, 2015.

44. Pursuant to sections 14, 15 and 19 of the *Hydro and Electric Energy Act*, the Commission approves Application 20537-A002 and grants Cenovus the approval set out in Appendix 2 Substation Permit and Licence 20537-D03-2015 – December 22, 2015, to construct and operate the Boreal 193S substation.

45. The appendices will be distributed separately.

Dated on December 22, 2015.

Alberta Utilities Commission

(original signed by)

Anne Michaud
Panel Chair

(original signed by)

Tudor Beattie, Q.C.
Commission Member

(original signed by)

Neil Jamieson
Commission Member