



Syncrude Canada Ltd.

Alteration to Cogeneration Units G3 and G5 in the Mildred Lake Plant Site

June 3, 2015

Alberta Utilities Commission

Decision 20386-D01-2015

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Applications 20386-A001 and 20386-A002

Proceeding 20386

June 3, 2015

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1 Introduction and background

1. On April 28, 2015, Syncrude Canada Ltd. (Syncrude) filed applications with the Alberta Utilities Commission, pursuant to sections 4 and 11 of the *Hydro and Electric Energy Act*, requesting approval to alter cogeneration units G3 and G5, which are part of an existing industrial system located in the Mildred Lake and Aurora areas, and to amend Industrial System Designation Order [U2014-350](#).¹
2. The applications were registered as applications 20386-A001 and 20386-A002 under Proceeding 20386.
3. The Commission issued information requests to Syncrude on May 13, 2015, and Syncrude responded on May 22, 2015.

2 Discussion

4. By Order U2014-350, Syncrude has approval to operate an industrial system located in the Mildred Lake and Aurora areas. The cogeneration units G3 and G5 are part of the Mildred Lake plant site facilities.
5. As a requirement under Clause 4.1.14 of its Alberta *Environmental Protection and Enhancement Act* approval, Syncrude is upgrading the G3 and G5 units with Dry Low NO_x burner technology in order to meet the Best Available Technology Economically Achievable NO_x standard. Syncrude stated that the power plant rating would be increased from 25 megawatts (MW) to 26 MW due to the conversion to Dry Low NO_x technology.
6. In its application, Syncrude indicated it has received approval from the Alberta Energy Regulator to proceed with the upgrade to the G3 and G5 units. Syncrude stated that the upgrade would take place within the existing footprint, would not increase environmental noise and would reduce emissions to the environment. Syncrude also indicated that it is informing the Alberta Electric System Operator (AESO) of this upgrade and would inform the AUC if the AESO expresses any concerns with the upgrade.
7. As stipulated in Order U2014-350, the Mildred Lake plant site consists of the following units: three units each with a capability of 25 MW, three units each with a capability of 50 MW, one unit with a capability of 67 MW, one unit with a capability of 75 MW and one unit with a

¹ Industrial System Designation Order U2014-350, Proceeding 3068, Application 1610311, July 17, 2014.

capability of 92 MW. The existing power plant approvals associated with the Mildred Lake plant site are Approval [U2001-018](#)² and Approval [U2014-349](#).³

8. Approval U2001-018 granted Syncrude the approval to operate the Mildred Lake power plant, consisting of two 25-MW gas turbine generators (units G3 and G5), three 50-MW back-pressure steam generators (units G1, G2 and G4) and one 70-MW condensing steam turbine generator (unit G6). Approval U2014-349 granted Syncrude the approval to construct and operate a 92-MW generating unit in the Mildred Lake plant site.

9. Because no other power plant approvals were found to reflect all the generating units listed at the Mildred Lake plant site, as per Order [U2014-350](#), the Commission issued information requests to Syncrude for more details on the generating units at the industrial system.

10. In its responses, Syncrude stated that prior to January 31, 2001, TransAlta Energy Corporation owned and operated the Syncrude Mildred power plant. Syncrude, by Approval U2001-018, became the owner and operator of units G1, G2, G3, G4, G5 and G6.

11. Syncrude stated the rating for unit G6 was altered to a 65-MW rating in Order U2002-241.⁴ Additionally, Syncrude filed Application 1291066 for approval to construct and operate a 25-MW (unit G11) back-pressure steam turbine generator, a 75-MW (unit G12) condensing steam turbine generator and to alter unit G6 to 67 MW. Syncrude stated that units G11 and G12 were approved and unit G6 was altered, and that all changes were reflected in Order [U2003-101](#).⁵ No power plant approvals were issued to reflect any alterations in the Mildred Lake plant site.

3 Findings

12. Syncrude has provided information respecting the need, nature, extent, land affected, land ownership and the timing of the work, in accordance with the requirements of Section 12 of the *Hydro and Electric Energy Regulation*. Syncrude has also stated that no adverse environmental impact would be caused by the proposed work.

13. Based upon the information provided, Syncrude 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*.

14. The Commission recognized that the generator alterations within the Mildred Lake plant site have been reflected in industrial system designation orders prior to and including Order U2014-350. The Commission will amend Approval U2001-018 in order to reflect the corresponding alterations of units G3, G5 and G6, and the additions of units G11 and G12.

² Power Plant Approval U2001-018, Application 2001018, February 27, 2001.

³ Power Plant Approval U2014-349, Proceeding 3068, Application 1610311, July 17, 2014.

⁴ Order U2002-241, Application No. 1274051, July 19, 2002.

⁵ Order U2003-101, Application 1291066, April 17, 2002.

15. Due to the nature of the application, a notice of application was not issued and, therefore, a hearing was not required as the Commission considered that its decision or order would not directly and adversely affect the rights of a person pursuant to Section 9 of the *Alberta Utilities Commission Act*.

16. 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*.

4 Decision

17. Pursuant to Section 4 of the *Hydro and Electric Energy Act* and sections 2(1)(d) and 117 of the *Electric Utilities Act*, the Commission approves the applications and grants to Syncrude the approval set out in Appendix 1 – Industrial System Designation Order 20386-D02-2015 – June 3, 2015 (Appendix 1 will be distributed separately).

18. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves the applications and grants Syncrude the approval set out in Appendix 2 – Power Plant Approval 20386-D03-2015 – June 3, 2015, to alter and operate the power plant (Appendix 2 will be distributed separately).

Dated on June 3, 2015.

Alberta Utilities Commission

(original signed by)

Tudor Beattie, QC
Commission Member