



NOVA Chemicals Corporation

Industrial System Designation Amendment

November 29, 2013



The Alberta Utilities Commission

Decision 2013-426: NOVA Chemicals Corporation
Industrial System Designation Amendment
Application No. 1609920
Proceeding ID No. 2835

November 29, 2013

Published by

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1 Introduction

1. In accordance with sections 4, 14, 15 and 18 of the *Hydro and Electric Energy Act*, NOVA Chemicals Corporation (NOVA) filed an application with the Alberta Utilities Commission (AUC or the Commission) on September 13, 2013, requesting approval to construct and operate the NOVA R3 Main substation 196S (the NOVA Main substation), to connect two T-tap transmission lines 330L1 and 330L2 to the Alberta Interconnected Electric System, and to amend an existing industrial system designation to include the proposed substation and transmission lines.

2 Background

2. NOVA, by Order No. [U2013-282](#),¹ has approval to operate an industrial system within its Joffre petrochemical complex.

3. TransAlta Utilities Corporation (now AltaLink Management Ltd.) by Orders No. Misc. HE 9928² and No. Misc. HE 9929³ has approval to connect its Joffre 535S substation to NOVA's 138-kilovolt (kV) transmission lines 330L1 and 330L2.

5. The proposed NOVA Main substation is required to provide electric power to a new polyethylene unit that NOVA is installing at its Joffre petrochemical complex. NOVA plans to increase polyethylene production at the Joffre site by approximately 40 per cent, resulting in approximately a \$900 million investment. The NOVA Main substation would include two 138/13.8-kV transformers and two 138-kV circuit breakers. The NOVA Main substation would be connected by two 40-metre, 138-kV T-tap connection lines designated as 330L3 and 330L4.

6. The NOVA Main substation would be located within the Joffre industrial system located within sections 29, 31 and 32 of Township 38, Range 25, west of the Fourth Meridian, two kilometres from the hamlet of Joffre in Lacombe County. NOVA also indicated that there would be no changes to the on-site generation or to the existing facilities as approved in the original industrial system designation application.

7. The requirements to designate an electric system as an industrial system are prescribed in Section 4 of the *Hydro and Electric Energy Act*. Section 4(2) of the *Hydro and Electric Energy Act* sets out principles that the Commission must have regard to when considering an industrial

¹ Industrial System Designation Order No. U2013-282, Application No. 1609606, Proceeding ID No. 2617, June 11, 2013.

² Order No. Misc. HE 9928, Application No. 980632, July 9, 1999.

³ Order No. Misc. HE 9929, Application No. 980632, July 9, 1999.

system designation application. Section 4(3) sets out the criteria for evaluating an industrial system designation application.

8. NOVA indicated that the Joffre petrochemical complex is an integrated set of industrial processes which share utilities, process streams and common infrastructure. With the addition of the NOVA Main substation, the degree of utility, process and operations integration of the Joffre site would be increased.

9. NOVA indicated that there would be no significant environmental impacts resulting from construction of the NOVA Main substation or the proposed 138-kV T-tap connection lines.

10. NOVA indicated that the proposed substation and industrial system designation amendment do not facilitate the development of an independent electric system or the duplication of electric system facilities. Further, the NOVA Main substation, to be included in the amended industrial system designation, would be located within the contiguous land area of the Joffre petrochemical complex.

11. NOVA submitted a noise impact assessment regarding the proposed NOVA Main substation. The most impacted dwelling is located 1.65 kilometres from the substation facility boundary. Thirty-four residences were identified within approximately 1.5 kilometres of the Joffre petrochemical site and were included in the noise impact assessment for completeness and continuity with the previous noise impact assessment submissions. The noise impact assessment concluded that the proposed substation is expected to cause negligible or no increase in the cumulative sound level at the most impacted dwelling or at any residential receptors located in the study area.

12. NOVA conducted a participant involvement program, including public, government agencies and industry. Stakeholders were provided with details on the polyethylene expansion project including the proposed substation. No concerns specific to the substation were raised in the course of NOVA's consultation.

13. A notice of application was issued by the Commission on October 22, 2013. No objections were received.

3 Findings

14. The Commission is satisfied with NOVA's participant involvement program and that there are no outstanding objections. The Commission issued a notice of application and no objections were received.

15. The Commission is satisfied that the substation is not likely to cause any adverse environmental effects and finds that the noise impact assessment demonstrates compliance with the requirements of AUC Rule 012: *Noise Control*.

16. In making its decision on NOVA's amendment of its existing industrial system designation, the Commission has considered the principles, criteria and legislative framework contained in the *Hydro and Electric Energy Act* and the *Electric Utilities Act*. Based upon the

evidence contained in the application, the Commission finds that each of the criteria contained in Section 4(3) has been met.

17. The Commission finds the industrial system designation amendment application and the associated substation meet the requirements as specified in AUC Rule 007: *Applications for Power Plants, Substations, Transmission Lines, and Industrial System Designations*.

18. Having considered the social, economic, and environmental impacts of the proposed project, the Commission considers the project to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

4 Decision

19. Pursuant to sections 4, 14, 15, 18 and 19 of the *Hydro and Electric Energy Act*, and sections 2(1)(d) and 117 of the *Electric Utilities Act*, the Commission approves the application and grants to NOVA the following approvals:

- Appendix 1 – Permit and Licence No. U2013-617 – November 29, 2013 to construct and operate the NOVA R3 Main Substation 196S.
- Appendix 2 – Industrial System Designation – Order No. U2013-618 – November 29, 2013, to amend its industrial system at its Joffre petrochemical industrial complex.
- Appendix 3 - Connection Order No. U2013-619 – November 29, 2013, to connect transmission line 330L1 to AltaLink Management Ltd.'s 535S substation.
- Appendix 4 - Connection Order No. U2013-620 – November 29, 2013, to connect transmission line 330L2 to AltaLink Management Ltd.'s 535S substation.

20. The appendices will be distributed separately.

Dated on November 29, 2013.

The Alberta Utilities Commission

(original signed by)

Neil Jamieson
Commission Member