



Shaw CableSystems G.P.

Alter Power Plant at the Shaw Data Centre

July 17, 2013



The Alberta Utilities Commission

Decision 2013-264: Shaw CableSystems G.P.

Alter Power Plant at Shaw Data Centre

Application No. 1609691

Proceeding ID No. 2670

July 17, 2013

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1 Introduction and background

1. Shaw CableSystems G.P. (Shaw) has approval to construct and operate a power plant within the Shaw Data Centre (SDC), pursuant to Approval No. [U2013-103](#),¹ and connect the power plant to the Alberta Interconnected Electric System, pursuant to Connection Order No. [U2013-104](#),² in the city of Calgary, located at 3330 – 23 Street N.E.

2. The power plant consists of:

- four 2.8-megawatt (MW) diesel-fired generators (main generators)
- two 1-MW diesel-fired generators (auxiliary units)
- one 600-kilowatt (kW) diesel-fired unit (Life Safety Unit)
- one 400-kW cogeneration unit

3. Desiderata Energy Consulting Inc. (Desiderata), on behalf of Shaw, filed an application with the Alberta Utilities Commission (AUC or the Commission) for approval to alter and operate the power plant. The application was registered on June 19, 2013 as Application No. 1609691.

2 Discussion

4. In the original application for the power plant, Shaw contemplated that the main generators would automatically start during times of a power outage, but would continue to run in parallel with ENMAX's system after power was restored and until being turned off manually. Shaw further explained that the main units would also run when the risk of a power outage was high. During those times, Shaw submitted that the power plant would run at a reduced load to offset a portion of the electricity provided by ENMAX.

5. Since the approvals were issued, Shaw completed additional design and reliability studies and determined that a more reliable electricity delivery system is required for the SDC. The proposed alterations would consist of adding two diesel-fired main emergency generators and the removal of the 400-kW natural gas fired cogeneration unit. Furthermore, Desiderata proposed to post the actual anticipated capacities of the generating units, as opposed to the nominal ratings

¹ Power Plant Approval No. U2013-103, Application No. 1608885, Proceeding ID No. 2168, February 21, 2013.

² Connection Order No. U2013-104, Application No. 1608885, Proceeding ID No. 2168, February 21, 2013.

corresponding to manufacturer's generic ISO³ design specifications. Therefore, Desiderata submitted that the power plant would consist of:

- six 2.6-MW diesel-fired generators (main generators)
- two 900-kW diesel-fired generators (auxiliary units)
- one 500-kW diesel-fired unit (Life Safety Unit)

6. Desiderata stated that the additional diesel-fired generators would only run should one or more of the four main diesel-fired main generators be unavailable or fail to operate at 75 percent load.

7. Desiderata submitted that there would be no material incremental noise or air emissions from the addition of the two generators. For this reason, Desiderata stated that it would not be necessary to revise the original noise impact assessment.

8. Desiderata stated that there would be no change to the exterior of the SDC, hence no change to the visual aspects of the project.

9. Desiderata stated that Shaw would remain in compliance with all applicable environmental regulations when the project is completed.

10. Desiderata stated that there would be no change to the location of the power plant, which would still be housed within the SDC building.

3 Findings

11. The Commission has reviewed the application and determined that the technical, siting, and environmental requirements of AUC Rule 007: *Applications for Power Plants, Substations, Transmission Lines, and Industrial System Designations* have been met.

12. The Commission is satisfied that the proposed alterations to the power plant would continue to fulfill the requirements of AUC Rule 012: *Noise Control*.

13. 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

14. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves the application and grants Shaw the approval set out in Appendix 1– Power Plant Approval No. U2013-339 – July 17, 2013 to alter and operate the power plant (Appendix 1 will be distributed separately).

15. Pursuant to Section 18 of the *Hydro and Electric Energy Act*, the Commission grants Connection Order No. U2013-340 – July 17, 2013, to Shaw to connect the power plant to

³ ISO stands for International Organization for Standardization.

ENMAX's distribution system as set out in Appendix 2 (Appendix 2 will be distributed separately)

Dated on July 17, 2013.

The Alberta Utilities Commission

A handwritten signature in black ink, appearing to read "Tudor Beattie". The signature is fluid and cursive, with a large initial 'T' and 'B'.

Tudor Beattie
Commission Member