



The City of Medicine Hat

Alteration of the City of Medicine Hat Power Plant

July 10, 2012



The Alberta Utilities Commission

Decision 2012-186: The City of Medicine Hat
Alteration of the City of Medicine Hat Power Plant
Application No. 1608187
Proceeding ID No. 1736

July 10, 2012

Published by

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1 Introduction

1. The City of Medicine Hat (the City) pursuant to Approval No. [U2008-54](#)¹ is the owner of a power plant designated as the City of Medicine Hat Power Plant.
2. The City filed an application with the Alberta Utilities Commission (AUC or the Commission) to seek an approval to alter and operate the power plant pursuant to Section 11 of the *Hydro and Electric Energy Act*. The application was registered on February 23, 2012, as Application No. 1608187.

2 Discussion

3. The application proposes the construction of a one-megawatt concentrating solar thermal array near the power plant. An above-ground mounted pipeline will transport a working fluid from the power plant to the solar array where it will be heated by the solar energy collected in the array. The heated fluid will be piped back to the power plant in an adjacent pipeline. The array will capture solar energy to produce steam suitable for injection into the existing steam-turbine generators in the power plant. The use of solar-produced steam will reduce the rate of natural gas combustion at the power plant. The combined nominal capacity of the power plant will not be increased as the steam produced by the solar array will displace steam currently produced by natural gas. The solar thermal array will be contained within a 150 metre by 150 metre fenced enclosure on a hill south of the power plant.
4. The City is subject to Section 95 of the *Electric Utilities Act*, which reads in part as follows:
 - (4) The City of Medicine Hat or a subsidiary of the City may hold an interest in a generating unit if the generating capacity of that unit and all other generating units in which the City or a subsidiary of the City has an interest does not exceed the capacity that is needed to reliably meet the requirements of customers in the service area of the City.
5. The City stated that the addition of the solar thermal project to the power plant will result in no change to the “capacity that is needed to reliably meet the requirements of consumers of electricity in the service area of the City” because the thermal solar project is solely to decrease natural gas consumption with renewable solar energy. There will be no increase to the electricity rating of generation from the power plant.

¹ Power Plant Approval No. U2008-54, Application No. 1546766, February 21, 2008.

6. The City also received approval from Alberta Environment and Water, pursuant to the *Environmental Protection and Enhancement Act*, and *Historical Resources Act* clearance from Alberta Culture and Community Spirit. Approvals from Transport Canada and NAV Canada were also obtained.

7. Environmental impacts from the proposal are considered to be minimal. Disturbed vegetation during construction will be reseeded by the City, and fencing will be erected to reduce impact on neighbouring coulees. The City has taken steps to minimize the potential for leakage of the working fluid as it is transferred between the solar array and the power plant.

8. The City's application included a noise impact assessment that demonstrated the sound levels produced by the existing power plant including additional sound sources from the thermal solar project (mostly from pumps needed to transport the working fluid to and from the solar array) did not exceed the permissible sound levels prescribed by AUC Rule 012: *Noise Control* (AUC Rule 012).

9. The City's participant involvement program consisted of mailing an information package to all potentially affected landowners and occupants within a two-kilometre radius of the proposed solar array. The information package included a letter describing the proposed project with pictures showing a view of the power plant, the location of the solar array, and a view of an existing and similar array to give the reader an appreciation of the project. The letter also provided contact information for the recipients to call if they had any questions or concerns. The information package also included the AUC document entitled "Public Involvement in Needs or Facilities Applications."

10. The AUC issued a notice of application on April 12, 2012, which was mailed to the stakeholders identified by the City. The notice of application was also published in the Medicine Hat News newspaper. The AUC received submissions from landowners Phyllis Berube, Michael Hofer and D. A. Foreman, and from Howell Mayhew Engineering Ltd. in response to the notice of application.

- Mrs. Phyllis Berube lives in a residence approximately 800 metres from the proposed project and expressed concerns about an existing power line within her property that is being expanded, visual impact, electric and magnetic fields (EMF), and devaluation of her property. She suggests that the solar array be installed on the other side of an existing campground, further away from her residence. The City subsequently met with Mrs. Berube and, as a result, she no longer has concerns and withdrew her objection on May 22, 2012.
- Mr. Michael Hofer sent a letter requesting further explanation of the application, as well as a copy of AUC Rule 009: *Rules on Local Intervener Costs*. The Commission sent a response letter to Mr. Hofer and he did not file any subsequent submission or objection to the application.
- Mr. D. A. Foreman sent a letter indicating his support to the application.
- Howell Mayhew Engineering Ltd. registered as a participant to this proceeding, but did not make a submission or file an objection.

3 Findings

11. The Commission considered the application pursuant to Section 11 of the *Hydro and Electric Energy Act*.
12. The Commission finds that the application meets the requirements stipulated in AUC Rule 007: *Rules Respecting Applications for Power Plants, Substations, Transmission Lines and Industrial System Designations*.
13. The Commission finds that the noise impact assessment submitted by the City fulfills the requirements of AUC Rule 012.
14. The Commission also finds that the City conducted a participant involvement program for the application. All objections received in response to the notice issued by the Commission were subsequently withdrawn. The deadline for submissions was extended until July 3, 2012. No further objections were received as a result of the extension.
15. The Commission has reviewed the application and has determined that all requirements respecting the technical, siting, emissions, environmental and noise of the power plant alteration have been met. The City's participant involvement program has been conducted and there are no outstanding public or industry objections or concerns.
16. The Commission finds that the proposed project will be a positive addition to the existing plant as it will reduce natural gas use and the emissions associated with its combustion.
17. The Commission also reviewed the information submitted by the City that related to the requirements of Section 95 of the *Electric Utilities Act*. The Commission finds that the proposed alteration does not entail the addition of new generating capacity by the City and concludes that Section 95 of the *Electric Utilities Act* does not apply in this case.
18. Having considered all of the evidence before it, the Commission finds the proposed work at the power plant to be in the public interest pursuant to Section 17 of the *Alberta Utilities Commission Act*, having given consideration to the environmental, economic and social impacts of the proposed work. The Commission further finds that the application complies with all requirements in Section 11 of the *Hydro and Electric Energy Act*.

4 Decision

19. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves the application and grants the City the approval set out in Appendix 1– Approval No. U2012-314 – July 10, 2012, to alter and operate the power plant (Appendix 1 will be distributed separately).

Dated on July 10, 2012.

The Alberta Utilities Commission

(original signed by)

Mark Kolesar
Vice-Chair