



2615991 Canada Ltd. (ATCO Power Canada Ltd.)

400-MW Heartland Natural Gas Power Plant

September 3, 2014

The Alberta Utilities Commission

Decision 2014-253: 2615991 Canada Ltd. (ATCO Power Canada Ltd.)

400-MW Heartland Natural Gas Power Plant

Application No. 1610160

Proceeding No. 2963

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1 Introduction

1. 2615991 Canada Ltd., ATCO Power Canada Ltd. (ATCO), filed an application with the Alberta Utilities Commission (AUC or the Commission) for approval to construct and operate a 400-megawatt (MW) power plant, in the Fort Saskatchewan area, pursuant to Section 11 of the *Hydro and Electric Energy Act*. This application was registered on December 10, 2013, as Application No. 1610160.

2. The Commission issued a notice of application on March 21, 2014.

3. In response to the notice, the Commission received one submission from True-Arc Holdings Ltd. and the associated company 1063320 Alberta Ltd. (collectively, True-Arc). True-Arc is a welding and fabrication shop adjacent to the proposed site of the power plant. True-Arc objected to the proposed power plant due to concerns with health, property value impacts and the effects to True-Arc's plans to expand its operations.

4. The Commission issued a notice of hearing on May 14, 2014, and scheduled a hearing for July 31, 2014, in Edmonton, Alberta.

5. On July 28, 2014, ATCO filed a submission with the Commission in which it stated that it had come to an agreement with True-Arc and that True-Arc would no longer be participating in the proceeding, including the oral hearing, but that it still objected to the project. In light of this agreement and the fact that no other parties were registered to participate in the oral hearing, the Commission issued a notice of cancellation of hearing on July 29, 2014. The Commission afforded ATCO a final opportunity to submit written argument by July 31, 2014.

2 Role and authority of the Commission

6. The Commission is responsible for regulating the construction and operation of power plants in Alberta. Section 11 of the *Hydro and Electric Energy Act* makes it clear that no person may construct or operate a power plant without prior approval from the Commission.

7. When considering an application for a power plant, the Commission is guided by sections 2 and 3 of the *Hydro and Electric Energy Act* and Section 17 of the *Alberta Utilities Commission Act*.

8. Section 2 lists the purposes of the *Hydro and Electric Energy Act*. Those purposes include:

- To provide for the economic, orderly and efficient development and operation, in the public interest, of the generation of electric energy in Alberta.
- To secure the observance of safe and efficient practices in the public interest in the generation of electric energy in Alberta.
- To assist the government in controlling pollution and ensuring environment conservation in the generation of electric energy in Alberta.

9. Section 3 of the *Hydro and Electric Energy Act* requires the Commission to have regard for the purposes of the *Electric Utilities Act* when assessing whether a proposed power plant is in the public interest. The purposes of that act include the development of an efficient electric industry structure and the development of an electric generation sector guided by competitive market forces.

10. Section 3 of the *Hydro and Electric Energy Act* further directs that the Commission shall not have regard to whether the proposed power plant “is an economic source of electric energy in Alberta or to whether there is a need for the electric energy to be produced by such a facility in meeting the requirements for electric energy in Alberta or outside of Alberta.”

11. Section 17 of the *Alberta Utilities Commission Act* states that the Commission shall:

...in addition to any other matters it may or must consider in conducting the hearing or other proceeding, give consideration to whether construction or operation of the proposed... power plant... is in the public interest, having regard to the social and economic effects of the ...plant... and the effects of the ...plant... on the environment.

12. In reaching the determinations set out in this decision, the Commission has considered all relevant materials comprising the record of this proceeding, including the evidence and submissions provided by each party. References in this decision to specific parts of the record are intended to assist the reader in understanding the Commission’s reasoning relating to a particular matter and should not be taken as an indication that the Commission did not consider all relevant portions of the record as it relates to that matter.

3 Discussion

13. ATCO requested approval to construct and operate a 400-MW natural gas-fired combined cycle power plant approximately 14 kilometres northeast of Fort Saskatchewan. The power plant would be located on cultivated land in the northwest quarter of Section 27, Township 55, Range 21, west of the Fourth Meridian.

14. ATCO stated that it considers the proposed site of the power plant to be ideal due to being located in the Alberta Industrial Heartland region, in close proximity to other heavy industrial facilities and nearby necessary infrastructure such as natural gas pipelines and transmission lines. ATCO submitted that the project site was designed to facilitate the most efficient current and future use of the property and considered the following factors:

(a) minimizing overall project footprint; (b) efficient access to existing and planned ancillary infrastructure such as stormwater ponds, water pipeline, and utility connections; (c) locating administration buildings and staff parking in the most appropriate location on the Lands and in close proximity to the generating station; (d) mitigating potential offsite noise impacts to dwellings; and (e) maximizing the ability to use the Lands for a potential future expansion.¹

15. ATCO provided a noise impact assessment which predicted that the noise levels would be in compliance with AUC Rule 012: *Noise Control* (AUC Rule 012). To minimize the noise from the project, ATCO proposed a number of noise mitigation measures, including enclosing the major equipment such as the gas turbine, heat recovery steam generator and steam turbine within a powerhouse building with insulated walls, and installing noise silencers and mufflers where applicable on the exhaust stack, exhaust openings and air inlet.² ATCO also confirmed that it is a member of the Northeast Capital Industrial Association and that it would participate in regional initiatives such as the regional noise management plan.

16. ATCO stated that the proposed application includes a comprehensive summary of the impact of the project on various components of the environment including soil, vegetation and wetlands, wildlife and wildlife habitat, topology and drainage, groundwater, surface hydrology, surface water quality, fish and fish habitat and air quality.³ ATCO stated that with the mitigation measures identified, the project would not have any adverse effects on the environment. In support of its assertion, ATCO filed correspondence from the Canadian Environmental Assessment Agency, which undertook a screening of the project pursuant to the *Canadian Environmental Assessment Act, 2012*, in which it concluded the following:

The Agency is satisfied that the environmental effects of the Project are well understood and adequately characterized in the Project Description. The Agency is satisfied that the Project is unlikely to result in adverse environmental effects as defined in CEAA 2012.

Therefore, the Agency decided that an environmental assessment of the designated Project, as proposed in the description of the Project, is not required under CEAA 2012.⁴

17. Additionally, ATCO confirmed that it received a *Historical Resources Act* clearance from Alberta Culture on February 6, 2013.

18. ATCO stated that air emissions associated with the proposed power plant are expected to be below applicable criteria set out in the Alberta Ambient Air Quality Objectives and therefore no health impacts are anticipated as a result of air emissions from the project.⁵

19. ATCO conducted a participant involvement program that included notifying all landowners, residents and occupants within a five-kilometre radius of the proposed project as well as other interested parties including government agencies, aboriginal groups, municipalities and industry associations. It held an open house on October 3, 2013, and personally consulted with landowners, residents and occupants within 800 metres of the project site boundary and all

¹ Exhibit No. 60.02, ATCO Reply at paragraph 16.

² Exhibit No. 60.02, ATCO Reply at paragraph 19.

³ Exhibit No. 64.01, ATCO Final Argument at paragraph 36.

⁴ Exhibit No. 49.01, CEAA Notification of the Screening Decision for the Proposed Heartland Generating Station Project.

⁵ Exhibit No. 64.01, ATCO Final Argument at paragraph 28.

owners of and occupants of residences within two kilometres of the project site boundary. ATCO identified stakeholders' concerns with noise, loss of productive agricultural land, air emissions, construction traffic and the effects of the transmission line and substation that would connect the power plant to the Alberta Interconnected Electric System. As a result of its consultation, ATCO indicated in its application that there were two parties who still had outstanding concerns.

20. ATCO submitted that one resident, located approximately 1.5 kilometres from the project boundary, had outstanding concerns regarding the siting of the transmission line that would interconnect the power plant. ATCO informed the resident that the transmission line would be the subject of a separate application and a separate process by the AUC. ATCO also notified the transmission facility owner assigned to the interconnection project of the stakeholder's concerns. The stakeholder did not submit a statement of intent to participate or any other submissions to this proceeding.

21. ATCO also identified the concerns of True-Arc in its application, which did participate in the proceeding.

22. In its statement of intent to participate, True-Arc stated that the owners and employees of True-Arc did not wish to have to work in such proximity to the proposed project. It also stated that it had originally bought the land in 2007, built a new shop in 2008, added on in 2010 and had further plans to expand in 2012/13. True-Arc stated that it put its expansion plans on hold when ATCO advised it of the project. In its submission dated June 3, 2014, True-Arc identified the following list of issues it intended to present at the oral hearing:

- 1) The need for the project,
- 2) The appropriateness of the proposed location,
- 3) The possible adverse health effects, real and perceived, and
- 4) The impact on the potential for property development and on property values.⁶

23. In response to the list of issues outlined above, ATCO filed a motion in which it requested that the Commission strike the issue of need from the record of this proceeding and that the Commission direct True-Arc to provide further particulars regarding each of the issues that it intends to advance, so that the scope of its participation may be readily understood.

24. On July 2, 2014, the Commission established a written process to address the motion, permitting True-Arc an opportunity to respond to the motion and ATCO an opportunity to provide a reply. On July 14, 2014, after having considered the submissions of the parties, the Commission issued its ruling⁷ on ATCO's motion. The Commission determined, pursuant to Section 3 of the *Hydro and Electric Energy Act*, that it would strike the issue of need from the record of this proceeding. The Commission denied ATCO's second requested relief, that True-Arc be directed to provide further particulars on the basis that True-Arc was yet to file its written evidence and expected that with the filing of its intervener evidence, its scope of participation would be readily understood.

25. On July 17, 2014, True-Arc filed a letter with the Commission stating that it would be presenting oral evidence at the hearing, but would not be presenting expert reports or other

⁶ Exhibit No. 51.01, Preliminary Issues.

⁷ Exhibit No. 56.01, AUC Ruling on ATCO Motion.

written evidence. Subsequently, as noted above, an agreement between ATCO and True-Arc was reached in which True-Arc waived any right it may have to an oral hearing, or to participate further in this proceeding, subject only to its written objection remaining on the record of this proceeding.

26. ATCO stated in its application that it met with True-Arc eleven times either face-to-face or by telephone. ATCO submitted that based on these meetings, it believed True-Arc was primarily concerned with electromagnetic fields (EMF), in part due to the transmission line that would connect to the power plant. ATCO stated that it informed the stakeholder that the connection would be the subject of a separate application and AUC process. ATCO submitted that it committed to increase the distance between the transmission line and True-Arc's location in an effort to resolve its concerns.

27. ATCO held a meeting with True-Arc specifically regarding EMF, where a trained EMF representative from ATCO Electric Ltd. attended and where Gauss meter readings were taken from various distances from welding and other office equipment, and from local 138-kilovolt (kV) and 240-kV transmission lines. ATCO submitted that the levels of EMF within the welding and fabrication shop were higher than the levels measured immediately under the 138-kV and 240-kV transmission lines. ATCO stated that it also offered to have experts in EMF from E^xponent, Inc. and Midgard Consulting Inc. meet with the owners and employees of True-Arc to discuss the issue of EMF and health, and the science of EMF. ATCO stated that this offer was declined. ATCO stated that despite previous rejections, it remains willing to arrange and pay for an educational seminar for True-Arc and its employees on the issue of EMF and concerns related to its potential health effects.

28. ATCO retained Midgard Consulting Inc. to analyze the electric and magnetic fields that would be created by the power plant. The report submitted by Midgard Consulting Inc. concluded that the electric and magnetic fields created by the power plant would be negligible at the True-Arc shop and that the electric and magnetic fields caused by the future 240-kV transmission line that would connect the power plant would be significantly below the guideline values set by the International Commission on Non-Ionizing Radiation Protection to minimize potential adverse effects.⁸

29. ATCO also submitted a report from E^xponent, Inc., which provided a comprehensive survey of research on the health effects associated with extremely low frequency EMF. The report concluded that there is no established relationship between extremely low frequency EMF exposure and adverse health effects.⁹

30. In an effort to address True-Arc's concerns regarding property value and expansion of its business, ATCO submitted a report from McNally Land Services Ltd. that concluded that the power plant would not have a negative effect on the market value or development potential of the True-Arc site.¹⁰ The report provided that upon a review of the land transfers in the Alberta Industrial Heartland area, there is no evidence to indicate that the land values are being impacted in a negative manner due to its proximity to existing or proposed industrial activities and found that the land values in this area have continued to increase since the area was re-designated as a

⁸ Exhibit No. 60.07, ATCO Heartland Generating Station EMF Analysis.

⁹ Exhibit No. 60.06, E^xponent EMF Health Report and Cover Letter.

¹⁰ Exhibit No. 60.09, G. McNally Land Services Report.

heavy industrial area.¹¹ ATCO submitted that the McNally Land report concluded that “True-Arc has taken no public steps to further develop its lands and therefore any suggestion of plans for future development are entirely speculative.”¹²

31. ATCO submitted that True-Arc made little or no substantive submissions and provided no evidence to further explain or expand on the issues it identified in its June 3, 2014 submission. In its final argument, ATCO stated:

ATCO Power respectfully submits that the Commission must make its decision in respect of the Application based on the information and evidence filed in this proceeding. ATCO Power has filed extensive documentary evidence to support a decision that the Project is in the public interest including thorough responses to the issues raised by True-Arc. Conversely, True-Arc has filed no substantive evidence whatsoever.¹³

4 Findings

32. The Commission has reviewed the application and considered the submissions of the parties and finds that the approval of the proposed power plant is in the public interest.

33. With regard to site selection, or what True-Arc referred to as “the appropriateness of the proposed location,” the Commission does not have any evidence on the record of this proceeding to show that the location of the proposed power plant is not in the public interest. The record of this proceeding demonstrates that the project was situated at the proposed location for a number of reasons. Those reasons include:

- The proposed power plant is located in Alberta’s Industrial Heartland, an area of the Province that has been designated for industrial uses;
- The proposed power plant is in close proximity to critical infrastructure including existing and planned transmission facilities, water supply and gas pipelines;
- The proposed power plant is consistent with the current land use in the area and its transition from agricultural to heavy industry development.

34. Based on the foregoing, the Commission finds that the proposed location of the project is reasonable and in the public interest.

35. The Commission finds that the noise impact assessment submitted by ATCO fulfills the requirements of AUC Rule 012.

36. The Commission is satisfied with the level of detail and assessment related to the various components of the environment outlined in the application and finds that with the mitigation measures identified, the project will not have any adverse effects on the environment. In making its determination, the Commission has considered ATCO’s consultation efforts with Alberta Environmental and Sustainable Resource Development as well as the Canadian Environmental

¹¹ Exhibit No. 60.09, G. McNally Land Services Report.

¹² Exhibit No. 64.01, ATCO Final Argument at paragraph 33.

¹³ Exhibit No. 64.01, ATCO Final Argument at paragraph 11.

Assessment Agency and the correspondence from those agencies filed on the record of this proceeding.

37. The Commission finds that ATCO's consultation and participant involvement program was consistent with the requirements of AUC Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments* (AUC Rule 007) and adequate given the nature and scope of this project. It is evident from the record that ATCO began its consultation program early in its application development process and included various stages of participant involvement, which consisted of early discussions at the program initiation stage, public notification followed by a project update notification, an open house and multiple rounds of consultations. Additionally, the record shows that ATCO attempted to provide potentially affected stakeholders with sufficient information to understand the project and its potential implications and sufficient opportunity to express concerns about the proposed development.

38. With respect to the consultation efforts with True-Arc, the Commission is satisfied that ATCO was reasonably responsive to its concerns. The record of this proceeding indicates that multiple meetings have been held between ATCO and True-Arc. In response to True-Arc's concerns related to EMF, ATCO provided True-Arc with information about and an overview of EMF; conducted and provided results of Gauss meter assessments; and offered to conduct an EMF information session for it and its employees. An offer was extended by ATCO to have a subject matter expert explain health matters associated with EMF to True-Arc and its employees. The Commission has also taken into consideration ATCO's response to True-Arc's concerns about the location of certain components associated with the project and its commitment to relocate and modify the orientation of the onsite portion of the transmission line to increase the distance between the transmission line and True-Arc's location.

39. Having regard to the foregoing, the Commission finds that ATCO's consultation and participant involvement program meets the requirements of AUC Rule 007.

40. Based on True-Arc's limited submissions on the record of this proceeding, namely, its statement of intent to participate and its list of issues, the Commission understands that True-Arc's concerns related to the appropriateness of the proposed location, the possible adverse health effects, and the impact on the potential for property development and on property values.

41. In its ruling dated July 14, 2014, the Commission stated that it expected that with the filing of its intervener written evidence, True-Arc would provide sufficient information such that the scope of its participation may be understood. However, True-Arc did not provide any written evidence on the record of this proceeding regarding any of the issues it identified. The Commission's findings on the "appropriateness of the proposed location" are discussed above in paragraph 33 and 34. The remaining issues identified by True-Arc are discussed in the following paragraphs.

42. True-Arc did not provide any evidence to show a link between EMF associated with the proposed project and adverse health effects. ATCO's evidence regarding EMF produced by the project was uncontroverted. The Commission finds persuasive the following conclusion from the E^xponent, Inc. report:

The numerous national and international scientific agencies that have reviewed this research have not concluded that exposure to ELF [extremely low frequency] EMF is a cause of any long-term adverse health effect.¹⁴

43. The Commission accepts ATCO's evidence that the expected EMF levels will be well below the public exposure guidelines. Given the expected EMF levels, the Commission finds that the evidence before it does not support a conclusion that there will be adverse health effects associated with the EMF in relation to the project.

44. True-Arc did not provide any evidence on how the project may affect its property value or limit its potential to expand. The only evidence related to the potential effect of the project on property values or potential development on the record of this proceeding is the opinion prepared by McNally Land Services Ltd.

45. In the absence of evidence to demonstrate the potential negative effect of a project on the property value or development plans, the Commission is not satisfied that True-Arc's land value will be negatively impacted.

46. 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*.

5 Decision

47. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves the application and grants ATCO the approval set out in Appendix 1 – Power Plant Approval No. U2014-380 – September 3, 2014 (Appendix 1 will be distributed separately).

Dated on September 3, 2014.

The Alberta Utilities Commission

(original signed by)

Tudor Beattie, QC
Panel Chair

(original signed by)

Neil Jamieson
Commission Member

(original signed by)

Patrick Brennan
Acting Commission Member

¹⁴ Exhibit No. 18, Appendix P EMF, E^xponent, Inc, Research Developments Since the 2007 WHO Review of Extremely Low Frequency Electric and Magnetic Fields & Health, page xii.