



ARC Resources Ltd.

Kakwa Super Pad Thermal Power Plant

January 12, 2023

Alberta Utilities Commission

Decision 27780-D01-2023

ARC Resources Ltd.

Kakwa Super Pad Thermal Power Plant

Proceeding 27780

Application 27780-A001

January 12, 2023

Published by the:

Alberta Utilities Commission

Eau Claire Tower

1400, 600 Third Avenue S.W.

Calgary, Alberta T2P 0G5

Telephone: 310-4AUC (310-4282) in Alberta

1-833-511-4AUC (1-833-511-4282) outside Alberta

Email: info@auc.ab.ca

Website: www.auc.ab.ca

The Commission may, no later than 60 days of the date of this decision and without notice, correct typographical, spelling and calculation errors and other similar types of errors and post the corrected decision on its website.

1 Decision summary

1. In this decision, the Alberta Utilities Commission approves an application from ARC Resources Ltd. to construct and operate a power plant designated as the Kakwa Super Pad Thermal Power Plant.

2 Introduction

2. ARC Resources Ltd. operates the 10-16-062-04W6 Gas Multi-well Effluent Measurement Battery, referred to as the Kakwa Super Pad, located approximately 89 kilometres south of Grande Prairie.

3. ARC filed an application with the Commission to seek an approval to construct and operate a 12.614-megawatt (MW) power plant, at the Kakwa Super Pad, pursuant to Section 11 of the *Hydro and Electric Energy Act*. The Kakwa Super Pad is provided electricity by the Alberta Interconnected Electric System (AIES) and three 750-kilowatt (kW) natural gas generator sets (for a total of 6.25 MW). This application was registered on November 15, 2022, as Application 27780-A001.

4. ARC received approval from the Alberta Energy Regulator to amend the Kakwa Super Pad's multi-well battery licence in August 2022. As a result of the amendments, the Kakwa Super Pad site requires 20.6 MW of electricity, which would be served by the power plant.

3 Discussion

5. The power plant would consist of two new Solar Taurus 60 turbine generators with a rated capability of 5.182 MW each, and three existing CAT G3512 generator sets with a rated capability of 750 kW each, for a total capability of 12.614 MW. ARC will import a maximum of eight MW from the AIES, and will not export any electricity to the AIES.

6. Astute Environmental and Regulatory Ltd. was retained to prepare an environmental protection plan, which indicated that the proposed power plant will be located within the existing facility site and will not disturb surrounding soil, vegetation, wildlife, and hydrogeological resources.

7. Calvin Consulting Group Ltd. prepared an air quality assessment. The assessment confirmed that predicted emissions for all new and existing generators comply with the applicable *Alberta Ambient Air Quality Objectives and Guidelines*.

8. FDI Acoustics was retained to perform a noise impact assessment for the power plant in accordance with Rule 012: *Noise Control*. Hypothetical receptor points were used as there are no dwellings located within the 1,500-metre study area.
9. FDI's noise modelling indicated that the nighttime cumulative sound levels exceeded the nighttime permissible sound level at one of the 1,500-metre hypothetical receptor points assessed. FDI recommended that ARC install silencers on the inlet and outlet of each of the three radiators on the two Solar Taurus 60 turbine generators at the power plant. FDI provided acoustical specifications for the recommended silencers in Appendix B¹ of the noise impact assessment, and predicted that with the recommended mitigation measures, the entire site will be compliant with Rule 012. ARC confirmed that it planned to install radiator silencers as recommended by FDI during the construction of the proposed Kakwa Super Pad Thermal Power Plant.
10. Alberta Culture granted a *Historical Resources Act* approval for the proposed power plant.
11. As there is no new disturbance associated with this power plant, facility decommissioning costs will be assessed under the Alberta Energy Regulator's deemed liability program. ARC committed to following the regulatory requirements in force at the time of decommissioning and reclamation.
12. ARC maintains corporate-level and field-specific emergency response plans, which will be used throughout the power plant's construction and operation.
13. ARC completed a participant involvement program, which notified stakeholders within 2,000 metres and consulted with stakeholders within 800 metres of the project site. ARC stated that no concerns about the project were raised.
14. Construction is planned to begin in March 2023, with an in-service date in April 2023.
15. Due to the nature of the application, a notice of application was not issued and a hearing was not required as the Commission considered that its decision would not directly and adversely affect the rights of a person pursuant to Section 9 of the *Alberta Utilities Commission Act*.

4 Findings

16. The Commission has reviewed the application and has determined that the technical, siting, emissions, environmental and noise aspects of the power plant have been met. ARC's participant involvement program has been conducted and there are no outstanding public or industry objections or concerns.
17. The Commission understands that the proposed power plant will be constructed within the fenceline of an existing industrial site. The emissions for the project are within the *Alberta Ambient Air Quality Objectives and Guidelines* and the Commission is satisfied that any incremental environmental effects, as a result of the project, will not be significant.

¹ Exhibit 27780-X0009, NIA, PDF page 53.

18. The predicted noise from the proposed power plant does not comply with the nighttime permissible sound level for one of the 1,500-metre hypothetical receptors. The Commission requires ARC to mitigate the noise from the proposed power plant, as recommended in the project's noise impact assessment, by installing silencers on the inlet and outlet of each of the three radiators on the two Solar Taurus 60 turbine generators, at the earliest feasible time and no later than commencement of operation of the power plant. The Commission therefore imposes the following condition of approval for the Kakwa Super Pad Thermal Power Plant:

- ARC must implement the noise mitigation measures recommended in the project's noise impact assessment or alternative mitigation measures that meet or exceed the acoustic specifications described in the noise impact assessment, before commencement of operations.

19. ARC is incorporated under the *Business Corporations Act* and has demonstrated that it is eligible to hold the power plant approval in its name in accordance with Section 23 of the *Hydro and Electric Energy Act*.

20. 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

21. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves Application 27780-A001 and grants ARC Resources Ltd. the approval set out in Appendix 1 – Power Plant Approval 27780-D02-2023 to construct and operate the Kakwa Super Pad Thermal Power Plant (Appendix 1 will be distributed separately).

Dated on January 12, 2023.

Alberta Utilities Commission

(original signed by)

Carolyn Dahl Rees
Chair