



**Kiwetinohk Energy Corp.**

**Opal Power Plant Project**

**August 3, 2022**



**Alberta Utilities Commission**

Decision 27293-D01-2022

Kiwetinohk Energy Corp.

Opal Power Plant Project

Proceeding 27293

Applications 27293-A001 and 27293-A002

August 3, 2022

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](mailto:info@auc.ab.ca)

Website: [www.auc.ab.ca](http://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.

## Contents

1	Decision summary.....	1
2	Applications.....	1
3	Findings.....	4
4	Decision.....	6

## List of figures

Figure 1.	Proposed Opal Power Plant Project location .....	2
-----------	--	---

## **1 Decision summary**

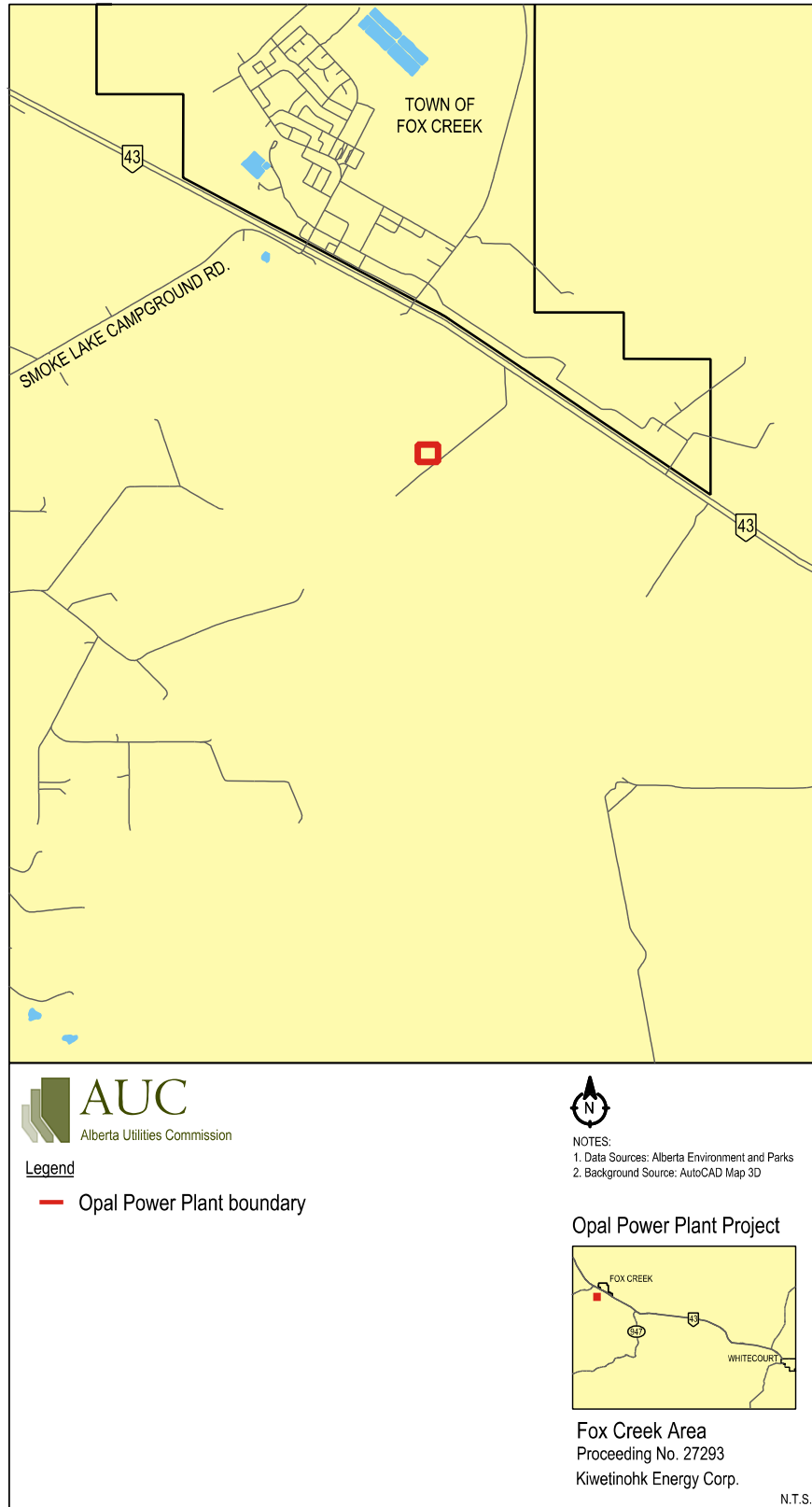
1. In this decision, the Alberta Utilities Commission approves applications from Kiwetinohk Energy Corp. (KEC) to construct and operate a power plant designated as the Opal Power Plant, and to construct and operate a substation designated as the Gemini 1008S Substation (the project).

## **2 Applications**

2. KEC filed applications with the AUC seeking approval to construct and operate a 101.133-megawatt (MW) flexible gas-fired power plant and associated 138-kilovolt (kV) substation. KEC filed the applications pursuant to sections 11, 14 and 15 of the *Hydro and Electric Energy Act*. The applications were registered on April 5, 2022, as applications 27293-A001 and 27293-A002.

3. The project is located approximately 1.3 kilometres south of the town of Fox Creek, as shown on the map in Figure 1.

Figure 1. Proposed Opal Power Plant Project location



4. The project would be located on Crown land and consist of nine 11.237-MW gas engines for a total generating capability of 101.133 MW. In addition to the gas engines, the project would also include a control building and 138-kV high-voltage substation on the east side of the site. KEC stated that natural gas would be supplied from a new dedicated pipeline to the site.

5. In its applications, KEC noted that it is considering the future addition of a carbon capture plant.

6. KEC's applications included:

- A participant involvement summary, which confirmed that no questions or concerns remain outstanding.<sup>1</sup>
- A noise impact assessment completed by RWDI AIR Inc., which predicted that cumulative noise levels will comply with Rule 012: *Noise Control*.<sup>2</sup>
- An environmental protection, and construction and reclamation plan, which described KEC's general environmental protection measures, construction measures, weed management program and reclamation plans.<sup>3</sup>
- An environmental evaluation prepared by McCallum Environmental Ltd., which summarized the environmental assessments that had been conducted in the area, and identified and evaluated the effects the project may have on valued ecosystem components.<sup>4</sup>
- An air quality monitoring report from Gas Liquids Engineering Ltd. confirming that the project will be in compliance with the *Alberta Ambient Air Quality Objectives and Guidelines* for ground-level concentrations of pollutants.<sup>5</sup>
- A *Historical Resources Act* approval.<sup>6</sup>
- A corporate emergency response plan, which was shared with the Municipal District of Greenview.<sup>7</sup>

7. In response to Commission information requests, KEC provided further evidence on the possible existence of a wetland within the project footprint,<sup>8</sup> and explained its rationale in determining the bird restricted activity period for the project.<sup>9</sup>

---

<sup>1</sup> Exhibit 27293-X0013, Appendix L - 2022-03-25 Opal Thermal - PIP Report\_FINAL.

<sup>2</sup> Exhibit 27293-X0011, Appendix J - 20220325 Noise OpalPowerPlantNIA Final.

<sup>3</sup> Exhibit 27293-X0009, Appendix H - Construction and Reclamation Plan-220322.

<sup>4</sup> Exhibit 27293-X0010, Appendix I - 220322\_OPAL Environmental Evaluation.

<sup>5</sup> Exhibit 27293-X0008, Appendix G - Sampoil Opal Air Quality Modelling Report.

<sup>6</sup> Exhibit 27293-X0012, Appendix K - Signed\_HRA\_Response.

<sup>7</sup> Exhibit 27293-X0007, Appendix F - Corporate ERP.

<sup>8</sup> Exhibit 27293-X0031, KEC Opal Thermal IR Round1\_FINAL, PDF page 3.

<sup>9</sup> Exhibit 27293-X0031, KEC Opal Thermal IR Round1\_FINAL, PDF page 7.

8. KEC expected construction to start in April 2023 with the in-service date scheduled for December 2024.
9. KEC noted that ATCO Electric Ltd. would apply for a connection order in the third quarter of 2022.
10. The Commission issued a notice of applications in accordance with Section 7 of Rule 001: *Rules of Practice*. No submissions were received.

### 3 Findings

11. For the reasons outlined below, the Commission finds that approval of the project is in the public interest having regard to the social, economic, and other effects of the project, including its effect on the environment.
12. The Commission has reviewed the applications and has determined that the information requirements specified in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines* have been met.
13. The Commission finds that KEC's participant involvement program has satisfied the requirements of Rule 007. KEC provided detailed notification to stakeholders within 2,000 metres of the project and consulted with stakeholders within 800 metres of the project. The Commission notes that KEC did not identify any outstanding concerns following its participant involvement program. There were no concerns submitted in response to the Commission's notice of applications.
14. The Commission is satisfied that the submitted noise impact assessment meets the requirements of Rule 012. The Commission accepts RWDI's conclusion that the project will be compliant with the permissible sound levels set out in Rule 012.
15. In reviewing the environmental impacts of the project, the Commission is generally satisfied that KEC has met the applicable regulatory requirements. The Alberta Merged Wetland Inventory imagery for the project area, vegetation photos of the area, vegetative species, and geotechnical investigation report suggest that a wetland is present in the east project area. However, KEC submitted that no provincially mapped wetlands are present within the project. Historical review of aerial photos between 2006 and 2017 did not reveal the presence of wetlands within the project lands. KEC conducted a field assessment by a professional agrologist who confirmed there are no wetlands within or adjacent to the project lands. The closest wetland is approximately 75 metres east. KEC has therefore decided to proceed on the basis that there are no wetlands within the project area.
16. The Commission understands that in the event that there is a wetland in the project area, it may pose a risk of mobilization of contaminants and sediments off site to the creek east of the project. Water would carry contaminants more readily to this watercourse if a wetland is present. Additionally, the project would be in contravention of the *Water Act*. However, the Commission is satisfied that KEC took reasonable steps to confirm there are no wetlands in the project area.

17. The Commission understands that applicants make risk-based assessments of potential environmental impacts so long as they still meet the applicable environmental regulations. In the event of an environmental issue arising as result of these assessments, the Commission expects KEC to address and mitigate any environmental effects, according to the environmental regulations in place at that time.

18. The Environment and Climate Change Canada (ECCC) regional nesting calendar indicates that for the project area (Zone B5), a restricted activity period of late April to late August would be conservative in reducing risk to migratory birds.<sup>10</sup> KEC has implemented a restricted activity period of April 1 to August 1, which ends sooner than ECCC's recommended period. When justifying its choice, KEC reasoned that birds were less likely to nest in the project area in the month of August, and that the creation of a new nest is highly unlikely past August 1 of any given year. However, KEC submitted that from July 30 to August 3, there could be a 21 to 40 per cent chance of nesting bird species actively nesting in an area.<sup>11</sup> These percentages decrease as the month of August progresses.

19. The Commission notes that the ECCC guidance for regional nesting calendars specifically states that "the nesting calendars are based on the number of nesting species, not the number of nesting individuals. Periods with fewer nesting species may still have a high number of individuals within those species that nest during that time period". KEC maintained that if a nest was identified around August 1, no construction related work would occur until the nest has been naturally abandoned. However, the Commission understands that the tables indicate there could still be birds building nests after August 1. The Commission does not consider KEC's justification to only conduct nest sweeps from April 1 to August 1 adequate in reducing the risk that the project contravenes the *Migratory Birds Conventions Act*.

20. The Commission therefore imposes the following condition of approval:

- a. If vegetation clearing is to occur from April 1 to August 25, a qualified wildlife biologist must conduct nest sweeps and provide clearance before construction can begin or continue. Nest sweeps should be conducted in accordance with the *Alberta Wildlife Sweep Protocols*.

21. The Commission accepts the project's air quality assessment, which predicted that ground-level concentrations of nitrogen dioxide produced by the power plant will not exceed the one-hour or annual averaging period Alberta ambient air quality objectives for nitrogen dioxide.

22. The Commission acknowledges that KEC has received *Historical Resources Act* approval.

23. The Commission is satisfied with KEC's corporate emergency response plan. The Commission notes that KEC plans to develop a site-specific emergency response plan prior to construction commencement.

---

<sup>10</sup> Environment and Climate Change Canada Nesting periods document, <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html>, October 30, 2018.

<sup>11</sup> Exhibit 27293-X0031, KEC Opal Thermal IR Round1\_FINAL, PDF page 7.



24. Based on the foregoing, the Commission considers the applications to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

#### **4 Decision**

25. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves Application 27293-A001 and grants Kiwetinohk Energy Corp. the approval set out in Appendix 1 – Power Plant Approval 27293-D02-2022 to construct and operate the Opal Power Plant.

26. Pursuant to sections 14 and 15 of the *Hydro and Electric Energy Act*, the Commission approves Application 27293-A002 and grants Kiwetinohk Energy Corp. the permit and licence set out in Appendix 2 – Substation Permit and Licence 27293-D03-2022 to construct and operate the Gemini 1008S Substation.

27. The appendices will be distributed separately.

Dated on August 3, 2022.

#### **Alberta Utilities Commission**

*(original signed by)*

Neil Jamieson  
Panel Chair

*(original signed by)*

John McCarthy  
Acting Commission Member