



**Tidewater Midstream and Infrastructure Ltd. and  
WCSB Blockchain Infrastructure Ltd.**

**Ram River Isolated Power Plant**

**December 14, 2021**

**Alberta Utilities Commission**

Decision 26912-D01-2021

Tidewater Midstream and Infrastructure Ltd. and WCSB Blockchain Infrastructure Ltd.

Ram River Isolated Power Plant

Proceeding 26912

Application 26912-A001

December 14, 2021

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## **1 Decision summary**

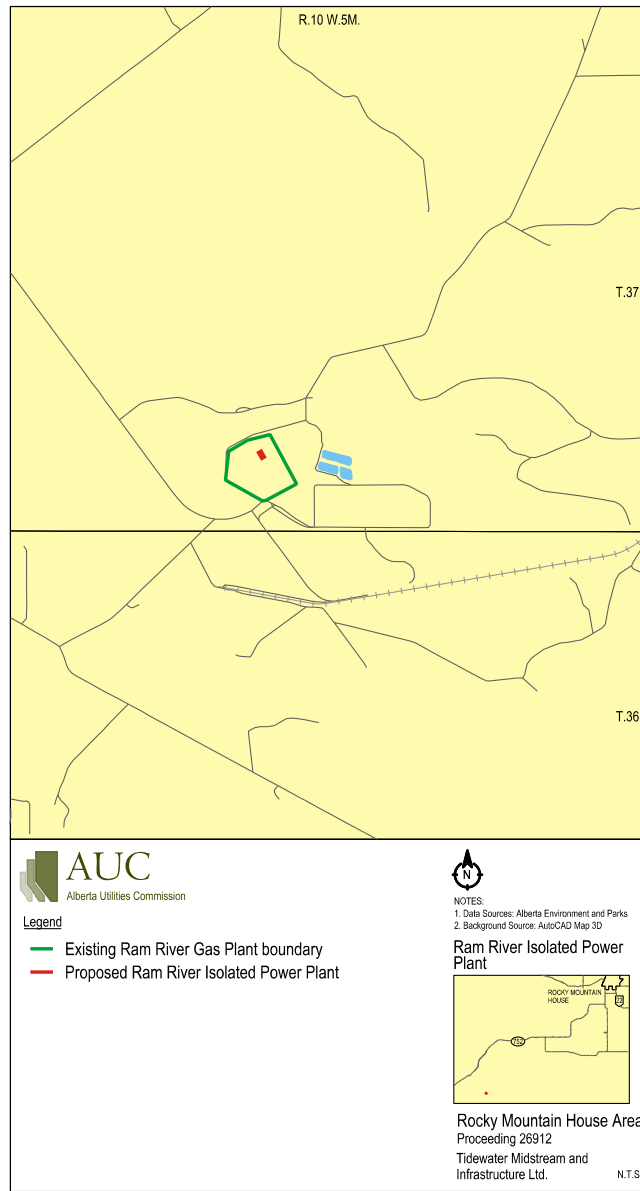
1. In this decision, the Alberta Utilities Commission approves an application from Tidewater Midstream and Infrastructure Ltd., on behalf of WCSB Blockchain Infrastructure Ltd., for the construction and operation of an 84-megawatt (MW) natural gas and steam-fired combined-cycle power plant.

## **2 Application**

2. Tidewater Midstream and Infrastructure Ltd., on behalf of WCSB Blockchain Infrastructure Ltd., in accordance with Section 13 of the *Hydro and Electric Energy Act*, filed an application, registered on October 15, 2021 as Application 26912-A001, for an exemption to construct and operate an 84-MW power plant, designated as the Ram River Isolated Power Plant.

3. The proposed power plant would be located in the southwest quarter of Section 2, Township 37, Range 10, west of the Fifth Meridian, within the existing Ram River Gas Plant, approximately 50 kilometres southwest of the town of Rocky Mountain House, as shown on the map in Figure 1.

Figure 1. Project location



4. The power plant would include two Pratt & Whitney FT8 natural gas-fired turbine generators, each with a nominal capability of 30 MW; two heat recovery steam generators; and one Siemens SST-300 steam turbine generator, with a nominal capability of 24 MW. The total nominal capability of the power plant is 84 MW. Tidewater Midstream proposed to construct the project in two phases. During the first phase, the power plant would operate in simple-cycle mode and during the second phase, the power plant would operate in combined-cycle mode.

5. Tidewater Midstream stated that the power plant would not be connected to the Alberta Interconnected Electric System and would be solely used to supply on-site data centres. Both the power plant and data centres would be owned and operated by WCSB.

6. Tidewater Midstream's application included:
- A participant involvement program, which confirmed that there were no outstanding objections from adjacent landowners or stakeholders.<sup>1</sup>
  - A noise impact assessment, completed by FDI Acoustics, which confirmed that the project would comply with Rule 012: *Noise Control*.<sup>2</sup>
  - An air quality assessment report, completed by North Shore Environmental Consultants Inc., which concluded that the maximum predicted ground-level concentration of nitrogen dioxide (NO<sub>2</sub>) and fine particulate matter (PM<sub>2.5</sub>) concentrations comply with the *Alberta Ambient Air Quality Objectives and Guidelines*.<sup>3</sup>
  - An environmental evaluation report, completed by North Shore Environmental Consultants Inc., that considered the potential environmental effects, mitigation, and monitoring associated with project construction and operation activities, which determined that it is unlikely that there would be any direct adverse effects to the environment as a result of the addition of the power plant.<sup>4</sup>
  - Confirmation that Tidewater Midstream has a site-specific emergency response plan for the Ram River Gas Plant.<sup>5</sup>
7. Tidewater Midstream expects Phase 1 of the project to be in-service by January 31, 2022, and Phase 2 to be in-service by December 1, 2022. Tidewater Midstream requested a construction completion date of March 31, 2023, to allow for contingencies.
8. The Commission issued a notice of application and no submissions were received in response to the notice.

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<sup>1</sup> Exhibit 26912-X0001, Ram River Isolated Thermal Power Plant - Rule 007 Application Form, PDF pages 7-8; Exhibit 26912-X0018, Attachment TP28 - PIP Activity Summary.

<sup>2</sup> Exhibit 26912-X0016, Attachment TP24 - Noise Impact Assessment.

<sup>3</sup> Exhibit 26912-X0013, Attachment TP16 - Plant Emission Rates; Exhibit 26912-X0014, Attachment TP19 - Emissions Modelling.

<sup>4</sup> Exhibit 26912-X0015, Attachment TP20 - Environmental Evaluation & Protection Plan.

<sup>5</sup> Exhibit 26912-X0001, Ram River Isolated Thermal Power Plant - Rule 007 Application Form, PDF page 4.

### 3 Discussion and findings

9. For the reasons outlined below, the Commission finds that approval of the power plant is in the public interest having regard to the social, economic, and other effects of the project, including its effect on the environment.

10. The Commission has reviewed the application 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.

11. Tidewater Midstream provided notification to occupants, residents, landowners, Crown disposition holders and mineral reserve owners within five kilometres of the power plant. Industrial operators are the majority of the stakeholders in the consultation radius and there are no residences within 1.5 kilometres of the power plant. No responses or concerns were received by Tidewater Midstream. The Commission finds that the participant involvement program complies with the requirements of Rule 007.

12. With respect to noise impacts, FDI Acoustics conducted site visits to take noise measurements as inputs in its noise propagation model which were conducted at two common points of reception located 1,500 metres from the facility site. FDI Acoustics predicted the nighttime cumulative sound level to be 40.8 A-weighted decibels (dBA), which exceeds the nighttime permissible sound level of 40 dBA. FDI Acoustics recommended three mitigation measures to bring the power plant into compliance. It recommended the installation of an intake air silencer or acoustic louvres on the intake air penthouse, an addition or upgrade to the silencers on the proposed gas turbine exhausts and the upgrading of cooler fans. Tidewater Midstream committed to implementing the mitigation measures to achieve compliance with the permissible sound level.

13. The noise impact assessment also found that the project exceeded the threshold as outlined in Rule 012 for low frequency noise situations. However, given there are no residences within 1,500 metres of the power plant, FDI Acoustics concluded that an exceedance at the nearest residence would be unlikely. Therefore, Tidewater Midstream submitted that it was not necessary to conduct a comprehensive sound survey at this time. Tidewater Midstream did commit to conducting a comprehensive sound survey to confirm compliance if a noise complaint from a residence is received.

14. The Commission finds that the noise impact assessment has demonstrated the power plant is expected to comply with Rule 012, with the implementation of the proposed mitigation measures. The Commission agrees with FDI Acoustics that low frequency noise is not expected to be an issue given there are no residences within 1,500 metres of the power plant.

15. In its air quality assessment, North Shore Environmental Consultants Inc. submitted the power plant will comply with *Alberta Ambient Air Quality Objectives and Guidelines* when operating in both simple-cycle and combined-cycle modes. The Commission finds the impacts on air quality from the power plant are predicted to be less than the *Alberta Ambient Air Quality Objectives and Guidelines*.

16. In regard to environmental impacts, the Commission accepts North Shore Environmental Consultants Inc.'s submission that the potential adverse effects associated with the power plant are not predicted to be significant. The power plant would be constructed at an active industrial site and there are not expected to be any direct effects to soil, surface water, groundwater, vegetation or wildlife. Potential effects to soil and groundwater will be monitored under existing requirements in the *Environmental Protection and Enhancement Act* approval. The power plant is within a Grizzly Bear Zone and Tidewater Midstream will continue to execute all pre-existing BearSmart programs as recommended by Alberta Environment and Parks. Tidewater Midstream has submitted an *Environmental Protection and Enhancement Act* amendment application to the Alberta Energy Regulator concurrent with this application. The Commission finds that the power plant is located on a brownfield site within the existing Ram River Gas Plant and agrees that the power plant is not expected to result in any significant adverse effects to the environment.

17. In accordance with the requirements of Section 23 of the *Hydro and Electric Energy Act*, WCSB is incorporated under the *Business Corporations Act*.

18. The Commission considers the application to be in the public interest in accordance with Section 17 of the *Alberta Utilities Commission Act*.

19. The Commission acknowledges that Tidewater Midstream applied for an exemption pursuant to Section 13 of the *Hydro and Electric Energy Act*, however, the Commission has decided to issue an approval under Section 11 of the *Hydro and Electric Energy Act* because of the large capability of the power plant. The Commission finds that Tidewater Midstream has filed the necessary information to meet the requirements for approval pursuant to Section 11 of the *Hydro and Electric Energy Act*.

#### **4 Decision**

20. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves Application 26912-A001 and grants WCSB Blockchain Infrastructure Ltd. the approval set out in Appendix 1 – Power Plant Approval 26912-D02-2021– December 14, 2021, to construct and operate the Ram River Isolated Power Plant.

21. The appendix will be distributed separately.

Dated on December 14, 2021.

#### **Alberta Utilities Commission**

*(original signed by)*

Cairns Price  
Commission Member