



## **C&B Alberta Solar Development ULC**

**Tilley Solar Power Plant**

**March 17, 2017**

**Alberta Utilities Commission**

Decision 22297-D01-2017

C&B Alberta Solar Development ULC

Tilley Solar Power Plant

Proceeding 22297

Application 22297-A001

March 17, 2017

Published by the:

Alberta Utilities Commission

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## **1 Decision summary**

1. In this decision, the Alberta Utilities Commission must decide whether to approve an application from C&B Alberta Solar Development ULC to construct and operate a power plant designated as Tilley Solar. After consideration of the record of the proceeding, and for the reasons outlined in this decision, 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.

## **2 Introduction**

2. C&B Alberta Solar Development ULC (CBA) filed an application with the AUC for approval to construct and operate a 24-megawatt (MW) solar photovoltaic facility designated as Tilley Solar in Newell County (the project), located approximately 16 kilometres southeast of the city of Brooks, pursuant to Section 11 of the *Hydro and Electric Energy Act*. This application was registered on December 21, 2016 as Application 22297-A001. CBA is not applying for a connection order at this time, and stated that it will apply for a connection order after the distribution facility owner, FortisAlberta Inc., confirms the facilities that will be required to connect the solar project.

3. The Commission issued information requests to CBA on January 16, 2017 and issued follow-up information requests on January 24, 2017. CBA provided responses to the Commission on January 17 and 25, 2017, respectively.

4. On January 11, 2017, the Commission issued a notice of application for the proceeding. The notice was issued directly to potentially affected stakeholders within 2,000 metres of the project. The notice was also published in the Brooks Bulletin newspaper and on the AUC website, and notification was automatically emailed to eFiling System users who had chosen to be notified of notices of application issued by the Commission.

5. A submission from the County of Newell was received in response to the Commission's notice. The county indicated that it had been in discussions with CBA and that a development permit is required from the county prior to the commencement of construction.

6. A submission from Enerplus Corporation was also received in response to the Commission's notice. Enerplus Corporation stated that it operates oil wells and pipelines adjacent to and within the solar project area. It indicated that CBA's proposed layout places solar panels directly over its pipelines, preventing full access to the pipeline right-of-way. It also expressed its concerns with potential adverse electrical effects and corrosion to its wells and pipelines.

### 3 Discussion

7. The proposed Tilley Solar project includes approximately 93,500 solar panels, each with a rating of 315 watts, across a 71.2-hectare fenced area. The photovoltaic panels would be connected to 11 inverter and transformer stations, which would convert the electricity from direct current to alternating current and step-up the voltage. The photovoltaic panels would be installed on fixed-axis, continuous rows, with a separation spacing of 12 metres, facing southwards at a 35 degree angle. CBA does not anticipate any issues with glare or reflection from the solar panels. It noted that solar facilities have been installed at several international airports and glare has not been an issue for aircraft. The racking would be approximately 50 centimetres above the soil and the top edge of the panels would be approximately 2.8 metres above grade and would be supported by piles to a depth of approximately three to 3.5 metres below the surface. An underground electrical collector system would also be installed.

8. The Tilley Solar project would be located on the north portion of Section 13, Township 18, Range 13, west of the Fourth Meridian and the south portion of Section 24, Township 18, Range 13, west of the Fourth Meridian. CBA stated the existing land use is agricultural for pasturing cattle and the study area is primarily reseeded tame pasture. The project would be located within the Dry Mixedgrass Natural Subregion of the Grassland Natural Region of Alberta.

9. The project area falls within the South Saskatchewan Regional Plan (2014-2024). CBA stated it complies with the regional plan, specifically Strategy 1.9, which encourages investments in renewable energy such as solar.

10. CBA retained Stantec Consulting Ltd. to conduct a preliminary constraints analysis, field surveys and desktop assessments. The field survey included upland and wetland mapping and classification, wetland function assessment, and rare plant and plant community searches.

11. CBA stated that the project footprint would affect less than 12 hectares of native grassland. It observed that this area is subjected to moderate grazing. CBA identified construction activities between April 15 and July 15, nest searches during construction, restoration of temporary work spaces and reseeded the project area to native grassland post-construction as mitigation measures to alleviate impacts to wildlife and wildlife habitat from siting the project on native grassland.

12. The project area also contains wetlands and would result in the removal of one temporary graminoid marsh wetland and three ephemeral water bodies. The wetland is dominated by Canada (creeping) thistle, a noxious species that the *Weed Control Act* requires to be controlled. CBA stated that the Canada (creeping) thistle would be removed during construction if it is encountered. A *Water Act* application with Alberta Environment and Parks will be filed for the removal of the wetland.

13. CBA stated that the wildlife assessment and post-construction monitoring plans were reviewed by Alberta Environment and Parks, which provided a Wildlife Renewable Energy Referral Report on December 20, 2016.

14. Alberta Environment and Parks concluded that the project poses a moderate risk to wildlife and wildlife habitat due to the proximity of the Tilley B Reservoir and disturbance of

native prairie grassland. CBA has committed to conducting post-construction monitoring for two years and will work with Alberta Environment and Parks to develop and implement mitigation measures if a high level of wildlife mortality is observed in the first year. CBA proposed a post-construction monitoring program over two years, consisting of bi-weekly wildlife carcass counts from April 1 to October 15. This differs from Alberta Environment and Parks' recommendation of weekly carcass counts from April 1 to November 15.

15. CBA stated that a recently-approved solar power plant near Vulcan<sup>1</sup> was directed by Alberta Environment and Parks to conduct a post-construction monitoring program with the same frequency and duration as CBA proposes for this project. CBA submitted that post-construction monitoring requirements should be equal between new solar projects to ensure a level playing field. Alberta Environment and Parks stated that the post-construction monitoring program was relaxed for the power plant near Vulcan because it is located within an existing wind farm and that site-specific evidence is available to support the relaxation. Alberta Environment and Parks further stated that the rules, standards and guidelines for the solar industry in Alberta are developing, and until a solar directive is developed there may be differences in post-construction monitoring requirements between projects.

16. CBA stated that the siting of the project on native prairie grasslands is expected to be a temporary loss. After construction, CBA plans to reseed the disturbed area with low growing native vegetation. It stated that the resultant native grassland is expected to be an improvement over the existing conditions.

17. Golder Associates, retained by CBA to conduct a preliminary geotechnical assessment, found no slope stability or surface erosion issues. CBA also retained Dillion Consulting Limited to prepare a stormwater management and grading plan. It stated that using a 100-year, 24-hour storm event, the quality and quantity of stormwater leaving the project could be managed to not exceed the existing flow conditions.

18. A noise impact assessment conducted by Stantec Consulting Ltd. indicated that there are no dwellings within 1.5 kilometres of the project, and that the project complied with Rule 012: *Noise Control* along the 1.5-kilometre radius. Stantec Consulting Ltd. concluded that the sound level would be below the daytime and nighttime permissible sound levels.

19. CBA retained Scott Land & Lease Ltd. to develop and conduct a participant involvement program. The program provided notification to stakeholders within two kilometres, personal consultation with stakeholders within 800 metres of the project, an open house and meetings with municipal and provincial agencies. A dedicated project website, an email address and a phone line were also established to provide information about the project.

20. CBA consulted with the County of Newell in April and August 2016. The county indicated its desire to see a development permit application prior to an approval from the Commission. A development permit application was submitted to the county on December 20, 2016.

21. Scott Land & Lease Ltd. conducted land title search monthly to locate new stakeholders. CBA indicated the most recent search was conducted in January 2017 and did not identify any new stakeholders since the application to the Commission was filed.

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<sup>1</sup> Proceeding 21897.

22. CBA distributed project information packages to stakeholders in May 2016. It advertised an open house in the Brooks Bulletin on May 31, 2016 and conducted the open house in Tilley on June 23, 2016. CBA indicated there were six attendees at the open house.
23. CBA submitted a Statement of Justification to Alberta Culture and Tourism seeking *Historical Resources Act* clearance on October 19, 2016, and received clearance on November 24, 2016.<sup>2</sup> The proposed setback from Highway 876 is acceptable to Transport Canada.
24. CBA stated its intention to participate in the government of Alberta's initiative to procure renewable power for half of CBA's solar operations. Should participation in the program be successful, CBA anticipated an in-service date in the first quarter of 2018. If it is not successful, CBA anticipated an in-service date in the first quarter of 2019, or later.
25. In its submission to the Commission, Enerplus Corporation stated the proposed project layout would interfere with its ability to access its pipeline right-of-way and safely monitor and manage operations. It also stated that the solar project's lease area appeared to run through its surface lease at one of its well sites.
26. CBA filed a revised project layout with the Commission on February 24, 2017, removing its facilities from Enerplus Corporation's lease areas, including a pipeline right-of-way that was previously missed.
27. On March 2, 2017, Enerplus Corporation withdrew its statement of intent to participate, indicating that following discussions with CBA, it no longer had any outstanding concerns.

#### 4 Findings

28. The Commission is satisfied that the technical, siting, emissions, environmental and noise information provided by CBA regarding the power plant comply with the requirements prescribed in Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments*.
29. The Commission observes that Enerplus Corporation has withdrawn its objection to the project and that there are no outstanding public or industry objections or concerns following CBA's participant involvement program. It therefore finds that the participant involvement program undertaken by CBA is satisfactory and meets the requirements of Rule 007. The Commission also understands that CBA is working with the County of Newell to obtain a valid development permit, which is required prior to the commencement of construction.
30. CBA has committed to conducting post-construction wildlife mortality monitoring for two years and will work with Alberta Environment and Parks to develop and implement mitigation measures if a high level of wildlife mortality is observed. In this regard, the Commission directs CBA to follow the direction of Alberta Environment and Parks and conduct weekly carcass surveys in all areas selected for monitoring between April 1 and November 15. The Commission finds that unlike the Vulcan project referred to by CBA, there is no site-specific evidence for this project that would support the adoption of the relaxed monitoring schedule

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<sup>2</sup> Exhibit 22297-X0012 - Attach 11 HRA Clearance.

proposed by CBA. Nonetheless, the Commission understands that CBA will provide the results of its post-construction monitoring during the first year to Alberta Environment and Parks, and that Alberta Environment and Parks' direction for monitoring options could change as a result of new site-specific evidence. Should this be the case, and adjustments to the monitoring program's duration and frequency are made by Alberta Environment and Parks, the Commission will accordingly allow CBA to change the frequency and duration of its post-construction monitoring program as directed by Alberta Environment and Parks. Should Alberta Environment and Parks make such a direction, the Commission directs CBA to advise the Commission of such a change, in writing.

31. Alberta Environment and Parks has issued a Wildlife Renewable Energy Referral Report indicating that it is satisfied with the environmental approach for the solar project. In this regard, the Commission finds the environmental impacts of the project to be minimal and the mitigations to native prairie grasslands to be acceptable.

32. The Commission accepts CBA's assessment that the noise from the solar project will comply with the Rule 012 permissible sound levels.

33. Furthermore, CBA has confirmed that it will apply for a connection order prior to connecting the Tilley Solar power plant to the FortisAlberta Inc. distribution system.

34. 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**

35. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves the application and grants CBA the approval set out in Appendix 1 – Power Plant Approval 22297-D02-2017 – March 17, 2017 (Appendix 1 will be distributed separately).

Dated on March 17, 2017.

### **Alberta Utilities Commission**

*(original signed by)*

Anne Michaud  
Commission Member