



Three Nations Energy GP Inc.

Fort Chipewyan Solar Generation Facility (Phase 2)

January 15, 2020

Alberta Utilities Commission

Decision 24857-D01-2020

Three Nations Energy GP Inc.

Fort Chipewyan Solar Generation Facility (Phase 2)

Proceeding 24857

Application 24857-A001

January 15, 2020

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1 Decision summary

1. In this decision, the Alberta Utilities Commission considers whether to approve an application from Three Nations Energy GP Inc. to construct and operate a power plant designated as the Fort Chipewyan Solar Generation Facility (Phase 2), to qualify the power plant as a community generating unit, and to connect the power plant to the ATCO Electric Ltd. isolated distribution system.

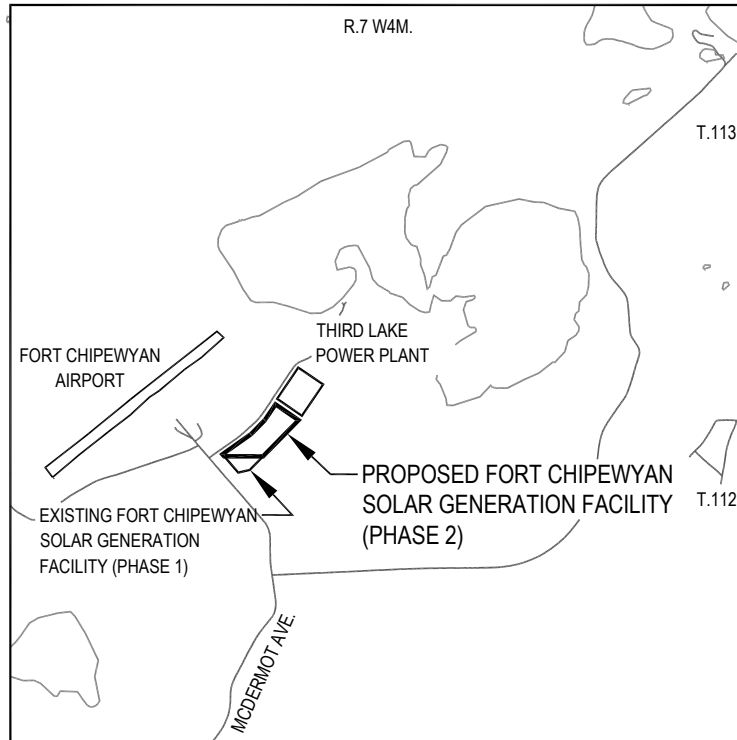
2. After consideration of the record of the proceeding, and for the reasons outlined in this decision, the Commission finds that approval of the project is in the public interest having regard to the social, economic, and other effects of the project, including its effect on the environment. The Commission also qualifies the power plant as a community generating unit and approves the connection of the power plant to the ATCO Electric Ltd. isolated distribution system.

2 Introduction

3. ATCO Power and ATCO Electric Ltd. (collectively ATCO), on behalf of Three Nations Energy GP Inc. (3NE), applied to the Commission for approval to construct and operate a 2.27-megawatt (MW) solar power plant, designated as the Fort Chipewyan Solar Generation Facility (Phase 2) (the project), and to connect the project to ATCO's isolated distribution system, pursuant to sections 11 and 18, respectively, of the *Hydro and Electric Energy Act*. The project would serve an isolated community as defined in the *Isolated Generating Units and Customer Choice Regulation*. 3NE also applied for the project to be designated as a community generating unit as defined in Section 3 of the *Small Scale Generation Regulation*.

4. The project would be located in the southeast quarter of Section 33 and the southwest quarter of Section 34, Township 112, Range 7, west of the fourth Meridian, approximately six kilometres north of the hamlet of Fort Chipewyan, southwest of the existing, ATCO-owned Third Lake diesel power plant and directly north of an existing, ATCO-owned 456-kilowatt (kW) solar generation facility. The existing 456-kW solar facility is referred to as Phase 1 of the Fort Chipewyan Solar Generation Facility and the project is referred to as Phase 2. The project would be sited entirely on an existing Department Miscellaneous Lease (DML) currently held by ATCO.

5. A map of the project location is shown below.



6. The Commission provided notice of the application in accordance with Rule 001: *Rules of Practice*. No submissions were received.

7. In a concurrent but separate facility application, ATCO proposed to install a battery energy storage system at the Third Lake Power Plant to store energy generated at the existing and proposed solar facilities (Phase 1 and Phase 2, respectively).¹

3 Discussion

3.1 Application for power plant approval

8. ATCO stated that the 2.27-MW (direct current) project would consist of approximately 5,760 photovoltaic modules with a nominal output of 395 watts per module. Two arrays would each contain a direct current/alternating current power inverter and step up transformer. The project would connect to the existing isolated system operated by ATCO, would reduce diesel fuel consumption at the adjacent Third Lake Power Plant, and would help supply the growing energy needs of Fort Chipewyan.

9. ATCO currently occupies the power plant land through a DML on Crown land. ATCO submitted that upon receiving AUC and Alberta Environment and Parks (AEP) approval, it would sub-divide the DML, and transfer the Fort Chipewyan Solar Generation Facility (Phase 2) land to 3NE.

10. The project's AEP referral report ranked the project as low to moderate risk to wildlife and wildlife habitat based on project siting, limited wildlife use in the area, and commitments

¹ Proceeding 24856, Application 24856-A001, Battery Energy Storage System Addition at Fort Chipewyan Third Lake Power Plant.

made by 3NE to mitigate and monitor wildlife impacts.² ATCO stated that given the extent of noise and human activity that already exist in the area from the diesel power plant and the nearby airport, any incremental impact associated with the project is not expected to adversely affect wildlife or wildlife habitat.

11. In a noise impact assessment prepared by Motive Acoustics Inc. for ATCO, Motive concluded that for all existing and proposed future receptors, the project would not exceed the permissible sound levels established by the Commission. Motive also indicated that additional noise control measures are not required for the project to comply with Rule 012: *Noise Control*.³

12. In a solar glare hazard analysis report prepared by Green Cat Renewables Canada Corporation, Green Cat found that no glare was expected for drivers travelling along Range Road 8621180 near the project, nor for residents at the assessed dwelling locations. In assessing glare along the flight path of the Fort Chipewyan airport, Green Cat predicted no glare for the southwest bound path, and that the northeast bound path would experience a maximum of 159 minutes of green glare (low potential to cause after-image effects) annually for a short window of time in the early morning hours from late May to mid July. In its calculations, Green Cat noted that its estimates were based on a conservative approach because they did not account for physical obstructions on the landscape, which may mitigate impacts, or for weather patterns other than clear sunny skies. Green Cat concluded that no hazard from glare was expected for aviators, drivers and residences located near the project.⁴ ATCO explained that although the Regional Municipality of Wood Buffalo had initially inquired about potential safety risks to the airport, it did not express any concerns once it learned that ATCO had consulted with both Transport Canada and NAV Canada and the necessary approvals had been received. ATCO noted that there are no residences located within 800 metres of the project.⁵

13. ATCO undertook a participant involvement program in accordance with the guidelines in Appendix A1 of Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments*. ATCO stated that during ongoing consultation and engagement, the Athabasca Chipewyan First Nation, the Mikisew Cree First Nation and Fort Chipewyan Metis Local 125 transitioned from interested parties to become direct owners of the project via 3NE. ATCO confirmed that no concerns were brought forward by stakeholders.

14. Construction was scheduled to start as early as November 2019, with a targeted in-service date of October 1, 2020. In an information response, ATCO confirmed an October 2020 in-service date.⁶

3.2 Application for designation as a community generating unit

15. In support of its application to be qualified as a community generating unit in accordance with the *Small Scale Generation Regulation*, 3NE provided a community benefit agreement signed by 3NE and the Athabasca Chipewyan First Nation, the Mikisew Cree First Nation and

² Exhibit 24857-X0013, Referral Report(AEP)_FtChipewyanPhase2_21Oct2019.

³ Exhibit 24857-X0004, Attch5_NIA Report Fort Chip Phase 2 Solar Facility.

⁴ Exhibit 24857-X0017, 3NE-AUC-2019Dec03-013a-Attch1_SolarGlareHazardAnalysisReport, page 21.

⁵ Exhibit 24857-X0026, ATCO IR_1_Response_Fort Chip Solar (Phase 2) - Proceeding 24857, PDF page 21.

⁶ Exhibit 24857-X0026, ATCO IR_1_Response_Fort Chip Solar (Phase 2) - Proceeding 24857, PDF page 23.

Fort Chipewyan Metis Local 125, three Indigenous groups that represent over 90 per cent of the Fort Chipewyan community.⁷

16. ATCO confirmed that it had approved the project as a small scale generator under the *Small Scale Generation Regulation*. ATCO stated that, should the Commission approve the community generating unit application from 3NE, ATCO would cover the cost of a meter and would be responsible for the cost of system reliability upgrades required to supply electric energy from the community generating unit to the distribution system.⁸ ATCO estimated the cost for the meter to be \$60,000.⁹

3.3 Application for connection order approval

17. ATCO confirmed that 3NE is also applying for an order to connect the project to the ATCO Electric Ltd. isolated distribution system.¹⁰ It filed confirmation of discussions between 3NE and ATCO Electric with respect to the connection, as well as single line diagrams supporting the connection.

4 Findings

18. The Commission is considering this application under sections 11 and 18 of the *Hydro and Electric Energy*, as well as the *Small Scale Generation Regulation* and the *Isolated Generating Units and Customer Choice Regulation*. In accordance with Section 17 of the *Alberta Utilities Commission Act*, the Commission must assess whether the project is in the public interest, having regard to its social, economic and other effects including its effect on the environment.

19. The Commission considers that the public interest will be largely met if an application complies with existing regulatory standards, and the project's public benefits outweigh its negative impacts.¹¹ The Commission must take into account the purposes of the *Hydro and Electric Energy Act* and the *Electric Utilities Act*,¹² and cannot consider the need for the project. The Commission must also determine whether an applicant has met the requirements of Rule 007 and Rule 012. An applicant must obtain all approvals required by other applicable provincial or federal legislation.

20. The Commission has considered the application having regard to the applicable legislative and regulatory framework described above. For the reasons that follow, the Commission finds that the project is in the public interest having regard to its social, economic and other effects, including its effect on the environment.

⁷ Exhibit 24857-X0011, Community Benefit Agreement - With Cover Letter.

⁸ Exhibit 24857-X0025, 3NE-AUC-2019Dec03-002_SmallScaleGenerator (1).

⁹ Exhibit 24857-X0026, ATCO IR_1_Response_Fort Chip Solar (Phase 2) - Proceeding 24857, PDF page 5.

¹⁰ Exhibit 24857-X0026, ATCO IR_1_Response_Fort Chip Solar (Phase 2) - Proceeding 24857, PDF page 13.

¹¹ EUB Decision 2001-111: EPCOR Generation Inc. and EPCOR Power Development Corporation 490-MW Coal-Fired Power Plant, Application No. 2001173, December 21, 2001, page 4.

¹² *Hydro and Electric Energy Act*, RSA 2000 c H-16, ss 2, 3.

21. The Commission is satisfied that the technical, siting, environmental and noise aspects of the project meet the Commission's Rule 007 and Rule 012 requirements. 3NE's participant involvement program has been conducted and there are no outstanding public or industry objections or concerns.

22. The Commission acknowledges the project's location adjacent to an existing disturbed area where noise and human activity are prevalent and considers that the environmental impacts of the project have been adequately addressed.

23. Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants* came into force on July 1, 2019, and applies to all solar projects approved after September 1, 2019. Accordingly, 3NE must comply with the requirements of Rule 033. Subsection 3(3) of Rule 033 requires that approval holders submit to AEP and the Commission annual post-construction monitoring survey reports for the period recommended by AEP in the project's referral report. As such, the following condition shall be added to the project's approval:

3NE shall submit a post-construction monitoring survey report to Alberta Environment and Parks (AEP) and the Commission within 13 months of the project becoming operational, and on or before the same date every subsequent year for which AEP requires surveys, pursuant to Subsection 3(3) of Rule 033: *Post-approval Monitoring Requirements for Wind and Solar Power Plants*.

24. The *Conservation and Reclamation Regulation* was amended to specifically address the reclamation of solar projects in Alberta. The effect of these amendments is that "renewable energy operations," which include solar power plants, are now expressly subject to the reclamation obligations set out in Section 137 of the *Environmental Protection and Enhancement Act*. Operators of renewable energy projects are now required to obtain a reclamation certificate at the project's end of life. The reclamation process is administered by AEP pursuant to the *Conservation and Reclamation Directive for Renewable Energy Operations*, which provides more detailed information on conservation and reclamation planning and reclamation certificate requirements for renewable energy operators in Alberta.

25. The Commission accepts ATCO's conclusion that the project complies with the permissible sound levels established in Rule 012 and that additional noise control measures are not required.

26. The Commission finds that 3NE's application for the project's designation as a community generating unit has satisfied the requirements of the *Small Scale Generation Regulation*. Fort Chipewyan is an isolated community within the meaning of the *Isolated Generating Units and Customer Choice Regulation*. ATCO has qualified the project as a small scale generating unit and 3NE has provided a signed community benefits agreement. The Commission therefore qualifies the project as a community generating unit under the *Small Scale Generation Regulation*.

27. The Commission finds that ATCO, as the distribution owner, is entitled to recover the costs incurred to purchase the meter for the project (estimated to be \$60,000¹³), pursuant to Section 5(3)(a)(i) of the *Small Scale Generation Regulation*. Accordingly, the Commission imposes the following condition:

Once the distribution owner has purchased the meter for the community generating unit, 3NE must provide confirmation of the actual cost to purchase the meter to the Commission.

28. The Commission finds that the project meets the requirements for a connection order to ATCO's isolated distribution system. There are no outstanding technical aspects for the connection, nor are there any outstanding public or industry concerns for the connection.

5 Decision

29. Pursuant to Section 11 of the *Hydro and Electric Energy Act*, the Commission approves the application and grants to Three Nations Energy GP Inc. the approval set out in Appendix 1 – Power Plant Approval 24857-D02-2020 – January 15, 2020.

30. Pursuant to Section 18 of the *Hydro and Electric Energy Act*, the Commission approves the application and grants to Three Nations Energy GP Inc. the approval set out in Appendix 2 – Connection Order 24857-D03-2020 – January 15, 2020.

31. Pursuant to Section 3 of the *Small Scale Generation Regulation*, the Commission qualifies the Fort Chipewyan Solar Generation Facility (Phase 2) as a community generating unit.

¹³ Exhibit 24857-X0026, ATCO IR_1_Response_Fort Chip Solar (Phase 2) - Proceeding 24857, PDF page 5.

32. The appendices will be distributed separately.

Dated on January 15, 2020.

Alberta Utilities Commission

(original signed by)

Anne Michaud
Vice-Chair

(original signed by)

Joanne Phillips
Commission Member

(original signed by)

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Commission Member