

# Needs identification document checklist application

**Date:** June 17, 2022 **Applicant reference:** P1704 Paintearth Wind Project Connection NID Approval Amendment

<b>Identification</b>
<p><b>Company name:</b> Alberta Electric System Operator</p> <p><b>Name, position and contact information of applicant contact:</b></p> <p>Michelle Jackson Regulatory Administrator 403-539-2850 Michelle.Jackson@aeso.ca</p>
<b>Project details</b>
<p><b>This application is for:</b></p> <p>Generation connection <input checked="" type="checkbox"/> Non-distribution facility owner load <input type="checkbox"/></p>
<p><b>Project written description, including the need, nature and extent of the project and the Alberta Electric System Operator's (AESO) preferred option:</b></p> <p>The AESO is applying to amend Needs Identification Document Approval No. 23206-D02-2021<sup>1</sup> (NID Approval) by changing the connection configuration from in-and-out to T-tap, as follows:</p> <p>Remove the entirety of parts (a), (b), and (c):</p> <ul style="list-style-type: none"> <li><del>(a) The construction of a new substation designated as the Pioneer 805S Substation including two 240 kilovolt (kV) circuit breakers.</del></li> <li><del>(b) The addition of two 240-kV circuits to connect the Pioneer 805S Substation to the existing Transmission Line 9L93 using an in-and-out configuration.</del></li> <li><del>(c) The addition of one 240-kV circuit to connect the Paintearth Wind Project to the Pioneer 805S Substation.</del></li> </ul> <p>And amend part b) as follows:</p> <ul style="list-style-type: none"> <li>b) Addition of <u>one two</u> 240-kV transmission lines to connect the <u>Pioneer 805S Substation Paintearth Wind Project</u> to the existing 240-kV transmission line 9L93 using a <u>T-tap</u> <del>an in-and-out</del> configuration.</li> </ul> <p>The above transmission development is required to respond to the request for system access service submitted by Paintearth Wind Project Ltd (Paintearth) to connect its approved Paintearth Wind Project<sup>2</sup> (Facility) in the Halkirk area (AESO Planning Area 42, Hanna, which is part of the AESO Central Planning Region). The Facility includes Paintearth's approved Lanes Lake 973S collector substation. Paintearth expects the Facility to be commercially operational by December 31, 2023.</p> <p>Paintearth's request includes a new Rate STS, <i>Supply Transmission Service</i>, contract capacity of 150 MW and a new Rate DTS, <i>Demand Transmission Service</i>, contract capacity of 1.0 MW.</p>

<sup>1</sup> Appendix 1 to Decision 23206-D01-2021, *Paintearth Wind Project Connection* (March 24, 2021).

<sup>2</sup> The Paintearth Wind Project was originally approved by the Commission on January 22, 2020 in Decision 22726-D01-2020 and Power Plant Approval 22726-D02-2020. Paintearth applied to amend this approval on May 24, 2022 in AUC Proceeding 27389.

**Applicable ratings/capability of any proposed major elements:**

The proposed 240 kV transmission line shall have a minimum rating of 167 MVA.

**Proposed in-service date:**

July 1, 2023

**Cost estimate for the preferred option for the project is attached.**

Yes  No

**Technical considerations****Single line diagram(s) of the proposed development and study area is attached.**

Yes  No

**The AESO has conducted appropriate studies and considers that the project will not result in adverse impacts to the Alberta Interconnected Electric System.**

Yes  No

**List any new or exacerbated Category B system impacts that occur as a result of the project and provide a description of how they will be addressed (e.g. description of remedial action schemes that will be used):**

The connection assessment submitted with the approved amended needs identification document in December 2020 (Exhibits 23206-X0059 to 23206-X0064) remains valid as the T-tap connects to the same line (9L93) as the previously approved in-and-out configuration and is expected to have similar impacts on the transmission system.

**Briefly describe any alternatives to the AESO's preferred option that the AESO considered and why they were ruled out:**

The AESO examined one other transmission development alternative (which was approved in the NID Approval),

1. In-and-out connection to the 240 kV transmission line 9L93 – this alternative would require adding the Pioneer 805S substation, including two 240 kV circuit breakers; adding two 240 kV circuits to connect the Pioneer 805S switching to the existing transmission line 9L46 in an in-and-out configuration; and adding one 240 kV circuit to connect the Facility to the switching station.

This approved alternative was ruled out due to increased transmission development, and hence increased overall cost, compared to the T-tap configuration option.

**Participant involvement requirements****Notification requirements have been met and there are no unresolved objections.**

Yes  No

**Environmental requirements****The AESO does not anticipate significant environmental effects as a result of the project.**

Yes  No

**Other considerations****If you answered no to any of the questions above, please explain:**

n/a

**The project raises issues not addressed by the preceding questions.**

Yes  No

**If yes, please explain:**

n/a