

January 12, 2021

EPCOR Distribution & Transmission Inc.  
2000 – 10423, 101 Street, NW  
Edmonton, Alberta T4H 0E8

Attention: Sarah Hanson – Manager, Distribution Planning

Dear Ms. Hanson,

**Re: Approval by the Independent System Operator, operating as the Alberta Electric System Operator (the “AESO”) under Section 501.3 of the ISO Rules, *Abbreviated Needs Approval Process*, (the “ANAP Rule”) for the Summerside Substation Upgrade – Project No. 2133 (the “Project”)**

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1. On August 7, 2018, EPCOR Distribution & Transmission Inc., as the legal owner of an electric distribution system (“DFO”), submitted a system access service request (“SASR”) to the AESO to serve growing demand for electricity in the City of Edmonton area (AESO Planning Area 60, Edmonton).
2. For the reasons set out below, the AESO has decided to approve the transmission development required to respond to the SASR under the AESO’s abbreviated needs approval process (“ANAP”).

### **BACKGROUND**

3. As described in the Distribution Deficiency Report that accompanied the DFO’s SASR,<sup>1</sup> the DFO identified existing and future distribution system deficiencies in the City of Edmonton area. The DFO determined that there is insufficient distribution circuit capacity in the Summerside and East Industrial service areas during normal operating conditions. In addition, the DFO’s load forecast predicts there will be insufficient transformation capacity under an unplanned outage, which violates the DFO’s distribution planning criteria.
4. The SASR included a Rate DTS, *Demand Transmission Service*, contract capacity increase at the existing East Industrial substation of 5.82 from 36.18 MW to 42 MW, and at the existing Summerside substation of 31 MW from 40 MW to 71 MW.
5. As described in greater detail below, the AESO has consulted with the DFO, in its capacity as the legal owner of an electric distribution system, and EPCOR Distribution & Transmission Inc. (“TFO”), in its capacity as the legal owner of transmission facilities in the area, to determine that the SASR can be addressed by the following transmission development:
  - (a) Upgrade the existing Summerside substation, including adding one 240/25 kilovolt (kV) transformer, one 240 kV circuit breaker; four 25 kV feeder breakers and

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<sup>1</sup> The DFO’s Distribution Deficiency Report is available on the Project’s page on the AESO website.

- (b) Modify, alter, add or remove equipment, including switchgear, and any operational protections, control and telecommunication devices required to undertake the work as planned and ensure proper integration with the transmission system.<sup>2</sup>

(collectively, the “Transmission Development”).

6. Pursuant to Section 39 of the *Electric Utilities Act*, the AESO directed the TFO:

- (a) To prepare cost estimates for the Transmission Development (“TFO Capital Cost Estimate”). In the TFO Capital Cost Estimate, the TFO estimated the in-service cost of the Transmission Development to be approximately \$11.4 million;<sup>3</sup>
- (b) To assist the AESO in completing the AESO’s participant involvement program (“PIP”). Between August 2020 and September 2020, the TFO used various methods to notify stakeholders about the need for the Project and the AESO’s proposed Transmission Development to meet the need on the AESO’s behalf. A summary of this notification is provided in the AESO PIP Summary;<sup>4</sup> and
- (c) Subject to the issuance by the AESO of this approval letter, to proceed to obtain all approval(s) required from the Alberta Utilities Commission to construct and operate the transmission facilities required for the Transmission Development.

7. Further, in considering whether to approve the Transmission Development under the ANAP, and in accordance with subsection 3(3) of the ANAP Rule, the AESO:

- (a) Assessed the record of the last five-year recorded peak substation loads applicable to the development area, which were identified in the Distribution Deficiency Report submitted to the AESO by the DFO;
- (b) Performed a comparison, in consultation with the DFO and the TFO, of the options considered to respond to the SASR, and determined that the Transmission Development is the AESO’s preferred option;
- (c) Assessed transmission system performance prior to and following the Transmission Development, by way of engineering connection studies in accordance with reliability standards;<sup>5</sup>
- (d) Obtained and reviewed a summary of the environmental and land use effects of the Transmission Development from the TFO;<sup>6</sup>

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<sup>2</sup> Details and configuration of equipment required for the Transmission Development, including substation single-line diagrams, are more specifically described in the AESO Functional Specification, which is available on the Project’s page on the AESO website.

<sup>3</sup> The TFO’s cost estimate is in nominal dollars using a base year of 2021 with escalation considered. Further details of this cost estimate, which has an accuracy level of +20%/-10%, can be found in the TFO Capital Cost Estimate, which is available on the Project’s page on the AESO website.

<sup>4</sup> The AESO’s PIP Summary is available on the Project’s page on the AESO website.

<sup>5</sup> The engineering connection studies can be found in the Engineering Connection Assessment, which is available on the Project’s page on the AESO website.

- (e) Obtained and reviewed the TFO Capital Cost Estimate of the Transmission Development; and
  - (f) Obtained and reviewed an implementation schedule for the Transmission Development from the TFO.
8. In considering whether to approve the Transmission Development under the ANAP, and in accordance with subsections 3(1) and 3(2) of the ANAP Rule, the AESO:
- (a) Notified stakeholders of the need to respond to the SASR in accordance with the PIP requirements for needs identification documents set out in Appendix A2 of Alberta Utilities Commission Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations and Hydro Developments*, as part of the PIP carried out by the TFO on behalf of the AESO, and by posting the AESO Notification to the AESO's website and in the AESO's Stakeholder Newsletter on August 25, 2020;
  - (b) Provided thirty days' notice, by way of a posting to the AESO website, of the ISO's intention to consider the Project for approval under the ANAP Rule and supporting documents on December 10, 2020; and
  - (c) Determined that there are no concerns or objections with the need for the Project that have not been resolved.

### **ELIGIBILITY AND APPROVAL**

9. In accordance with subsection 2(a) of the ANAP Rule, the AESO has determined that the Transmission Development is eligible for approval under the ANAP.
10. The AESO has further determined that:
- (a) The DFO has made all appropriate applications to the AESO to obtain the system access service requested in the SASR;
  - (b) The Transmission Development will provide the DFO with a reasonable opportunity to exchange electricity and ancillary services;
  - (c) The Transmission Development will properly respond to the DFO's SASR; and
  - (d) Approval is in accordance with the AESO's responsibility to respond to requests for system access service, having determined that the Transmission Development is required and is in the public interest.
11. Pursuant to subsection 4(1) of the ANAP Rule, the AESO approves the Transmission Development under the ANAP ("Approval").
12. The AESO may cancel or amend this Approval if the Transmission Development is not in service by October 27, 2022, which is six months following the scheduled in-service date of April 27, 2022.

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<sup>6</sup> The TFO Environmental and Land Use Confirmation Letter is available on the Project's page on the AESO website.

13. The AESO prepared or reviewed the following documents for the Project in support of the Approval, which are available on the Project's page on the AESO website at <https://www.aeso.ca/grid/projects/summerside-substation-upgrade/>:
- (a) Distribution Deficiency Report for Southeast Service Area, prepared by the DFO;
  - (b) Engineering Connection Assessment P2133 Summerside Substation Upgrade, prepared by EPCOR Distribution & Transmission Inc. and the AESO;
  - (c) TFO Capital Cost Estimate, prepared by the TFO;
  - (d) A summary of the PIP carried out by the TFO and the AESO, prepared by the AESO;
  - (e) Confirmation by the TFO of its assessment of land use and environmental effects, prepared by the TFO;
  - (f) Functional Specification EDTI Southeast Edmonton Area Load and Reliability, prepared by the AESO; and
  - (g) A summary of DFO and TFO responses to the AESO's information requests.

Should you have any questions regarding this approval letter, please contact Brenda Hill, Regulatory Administrator, at 403-539-2850 or [brenda.hill@aeso.ca](mailto:brenda.hill@aeso.ca).

Sincerely,

Dennis Frehlich, P. Eng.  
Vice President, Grid Reliability

Cc: Michael Wong, Project Manager, EPCOR Distribution & Transmission Inc.