

Alberta Electric System Operator 2020 Rider A1 Extension Application

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1 Introduction

- 1 The Independent System Operator (“**ISO**”), operating as the Alberta Electric System Operator (“**AESO**”), hereby applies to the Alberta Utilities Commission (“**AUC**” or “**Commission**”) to extend the term of the rate rider for Dow Chemical Canada ULC’s (“**Dow**”) Fort Saskatchewan plant complex (“**Rider A1**”) under the ISO tariff for a further 20 years. This application is made pursuant to sections 29, 30 and 119 of the *Electric Utilities Act*, SA 2003, c. E-5.1.
- 2 Dow has recently applied for an industrial system designation (“**ISD**”) under section 4 of the *Hydro and Electric Energy Act* (“**HEEA**”) (the “**Dow ISD Application**”) [Proceeding 25696]. If the Commission approves the Dow ISD Application, then the AESO seeks the Commission’s approval of this Application. The AESO requests that the Commission consider this Application and the Dow ISD Application in a single proceeding.
- 3 The remainder of this Application is organized into the following sections:
 - **Section 2, Introduction** – Provides background on the application and specifies the relief requested
 - **Section 3, Rider A1 Extension** – Provides the AESO’s evaluation of a Rider A1 Extension
 - **Section 4, Conclusion**
 - **Appendix A** – Proposed Rider A1 Extension, Transmission Duplication Avoidance Adjustment Dow Chemical Canada ULC / Dow Hydrocarbons / ASU2
 - **Appendix B** – Blackline of Proposed Rider A1 Extension to Rider A1 of the 2018 ISO Tariff

2 Overview

2.2 Background

- 4 In Decision U98125, issued July 24, 1998, the Alberta Energy and Utilities Board (“**EUB**”) approved a transmission duplication avoidance tariff (“**DAT**”) rate rider for the Dow Fort Saskatchewan plant complex.¹ Rider A1 provides for the totalization of four transmission substations that serve operations within Dow’s Fort Saskatchewan plant complex. Per subsection 2(2) of Rider A1, it will expire in 2021.²
- 5 Rider A1 was originally adopted in order to provide Dow with system access service, in response to Dow’s credible opportunity to construct a physical bypass of existing transmission facilities. The physical bypass would have consisted of new transmission facilities that could have been constructed by Dow in association with then-new cogeneration facilities and Dow’s incremental electricity generation. Rider A1 consists of two monetary contributions totaling \$5,071,038 that Dow paid in 1999,³ and provides an adjustment through the totalizing rate treatment that the rider authorizes. Rider A1 was

¹ Alberta Energy and Utilities Board Decision U98125, Grid Company of Alberta Inc., Transmission Bypass Avoidance Rate for DOW Transmission Bypass, July 24, 1998 (“Decision U98125”).

² Available on the AESO website: ISO Tariff – Rider A1, Transmission Duplication Avoidance Adjustment Dow Chemical Canada Inc. / Dow Hydrocarbons / ASU2, Effective 2016-04-01.

³ Decision U98125, p.8 (equating to approximately \$8 million in 2020 dollars).

designed to keep Dow neutral between the cost of using either existing transmission facilities or building its physical bypass option.⁴ Dow's contributions were based on a capital cost estimate as well as estimates of annual operating and maintenance costs, losses, and ongoing spare parts inventory.⁵

- 6 The AESO applied for an extension to Rider A1 in its amended application for the proposed 2018 ISO tariff, on the basis that extending the term of Rider A1 to 2041 would reflect the estimated lifespan of the bypass facilities, had they been built by Dow.⁶ The AESO also submitted that, because Dow has already paid the capital cost of the proposed bypass, the rate rider would be limited to operations and maintenance costs and losses during the 20-year extension.⁷ However, the Commission denied the AESO's requested relief in Decision 22942-D02-2019, finding that: (i) there was no basis for any presumption that the DAT rider provided to Dow should be automatically extended; and (ii) there was no evidence on the record of Proceeding 22942 to demonstrate that the operations of Dow met the criteria for an ISD.⁸

2.3 Relief Requested

- 7 Subject to the Commission's approval of the Dow ISD Application, the AESO seeks the Commission's approval of an extension to Rider A1, effective January 1, 2022 ("**Rider A1 Extension**").⁹ The proposed Rider A1 Extension, attached as Appendix A to this application, contains:
- a forecast benefit table for the period January 1, 2022 to December 31, 2041;
 - the same structural changes approved by the Commission in Decision 22942-D02-2019 that were made to: align Rider A1 with other ISO tariff transmission duplication avoidance adjustment riders; and include necessary metering and totalizing information;¹⁰
 - amendments to charge losses costs based on future pool prices; and
 - administrative edits to substation references.
- 8 While the proposed Rider A1 Extension is a new rider for the 20-year extension period, a blackline of the proposed Rider A1 Extension compared to the version of Rider A1 from the 2018 ISO Tariff Compliance Filing (Exhibit 25175-X004) is attached as Appendix B for illustrative purposes.

⁴ *Ibid.*, p.2.

⁵ *Ibid.*, p. 6: (\$4,656,038 as a capital contribution and \$415,000 for future operating and maintenance costs, losses and spare parts inventory costs).

⁶ Exhibit 22942-X0163, Section 6.2, PDF 39-41; AUC Decision 22942-D02-2019, 2018 Independent System Operator Tariff, September 22, 2019 ("AUC Decision 22942-D02-2019") at para. 295.

⁷ *Ibid.*

⁸ AUC Decision 22942-D02-2019 at paras 303-313.

⁹ The AESO will remove Rider A1 from the ISO tariff as of Jan 1, 2022.

¹⁰ See Exhibit 25175-X004, *Appendix B – Blackline of Refiled ISO Tariff and Applied for 2020 ISO Tariff*, p. 26-29.

3 Rider A1 Extension

- 9 Neither Rider A1, nor Decision U98125, contain any language regarding extending the term of the rate. Decision U98125 is silent concerning the basis for the 20-year term.
- 10 In EUB Decision 2002-019, the EUB ruled on a DAT term extension for ESBI Alberta Ltd. Accordingly, the AESO has developed this Application based on the following guidance from that Decision:¹¹

FIRM submitted that IOL [Imperial Oil Limited] should not have the discretion to extend the DAT beyond the end of its proposed 29-year Term. Since circumstances might change over the Term of the DAT, FIRM submitted that any extension of the DAT should only occur by agreement between both parties. FIRM also considered that the TA should make no commitment to limit consideration of the costs of any extension of the Term of the DAT.

EAL [a predecessor of the AESO] appeared to agree with FIRM.

However, the Board is concerned that, as presently proposed, the DAT may not reflect and address these concerns. Therefore, the Board directs EAL to incorporate into the DAT language expressly providing that any extension of the Term of the DAT must be by agreement between the parties with notice to the Board and interested parties. This would provide adequate opportunity for a review of the reasonableness of the extension. Interested parties will have the opportunity to review the language proposed by EAL before final approval of the DAT.

- 11 In summary, the EUB identified that any extension of term of the DAT should be:

- by agreement between the parties;
- with notice to the Commission and interested parties; and
- reasonable.

- 12 The AESO confirms that both the AESO and Dow have agreed to extend the term of Rider A1. Notice to the Commission and interested parties is achieved by this Application. Therefore, the remainder of this Application is focused on the final criterion: the reasonableness of a 20-year extension and its associated new rider payments.

3.1 A 20-Year Extension to Rider A1 is Reasonable

- 13 The basis for Rider A1 was Dow's credible opportunity to construct physical bypass facilities. The AESO, therefore, submits that it is logical for the term of Rider A1 to align with the estimated lifespan of the "virtual" bypass facilities had they been built. As the Dow ISD Application notes, transmission facilities of this type typically have a 40-60 year lifespan,¹² and the co-generation units associated with them are estimated to have 20 years of book value remaining life.¹³ If Dow had constructed the virtual

¹¹ Alberta Energy and Utilities Board Decision 2002-019, ESBI Alberta Ltd., Duplication Avoidance Tariff Application for Imperial Oil Cold Lake Industrial Site, February 14, 2002, p. 31.

¹² Exhibit 25696-X001, Application for an Industrial System Designation Dow Chemical Canada ULC Fort Saskatchewan ("Dow ISD Application"), p. 6.

¹³ *Ibid*, p. 14.

facilities in 1998 instead of paying the DAT rate rider, it is a reasonable expectation that Dow would not have been required to invest significantly in the upgrade or replacement of the virtual facilities until sometime after 2041.

- 14 The new proposed form of Rider A1 is attached as Appendix A. The forecast benefits for 1998 through to 2021 have been replaced with the monthly charges that Dow will pay if the extension is approved.¹⁴ Dow and the AESO have agreed upon new monthly rider payments for the years 2022 through to 2041. As in 1998, these payments are based on the estimated costs of operations and maintenance, spare parts inventory, overhead, and losses that the virtual transmission assets would have incurred. Unlike Dow's 1998 capital cost contribution, its operating cost contribution was only based on a 20-year time frame. The Dow ISD Application explains the calculation of the new payments as follows:

Dow submits that \$148,250 is the appropriate O&M and spare parts costs (excluding losses) in 1998 dollars, as approved by the EUB. This amount should be escalated, by actual Alberta CPI (annual, all items), to obtain the annual O&M cost at the end of 2019 of \$237,888. Please see Attachment 10 – Escalated O&M, Spare Parts and Losses Costs.

For future years, Dow submits that the annual O&M costs should continue to be escalated at a rate that is reflective of Alberta CPI. An annual escalation rate of 2% is proposed.

For losses, the response to the information request APL.3 noted forecast losses were 0.3 MW. Dow submits that this estimate was approved by the EUB and should be utilized to calculate losses for the 2022 to 2041 extension period. Dow understands that the AESO's billing system can readily calculate losses each hour and charge Dow the resulting 0.3 MWh times the hourly Alberta Pool Price each hour and charge the sum in each billing period. On Attachment 10 Dow has estimated annual losses based on a pool price forecast made public by the AESO in the spring of 2020.

Combining the O&M and spare parts cost estimate and the losses estimate the Rider A-1 Monthly Payment is \$33,960/month in 2022 (please see Attachment 10).¹⁵

- 15 For the above reasons, the AESO submits that aligning the DAT rider term to the expected asset life of virtual facilities, and the quantum of the new rider payments, are fair and reasonable in the circumstances. Doing so achieves optimal financial outcomes for market participants by continuing to:
- make efficient use of existing transmission assets and prevent the unnecessary construction of redundant facilities,¹⁶
 - shelter ratepayers from the risk of absorbing stranded asset costs,¹⁷ and

¹⁴ Decision U98125, p. 6.

¹⁵ Dow ISD Application, p. 5.

¹⁶ Decision U98125, p. 9.

¹⁷ *Ibid*, p. 9.

- reduce rates for other customers, relative to the 1998 alternative of constructing physical bypass facilities.¹⁸

3.2 An Extension to Rider A1 is more Appropriate than a Re-evaluation

- 16 In Decision 22942-D02-2019, the Commission briefly canvassed the four bypass criteria applied by the EUB in 1998.¹⁹
- 17 In the AESO's view, these criteria are appropriately reapplied *after* the expiry of the anticipated lifespan of the virtual facilities that formed the basis for a capital contribution. Proceeding otherwise would be confiscatory and unfair to Dow, and would also discourage other parties from exploring bypass rate options before proceeding with physical bypass of the transmission system. That latter outcome would be inefficient from a broader economic perspective if it led to: (a) the real possibility of redundant infrastructure; and/or (b) the loss of an existing benefit provided to ratepayers. In the AESO's view, reassessing Dow for a bypass rate at this time based on "new" virtual assets – with a "new" asset life of 40-60 years starting from the time of reassessment – creates an unfair situation when the virtual facilities have both been "in use" for 20 years and previously compensated for through a full capital payment. In the AESO's view, Dow, and other bypass parties, should not be required to incur capital costs twice.

4 Conclusion

- 18 Rider A1 initially provided the correct incentive to Dow to avoid building bypass facilities. Dow paid the full capital cost of those facilities in 1998, which have an estimated lifespan of 40-60 years. Since that time, Dow has paid the operation and maintenance costs, losses and spare parts inventory costs through Rider A1.
- 19 As of 2021, Dow is only 20 years into the estimated lifespan of the virtual facilities, and yet Rider A1 is set to expire. Dow and the AESO have agreed on the extension of Rider A1, and notice has been provided to interested parties regarding this agreement. The requested extension of Rider A1 is reasonable as it:
- aligns the lifespan of the virtual bypass facilities to the rate;
 - prevents the construction of redundant facilities (i.e., should Dow be forced to re-apply for the rider);
 - continues to benefit ratepayers through Dow's payments of operating and maintenance costs, losses, and spare parts inventory costs; and

¹⁸ *Ibid*, p. 6.

¹⁹ AUC Decision 22942-D02-2019, para 305. The four criteria are:

- The bypass avoidance rate is required to respond to a credible bypass threat.
- The bypass avoidance rate must exceed the long run incremental cost of service.
- The bypass avoidance rate is no more attractive than is reasonably required to avoid duplicate facilities.
- The cost of offering the bypass avoidance rate is appropriately shared between other utility customers and the utility shareholders.

- is fair, thereby creating predictability in the market as to how virtual bypass facilities will be treated by the Commission.
- 20 Subject to the approval of the Dow ISD Application, the AESO requests the Commission approve this Application to extend the term of Rider A1 to 2041, and the associated new rider payments, for the reasons set out above.
- 21 All of which is respectfully submitted this 9th day of July 2020.

Alberta Electric System Operator

Per: Nicole LeBlanc
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