ISO Tariff – Rider A1 Extension
Transmission Duplication Avoidance Adjustment
Dow Chemical Canada ULC / Dow Hydrocarbons / ASU2

Applicability

1 Rider A1 applies to **system access service** provided to Dow Chemical Canada ULC (Dow) at certain **points of delivery** associated with Dow's facility, as more particularly described in Alberta Energy and Utilities Board Decision U98125 (Grid Company of Alberta Inc. – Transmission Avoidance Rate – Dow Transmission Bypass).

Rate

2(1) For each metering time interval, the **metered demand** and **metered energy** for certain **points of delivery** and **points of supply** associated with Dow's facility, as more particularly described in Board Decision U98125, will be totalized for the purpose of settlement under Rate DTS of the **ISO tariff**, *Demand Transmission Service,* and Rate STS of the **ISO tariff**, *Supply Transmission Service*, as described in subsections 4 and 5 below.

2(2) Dow must make the following payments to the **ISO**:

(a) Losses: calculated each hour and as described in subsection 6 below; and

(b) Other Expenses Charge: For each **settlement period**, commencing on January 1, 2022, an amount equal to the "Monthly Payment" in subsection 7 below for the applicable year.

Terms

3(1) All terms in the **ISO**'s July 24, 1998 Application for Transmission Bypass Avoidance Rate Dow Transmission Bypass and the **ISO**'s 2020 Rider A1 Extension Application will be applicable.

3(2) Rider A1 Extension expires on December 31, 2041, the date at which the physical bypass option, had it been constructed, is expected to reach its end of life.

Metering and Totalizing

4(1) Had Dow built the duplicate transmission facilities, the Dow Chemical 166S transmission substation would be a **point of supply** when the Dow site power generation exceeds the load requirements, and a **point of delivery** when the generation does not meet the load requirements. The duplication avoidance tariff will simulate these conditions by deeming the **points of delivery** at the Dow Hydrocarbons 258S, Dow Chemical 166S and Ross Creek 906S transmission substations, and the **points of supply** at the Dow Fort Saskatchewan 218S and Dow Chemical 166S transmission substations, to be a single **point of delivery** and **point of supply** for the purpose of totalizing **metered demand** and **metered energy** in applying Rate DTS and Rate STS.

4(2) During operation of the duplication avoidance tariff, the **ISO** will totalize the metered data for Dow's load and generation served from the Dow Hydrocarbons 258S, Dow Chemical 166S, Ross Creek 906S and Dow Fort Saskatchewan 218S transmission substations. This will ensure that payments by Dow to the **ISO** under Rate DTS and Rate STS are equivalent to the costs Dow would have incurred for the duplicate facilities.

4(3) Charges under Rate DTS and Rate STS will be calculated using the totalized **metered demand** and the totalized **metered energy** for Dow at the Dow Hydrocarbons 258S, Dow Chemical 166S, Ross Creek 906S and Dow Fort Saskatchewan 218S transmission substations. The meters to be totalized at Dow Hydrocarbons 258S are at T1 and T2. The meters to be totalized at Dow Chemical 166S are at T1, T2, T3A and T3B. The meters to be totalized at Ross Creek 906S are at T1 and T3. The meters to be

Alberta Electric System Operator, Calgary Place, 2500, 330 – 5th Avenue SW Calgary, AB T2P 0L4
Phone: 403-539-2450 Fax: 403-539-2949 www.aeso.ca @theaeso

totalized at Dow Fort Saskatchewan 218S are at TR1 and TR2. These **meter** points may change from time to time.

Example of Totalizing

5(1) The following is an example of the totalizing calculation for **metered demand** for two different metering time intervals.

	Time Interval 1	Time Interval 2
Point of delivery (A) (Dow Hydrocarbons 258S)	+25 MW	+30 MW
Point of supply (B) (Dow Chemical 166S)	–45 MW	0 MW
Point of delivery (C) (Ross Creek 906S)	+35 MW	+30 MW
Point of supply (D) (Dow Fort Saskatchewan 218S)	–100 MW	0 MW
Totalized **metered demand** (E)	–85 MW	+60 MW

5(2) In time interval 1, under the duplication avoidance tariff, Dow's **demand** requirement is 25 MW at (A) and 35 MW at (C), for a total of 60 MW. At the same time, Dow cogeneration facilities are producing 45 MW at (B) and 100 MW at (D), for a total of 145 MW. The net delivery to the **interconnected electric system** is 85 MW from (B) and (D). Had Dow built the duplicate facilities, the **metered energy** delivered by the **interconnected electric system** to Dow's requirement at the PODs (A) and (C) would be zero MWh (assuming the time interval is 1 hour), and the **metered energy** received by the **interconnected electric system** from the generator output at (B) and (D) would be 85 MW (145 MW of total generation minus 60 MW of total load). This energy balance is simulated by the proposed totalizing procedure. Combining the **points of delivery** (A) and (C); and **points of supply** (B) and (D) produces an adjusted **metered demand** of –85 MW for that time interval, where the negative sign signifies a net energy receipt by the **interconnected electric system**.

5(3) In time interval 2, the cogeneration facility is not operating, and Dow's load is 30 MW at (A) and 30 MW at (C), for a total of 60 MW. The result is a net **metered demand** of +60 MW for that time interval, where the positive sign signifies a net energy delivery from the **interconnected electric system**.

Incremental Loss Factor

6(1) The **ISO** must determine the charge under this rider in a **settlement period** as the losses charge calculated as the sum, over all hours in the **settlement period**, of the **pool price** multiplied by 0.3 MWh.[1]

[1] Dow Chemical Canada ULC, Application for an Industrial System Designation Dow Chemical Canada ULC Fort Saskatchewan, at page 5.

Schedule 1 — Other Expenses Charge

7(1) The forecast of the benefit to the ISO arising from Dows forecasted annual O&M are provided in the following table.

12-**Month** Period	Monthly Payment
Jan. 1, 2022 – Dec. 31, 2022	$ 21,037
Jan. 1, 2023 – Dec. 31, 2023	$ 21,458
Jan. 1, 2024 – Dec. 31, 2024	$ 21,887
Jan. 1, 2025 – Dec. 31, 2025	$ 22,325
Jan. 1, 2026 – Dec. 31, 2026	$ 22,772
Jan. 1, 2027 – Dec. 31, 2027	$ 23,227
Jan. 1, 2028 – Dec. 31, 2028	$ 23,691
Jan. 1, 2029 – Dec. 31, 2029	$ 24,165
Jan. 1, 2030 – Dec. 31, 2030	$ 24,649
Jan. 1, 2031 – Dec. 31, 2031	$ 25,142
Jan. 1, 2032 – Dec. 31, 2032	$ 25,644
Jan. 1, 2033 – Dec. 31, 2033	$ 26,157
Jan. 1, 2034 – Dec. 31, 2034	$ 26,680
Jan. 1, 2035 – Dec. 31, 2035	$ 27,214
Jan. 1, 2036 – Dec. 31, 2036	$ 27,758
Jan. 1, 2037 – Dec. 31, 2037	$ 28,314
Jan. 1, 2038 – Dec. 31, 2038	$ 28,880
Jan. 1, 2039 – Dec. 31, 2039	$ 29,457
Jan. 1, 2040 – Dec. 31, 2040	$ 30,047
Jan. 1, 2041– Dec. 31, 2041	$ 30,647

Revision History

Effective	Description
2022-01-01	Initial release; forecast benefit table to 2041 as approved in Commission Decision [Placeholder] issued on [Placeholder].