

ISO Tariff – Rider A2

Transmission Duplication Avoidance Adjustment

NOVA Chemicals Corporation – Joffre Industrial System



Applicability

1 Rider A2 applies to **system access service** provided to NOVA Chemicals Corporation (NOVA Chemicals) at the 535S transmission station **point of delivery** and **point of supply** at NOVA Chemicals' Joffre industrial system, as designated by Alberta Energy and Utilities Board Order No. HE 9826.

Rate

2(1) For each metering time interval, the **metered demand** and **metered energy** for the **point of delivery** and **point of supply** at the 535S transmission station will be totalized for the purpose of settlement under Rate DTS and Rate STS, as described in subsections 4 and 5 below. Charges under Rate DTS and Rate STS will be calculated using the totalized **metered demand** and the totalized **metered energy**. The meters to be totalized are on 330 Line-1, 330 Line-2, 298L, 297L, 535ST1 and 535ST2.

(2) NOVA Chemicals will make the following payments to the **ISO**:

- (a) Capital Charge: A lump-sum payment of \$2 375 000 to be made immediately upon implementation of this rider;
- (b) Incremental Losses Charge:
 - (i) Commencing on January 1, 2001, **metered demand** and **metered energy** will be adjusted through the metering balance calculation for the 535S transmission station, using the **loss factors** in subsection 6 below. If the **metered demand** in a metering interval is between two levels in subsection 6 below, the applicable **loss factor** will be calculated by interpolating between the **loss factors** for the two levels of **metered demand**. If the **metered demand** in a metering interval is less than 10 MW, including 0 MW, the incremental loss will be deemed to be 0.14 MW. The meters to be compensated in the metering balancing calculation are on 298L, 297L, 535ST1 and 535ST2.
 - (ii) For each **settlement period**, commencing on the effective date of this rider, a payment equal to the totalized **metered energy** multiplied by the applicable **loss factor** and multiplied by the **pool price**, calculated on an hourly basis. The applicable **loss factor** for each hour will be the **loss factor** in subsection 6 below that corresponds with the totalized **metered energy** for the hour; and
- (c) Other Expenses Charge: For each **settlement period** commencing on January 1, 2001, an amount equal to the "Monthly Payment" in subsection 7 below for the applicable year.

Terms

3 All terms in the **ISO's** 23 June Application for a Duplication Avoidance Tariff for NOVA Chemicals Corporation Joffre Industrial System will be applicable.

Metering and Totalizing

4(1) See Application, Section 2.5: Terms for the Duplication Avoidance Tariff; Section 2.5.1: Metering and Totalizing.

(2) If NOVA Chemicals were to build the duplicate facilities, the 535S transmission station would be a **point of supply** for metering when the Joffre Site power generation exceeds the load requirements. Likewise, it would be a **point of delivery** when the Joffre site generation does not meet the load requirements. The duplication avoidance tariff will simulate this result by deeming the separate **point of delivery** and **point of supply** at the 535S transmission station to be a single point of exchange for the purpose of totalizing **metered demand** and **metered energy** in applying the **ISO's** Rate DTS and Rate STS.

(3) During the term of the duplication avoidance tariff, the **ISO** would totalize the metered data at the 535S transmission station for the load of NOVA Chemicals' existing facilities and the generation from its cogeneration facility. The totalized metered data would also include a debit to NOVA Chemicals to account for the deemed duplicate transformer losses. This would ensure that payments by NOVA Chemicals to the **ISO** under Rate DTS and Rate STS are equivalent to the costs NOVA Chemicals would have incurred had they built the duplicate facilities.

(4) The amount of load of the existing facilities included in the totalizing calculation would be limited to the deemed capacity of the duplicate transformer in NOVA Chemicals' duplicate facilities design, which is 80 MVA. If the **metered demand** at the 535S transmission station for the existing facilities exceed this deemed capacity of 80 MVA, additional costs of upgrading the deemed duplicate transformer would be estimated and invoiced to NOVA Chemicals.

Example of Totalizing

5(1) See Application, Appendix C: Example of Totalizing. The following is an example of the totalizing calculation for **metered demand** and **metered energy** for two different metering time intervals:

	Time Interval 1	Time Interval 2
535S point of delivery (A)	+65 MW	+130 MW
535S point of supply (B) (cogeneration facility)	-365 MW	0 MW
Totalized metered demand and metered energy (C)	-300 MW	+130 MW

(2) In time interval 1, under the duplication avoidance tariff, NOVA Chemicals' **demand** requirement is 65 MW at the 535S transmission station. At the same time, NOVA Chemicals' cogeneration facility is delivering 365 MW of power to the **interconnected electric system** at the 535S transmission station. If NOVA Chemicals built the duplicate facilities, the **metered energy** delivered from the **interconnected electric system** for NOVA Chemicals' load requirement at point A would be 0 MW, and the **metered energy** received by the **interconnected electric system** from the generator output at point B would be 300 MW. This energy balance is simulated by the proposed totalizing procedure. Combining the **point of delivery** (A) and **point of supply** (B) produces a totalized **metered demand** of -300 MW, where the negative sign signifies a net energy receipt by the **interconnected electric system**.

(3) In time interval 2, the cogeneration facility is not operating, supplying 0 MW of power, and NOVA Chemicals' load remains at 65 MW for the existing facilities and 65 MW for the new facilities. The result is a net load of +130 MW for that time interval, where the positive sign signifies a net energy delivery from the **interconnected electric system**.

Schedule 1 — Incremental Loss Factors

6	Metered Demand of Existing Facilities (MW)	Loss Factor (% of metered demand of existing facilities)
	> 0 ≤ 10	1.41 %
	> 10 ≤ 20	0.76 %
	> 20 ≤ 30	0.57 %
	> 30 ≤ 40	0.49 %
	> 40 ≤ 50	0.46 %
	> 50 ≤ 60	0.45 %
	> 60 ≤ 70	0.45 %
	> 70 ≤ 80	0.47 %

Schedule 2 — Other Expenses Charge

7	12-Month Period	Monthly Payment
	Jan. 1, 2001 – Dec. 31, 2001	\$ 2,142
	Jan. 1, 2002 – Dec. 31, 2002	\$ 2,107
	Jan. 1, 2003 – Dec. 31, 2003	\$ 2,179
	Jan. 1, 2004 – Dec. 31, 2004	\$ 2,152
	Jan. 1, 2005 – Dec. 31, 2005	\$ 2,234
	Jan. 1, 2006 – Dec. 31, 2006	\$ 4,013
	Jan. 1, 2007 – Dec. 31, 2007	\$ 2,162
	Jan. 1, 2008 – Dec. 31, 2008	\$ 3,283
	Jan. 1, 2009 – Dec. 31, 2009	\$ 2,204
	Jan. 1, 2010 – Dec. 31, 2010	\$ 3,219
	Jan. 1, 2011 – Dec. 31, 2011	\$ 2,131
	Jan. 1, 2012 – Dec. 31, 2012	\$ 5,305
	Jan. 1, 2013 – Dec. 31, 2013	\$ 2,185
	Jan. 1, 2014 – Dec. 31, 2014	\$ 2,141
	Jan. 1, 2015 – Dec. 31, 2015	\$ 11,723
	Jan. 1, 2016 – Dec. 31, 2016	\$ 4,343
	Jan. 1, 2017 – Dec. 31, 2017	\$ 2,151

12-Month Period	Monthly Payment
Jan. 1, 2018 – Dec. 31, 2018	\$ 4,745
Jan. 1, 2019 – Dec. 31, 2019	\$ 2,211
Jan. 1, 2020 – Dec. 31, 2020	\$ 6,835
Jan. 1, 2021 – Dec. 31, 2021	\$ 2,264
Jan. 1, 2022 – Dec. 31, 2022	\$ 2,225
Jan. 1, 2023 – Dec. 31, 2023	\$ 2,172
Jan. 1, 2024 – Dec. 31, 2024	\$ 7,790
Jan. 1, 2025 – Dec. 31, 2025	\$ 2,417
Jan. 1, 2026 – Dec. 31, 2026	\$ 2,184
Jan. 1, 2027 – Dec. 31, 2027	\$ 2,300
Jan. 1, 2028 – Dec. 31, 2028	\$ 2,256
Jan. 1, 2029 – Dec. 31, 2029	\$ 2,197
Jan. 1, 2030 – Dec. 31, 2030	\$ 36,105
Jan. 1, 2031 – Dec. 31, 2031	\$ 2,273
Jan. 1, 2032 – Dec. 31, 2032	\$ 5,154
Jan. 1, 2033 – Dec. 31, 2033	\$ 2,340
Jan. 1, 2034 – Dec. 31, 2034	\$ 2,291
Jan. 1, 2035 – Dec. 31, 2035	\$ 2,440
Jan. 1, 2036 – Dec. 31, 2036	\$ 7,595
Jan. 1, 2037 – Dec. 31, 2037	\$ 2,310
Jan. 1, 2038 – Dec. 31, 2038	\$ 2,239
Jan. 1, 2039 – Dec. 31, 2039	\$ 2,386
Jan. 1, 2040 – Dec. 31, 2040	\$ 4,518

Revision History

Effective	Description
2011-07-01	Revised and reformatted all subsections, as approved in Commission Decision 2011-275 issued on June 24, 2011.