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ISO Tariff – Rate DTS Demand Transmission Service

Applicability

- 1** Rate DTS applies to **system access service** provided at a **point of delivery** to:
- (a) the **owner** of an **electric distribution system**;
 - (b) a **person** who has entered into an arrangement directly with the **ISO** for the provision of **system access service** under subsection 101(2) of the **Act**;
 - (c) the **owner** of an industrial system that has been designated as such by the **Commission**; or
 - (d) the City of Medicine Hat.

Rate

2 The charge under Rate DTS in a **settlement period** will be determined in accordance with subsections 3 through 6 below as the sum of the connection charge, the operating reserve charge, the voltage control charge and the other system support services charge.

Connection Charge

3(1) The connection charge equals the sum, over all rows, of the products calculated by multiplying the volume and charge in each row (a) through (i) of the table below.

Volume in Settlement Period	Charge
Bulk System Charge	
(a) Coincident metered demand	\$3,313.00/MW/month
(b) Metered energy	\$1.17/MWh
Local System Charge	
(c) Billing capacity	\$972.00/MW/month
(d) Metered energy	\$0.49/MWh
Point of Delivery Charge	
(e) Substation fraction	\$8,544.00/month
(f) First (7.5 × substation fraction) MW of billing capacity	\$5,788.00/MW/month
(g) Next (9.5 × substation fraction) MW of billing capacity	\$2,136.00/MW/month
(h) Next (23 × substation fraction) MW of billing capacity	\$1,294.00/MW/month
(i) All remaining MW of billing capacity	\$709.00/MW/month

(2) Coincident **metered demand** is the **metered demand** at the **point of delivery** averaged over the 15-minute interval in which the sum of the **metered demands** for all Rate DTS and Rate FTS **market participants** is greatest in the **settlement period**.

Operating Reserve Charge

4(1) The operating reserve charge equals the sum, over all hours in the **settlement period**, of the amount calculated in each hour as the product of:

- (a) **metered energy** for the Rate DTS **market participant** in the hour; and
- (b) the total cost of operating reserves in the hour divided by the total **metered energy** for all Rate DTS and Rate FTS **market participants** in the hour.

(2) If the operating reserve charge is unable to be calculated for a **settlement period** in accordance with subsection 4(1) above, the operating reserve charge will be estimated as the sum, over all hours in the **settlement period**, of the amount calculated in each hour as the product of:

- (a) **metered energy** for the Rate DTS **market participant** in the hour; and
- (b) **pool price** in the hour multiplied by 2.35%.

Voltage Control Charge

5 The voltage control charge equals **metered energy** in the **settlement period** multiplied by \$0.51/MWh.

Other System Support Services Charge

6 The other system support services charge equals the sum of:

- (a) the highest **metered demand** in the **settlement period** multiplied by \$55.00/MW/month; and
- (b) when **power factor** is less than 90% during the interval of highest **metered demand** in the **settlement period**, \$400.00/MVA multiplied by the **apparent power** difference calculated during the interval of highest **metered demand** in the **settlement period** as the difference between the metered **apparent power** and 111% of **metered demand**.

Terms

7(1) Rate DTS is separately applicable at each **point of delivery**, except where it is applicable to totalized **points of delivery** under subsection 5 of section 13 of the **ISO tariff**.

(2) If Demand Opportunity Service Rate DOS also applies at the **point of delivery**, in an hour for which a Rate DOS transaction has been approved by the **ISO**, **metered energy** under Rate DTS equals

- (a) **metered energy** up to the Rate DTS **contract capacity**; plus
- (b) any additional **metered energy** determined under subsection 2(2) of Demand Opportunity Service Rate DOS.

(3) Deferral Account Adjustment Rider C applies to **system access service** provided under this rate.

(4) Balancing Pool Consumer Allocation Rider F applies to **system access service** provided under this rate.

(5) The terms and conditions of the **ISO tariff** form part of this rate.

Revision History

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

ISO Tariff – Rate FTS Fort Nelson Demand Transmission Service

Applicability

1 Rate FTS applies to **system access service** provided at the **point of delivery** to BC Hydro at Fort Nelson, British Columbia:

Rate

2 The charge under Rate FTS in a **settlement period** will be determined in accordance with subsections 3 through 6 below as the sum of the connection charge, the operating reserve charge, the voltage control charge and the other system support services charge.

Connection Charge

3(1) The connection charge equals the sum, over all rows, of the products calculated by multiplying the volume and charge in each row (a) through (d) of the table below.

Volume in Settlement Period	Charge
Bulk System Charge	
(a) Coincident metered demand	\$3,313.00/MW/month
(b) Metered energy	\$1.17/MWh
Local System Charge	
(c) Billing capacity	\$972.00/MW/month
(d) Metered energy	\$0.49/MWh

(2) Coincident **metered demand** is the **metered demand** at the **point of delivery** averaged over the 15-minute interval in which the sum of the **metered demands** for all Rate DTS and Rate FTS **market participants** is greatest in the **settlement period**.

(3) The rate for the local system charge in subsections 3(1)(c) and 3(1)(d) above is equal to the greater of:

- (a) the rate for the local system charge in subsections 3(1)(c) and 3(1)(d) of Rate DTS; or
- (b) a specific Fort Nelson rate based on the levelized cost of the original ATCO Electric line providing service to Fort Nelson.

Operating Reserve Charge

4(1) The operating reserve charge equals the sum, over all hours in the **settlement period**, of the amount calculated in each hour as the product of:

- (a) **metered energy** for the Rate FTS **market participant** in the hour; and
- (b) the total cost of operating reserves in the hour divided by the total **metered energy** for all Rate DTS and Rate FTS **market participants** in the hour.

(2) If the operating reserve charge is unable to be calculated for a **settlement period** in accordance with subsection 4(1) above, the operating reserve charge will be estimated as the sum, over all hours in the **settlement period**, of the amount calculated in each hour as the product of:

- (a) **metered energy** for the Rate FTS **market participant** in the hour; and
- (b) **pool price** in the hour multiplied by 2.35%.

Voltage Control Charge

5(1) The voltage control charge equals **metered energy** in the **settlement period** multiplied by \$0.51/MWh.

(2) Prior to completion of phase 1 of the northwest Alberta transmission development as approved in Approvals U2006 205, U2006-275, U2007-348, U2008-318 and others if applicable, the voltage control charge will also include the sum, over all hours in the **settlement period** in which the **ISO** issues a dispatch to a fourth **generating unit** for transmission must-run service in the Rainbow area, of the cost associated with the dispatch issued for that **generating unit** in an hour multiplied by the ratio in the hour of:

- (a) Fort Nelson load in excess of 25 MW; to
- (b) the sum of Fort Nelson load in excess of 25 MW and Alberta Rainbow area load (excluding Fort Nelson load) in excess of 105 MW.

(3) After completion of phase 1 of the northwest Alberta transmission development as approved in Approvals U2006 205, U2006-275, U2007-348, U2008-318 and others if applicable, the voltage control charge will also include the sum, over all hours in the **settlement period** in which Rainbow area load exceeds 145 MW and transmission must-run generation is required in the Rainbow area, of the cost associated with transmission must-run generation in the Rainbow area in an hour multiplied by the ratio in the hour of:

- (a) Fort Nelson load in excess of 38.5 MW; to
- (b) the sum of Fort Nelson load in excess of 38.5 MW and Alberta Rainbow area load (excluding Fort Nelson load) in excess of 106.5 MW.

Other System Support Services Charge

6 The other system support services charge equals the sum of:

- (a) the highest **metered demand** in the **settlement period** multiplied by \$55.00/MW/month; and
- (b) when **power factor** is less than 90% during the interval of highest **metered demand** in the **settlement period**, \$400.00/MVA multiplied by the **apparent power** difference calculated during the interval of highest **metered demand** in the **settlement period** as the difference between the metered **apparent power** and 111% of **metered demand**.

Terms

7(1) In addition to any obligations under section 9 of the **ISO tariff**, if BC Hydro terminates the **system access service** provided under this rate prior to the full payment of the levelized cost of the original ATCO Electric line providing service to Fort Nelson under subsection 3(3)(b) above; the **ISO** will determine the amount of the remaining unpaid balance of those costs net of any residual value and BC Hydro will pay that amount to the **owner** of the **transmission facilities**.

- (2) Deferral Account Adjustment Rider C applies to **system access service** provided under this rate.
- (3) The terms and conditions of the **ISO tariff** form part of this rate.

Revision History

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

ISO Tariff – Rate DOS Demand Opportunity Service

Applicability

1 Rate DOS applies to **system access service** provided at a **point of delivery** to a **market participant** who:

- (a) receives **system access service** under Demand Transmission Service Rate DTS;
- (b) is eligible for demand opportunity service under section 12 of the **ISO tariff**; and
- (c) is recallable in accordance with the provisions of this rate.

Metered Energy

2(1) A Rate DOS charge applies to **metered energy** received at a **point of delivery** in every hour:

- (a) for which a Rate DOS transaction has been approved by the **ISO**;
- (b) above the Rate DTS **contract capacity** for the **system access service**; and
- (c) up to the sum of the Rate DTS **contract capacity** and the approved Rate DOS transaction capacity for the **system access service**.

(2) Any **metered energy** received at a **point of delivery** in an hour that exceeds the sum of the Rate DTS **contract capacity** and the approved Rate DOS transaction capacity for the **system access service** will be added to the **market participant's metered energy** received at the **point of delivery** under Rate DTS in the same **settlement period**.

Rate

3(1) The charges, recall **directive** response times and recall priorities for the three types of demand opportunity service are as follows:

Rate DOS Type	Rate DOS Charge	Recall Directive Response Time	Recall Priority
(a) DOS 7 Minutes	\$2.77/MWh	7 minutes	Before Rates DTS, FTS, DOS Term and DOS 1 Hour
(b) DOS 1 Hour	\$6.54/MWh	1 hour	Before Rates DTS, FTS and DOS Term
(c) DOS Term	\$34.71/MWh	7 minutes	Before Rates DTS and FTS

(2) The amount billed for demand opportunity service in a **settlement period** will be the greater of:

- (a) (i) the Rate DOS charge from subsection 3(1)(a), 3(1)(b), or 3(1)(c) above, as applicable, multiplied by the **metered energy** during the **settlement period**; plus
- (ii) an incremental losses charge calculated as the sum, over all transaction hours in the **settlement period**, of **metered energy** in the hour multiplied by **pool price** in the hour multiplied by a **loss factor** for the facility, where the **loss factor** is determined in

accordance with **ISO rule** 9.2 and is available to **market participants** in the **loss factors** section of the **ISO** website; or

(b) a minimum amount equal to the Rate DOS charge from subsection 3(1)(a), 3(1)(b), or 3(1)(c) above, as applicable, multiplied by the approved Rate DOS transaction capacity multiplied by the number of hours in total transactions in the **settlement period** multiplied by 75%.

(3) A transaction fee of \$500.00 will be added to the amount billed for demand opportunity service in a **settlement period** in which at least one Rate DOS transaction was approved at the **point of delivery**.

Terms

4(1) Rate DOS is separately applicable at each **point of delivery**.

(2) If the **ISO** recalls a **market participant's** demand opportunity service, the **market participant** must curtail load by the amount directed by the **ISO** which may be an amount up to the approved Rate DOS transaction capacity but which will not require curtailment below the **market participant's** Rate DTS **contract capacity** for the **system access service**.

(3) In response to a **directive** from the **ISO**, a **market participant** must achieve curtailment of its demand opportunity service load within the response time specified in subsection 3(1)(a), 3(1)(b), or 3(1)(c) above, as applicable.

(4) Losses Calibration Factor Rider E applies to a **market participant** receiving **system access service** provided under this rate.

(5) Balancing Pool Consumer Allocation Rider F applies to a **market participant** receiving **system access service** provided under this rate, with the exception of the City of Medicine Hat.

(6) The terms and conditions of the **ISO tariff** form part of this rate.

Revision History

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

ISO Tariff – Rate XOS Export Opportunity Service

Applicability

1 Rate XOS applies to **system access service** provided to **market participants** who export electric energy from the **interconnected electric system**.

Availability

2(1) Export opportunity service is available:

- (a) only when sufficient capacity exists on the **transmission system** to accommodate the capacity scheduled for export; and
- (b) a minimum of twenty-four (24) hours following execution of an agreement for **system access service** for export opportunity service.

(2) Export opportunity service will not be available under Rate XOS 1 Month until after the **ISO** has implemented an open access same-time information system (OASIS) or similar system.

Rate

3(1) The charges, recall **directive** response times and recall priorities for the two types of export opportunity service are as follows:

Rate XOS Type	Rate XOS Charge	Recall Directive Response Time	Recall Priority
(a) XOS 1 Hour	\$3.52/MWh	1 hour	Before Rates DTS, FTS, XOS 1 Month and DOS (any type)
(b) XOS 1 Month	\$4.27/MWh	1 hour	Before Rates DTS, FTS and DOS (any type)

(2) The amount billed for export opportunity service in a **settlement period** will be the greater of:

- (a) (i) the Rate XOS charge from subsection 3(1)(a) or 3(1)(b) above, as applicable, multiplied by the **market participant's** export **interchange transaction** during the **settlement period**; plus
 - (ii) an incremental losses charge calculated as the sum, over all transaction hours in the **settlement period**, of the **market participant's** export **interchange transaction** in the hour multiplied by **pool price** for the hour multiplied by a **loss factor** for the **inertie**, where the **loss factor** is determined in accordance with **ISO rule 9.2** and is available to **market participants** in the **loss factors** section of the **ISO** website; or
- (b) a minimum amount calculated as the sum, over all transaction hours in the **settlement period**, of:
 - (i) the Rate XOS charge from subsection 3(1)(a) or 3(1)(b) above, as applicable, multiplied by the **market participant's** hour-ahead scheduled capacity multiplied by 75%; plus
 - (ii) an incremental losses charge calculated as the **market participant's** hour-ahead scheduled capacity multiplied by 75% multiplied by **pool price** for the hour multiplied by a

loss factor for the **intertie**, where the **loss factor** is determined in accordance with **ISO rule 9.2** and is available to **market participants** in the **loss factors** section of the **ISO** website.

(3) An operating reserve charge, an other system support services charge or both will be added to the amount billed for export opportunity service in a **settlement period** when the transaction requires the **ISO** to procure incremental operating reserves, incremental system support services or both.

(4) A transaction fee of \$500.00 will be added to the amount billed for export opportunity service in a **settlement period** in which at least one Rate XOS transaction was approved for the **market participant**.

Terms

4(1) Rate XOS is separately applicable at each **point of interconnection**.

(2) In response to a **directive** from the **ISO**, a **market participant** must achieve curtailment of its export opportunity service within the response time specified in subsection 3(1)(a) or 3(1)(b) above, as applicable.

(3) The minimum and maximum terms for the two types of export opportunity service are as follows:

Rate XOS Type	Minimum Term	Maximum Term
(a) XOS 1 Hour	1 hour	1 calendar month
(b) XOS 1 Month	1 calendar month	1 calendar year

(4) Losses Calibration Factor Rider E applies to **market participants** receiving **system access service** provided under this rate.

(5) The terms and conditions of the **ISO tariff** form part of this rate.

Revision History

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

ISO Tariff – Rate UFLS Demand Under-Frequency Load Shedding Credit

Applicability

1 Rate UFLS applies to **system access service** provided at a **point of delivery** to a **market participant** who:

- (a) receives **system access service** under Demand Transmission Service Rate DTS; and
- (b) is directed by the **ISO** to install and activate an under-frequency load shed relay satisfactory to the **ISO**.

Under-Frequency Load Shedding Capacity Requirements

2(1) In order to maintain the integrity of the **interconnected electric system**, the **ISO** may require that a **market participant** maintain a minimum of 50% of its aggregate load, across all **points of delivery** through which the **market participant** receives **system access service** under Rate DTS, connected to an under-frequency load shedding device.

(2) The Rate UFLS capacity requirement will be the share of the Rate DTS **contract capacity**, in MW, determined for each relay trip setting specified in subsection 3(2) below for which the **market participant** has agreed to be shed.

(3) The **ISO** may from time to time revise a **market participant's** Rate UFLS capacity requirement to maintain the minimum of 50% of the **market participant's** aggregate load.

(4) The **market participant** must ensure the aggregate Rate UFLS capacity, across all **points of delivery** through which the **market participant** receives **system access service** under Rate DTS, continues to meet a revised Rate UFLS capacity requirement.

Rate

3(1) The under-frequency load shedding credit compensates a **market participant** who has load connected to under-frequency load shedding devices and therefore faces a higher risk of **outage**.

(2) The under-frequency load shedding credit is calculated by multiplying the connected Rate UFLS capacity times the credit level for each relay trip setting in the following table.

Relay Trip Setting	Credit Level (\$/MW of Rate UFLS Capacity/month)
59.1 Hz	\$65.00
58.9 Hz	\$60.00
58.7 Hz	\$55.00
58.5 Hz	\$50.00
58.3 Hz	\$45.00
58.1 Hz	\$40.00

Relay Trip Setting	Credit Level (\$/MW of Rate UFLS Capacity/month)
58.0 Hz	\$35.00

Effect of Non-Compliance

4 If a **market participant** to whom Rate UFLS applies fails to comply with the requirements of Rate UFLS, the **ISO** may limit, reduce, withhold or terminate **system access service** to the **market participant**.

Terms

5(1) The **ISO** provides no assurance as to the number or duration of any future **outages** due to under-frequency load shedding.

(2) The terms and conditions of the **ISO tariff** form part of this rate.

Revision History

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

Applicability

1(1) Rate PSC applies to **system access service** provided at a **point of delivery** to a **market participant** who receives **system access service** under Demand Transmission Service Rate DTS and:

- (a) has purchased, owns, and operates its own transformation facilities to step transmission voltage down to 25 kV or less, and associated low-voltage facilities; or
- (b) is served through an unconventional connection such as one using metering transformers.

(2) Rate PSC is not available for **system access service** to an isolated community as defined under the *Isolated Generating Units and Customer Choice Regulation*.

Rate

2(1) The primary service credit compensates a **market participant** whose connection does not include conventional transformation facilities owned by a **owner of transmission facilities**, including a connection for a **market participant** who has purchased, owns and operates its transformer.

(2) The primary service credit equals the sum of the products calculated by multiplying the volume and credit in each row (a) through (e) of the table below.

Volume in Settlement Period	Credit
(a) Substation fraction	\$6,750.00/month
(b) First (7.5 × substation fraction) MW of billing capacity	\$4,573.00/MW/month
(c) Next (9.5 × substation fraction) MW of billing capacity	\$1,687.00/MW/month
(d) Next (23 × substation fraction) MW of billing capacity	\$1,022.00/MW/month
(e) All remaining MW of billing capacity	\$709.00/MW/month

Terms

3(1) Rate PSC is separately applicable at each **point of delivery**, except where it is applicable to totalized **points of delivery** under subsection 5 of section 13 of the **ISO tariff**.

(2) The primary service credit is provided in conjunction with a reduced maximum local investment in accordance with subsection 8 of section 8 of the **ISO tariff**.

(3) The terms and conditions of the **ISO tariff** form part of this rate.

Revision History

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

Applicability

- 1(1)** Rate STS applies to **system access service** provided at a **point of supply** to:
- (a) the **owner** of a **generating unit** that is not subject to a **power purchase arrangement**;
 - (b) the holder of the **power purchase arrangement** for a **generating unit** that is subject to a **power purchase arrangement**;
 - (c) the **owner** of an industrial system that has been designated as such by the **Commission**;
 - (d) the **owner** of an **electric distribution system** where a **generating unit** connected to the **electric distribution system** results in electricity flowing into the **transmission system**; or
 - (e) the City of Medicine Hat.
- (2)** **Generating units** constructed under the *Small Power Research and Development Act* are exempt from the provisions of Rate STS to the extent the volume of energy sales are conducted under contracts specifically executed pursuant to the provisions of the *Small Power Research and Development Act*.

Rate

2(1) The charge under Rate STS in a **settlement period** will be the losses charge calculated as the sum, over all hours in the **settlement period**, of **metered energy** in the hour multiplied by **pool price** multiplied by a **loss factor** for the facility, where the **loss factor** is determined in accordance with **ISO rule 9.2** and is available to **market participants** in the **loss factors** section of the **ISO** website.

(2) For the purpose of calculating the losses charge under subsection 2(1) above, **metered energy** will be measured on a 15-minute interval.

Regulated Generating Unit Connection Cost

3 An additional charge of \$237.00/MW per month for each regulated **generating unit** MW is applicable only to the regulated **generating units** identified in Appendix A of the **ISO tariff** and only to the end of the base life year of the regulated **generating units** as provided in that Appendix.

Terms

- 4(1)** Rate STS is separately applicable at each **point of supply**, except where it is applicable to totalized **points of supply** under subsection 5 of section 13 of the **ISO tariff**.
- (2)** Losses Calibration Factor Rider E applies to **system access service** provided under this rate.
- (3)** Wind Forecasting Service Cost Recovery Rider J applies to **system access service** provided under this rate for a wind-powered **generating unit**.
- (4)** The terms and conditions of the **ISO tariff** form part of this rate.

Revision History

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

ISO Tariff – Rate IOS Import Opportunity Service

Applicability

1 Rate IOS applies to **system access service** provided to **market participants** who import electric energy to the **interconnected electric system**.

Availability

2 Import opportunity service is available:

- (a) only when sufficient capacity exists on the **transmission system** to accommodate the capacity scheduled for import; and
- (b) a minimum of twenty-four (24) hours following execution of an agreement for **system access service** for import opportunity service.

Rate

2(1) The charge under Rate IOS in a **settlement period** will be the losses charge calculated as the sum, over all hours in the **settlement period**, of the **market participant's** import **interchange transaction** in the hour multiplied by **pool price** multiplied by a **loss factor** for the **intertie**, where the **loss factor** is determined in accordance with **ISO rule 9.2** and is available to **market participants** in the **loss factors** section of the **ISO** website.

(2) A transaction fee of \$500.00 will be added to the amount billed for import opportunity service in a **settlement period** in which at least one Rate IOS transaction was approved for the **market participant**.

Terms

4(1) Rate IOS is separately applicable at each **point of interconnection**.

(2) In response to a **directive** from the **ISO**, a **market participant** must achieve curtailment of its import opportunity service within one (1) hour.

(3) Losses Calibration Factor Rider E applies to **market participants** receiving **system access service** provided under this rate.

(4) The terms and conditions of the **ISO tariff** form part of this rate.

Revision History

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

ISO Tariff – Rider A1 Transmission Duplication Avoidance Adjustment Dow Chemical Canada Inc. / Dow Hydrocarbons / ASU2



Applicability

1 Rider A1 applies to **system access service** provided to TransAlta Utilities Corporation / FortisAlberta 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) The charge under Rider A1 is an adjustment to otherwise applicable rates to be made in each **settlement period** pursuant to the Decision.

(2) The forecast of the benefit to the **ISO** arising from the **construction contributions** made by Dow Chemicals Canada Inc. to TransAlta Utilities Corporation are provided in the following table.

Year	Forecast Benefit to ISO (Annual)	Forecast Benefit to ISO (Monthly)
1998	\$544,093	\$45,341
1999	\$865,378	\$72,115
2000	\$836,603	\$69,717
2001	\$807,828	\$67,319
2002	\$779,053	\$64,921
2003	\$750,278	\$62,523
2004	\$721,503	\$60,125
2005	\$692,728	\$57,727
2006	\$663,953	\$55,329
2007	\$635,178	\$52,932
2008	\$606,403	\$50,534
2009	\$577,628	\$48,136
2010	\$548,853	\$45,738
2011	\$520,078	\$43,340
2012	\$491,303	\$40,942
2013	\$462,528	\$38,544
2014	\$433,754	\$36,146
2015	\$404,979	\$33,748

Year	Forecast Benefit to ISO (Annual)	Forecast Benefit to ISO (Monthly)
2016	\$376,204	\$31,350
2017	\$347,429	\$28,952
2018	\$318,654	\$26,554
2019	\$289,879	\$24,157
2020	\$261,104	\$21,759
2021	\$232,329	\$19,361

Terms

3 The terms and conditions of the **ISO tariff** form part of this rider.

Revision History

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

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

12-Month Period	Monthly Payment
Jan. 1, 2017 – Dec. 31, 2017	\$ 2,151
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	Reformatted all subsections, as approved in Commission Decision 2011-275 issued on June 24, 2011.

ISO Tariff – Rider A3 Transmission Duplication Avoidance Adjustment Shell Canada Corporation – Scotford Industrial System



Applicability

1 Rider A3 applies to **system access service** provided to Shell Canada Corporation (Shell Canada) at the 409S transmission station **point of delivery** and **point of supply** at Shell Canada's Scotford industrial system, as designated by Alberta Energy and Utilities Board Order No. HE U2000-109.

Rate

2(1) For each metering time interval, the **metered demand** and **metered energy** for each **point of delivery** and **point of supply** (409ST1, 409ST2, 337S and 746L feeders) around the 409S transmission station will be synchronized, totalized and adjusted to measure electricity at the 138 kV bus for the purpose of settlement under the **ISO tariff**. Charges under the **ISO tariff** will be calculated using the totalized **metered demand** and **metered energy**.

(2) Shell Canada will make the following payments to the **ISO**:

(a) Capital Charge: A payment of \$2,907,800 is due immediately upon implementation of this rider.

(b) Incremental Losses Charge:

(i) Commencing on the effective date of this rate rider, **metered demand** and **metered energy** will be adjusted through the metering balancing calculation for the 409S 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 0.083 MW. The meters to be compensated in the metering balancing calculation are on 409ST1, 409ST2, 337S and 746L.

(ii) For each **settlement period**, commencing on the effective date of this rate 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: The other expenses charge is shown in subsection 7 below.

(3) Shell Canada will receive a primary service credit in respect of the duplicate facilities as is provided to other Rate DTS customers of the **ISO** who provide their own transmission station, pending the decision of the Alberta Energy and Utilities Board on the **ISO's** 2002 tariff application.

Terms

3 All terms and conditions in the **ISO tariff** apply in addition to the terms in this Application for a Duplication Avoidance Tariff for Shell Canada's Scotford Industrial System. If either the **ISO** or Shell Canada were to terminate the Duplication Avoidance Tariff at a future date, Shell Canada would receive a partial refund of the lump sum capital charge payment. The amount of the partial refund would be the deemed remaining undepreciated dollar amount of the avoided duplicate facilities, in the year that the **ISO** or Shell Canada gives notice to terminate the Duplication Avoidance Tariff. The undepreciated dollar

value would be calculated based on the lump sum capital charge payment using a straight-line depreciation over the first twenty-four (24) years of the term of the Duplication Avoidance Tariff. At the end of twenty-four (24) years, the undepreciated value would be zero. The termination notice period, for both the **ISO** and Shell Canada, will be twenty-four (24) months.

Metering and Totalizing

4(1) Totalization should proceed on the basis of economic indifference to Shell Canada between the Duplication Avoidance Tariff and the construction of duplicate facilities and a net positive benefit to other transmission customers. These principles are met by the terms proposed for the Duplication Avoidance Tariff.

(2) There is no direct relationship between the size of 409S (sized for a prior, smaller load-only Scotford site) and the larger scale operations now reflected in the industrial system. The Duplication Avoidance Tariff for 409S is the most advantageous arrangement for the **ISO** compared to construction of duplicate facilities.

(3) If Shell Canada were to build the duplicate facilities, the 409S transmission station would be a **point of supply** when the Scotford site power generation exceeds the load requirements. Likewise, it would be a **point of delivery** when the Scotford 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 409S transmission station to be a single **point of delivery** and **point of supply** for the purpose of totalizing **metered demand** and **metered energy**.

(4) During the term of the Duplication Avoidance Tariff, the **ISO** would totalize the metered data at the 409S transmission station for the load of Shell Canada’s load facilities and the generation from its cogeneration facility. This would ensure that payments by Shell Canada to the **ISO** under the **ISO tariff** are equivalent to the costs that Shell Canada would have incurred had they built the duplicate facilities.

(5) The level of load of the load facilities included in the totalization calculation would be limited to the deemed capacity of the duplicate facilities in Shell Canada’s duplicate facilities design. Given that the capacity of the duplicate facilities would be identical to that of the 409S transmission station, if the transformer requires upgrading in order to serve additional load from the load facilities, Shell Canada will be responsible for the cost of the upgrade.

Example of Totalizing

5(1) 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
409S point of delivery (A)	+60 MW	+60 MW
409S point of supply and point of delivery (B)	-70 MW	+20 MW
Totalized metered demand and metered energy (C)	-10 MW	+80 MW

(2) In time interval 1, under the Duplication Avoidance Tariff, Shell Canada’s load requirement is 60 MW from the 409S transmission station. At the same time, Shell Canada’s cogeneration facility is delivering a net supply of 70 MW to the **interconnected electric system** at the 409S transmission

station. This is net of load directly served from the cogeneration facility downstream of the 409S. If Shell Canada built the duplicate facilities, the level of energy delivered from Shell Canada to the **interconnected electric system** would be 10 MW. This energy balance is simulated through the proposed totalizing procedure. Combining the **point of delivery** (A) and **point of supply** (B) produces a totalized **metered demand** of –10 MW, where the negative sign signifies a net energy receipt by the **interconnected electric system**.

(3) In time interval 2, the load served from **point of delivery** (A) remains at 60 MW but there is a reduced supply of energy from the cogeneration facility. Due to load requirements directly served from the cogeneration facility (net of partial load shedding), energy flows at (B) are reversed, resulting in 20 MW of energy delivered from the **interconnected electric system** to Shell Canada. Thus (B) is also a **point of delivery**. If Shell Canada built the duplicate facilities, the level of energy delivered from the **interconnected electric system** to Shell Canada at (A) and (B) would be 80 MW. Through the proposed totalizing procedure the totalized **metered demand** would be +80 MW, where the positive sign signifies a net energy delivery from the **interconnected electric system** to Shell Canada.

Schedule 1 — Incremental Loss Factors

6	Metered Demand of Load Facilities (MW)	Loss Factor (% of metered demand of load facilities)
	> 0 ≤ 10	0.84%
	> 10 ≤ 20	0.46%
	> 20 ≤ 30	0.35%
	> 30 ≤ 40	0.31%
	> 40 ≤ 50	0.30%
	> 50 ≤ 60	0.30%
	> 60 ≤ 70	0.30%
	> 70 ≤ 80	0.32%
	> 80 ≤ 90	0.33%
	> 90 ≤ 100	0.35%

Schedule 2 — Other Expenses Charge

7	12-Month Period	Monthly Payment
	Jan. 1, 2002 – Dec. 31, 2002	\$ 1,779
	Jan. 1, 2003 – Dec. 31, 2003	\$ 1,673
	Jan. 1, 2004 – Dec. 31, 2004	\$ 1,723
	Jan. 1, 2005 – Dec. 31, 2005	\$ 1,669
	Jan. 1, 2006 – Dec. 31, 2006	\$ 1,820

12-Month Period	Monthly Payment
Jan. 1, 2007 – Dec. 31, 2007	\$ 3,405
Jan. 1, 2008 – Dec. 31, 2008	\$ 1,655
Jan. 1, 2009 – Dec. 31, 2009	\$ 4,055
Jan. 1, 2010 – Dec. 31, 2010	\$ 1,701
Jan. 1, 2011 – Dec. 31, 2011	\$ 4,264
Jan. 1, 2012 – Dec. 31, 2012	\$ 1,626
Jan. 1, 2013 – Dec. 31, 2013	\$ 4,954
Jan. 1, 2014 – Dec. 31, 2014	\$ 1,605
Jan. 1, 2015 – Dec. 31, 2015	\$ 1,637
Jan. 1, 2016 – Dec. 31, 2016	\$ 16,504
Jan. 1, 2017 – Dec. 31, 2017	\$ 5,665
Jan. 1, 2018 – Dec. 31, 2018	\$ 1,737
Jan. 1, 2019 – Dec. 31, 2019	\$ 4,222
Jan. 1, 2020 – Dec. 31, 2020	\$ 1,807
Jan. 1, 2021 – Dec. 31, 2021	\$ 15,946
Jan. 1, 2022 – Dec. 31, 2022	\$ 1,954
Jan. 1, 2023 – Dec. 31, 2023	\$ 1,918
Jan. 1, 2024 – Dec. 31, 2024	\$ 1,956
Jan. 1, 2025 – Dec. 31, 2025	\$ 9,933
Jan. 1, 2026 – Dec. 31, 2026	\$ 2,265
Jan. 1, 2027 – Dec. 31, 2027	\$ 2,076
Jan. 1, 2028 – Dec. 31, 2028	\$ 2,201
Jan. 1, 2029 – Dec. 31, 2029	\$ 2,160
Jan. 1, 2030 – Dec. 31, 2030	\$ 2,203
Jan. 1, 2031 – Dec. 31, 2031	\$ 59,074
Jan. 1, 2032 – Dec. 31, 2032	\$ 2,292
Jan. 1, 2033 – Dec. 31, 2033	\$ 7,777
Jan. 1, 2034 – Dec. 31, 2034	\$ 2,479

12-Month Period	Monthly Payment
Jan. 1, 2035 – Dec. 31, 2035	\$ 2,432
Jan. 1, 2036 – Dec. 31, 2036	\$ 2,761

Revision History

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

ISO Tariff – Rider A4 Transmission Duplication Avoidance Adjustment Imperial Oil Resources Limited – Cold Lake Industrial System



Applicability

1 Rider A4 applies to **system access service** provided to Imperial Oil Resources Limited (Imperial Oil) at the Leming Lake-715S transmission station **point of delivery** and **point of supply** and the Mahihkan-837S transmission station **point of delivery** at Imperial Oil's Cold Lake industrial system, as designated by Alberta Energy and Utilities Board Order No. HE 9901 and expanded by Order No. U2006-207, plus any expansions to this industrial system as may be approved by the **Commission**.

Rate

2(1) For each metering time interval, the **metered demand** and **metered energy** for the **points of delivery** and **point of supply**, at the 715S and 837S transmission stations, will be totalized for the purpose of settlement under Rate DTS and Rate STS, as described in subsections 4 and 5 below.

(2) Imperial Oil shall make the following payments to the **ISO**:

- (a) Capital Charge: A lump-sum payment of \$5 968 800 collected upon implementation of this rider;
- (b) Incremental Losses Charge: 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 the effective date of this rider, an amount equal to the "Monthly Payment" in subsection 7 below for the applicable year.

Terms

3 All terms in the **ISO's** June 22, 2001 Application for a Duplication Avoidance Tariff for Imperial Oil Resources Limited Cold Lake Site and in the **ISO's** 2008 Application for Amendment will be applicable.

Metering and Totalizing

4(1) If Imperial Oil were to build the duplicate facilities, the Leming Lake transmission station would be a **point of supply** when the Cold Lake 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 Mahihkan and Leming Lake transmission stations, and the **point of supply** at the Leming Lake transmission station, 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.

(2) During operation of the duplication avoidance tariff, the **ISO** will totalize the metered data for Imperial Oil's load and generation served from the Mahihkan and Leming Lake transmission stations. This will ensure that payments by Imperial Oil to the **ISO** under Rate DTS and Rate STS are equivalent to the costs Imperial Oil would have incurred for the duplicate facilities.

(3) Charges under Rate DTS and Rate STS will be calculated using the totalized **metered demand** and the totalized **metered energy** for Imperial Oil at the Mahihkan-837S transmission station and the

Leming Lake-715S transmission station. The meters to be totalized at Mahihkan-837S are 5L408, 5L409, 5L410 and 7L105. The meters to be totalized at Leming Lake-715S are 5L335, 5L408, 5L575, 5L395, 5L242 and 7L95. These meter points may change from time to time.

(4) The amount of load included in the totalizing calculation will be limited to 157 MVA from November through April and 130 MVA from May through October, which is the maximum amount of load that the duplicate facilities would be able to serve, based on the deemed winter and summer capacities, respectively, of the duplicate transmission line in Imperial Oil’s design. If the combined **metered demand** at the Mahihkan and Leming Lake transmission stations for the load facilities exceeds the 157 MVA winter or 130 MVA summer limit, the costs that would have been required to service the additional load under the duplicate facilities alternative will be estimated and invoiced to Imperial Oil.

Example of Totalizing

5(1) 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
Point of delivery (A) (Mahikan)	+45 MW	+45 MW
Point of supply and point of delivery (B) (Leming Lake)	–100 MW	+60 MW
Totalized metered demand and metered energy (C)	–55 MW	+105 MW

(2) In time interval 1, under the duplication avoidance tariff, Imperial Oil’s demand requirement is 45 MW at each of the Mahihkan and Leming Lake transmission stations. At the same time, Imperial Oil’s cogeneration facility is producing 160 MW of power, of which 15 MW is used to directly serve other load requirements. The net delivery to the **interconnected electric system** is 145 MW at the Leming Lake transmission station. If Imperial Oil built the duplicate facilities, the **metered energy** delivered by the **interconnected electric system** to Imperial Oil’s load requirement at the Mahihkan transmission station would be zero, and the **metered energy** received by the **interconnected electric system** from the generator output at the Leming Lake transmission station would be 55 MW (160 MW of generation minus 105 MW of load). This energy balance is simulated by the proposed totalizing procedure. Combining the **point of delivery (A)** and **point of supply (B)** produces an adjusted **metered demand** of –55 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 and Imperial Oil’s load remains at 105 MW (45 MW at the Mahihkan station, and 45 MW plus 15 MW at Leming Lake station). The result is a net load of +105 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 Load Facilities (MW)	Loss Factor (% of metered demand of load facilities)
	> 0 ≤ 10	1.88%
	> 10 ≤ 20	1.31%

Metered Demand of Load Facilities (MW)	Loss Factor (% of metered demand of load facilities)
> 20 ≤ 30	0.64%
> 30 ≤ 40	0.54%
> 40 ≤ 50	0.60%
> 50 ≤ 60	0.73%
> 60 ≤ 70	0.90%
> 70 ≤ 80	1.09%
> 80 ≤ 90	1.29%
> 90 ≤ 100	1.51%
> 100 ≤ 110	1.72%
> 110 ≤ 115	1.91%
> 115 ≤ 120	1.99%
> 120 ≤ 125	2.08%
> 125 ≤ 130	2.16%
> 130 ≤ 135	2.25%
> 135 ≤ 140	2.33%
> 140 ≤ 145	2.48%
> 145	2.66%

Schedule 2 — Other Expenses Charge

7	12-Month Period	Monthly Payment
	Jan. 1, 2003 – Dec. 31, 2003	\$ 4,223
	Jan. 1, 2004 – Dec. 31, 2004	\$ 6,323
	Jan. 1, 2005 – Dec. 31, 2005	\$ 4,286
	Jan. 1, 2006 – Dec. 31, 2006	\$ 4,225
	Jan. 1, 2007 – Dec. 31, 2007	\$ 5,791
	Jan. 1, 2008 – Dec. 31, 2008	\$ 7,651
	Jan. 1, 2009 – Dec. 31, 2009	\$ 5,189
	Jan. 1, 2010 – Dec. 31, 2010	\$ 6,835

12-Month Period	Monthly Payment
Jan. 1, 2011 – Dec. 31, 2011	\$ 4,500
Jan. 1, 2012 – Dec. 31, 2012	\$ 8,367
Jan. 1, 2013 – Dec. 31, 2013	\$ 4,457
Jan. 1, 2014 – Dec. 31, 2014	\$ 10,648
Jan. 1, 2015 – Dec. 31, 2015	\$ 5,059
Jan. 1, 2016 – Dec. 31, 2016	\$ 5,430
Jan. 1, 2017 – Dec. 31, 2017	\$ 19,466
Jan. 1, 2018 – Dec. 31, 2018	\$ 10,660
Jan. 1, 2019 – Dec. 31, 2019	\$ 4,765
Jan. 1, 2020 – Dec. 31, 2020	\$ 10,594
Jan. 1, 2021 – Dec. 31, 2021	\$ 5,565
Jan. 1, 2022 – Dec. 31, 2022	\$ 29,055
Jan. 1, 2023 – Dec. 31, 2023	\$ 5,799
Jan. 1, 2024 – Dec. 31, 2024	\$ 5,905
Jan. 1, 2025 – Dec. 31, 2025	\$ 5,366
Jan. 1, 2026 – Dec. 31, 2026	\$ 19,095
Jan. 1, 2027 – Dec. 31, 2027	\$ 6,492
Jan. 1, 2028 – Dec. 31, 2028	\$ 5,695
Jan. 1, 2029 – Dec. 31, 2029	\$ 5,962
Jan. 1, 2030 – Dec. 31, 2030	\$ 7,811
Jan. 1, 2031 – Dec. 31, 2031	\$ 6,043

Revision History

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

ISO Tariff – Rider C Deferral Account Adjustment Rider



Applicability

- 1 Rider C applies to **system access service** provided under:
 - (a) Demand Transmission Service Rate DTS; and
 - (b) Fort Nelson Transmission Service Rate FTS.

Rider

2(1) Rider C recovers or refunds accumulated deferral account balances which are comprised of differences between revenues and costs incurred in providing **system access service** to **market participants**.

(2) The **ISO** will determine Rider C for each calendar quarter as an additional \$/MWh charge or credit that applies to each rate listed in subsection 1 above.

(3) The **ISO** will publish the Rider C charge or credit, including its calculation, on the **ISO** website at least thirty (30) calendar days prior to the beginning of the calendar quarter in which it will apply.

(4) The **ISO** will calculate the Rider C charge or credit as the sum of amounts, based on available recorded and forecast values, required to restore the deferral account balance to zero (0) over the following calendar quarter, or such longer period as determined by the **ISO** to minimize rate impact, in each of the following rate components:

- (a) connection charge;
- (b) operating reserve charge;
- (c) voltage control charge; and
- (d) other system support services charge

where revenues and costs are assigned to each rate component in accordance with the **ISO tariff** in effect during the period in which the revenue was collected or the cost was incurred.

(5) The Rider C calculation will include only transactions settled with the **ISO** that have occurred after January 1 of the calendar year in which the Rider C charge or credit will apply, although such transactions may involve amounts that relate to prior years.

Terms

3(1) Rider C amounts collected or refunded are subject to later adjustment in a deferral account reconciliation application filed with the **Commission** by the **ISO**.

(2) The **ISO** will not add or deduct interest to or from amounts recovered or refunded through Rider C or through a deferral account reconciliation application, unless the **Commission** orders otherwise in specific circumstances.

(3) The terms and conditions of the **ISO tariff** form part of this rider.

Revision History

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

ISO Tariff – Rider E

Losses Calibration Factor Rider

Applicability

- 1(1)** Rider E applies to **system access service** provided under:
- (a) Demand Opportunity Service Rate DOS;
 - (b) Export Opportunity Service Rate XOS;
 - (c) Supply Transmission Service Rate STS; and
 - (d) Import Opportunity Service Rate IOS.
- (2)** Rider E applies in all **settlement periods** effective January 1, 2006.

Rider

- 2(1)** Rider E adjusts **loss factors** to ensure that the actual cost of losses is reasonably recovered through charges and credits on an annual basis.
- (2)** The **ISO** will add or subtract an additional calibration factor percentage (%) to or from all **loss factors** for facilities and **interties** on each applicable rate.
- (3)** Every quarter the **ISO** will determine a calibration factor to recover or refund all accumulated and forecast differences between the anticipated costs of **transmission system** losses and the actual costs of **transmission system** losses, on a calendar year basis.
- (4)** Any balance between **transmission system** losses costs and revenues remaining at the end of a year will carry forward to be recovered or refunded in the following calendar year.

Terms

- 3** The terms and conditions of the **ISO tariff** form part of this rider.

Revision History

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

ISO Tariff – Rider F

Balancing Pool Consumer Allocation Rider

Applicability

- 1(1)** Rider F applies to **system access service** provided under:
- (a) demand transmission service Rate DTS; and
 - (b) demand opportunity service Rate DOS.
- (2)** Notwithstanding subsection 1(1) above, Rider F does not apply to **system access service** provided to:
- (a) the City of Medicine Hat; or
 - (b) BC Hydro at Fort Nelson, British Columbia.
- (3)** Rider F applies in all **settlement periods** from January 1, 2012 to December 31, 2012.

Rider

- 2(1)** Rider F is a credit of \$5.50/MWh of **metered energy** during the **settlement period**.
- (2)** For the **market participants** receiving **system access service** from the **ISO** under subsection 1 above, Rider F refunds or collects an annualized amount estimated by the Balancing Pool and transferred to the **ISO** under section 82 of the **Act**.

Terms

- 3** The terms and conditions of the **ISO tariff** form part of this rider.

Revision History

Effective	Description
2012-01-01	Revised as approved in Commission Decision 2011-476 issued on December 6, 2011 and revised by errata December 14, 2011.

ISO Tariff – Rider J Wind Forecasting Service Cost Recovery Rider

Applicability

- 1(1)** Rider J applies to **system access service** provided under Supply Transmission Service Rate STS for a wind-powered **generating unit**.
- (2)** Rider J applies in all **settlement periods** from July 1, 2011 to December 31, 2013.

Rider

- 2(1)** Rider J recovers the costs paid by the **ISO** for provision of a wind forecasting service for wind-powered **generating units** in Alberta.
- (2)** For each calendar year indicated in column (b) of the table below, the charge under Rider J in a **settlement period** in that year is the amount provided in column (e) of the table below multiplied by the **metered energy** produced in the **settlement period**.

(a)	(b)	(c)	(d)	(e)	(f)
Basis	Year	Cost (\$)	Energy (MWh)	Charge (\$/MWh)	Revenue (\$)
Actual	2010	\$300,318	NA	NA	NA
Forecast	2011	\$338,400	1,900,000	\$0.13/MWh	\$148,850
Forecast	2012	\$338,400	3,538,000	\$0.14/MWh	\$495,320
Forecast	2013	\$338,400	4,724,000	\$0.15/MWh	\$708,600
Forecast	Total	\$1,315,518	9,407,000	—	\$1,352,770

- (3)** The charge in column (e) of the table in subsection 2(2) above is based on forecast values of cost, energy and revenue as provided in columns (c), (d) and (f) of that table, and is forecast to escalate by 10% each calendar year.
- (4)** At the end of each calendar year, the **ISO** will adjust the charge for the remaining calendar years to reflect variances from the forecasts of cost and energy in columns (c) and (d) of the table in subsection 2(2) above, and will incorporate the adjustments in the table in the **ISO tariff** for the following calendar year.

Terms

- 3(1)** Rider J is separately applicable at each **point of supply**.
- (2)** The terms and conditions of the **ISO tariff** form part of this rider.

Revision History

Effective	Description
2011-07-01	Released new rider, as approved in Commission Decision 2011-275 issued on June 24, 2011.

ISO Tariff – Section 1

Applicability and Interpretation of ISO Tariff

Applicability

- 1(1)** By applying for or accepting **system access service** from the **ISO**, a **market participant** agrees to be bound by the **ISO tariff**.
- (2)** The **ISO tariff**, including rates, riders, terms and conditions and appendices, is binding on and defines the rights and obligations of the **ISO** and **market participants** with respect to **system access service** provided by the **ISO**.
- (3)** The **ISO tariff** becomes effective as of the date provided in the revision history of each rate, rider, section, or appendix and only when approved by the **Commission** and each rate, rider, section, or appendix of the **ISO tariff** remains in effect until the **Commission** approves its replacement or amendment.

Conflict

- 2(1)** Nothing in the **ISO tariff** in any way restricts or limits the powers, duties and responsibilities of the **ISO** as described in the **Act**.
- (2)** In the event of any conflict between the terms and conditions of the **ISO tariff** and the rates, riders or appendices of the **ISO tariff**, the terms and conditions govern.
- (3)** In the event of any conflict between the **ISO tariff** and a section of an agreement for **system access service**, the **ISO tariff** governs the specific section in conflict without affecting or impairing the remaining sections of the agreement for **system access service**.

Interpretation

- 3** In the **ISO tariff**:
- (a) tables of contents, section headers and the use of underlining and italicizing are not a part of the **ISO tariff** but are inserted for convenience of reference only;
 - (b) words in the singular include the plural and words in the plural include the singular;
 - (c) words importing male **persons** include female **persons**, words importing female **persons** include male **persons** and words importing either sex include corporations;
 - (d) the provisions of the **ISO tariff** will be construed as always speaking and will be applied to circumstances as they arise;
 - (e) “may” is to be construed as permissive and empowering and “must”, “shall” and “will” are to be construed as imperative;
 - (f) all references to a time of day in the **ISO tariff** mean mountain standard or mountain daylight time in the Province of Alberta, whichever is in effect on the day in question;
 - (g) words and phrases in bold type have the meanings given to them in the definitions found in the *Consolidated Authoritative Documents Glossary*; and
 - (h) titles of documents are in italics.

Jurisdiction

4(1) Any **ISO** or **market participant** dispute concerning the application, interpretation or enforceability of the **ISO tariff** will be addressed in accordance with section 103.2 of the **ISO rules**.

(2) Any such dispute is within the exclusive jurisdiction of the **Commission** or Courts of the Province of Alberta, as applicable, and any related legal proceedings must be commenced, heard and adjudicated within the applicable Alberta forum.

Revision History

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

ISO Tariff – Section 2 Provision of and Limitations to System Access Service

Applicability

1 This section applies to a **market participant** who has requested or is receiving **system access service** under any rate in the **ISO tariff**.

Provision of Service

2(1) Subject to subsections 3, 4, 5 and 6 below, the **ISO** must provide **system access service**, up to and including the applicable **point of delivery** or **point of supply**, to a **market participant** who has a current agreement for **system access service** and complies with the **ISO tariff**.

(2) The **ISO** will provide such **system access service** up to the **contract capacity** of the **market participant**.

(3) **System access service** may be limited, reduced or interrupted under any applicable **ISO rule** or due to abnormal operating conditions which include, as defined in the *Transmission Regulation*, conditions where **transmission facilities** are out of service, **emergency** conditions exist, construction or **commissioning** of **transmission facilities** occurs or **transmission facility** maintenance cannot be coordinated with **outages** of a **generating unit**.

Metered Demand Limitations

3(1) Subject to subsections 3(3) and 3(4) below, for a **market participant** receiving **system access service** under Rate DTS or Rate STS, the **metered demand** shall not exceed the lesser of the **rated capacity** or the **physical capacity** of any **transmission facilities** comprising its connection.

(2) If the **metered demand** exceeds either the **rated capacity** or the **physical capacity** of any **transmission facilities** comprising a **market participant's** connection, the **ISO** has the right to discontinue **system access service** until the **market participant** installs equipment to limit its **metered demand** to the **rated capacity** or **physical capacity**, as applicable.

(3) A **market participant** receiving **system access service** under Rate DTS may temporarily exceed the **rated capacity** of **transmission facilities** comprising its connection, but only where the **ISO** has approved a transaction under Rate DOS for the **market participant** at the applicable **point of delivery**.

(4) A **market participant** receiving **system access service** under Rate STS may temporarily exceed the **rated capacity** of **transmission facilities** comprising its connection, but only with the **ISO's** consent, obtained on a minimum twenty-four (24) hours' notice, which will be withheld if the **ISO** determines that the **transmission system** cannot safely accommodate the proposed energy without risk of disturbance to other **market participants**.

Withholding Service

4(1) The **ISO** may limit, reduce, withhold or terminate **system access service** if a **market participant** fails to comply with any provision of the **ISO tariff**.

(2) The **ISO** will provide a written explanation for limiting, reducing, withholding or terminating **system access service** to an affected **market participant** who submits a written request for those details.

Service Not Guaranteed

5(1) Although precautions are taken to guard against **system access service** limitations, reductions and interruptions, the **ISO** can not and does not guarantee uninterrupted **system access service**.

(2) Interruptions may be caused by events including:

- (a) scheduled or planned facility maintenance activities;
- (b) construction, **commissioning** and facility testing activities;
- (c) unscheduled or unplanned **emergency** equipment maintenance or other **emergencies**;
- (d) events of **force majeure**;
- (e) breaches of obligations owed to the **ISO** by its suppliers or **market participants**; or
- (f) as otherwise expressly allowed by a rate or rider in the **ISO tariff**.

(3) Whenever **system access service** has been limited, reduced or interrupted for reasons other than the **market participant** failing to comply with the **ISO tariff**, the **ISO** will make reasonable efforts to ensure that service is restored as soon as practicable after the limitation, reduction or interruption.

Interruptions for Construction, Commissioning and Facility Testing

6 The **ISO** will make reasonable efforts to schedule construction, **commissioning** and facility testing activities in conjunction with an affected **market participant's** planned downtime but, subject to such efforts, may interrupt **system access service** to perform such activities.

Market Participant's Continuing Obligations

7 A **market participant's** obligations to pay any rate, charge or other amount that has accrued or is accruing to the **ISO** and to fully comply with the **ISO tariff** are not affected during or as the result of any limitation, reduction, interruption, withholding or termination of **system access service**.

Reasonable Exercise of Discretion

8 Where the **ISO**, an **owner** of a **transmission facility** or a **market participant** is granted any discretion pursuant to the **ISO tariff** (whether explicitly granted or indicated through the use of “may” and whether with respect to granting consent or withholding consent to a particular matter or otherwise), the **ISO**, the **owner** of the **transmission facility** and the **market participant**, individually and collectively, must exercise such discretion acting reasonably in every instance.

Revision History

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

ISO Tariff – Section 3 System Access Service Connection Requirements

Applicability

1 This section applies to a **market participant** who has requested or is receiving **system access service** under any rate in the **ISO tariff**.

Technical Connection Requirements

2(1) A **market participant** receiving **system access service** must comply with the requirements, obligations and guidelines that apply to the connection of the **market participant's** facilities to the **interconnected electric system**.

(2) The **ISO** will identify such requirements, obligations and guidelines in documents it prepares, publishes and may amend or supplement from time to time, with respect to matters including transmission lines, generators, loads, communications, phasor measurement units, protection, revenue metering, supervisory control and data acquisition (SCADA) and transmission data.

(3) The **ISO** will make such documents available to **market participants** in the technical connection requirements section of the **ISO** website and on request.

Facilities Owned by a Market Participant

3(1) All facilities owned by a **market participant** and connected to the **interconnected electric system** are the responsibility of the **market participant** and the **ISO** has no responsibility in respect of service provided over **market participant** facilities.

(2) A **market participant** is responsible for any costs arising from changes to its facilities required as a result of:

- (a) changes to the **interconnected electric system** that affect the connection;
- (b) changes to requirements, obligations and guidelines that apply to the connection, subject to subsection 3(3) below, or
- (c) additional studies needed to ensure compliance with such requirements, obligations and guidelines.

(3) When the **ISO** requires the installation of an automatic voltage regulator or power system stabilizer on a regulated **generating unit** listed in Appendix A of the **ISO tariff**, the **ISO** will pay to the **owner** of the **generating unit** all costs prudently incurred in the installation of the automatic voltage regulator or power system stabilizer, subject to the approval of the **Commission** for the recovery of such costs through the **ISO tariff**.

Use of Transmission Facilities

4 Neither a **market participant** nor any other **person** may rearrange, disconnect, remove, connect with or otherwise interfere with any **transmission facility** without the **ISO's** prior written consent.

Compliance

5(1) The **ISO** may withhold, suspend or terminate a **market participant's system access service** for failure to comply with the technical connection requirements, obligations and guidelines described in subsection 2 above.

(2) Where the **ISO** determines that non-compliance with subsection 2 above would not have a detrimental effect on system reliability, the **ISO** may waive the compliance requirements if it believes the imposition of the technical connection requirements, obligations or guidelines would create severe hardship or unnecessary costs to an existing **market participant**.

Revision History

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

Applicability

1 This section applies to a **market participant** who has requested a new **system access service** or changes to an existing **system access service** under:

- (a) Demand Transmission Service Rate DTS;
- (b) Fort Nelson Demand Transmission Service Rate FTS;
- (c) Primary Service Credit Rate PSC; or
- (d) Supply Transmission Service Rate STS.

Requests for System Access Service

2(1) A **market participant** must apply in writing to the **ISO** to request a new **system access service** or to change an existing **system access service**.

(2) A **market participant** must make separate requests for changes to existing **system access services** at each **point of delivery** and **point of supply** at a single transmission substation and the **ISO** will not accept requests for a net change to an existing **system access services** agreement.

(3) The **ISO** will review the requirements to provide **system access service** in response to the request of a **market participant** and determine the appropriate process for providing the **system access service**.

Requests Which Require Construction of Transmission Facilities

3(1) If the **ISO** determines that providing **system access service** requires the construction of **transmission facilities**:

- (a) the **ISO** will determine the connection project scope, assign the project to an **owner** of a **transmission facility** and confirm the process for developing the connection proposal for the project;
- (b) a connection proposal will be prepared in accordance with subsection 5 below; and
- (c) **needs identification documents** and facility applications will be prepared in accordance with subsection 6 below.

(2) Throughout the **system access service** request process, a **market participant** must at all times satisfy the financial obligations required by section 5 of the **ISO tariff**.

Requests Which Do Not Require Construction of Transmission Facilities

4 If the **ISO** determines that providing **system access service** does not require the construction of **transmission facilities**, the **ISO**:

- (a) will assess whether the request can be accommodated on the existing **transmission system** and, if so, will proceed to prepare an amendment to the **market participant's** agreement for **system access service**; and

(b) may require payment of an amount determined in accordance with section 9 of the **ISO tariff**.

Preparation of Connection Proposal

5(1) A **market participant** is responsible for the preparation of the connection proposal, including an estimate of project costs and may work with the **owner** of the **transmission facility** or other parties to develop the connection proposal.

(2) If the **ISO** requires a **loss factor** study for the project, the **ISO** will complete one (1) such study at no cost to the **market participant** and will charge the **market participant** \$2 500 for each additional **loss factor** study requested, if any.

(3) Any other studies required to support the connection proposal are the responsibility of the **market participant** and the **ISO** will provide the **market participant** with **ISO** information required for the studies.

(4) Upon receipt of a complete connection proposal, including all required studies, the **ISO** will:

- (a) review the proposal;
- (b) identify and communicate to the **market participant** any deficiencies to be addressed by the **market participant**; and
- (c) accept the connection proposal after deficiencies, if any, have been addressed.

(5) The **ISO** will include the connection project in its **transmission system** plans upon:

- (a) accepting the connection proposal;
- (b) receiving the technical data required for the preparation of the **needs identification document** for the connection project; and
- (c) receiving confirmation from the **owner** of the **transmission facility** that the **market participant** has met the financial obligations of section 5 of the **ISO tariff**.

Preparation of Needs Identification Documents and Facility Applications

6(1) When the connection project is included in the **ISO's transmission system** plans, the **ISO** may direct the **owner** of the **transmission facility** to prepare and submit to the **ISO** a **needs identification document** for the connection project, including completion of any associated participant involvement program.

(2) Upon receipt of a **needs identification document**, the **ISO** will:

- (a) review the **needs identification document**, including the results of any associated participant involvement program;
- (b) identify and communicate to the **owner** of the **transmission facility**, any deficiencies that the **owner** must address; and
- (c) endorse the **needs identification document** after deficiencies, if any, have been addressed.

(3) When the **ISO** includes the connection project in its **transmission system** plans, the **ISO** may direct the **owner** of the **transmission facility** or request a **market participant** to prepare and submit to the **Commission** a facility application for the connection project.

(4) The **ISO** will work cooperatively with the **owner** of the **transmission facility** or the **market participant** to facilitate all submissions to the **Commission**.

(5) If a potential requirement for any new or revised **ISO rule** or operating procedure is identified during the preparation of a **needs identification document** or facility application for the connection project, the **ISO** will review such requirement and draft a new or revised **ISO rule** if applicable.

Requirement of Market Participant to Act

7(1) A **market participant** must meet any critical requirements established by the **ISO** for a connection project.

(2) The critical requirements will include payment of:

- (a) any **construction contribution** determined under section 8 of the **ISO tariff**; and
- (b) any **owner's** contribution for a **generating unit** determined under section 10 of the **ISO tariff**.

(3) If a **market participant** fails to meet the critical requirements, the **ISO** may:

- (a) cancel the **system access service** request;
- (b) reassess the inclusion of the project in its **transmission system** plans; or
- (c) amend the critical requirements.

(4) If the **ISO** cancels a **system access service** request, a **market participant** may reapply for the **system access service** under subsection 2.

Alternative Processes

8 The **ISO** may, with the agreement of the **market participant**, satisfy the provisions of this section 4 through processes other than those described above and, in particular, alternative processes may be utilized for connection projects that materially affect regional **transmission system** projects.

Revision History

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

ISO Tariff – Section 5 Financial Obligations for Connection Projects

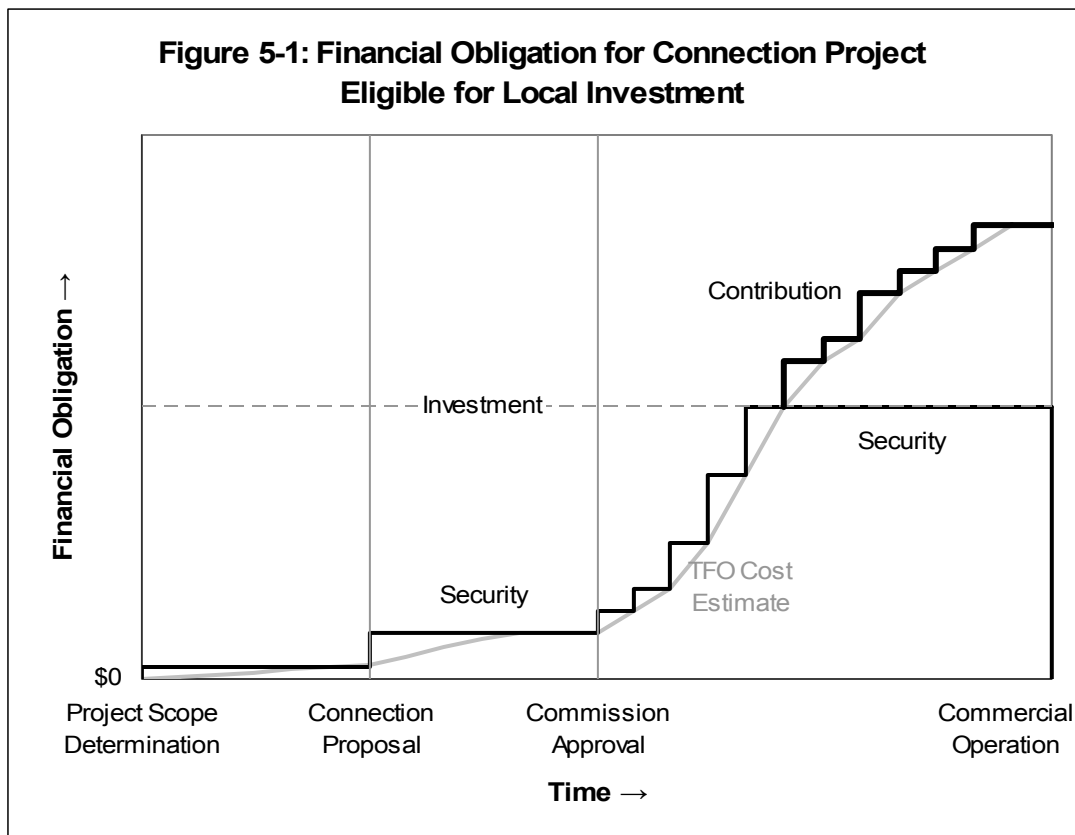
Applicability

1 This section applies to a **market participant** who has requested a new **system access service** or changes to an existing **system access service** under:

- (a) Demand Transmission Service Rate DTS;
- (b) Fort Nelson Demand Transmission Service Rate FTS;
- (c) Primary Service Credit Rate PSC; or
- (d) Supply Transmission Service Rate STS.

Amount of Financial Obligation

2(1) The financial obligation of a **market participant** for a connection project is generally illustrated in Figure 5-1 and described more fully below.



(2) A financial obligation exists for a connection project only after the **ISO** determines the connection project scope in accordance with subsection 3(1) of section 4 of the **ISO tariff**.

- (3) The financial obligation for a connection project will include, but not exceed, the total of:
- (a) participant-related costs the **owner** of the **transmission facility** incurs in relation to the connection project, including costs incurred in preparation of the connection proposal, preparation of required application(s) and construction of the project;
 - (b) costs of facilities which are in excess of those required by **good electric industry practice**; and
 - (c) any operations and maintenance charge associated with the connection project;

where these costs are estimated in advance by the **owner** of the **transmission facility** and determined in accordance with section 8 of the **ISO tariff**.

- (4) From the determination of the connection project scope to the **ISO's** acceptance of the connection proposal, the financial obligation amount will be equal to the total estimated cost that the **owner** of the **transmission facility** will incur in preparation of the connection proposal.
- (5) From the **ISO's** acceptance of the connection proposal to the approval of the connection project by the **Commission**, the financial obligation will increase by the amount of all estimated subsequent costs that the **owner** of the **transmission facility** will incur in preparation of the application(s) required for approval of the connection project.
- (6) After the **Commission** issues permit and licence for the connection project, the financial obligation will increase monthly by amounts equal to the estimated subsequent costs that the **owner** of the **transmission facility** will incur in construction and completion of the connection project, up to the total amount established in subsection 2(3) above.
- (7) If procurement of long lead time equipment occurs prior to construction of a connection project, all costs associated with such procurement will be added to the financial obligation amounts determined in subsections 2(4) and 2(5) above.
- (8) The financial obligation amount will be based on certain assumptions regarding the **market participant's** request for **system access service**, which may be revised from time to time to reflect changes to:
- (a) the request for **system access service**;
 - (b) factors affecting the connection project, such as the method of construction, the routing of facilities and the approvals and rights of way;
 - (c) variances in the estimated or actual cost of the connection project compared to the original estimate; and
 - (d) other relevant considerations.

Form and Provision of Financial Security

3(1) **Owners** of **electric distribution systems** that are regulated by the **Commission** are not required to provide financial security for connection projects.

(2) All other **market participants** must provide security for connection projects in accordance with this subsection 3.

(3) A **market participant** must provide financial security to the **owner** of the **transmission facility** in the amount of and at the time defined for the financial obligations described in subsection 2 above, up to the maximum local investment determined for the connection project under section 8 of the **ISO tariff**.

(4) Financial security must:

(a) be in the form of a guarantee, cash deposit or irrevocable letter of credit from a Canadian chartered bank, credit union, trust company or other financial institution with a minimum senior unsecured long-term debt A– credit rating or equivalent as determined by Standard & Poor's, Moody's Investor Services, DBRS or equivalent credit rating agency; and

(b) be satisfactory to the **owner** of the **transmission facility** in form, substance and amount, at the discretion of the **owner** of the **transmission facility**.

(5) Unsecured credit established for a **market participant** by the **ISO** may be used to reduce the amount of security the **market participant** must provide to the **owner** of the **transmission facility** for the connection project, up to the limit of such unsecured credit not utilized to reduce other security required by the **ISO** or the **owner** of the **transmission facility**.

(6) The **market participant** may provide security in amounts greater than the financial obligations described in subsection 2 above but this does not reduce the amount of **construction contribution** required by subsection 4 below.

Form and Provision of Construction Contribution

4(1) If the financial obligation described in subsection 2 above exceeds the maximum local investment determined for the connection project under section 8 of the **ISO tariff**, the **market participant** must pay:

(a) as a **construction contribution** the amount of the financial obligation above the maximum local investment; and

(b) the **construction contribution** at the time defined for the financial obligations described in subsection 2 above.

(2) For additional clarity, if a connection project is not eligible for local investment, as in the case of **system access service** provided under Rate STS, the **market participant** must pay as a **construction contribution** all financial obligations for the connection project in the amounts and at the times described for the financial obligations in subsection 2 above.

(3) The **market participant** must pay the **construction contribution** by way of electronic funds transfer or wire transfer to the bank account the **owner** of the **transmission facility** specifies.

(4) The **market participant** may provide the **construction contribution** in amounts greater than the financial obligations described in subsection 2 above.

Cancellation

5(1) If a connection project is cancelled at any time prior to **commercial operation**, the **market participant** must pay:

(a) all costs the **owner** of the **transmission facility** incurs or is required to incur in the preparation of the connection proposal, preparation of any required applications and construction of the project; and

- (b) any other costs the **owner** of the **transmission facility** incurs or is required to incur with respect to the project, including all cancellation costs, penalties and costs for material salvage and reclamation of the construction site.

(2) If a **market participant** fails to pay the costs described in subsection 5(1) above on the payment due date, the **owner** of the **transmission facility**, without further notice, may realize on any security provided by the **market participant**.

(3) If a **market participant** takes action that, in the opinion of the **owner** of the **transmission facility**, indicates the **market participant** has terminated or abandoned its intention to proceed to **commercial operation** of the connection project, the **owner** of the **transmission facility** may deem the project to be cancelled pursuant to subsection 5(1) above.

(4) The **ISO** may deduct, set off and net out any debts, liquidated demands, unliquidated demands, damages or other amounts the **ISO** owes to the **market participant**, under any agreement between the **ISO** and the **market participant**, on partial or full satisfaction of any costs owing by the **market participant** under subsection 5(1) above.

Release of Security

6(1) Within ninety (90) days after **commercial operation** of the connection project, the **owner** of the **transmission facility** will return any security held for the connection project to the **market participant**.

(2) For additional clarity, a **construction contribution** required by subsection 4 above will not be returned to the **market participant**.

Compliance

7(1) A **market participant** must satisfy a request for security or **construction contribution** or for additional or replacement security or **construction contribution**, within thirty (30) calendar days of such request.

(2) A **market participant** must report any event of default by it to a lender for borrowed funds or any **material adverse changes** in its financial position within two (2) **business days** of such event.

(3) If a **market participant** fails to provide security or **construction contribution** or if the **ISO** or the **owner** of the **transmission facility** becomes aware of an unreported event or change under subsection 7(2) above, all work related to the connection project will be suspended.

(4) Work on the connection project will remain suspended until the **market participant** provides the required security or **construction contribution** or the **market participant's** financial position is reassessed, as appropriate.

(5) If the project remains suspended, the **market participant** may fail to meet critical requirements under section 4 of the **ISO tariff**, resulting in cancellation of the **system access service** request or reassessment of the inclusion of the project in the **ISO's transmission system** plans.

(6) Any such suspension of work on the connection project under subsection 7(3) above will not relieve the **market participant** from its financial obligation for amounts that have accrued or are accruing, to the **ISO** or to the **owner** of the **transmission facility** with respect to the connection project.

Revision History

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

Applicability

1 This section applies to a **market participant** who has requested or is receiving **system access service** under any rate in the **ISO tariff**.

AESO Measurement System Standard

2(1) A **market participant** must comply with applicable provisions of the *AESO Measurement System Standard*, including ensuring that all **metering equipment** the **market participant** provides also complies at all times.

(2) The **ISO** will prepare, amend and supplement from time to time, the *AESO Measurement System Standard* and will make it available to a **market participant** in the technical connection requirements section of the **ISO** website and on request.

Requirement to Install Metering Equipment

3(1) The **ISO** may require a **market participant** to install **metering equipment** on the **market participant's** premises, at the **market participant's** sole cost.

(2) If the **market participant** fails to comply with such requirement in a timely manner:

- (a) the **ISO** may, at the **market participant's** sole cost, direct the **owner** of the **transmission facility** to enter and install **metering equipment** on the **market participant's** premises; and
- (b) the **market participant** must reasonably allow the **owner** of the **transmission facility** access to carry out such work.

Revision History

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

ISO Tariff – Section 7 Provision of Information by Market Participants

Applicability

1 This section applies to a **market participant** who has requested or is receiving **system access service** under any rate in the **ISO tariff**.

System Access Information

2(1) A **market participant** must provide, upon the **ISO's** request, information that the **ISO** requires in order to discharge its duties and functions under the **Act** or in compliance with any external agency's reporting requirements, which includes:

- (a) information the **ISO** requires in respect of new or expanding **system access service**; and
- (b) technical information during construction and prior to the issuance of energization authorization, including pre-**commissioning** information.

(2) The **ISO** will specify the information the **market participant** must provide.

Operating and Forecast Information

3(1) From time to time, but generally not more than once during a 12-month period, the **ISO** may request a **market participant** to provide any or all of the following information:

- (a) a copy of the **market participant's** operating procedures;
- (b) a schedule of planned or maintenance **outages** for the following two (2) calendar years; or
- (c) forecast information for the following five (5) calendar years, including:
 - (i) forecast maximum **contract capacity** by **point of delivery** or **point of supply**, by month;
 - (ii) the location and size of any required new **point of delivery** and **point of supply**, by year; and
 - (iii) the name and location of any existing **point of delivery** or **point of supply** which may no longer be required, by year.

(2) The **ISO** will provide forms for provision of the required update and forecast information.

Effect of Non-Compliance

4(1) Failure to provide information that may have an impact on safety or system reliability may result in:

- (a) a delay or withholding of a **market participant's system access service** until the **market participant** provides the information to the **ISO**; or
- (b) the **ISO** terminating the **market participant's** agreement for **system access service**.

(2) The **ISO** is not responsible for any delay, interruption, damage or other problems affecting the **system access service** of a **market participant** caused by a delay in the provision of information required from a **market participant**.

Revision History

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

ISO Tariff – Section 8 Construction Contributions for Connection Projects

Applicability

1 This section applies to a **market participant** who has requested or is receiving **system access service** under:

- (a) Demand Transmission Service Rate DTS;
- (b) Primary Service Credit Rate PSC; or
- (c) Supply Transmission Service Rate STS.

Connection Costs

2 The costs of a connection project for a **market participant** will be those costs reasonably associated with facilities that:

- (a) an **owner** of a **transmission facility** will own and operate;
- (b) are required to:
 - (i) provide **system access service** to a new **point of delivery** or **point of supply**; or
 - (ii) increase the capacity of or improve **system access service** to an existing **point of delivery** or **point of supply**; and
- (c) are reasonably required to meet the **market participant's**:
 - (i) demand and supply forecast; and
 - (ii) reliability and operating requirements.

Classification of Participant-Related and System-Related Costs

3(1) All costs of a connection project will be classified as either participant-related or system-related.

(2) Participant-related costs will be those costs related to a contiguous connection project including costs associated with:

- (a) the connection substation for the **point of delivery** or **point of supply**, including in out line configurations, where required;
- (b) new radial transmission lines, including double-radial configurations, with only one (1) transmission source from the **transmission system** to the connection substation;
- (c) a share of existing **transmission facilities** that were constructed to connect another **market participant**, where the existing facilities originally began **commercial operation** within the past twenty (20) years and where the share is determined in accordance with subsection 3 of section 9 of the **ISO tariff**;
- (d) line moves or burials of existing transmission line;
- (e) communication at the **point of delivery** or **point of supply**;
- (f) communication enhancements required at the nearest substation with communications equipment to allow direct communication between it and the connection substation;

- (g) breakers and associated equipment required for the connection of the new radial transmission line to an existing substation;
 - (h) salvage labour required to remove existing **transmission facilities** to allow the installation of new or replacement facilities for a connection project, except where the cost of the removed facilities is treated as a capital maintenance cost by the **owner** of the **transmission facility**;
 - (i) changes to protection systems, equipment or settings related to the addition of a **generating unit** on an **electric distribution system** served through the connection substation;
 - (j) a **remedial action scheme**, if required;
 - (k) a phasor measurement unit, if required;
 - (l) the advancement of **transmission facilities** included as part of a critical transmission development or regional **transmission system** project under subsection 3(3)(b) below, calculated as the difference between the present values of the capital costs of the advanced and the as-planned facilities using the discount rate provided in subsection 11 below;
 - (m) facilities previously classified as system-related under subsection 3(3)(c) below and now reclassified as participant-related to meet the requirements of the connection project; and
 - (n) other facilities required to complete the **market participant's** connection, including **transmission facilities** required to enable the **market participant** to meet all relevant technical requirements for the connection project.
- (3)** System-related costs will be those costs related to a connection project including non contiguous components of the project and any costs associated with:
- (a) looped **transmission facilities**, which are facilities that increase the number of electrical paths between any two (2) substations, excluding the substation serving the **market participant** and which exclude any new radial transmission line;
 - (b) radial **transmission facilities** which, within five (5) years of **commercial operation**, are planned to become looped as part of a critical transmission development or regional **transmission system** project:
 - (i) in the **ISO's** most recent long-term **transmission system** plan;
 - (ii) in a **needs identification document** filed with the **Commission**; or
 - (iii) as the **ISO** reasonably expects will be required in the future;and
 - (c) **transmission facilities** in excess of the minimum size required to serve the **market participant** where, in the opinion of the **ISO**, economics or system planning support the development of such facilities.

Facilities in Excess of Good Electric Industry Practice

4 A **market participant** must pay, as part of the **construction contribution**, any participant-related costs of facilities which are deemed, in the opinion of the **ISO**, to be in excess of those required by **good electric industry practice**.

Valuation of Facilities for Contribution Determination

5(1) When calculating costs, equipment used for a connection project will generally be valued at the replacement cost new which is the current cost of similar new equipment having the nearest equivalent capability to the equipment being valued.

(2) Where a connection project involves the installation of a transformer that replaces a smaller transformer which was removed from service at a substation, the participant-related costs for the connection project:

- (a) will be reduced by the replacement cost new of the removed transformer when the **owner** of the **transmission facility** either:
 - (i) deems the transformer which is removed to be re-deployable for use at another substation or suitable for use as an operating spare; or
 - (ii) treats the cost of the transformer which is removed as a capital maintenance cost; or
- (b) subject to subsection 5(2)(a) above, will not be reduced in any other circumstances including when the **owner** of the **transmission facility** scraps the transformer which is removed without treating its cost as a capital maintenance cost.

Allocation of Costs to Market Participants

6(1) The balance of participant-related costs remaining after:

- (a) the exclusion of costs, if any, under subsection 4 above reflecting facilities in excess of those required by **good electric industry practice**; and
- (b) the reduction of costs, if any, under subsection 5 above reflecting replacement of a transformer removed from service;

will be allocated to the **market participant** at the substation at which **system access service** is provided.

(2) Where facilities are used to provide **system access services**, which may be solely under Rate DTS, solely under Rate STS or under a combination of both, to more than one **market participant** at a single substation, the balance of participant-related costs identified in subsection 6(1) will be allocated among those **market participants**.

(3) The balance of participant-related costs referred to in subsections 6(1) and 6(2) above will be allocated to each **market participant** by multiplying those costs by the average **substation fraction** for the **market participant** determined in accordance with subsection 3(3) of section 9 of the **ISO tariff**.

(4) Costs allocated to a **market participant** taking service under Rate DTS are deemed to be demand-related costs.

(5) Costs allocated to a **market participant** taking service under Rate STS are deemed to be supply-related costs.

Determination of Construction Contribution

7(1) The **construction contribution** will be calculated in accordance with the **construction contribution** provisions of the **ISO tariff** in effect on the date on which the **Commission** issues permit and licence for the connection project.

(2) A **market participant** must pay **construction contribution** amounts to the **owner** of the **transmission facility** in accordance with the financial obligation provisions of section 5 of the **ISO tariff**.

(3) For a **market participant** receiving service under Rate DTS, the **construction contribution** is calculated as the demand-related costs less the local investment determined under subsection 8 below.

(4) For a **market participant** receiving service under Rate STS, the **construction contribution** is equal to the supply-related costs.

(5) In addition, a **market participant** receiving service under Rate STS must pay the **ISO** any **owner's** contribution for a **generating unit** required under section 10 of the **ISO tariff**.

Determination of Local Investment

8(1) For a **market participant** taking service under Rate DTS, or under Rate DTS with Rate PSC, the maximum local investment will be based on the **contract capacity** and investment term set out in the **system access service** agreement for the connection project.

(2) The **contract capacity** used for the local investment calculation must not include any **contract capacity** transferred from another **point of delivery**.

(3) The investment term must be from five (5) to twenty (20) years inclusive, commencing on the date of **commercial operation**.

(4) For a connection project for a new **point of delivery**, the maximum local investment amount will be the sum of the annual amounts calculated for each year in the investment term by adding the products of the values from each of rows (c) through (g) of the table below, where the product for a row is calculated by multiplying:

- (a) the **substation fraction** or **contract capacity**, as applicable, from column A; and
- (b) the investment amounts from column B or column C, as applicable.

Column A	Column B	Column C
Tier	Investment for Service Under Rate DTS	Investment for Service Under Rate DTS with Rate PSC
(c) Substation fraction (for new points of delivery only)	\$50 050/year	\$10 510/year
(d) First (7.5 × substation fraction) MW of contract capacity	\$34 000/MW/year	\$7 140/MW/year
(e) Next (9.5 × substation fraction) MW of contract capacity	\$12 550/MW/year	\$2 635/MW/year
(f) Next (23 × substation fraction) MW of contract capacity	\$7 600/MW/year	\$1 595/MW/year
(g) All remaining MW of contract capacity	\$4 100/MW/year	\$0/MW/year

- (5) For a connection project at an existing **point of delivery** to accommodate a **contract capacity** increase:
- (a) the **contract capacity** used for the local investment calculation will be the incremental **contract capacity** since the most recent change in **construction contribution** at the **point of delivery**;
 - (b) the **substation fraction** will be calculated based on **contract capacities** after the increase;
 - (c) the existing **contract capacity** establishes the tier in which investment will become available for the incremental **contract capacity**; and
 - (d) where the sum of existing and incremental **contract capacities** exceeds the remaining MW in the tier, investment will become available from subsequent tiers, as appropriate.
- (6) If a **market participant** includes increases or decreases to **contract capacity** over the investment term for a connection project, the local investment will be the sum of the investment for each incremental amount of **contract capacity**, which will be:
- (a) calculated in accordance with subsections 8(4) and 8(5) above, based on each increment of **contract capacity** and the years for which each increment is contracted, and
 - (b) discounted from the beginning of the first month in which the increment of **contract capacity** exists back to the date of **commercial operation** of the connection project, using the discount rate provided in subsection 11 below.
- (7) The maximum local investment calculated in subsection 8(4), 8(5), or 8(6) above will not exceed the demand-related costs.

Operations and Maintenance

- 9(1) A **market participant** taking service under Rate DTS must pay, as part of the **construction contribution**, an operations and maintenance charge that will be added to any participant-related costs of facilities which are deemed to be in excess of those required by **good electric industry practice** in subsection 4 above.
- (2) The operations and maintenance charge will be estimated by the **market participant** and agreed to by the **ISO**:
- (a) as the present value of the full incremental maintenance cost, incremental operations cost, and overheads associated with the operations and maintenance of the facilities which are deemed to be in excess of those required by **good electric industry practice**,
 - (b) over the useful life of those facilities or twenty (20) years, whichever is less.
- (3) The discount rate used in the present value calculation will be that provided in subsection 11 below.

Limitations

- 10 The **ISO** will have discretion in the application of the **construction contribution** provisions in the **ISO tariff**, including the determination of costs to be system-related in certain circumstances that might, under strict application of the **construction contribution** provisions, have been classified as participant-related.

Discount Rate

11(1) The discount rate applicable to the calculation of **construction contributions** under this section 8 of the **ISO tariff** and payments in lieu of notice under section 9 of the **ISO tariff** will be determined as:

$$\text{discount rate} = [(1 - E) \times (\text{YLD} + 1\%)] + \left(\frac{E \times \text{ROE}}{1 - T} \right)$$

where:

- (a) E is equal to the **Commission**-approved equity ratio applicable to the **owner** of **transmission facilities**, as amended from time to time;
- (b) YLD is equal to the yield on 30-year Government of Canada bonds;
- (c) ROE is equal to the **Commission**-approved rate of return on equity applicable to the **owner** of the **transmission facilities**, as amended from time to time; and
- (d) T is equal to the combined federal and provincial income tax rate applicable to the **owner** of the **transmission facilities**.

(2) Where an **owner** of **transmission facilities** does not pay income tax, including a non-income tax paying municipal **owner** of **transmission facilities**, the tax rate T used in subsection 11(1) above will be equal to zero (0).

Miscellaneous

12(1) Where **transmission facilities** must be relocated, the **ISO** will make reasonable efforts to ensure that the party causing the relocation pays all reasonable costs associated with the relocation.

(2) Where new facilities between adjacent **balancing authority areas** are required, the cost of such facilities will be shared between the **ISO** and the party responsible for costs in the other **balancing authority area** based on the extent to which each benefits directly from the facilities.

Revision History

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

ISO Tariff – Section 9 Changes to System Access Service After Energization

Applicability

- 1 This section applies to a **market participant** who is receiving **system access service** under:
- (a) Demand Transmission Service Rate DTS;
 - (b) Primary Service Credit Rate PSC; or
 - (c) Supply Transmission Service Rate STS.

Events Resulting in Adjustments to Construction Contributions

2(1) The **ISO** may decide that certain events warrant an adjustment to the **construction contribution** that had previously been determined by application of the **ISO's construction contribution** provisions to a connection project.

(2) Events which may result in **construction contribution** adjustments include:

- (a) a **market participant** materially increasing or decreasing **contract capacity** or investment term or terminating **system access service**, prior to the expiry of the investment term for a connection project;
- (b) one or more additional **market participants** using facilities originally installed for any existing **market participant**, resulting in sharing of facilities as provided for in subsection 3 below;
- (c) facilities previously classified as system-related being reclassified as participant-related to meet changes in **market participant** requirements;
- (d) facilities previously classified as participant-related being reclassified as system-related;
- (e) a material error in the original **construction contribution** determination;
- (f) a material variance in the estimated or actual cost of the connection project compared to the original estimate; or
- (g) a material reduction to the period of advancement of **transmission facilities** included as part of a critical transmission development or regional **transmission system** project under the provisions of subsection 3(2)(k) of section 8 of the **ISO tariff**.

(3) The **market participant**, the **ISO** or the **owner** of the **transmission facilities** may initiate a determination of an adjustment to a **construction contribution** as a result of an event described in subsection 2(2) above.

(4) No adjustments to **construction contribution** will be made more than twenty (20) years after **commercial operation** of a connection project.

(5) Where an event requires the addition of new equipment at an existing **point of delivery** or **point of supply**, the **construction contribution** will be determined under the provisions of section 8 of the **ISO tariff** rather than this section 9.

Shared Facilities

3(1) If **transmission facilities** are constructed to serve a **market participant** and then used to serve other **market participants** within twenty (20) years after **commercial operation** of the original connection project, the participant-related costs of the shared **transmission facilities** will be allocated to **market participants** by:

- (a) first, where transmission line is shared by two or more substations, allocating the costs of the shared line to those substations in accordance with subsection 3(2) below; and
- (b) second, where a single substation is shared by two or more **market participants**, allocating the shared costs associated with the substation to those **market participants** in accordance with subsection 3(3) below.

(2) Where transmission line is shared by two or more substations, the participant-related cost of the shared line will be allocated to the substations by:

- (a) determining the higher of the sum of all Rate DTS **contract capacities** or the sum of all Rate STS **contract capacities** for each substation in each of the twenty (20) years following **commercial operation** of the original transmission line, assigning a **contract capacity** of zero (0) in any year in which a substation did not exist;
- (b) calculating the percentage share of the transmission line attributable to each substation by dividing the **contract capacity** determined in subsection 3(2)(a) above for the substation in a year by the sum of **contract capacities** determined for all sharing substations in that year;
- (c) calculating the average percentage share over the full twenty (20) year period for each substation; and
- (d) multiplying the cost of the shared transmission line by the average percentage share determined for each substation.

(3) Where **system access services** are provided to more than one **market participant** at a single substation, the participant-related cost of shared **transmission facilities** will be allocated to the **market participants** at the substation by:

- (a) determining the **substation fraction** for each **market participant** in each of the twenty (20) years following **commercial operation** of the original connection project, assigning a **contract capacity** of zero (0) in any year in which a **market participant** did not receive **system access service**;
- (b) calculating the average **substation fraction** over the full twenty (20) year period for each **market participant**; and
- (c) multiplying the cost of the shared **transmission facilities** by the average **substation fraction** determined for each **market participant**.

(4) The allocation of costs of shared **transmission facilities** under subsections 3(1), 3(2), and 3(3) above:

- (a) will reduce the participant-related costs allocated to the original **market participant**; and
- (b) may result in a refund under subsection 4 below, where applicable, in part or in full, of a **construction contribution** previously paid by that **market participant**.

- (5) The allocation of costs of shared **transmission facilities** under subsections 3(1), 3(2), and 3(3) above:
- (a) will be included in the determination of participant related costs for the additional **market participants** under subsection 3(2)(c) of section 8 of the **ISO tariff**; and
 - (b) may result in **construction contributions** being assessed to the additional **market participants** under section 8 of the **ISO tariff**.

Determination of Construction Contribution

- 4(1) For an adjustment to a **construction contribution** paid for a connection project, the adjustment will be determined in accordance with the **construction contribution** provisions described in the **ISO tariff** as applied to the **transmission facilities** when constructed.
- (2) The **ISO** will determine the amount of any adjustments to **construction contributions**.
- (3) The **market participant** will pay any resulting increase in **construction contribution** to the **owner** of the **transmission facilities** and the **owner** of the **transmission facilities** will refund any resulting decrease in **customer contribution** to the **market participant**.
- (4) Adjustments are charged or refunded without interest.
- (5) Adjustments will be neither charged nor refunded for amounts less than \$10 000.

Notices for Reductions or Terminations of Contract Capacity

- 5(1) Subject to subsection 5(2) below, reductions or terminations of **contract capacity** will be effective five (5) years after the date of the request for reduction or termination.
- (2) A **market participant** reducing or terminating **contract capacity** may choose to make a lump sum payment determined by the **ISO** in lieu of all or a portion of the 5-year notice period in subsection 5(1) above.
- (3) The payment in lieu of notice will represent a share of system costs potentially incurred to reasonably accommodate the **contract capacity** of a **market participant** over the 5-year planning horizon of the **transmission system** and will be:
- (a) for any **market participant** reducing or terminating **contract capacity** under Rate DTS, the present value of the difference in bulk system and local system charges which would be attributed to the service with and without the reduction or termination of **contract capacity** during the notice period; or
 - (b) for any **market participant** terminating **contract capacity** under Rate STS for a regulated **generating unit** listed in Appendix A of the **ISO tariff**, the difference in regulated **generating unit** connection cost charges which would be attributable to the service with and without the termination of the service during the notice period.
- (4) The discount rate used in the present value calculation will be that provided in subsection 11 of section 8 of the **ISO tariff**.
- (5) A **market participant** may make a payment in lieu of notice at any time prior to or during the 5-year notice period, for the remainder of the notice period and the **ISO** must receive such payment at least thirty (30) days before the reduction or termination of **contract capacity** is effective.

(6) If the **ISO** considers that circumstances warrant, the **ISO** may waive or reduce the requirement for payment in lieu of notice where:

- (a) **contract capacity** is transferred to a **system access service** of the same **market participant** at a nearby transmission substation;
- (b) **transmission system** benefits arise from the reduction or termination of **contract capacity**, which benefits may include relief of regional transmission constraints, removal of capacity limitations which would restrict **system access service** to other **market participants** or avoidance of future upgrades to the **transmission system**; or
- (c) the reduction of **contract capacity** results from an energy or demand reduction initiative of the **market participant** who has taken service for at least twenty (20) years who:
 - (i) provides to the **ISO** a clear, thorough and convincing case, with supporting facts, that demonstrates the energy or demand reduction resulting from the initiative and
 - (ii) during the ten (10) years prior to the reduction in **contract capacity** becoming effective, has not increased **contract capacity** at the **point of delivery** at which the reduction in **contract capacity** will occur.

(7) At any time during the remainder of a notice period for which a payment in lieu of notice was made, the **ISO** may re-assess the payment in lieu of notice if material differences arise between the requested and actual **contract capacities** or between expected and actual load and require additional payment from the **market participant** if appropriate.

Metered Demand Above Pre-Notice Contract Capacity

6(1) The **contract capacity** immediately following the 5-year notice period required by subsection 5(1) above will be the maximum of:

- (a) the pre-notice **contract capacity** less the reduction of **contract capacity** the **market participant** requested; or
- (b) the highest **metered demand** during the 5-year notice period less the reduction of **contract capacity** the **market participant** requested.

(2) If the highest **metered demand** affects the maximum determined under subsection 6(1) above, a **market participant** may provide an additional notice of reduction to request a subsequent reduction of **contract capacity** to the original notice level.

Payments

7(1) A **market participant** must satisfy a request for payment of a **construction contribution** adjustment or a payment in lieu of notice within thirty (30) calendar days of such request.

(2) The **market participant** must make payment by way of electronic funds transfer or wire transfer to the bank account:

- (a) the **owner** of the **transmission facilities** specifies, for a **construction contribution** adjustment; or
- (b) the **ISO** specifies, for a payment in lieu of notice.

Revision History

Effective	Description
2011-07-01	Revised and reformatted all subsections, as approved in Commission Decision 2011-275 issued on June 24, 2011, and in Commission Decision 2011-333 issued on August 4, 2011 for subsection 5(6).

ISO Tariff – Section 10 Generating Unit Owner's Contribution



Applicability

- 1 This section applies to a **market participant**:
 - (a) who has requested or is receiving **system access service** under Supply Transmission Service Rate STS;
 - (b) whose agreement for **system access service** was or will be signed on or after January 1, 2006; and
 - (c) whose Rate STS **contract capacity** is greater than one (1) MW.

Maximum STS Contract Capacity

- 2 The **contract capacity** for a new **point of supply** established by the **ISO** may not exceed:
 - (a) the sum of the **maximum capabilities** of all **generating units** connected to the **interconnected electric system** by the **point of supply**, less
 - (b) the sum of all loads that offset the electricity delivered to the **interconnected electric system** from that **point of supply** under normal operating conditions.

Determination of the Owner's Contribution for a Generating Unit

3(1) In addition to the **construction contribution** determined in section 8 of the **ISO tariff**, a **market participant** who has requested **system access service** under Rate STS must pay an **owner's** contribution for a **generating unit** for:

- (a) new Rate STS **contract capacity** requirements at a new **point of supply**; and
 - (b) new Rate STS **contract capacity** requirements at an existing **point of supply** where such additional requirements are the result of the addition of a new **generating unit**.
- (2)** The **owner's** contribution for a **generating unit** is the sum of the following:
 - (a) \$10 000/MW multiplied by the amount of new Rate STS **contract capacity**, plus
 - (b) \$40 000/MW multiplied by the amount of new Rate STS **contract capacity** multiplied by the **owner's** contribution factor for the area of the **transmission system** where the **generating unit** will be located.
- (3)** The **ISO** will determine the **owner's** contribution factors for **generating units**, in accordance with section 29 of the *Transmission Regulation*, for areas of the **transmission system** where generation exceeds load and will make the factors publicly available on the **ISO** website in advance of their effective dates.

Payment of Owner's Contribution for a Generating Unit

- 4 A **market participant** must pay the **owner's** contribution for a **generating unit** in full to the **ISO**:
 - (a) at least thirty (30) days prior to the energization authorization of the **generating unit**; and

- (b) by way of electronic funds transfer or wire transfer to the bank account specified by the **ISO**.

Refund of Owner's Contribution for a Generating Unit

- 5(1)** The **ISO** will refund the **owner's** contribution for a **generating unit** to a **market participant** if the **generating unit** meets the **ISO rules** regarding satisfactory annual performance, in accordance with the provisions of this subsection 5.
- (2)** The **ISO** will refund the **owner's** contribution for a **generating unit** in annual amounts during the refund period which begins on January 1 following the **commercial operation** date of the **generating unit** and ends nine (9) calendar years later on December 31.
- (3)** The annual amounts during the refund period will be:
- (a) 5.6% of the **owner's** contribution for the **generating unit**, in each of the first through fourth calendar years in the refund period;
 - (b) 11.2% of the **owner's** contribution for the **generating unit**, in the fifth calendar year in the refund period; and
 - (c) 16.6% of the **owner's** contribution for the **generating unit**, in each of the sixth through ninth calendar years in the refund period.
- (4)** For each calendar year during the refund period, where:
- (a) all of the **ISO rules** regarding satisfactory annual performance are met, the **ISO** will refund the **market participant** the annual amount determined in subsection 5(3) above for that year; or
 - (b) any of the **ISO rules** regarding satisfactory annual performance are not met, the **ISO** will refund no annual amount or will refund a reduced annual amount for that year, as determined in accordance with the **ISO rules**.
- (5)** For each year in the refund period, the **market participant** must report the **generating unit's** annual performance to the **ISO** by January 31 of the following year.
- (6)** When the **market participant** has reported the **generating unit's** annual performance for a year in the refund period, the **ISO** will refund the **market participant** the amount determined in subsection 5(4) above by February 28 of the following year.
- (7)** Annual amounts are refunded without interest.

Return of Refunds

6 The **ISO** may determine that a **market participant** must return a refund of an annual amount, in whole or in part, where it is demonstrated that an error was made or that an inappropriate amount was refunded.

Revision History

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

General

1 **Ancillary services** are provided by **market participants** when the **ISO** determines there is a need for such services to maintain system reliability and ensure the reliable operation of the **interconnected electric system**. **Market participants** required by the **ISO** to provide **ancillary services** shall be directed to do so in accordance with **ISO rules** and will be compensated as provided in subsections 2 through 7 below, as applicable.

Contracted Ancillary Services

2 If at the time the **market participant** is directed to provide **ancillary services** the **market participant** has an existing contract with the **ISO** to provide the **ancillary services** in question from the directed facility (the “existing contract”), then the amount to be paid to the **market participant** by the **ISO** for the **ancillary services** shall be determined according to the terms of the existing contract.

Directed Ancillary Services Other Than Transmission Must-Run Services

3 If at the time the **market participant** is directed to provide an **ancillary service** other than transmission must-run service, the **market participant** does not have an existing contract, then the amount to be paid to the **market participant** by the **ISO** in respect of each **ancillary service** provided shall be the greater of the following monthly amounts. Each amount is the sum for the month of hourly compensation amounts:

- (a) The product of the MW hour directed and the highest price paid in the hour to **market participants** providing the same **ancillary service** pursuant to subsection 2 above and that the existing contract was the result of a competitive process conducted in the prior twelve (12) months; or
- (b) The verifiable net opportunity cost related to foregone electricity sales incurred by the **market participant** to supply the directed **ancillary service**, taking into account offsetting **power pool** energy receipts.

Transmission Must-Run Services

4(1) Transmission must-run services are **ancillary services** provided by **market participants** with **generating units** in response to a **directive** provided by the **ISO** to ensure safe and reliable electrical service for a region of the **interconnected electric system**.

(2) Transmission must-run services are foreseeable if the **ISO**, taking into account reasonable procurement timing requirements, determines transmission must-run services are required to meet **ISO** transmission reliability criteria which includes consideration of expected operating conditions and planned transmission **outages**. Transmission must-run services are unforeseeable transmission must-run services if they do not constitute foreseeable transmission must-run services.

Arrangements and Compensation for Foreseeable Transmission Must-Run Services

5 Arrangements and compensation for foreseeable transmission must-run services will be made in accordance with the *Foreseeable TMR Service Procurement Procedure* (Appendix C of the **ISO tariff**).

Compensation for Unforeseeable Transmission Must-Run Services

6(1) If at the time the **market participant** is directed to provide unforeseeable transmission must-run service the **market participant** does not have an existing contract, then the amount to be paid to the **market participant** in the applicable **settlement period** for unforeseeable transmission must-run service is equal to variable costs plus fixed costs, where:

- (a) variable costs means the hourly difference of the **pool price** subtracted from the energy price, which shall not be less than zero (0), multiplied by the corresponding hourly energy generated (MWh) by the specific directed **generating unit** in compliance with the **directive** to provide unforeseeable transmission must-run service, where:
 - (i) Energy price (\$/MWh) is the product of the heat rate multiplied by the fuel cost, added to the sum of the variable Rate STS charges and variable O&M charge.
 - (ii) Heat rate (GJ/MWh) is the actual heat rate of the **market participant's generating unit** during the period when the unit was complying with the **directive**.
 - (iii) Fuel cost for a gas **generating unit** is the natural gas market price (\$/GJ), being the "Daily Spot Price at AECO-C and NIT", excluding weekends, as published in the *Canadian Gas Price Reporter*, for natural gas on the applicable day. The fuel cost for a coal **generating unit** shall be provided by the **market participant**.
 - (iv) Variable Rate STS charge (\$/MWh) is the actual cost of all variable charges from Rate STS of the **ISO tariff**, including the applicable **loss factor** charge or credit.
 - (v) Variable O&M charge (\$/MWh) is the all-in cost (including major/minor overhauls), fixed at \$4.00/MWh, of providing incremental output from the unit, excluding fuel costs and variable Rate STS charges.
- (b) Fixed costs are equal to the average monthly fixed cost multiplied by the greater of the must-run ratio or the minimum must-run ratio, where:
 - (i) Average monthly fixed cost is equal to one-twelfth of the sum of the annual costs in items (A) through (H) as follows:
 - (A) annual amortization and depreciation amounts for the **market participant's** investment or for the **power purchase arrangement** acquisition cost related to the specific directed **generating unit**, consistent with amounts reported in the **market participant's** audited financial statements and adjusted for cogeneration infrastructure not utilized for generation purposes;
 - (B) the product of the unamortized or undepreciated capital investment multiplied by a deemed debt percentage of 70% and multiplied by a debt interest rate that is equal to the current 10-year Government of Canada bond interest rate plus 0.5% and where the unamortized or undepreciated capital investment is the greater of
 - (1) the **market participant's** initial cost of property, plant and equipment for the specific directed **generating unit** or the **market participant's** initial **power purchase arrangement** acquisition cost related to the specific directed **generating unit**, less accumulated depreciation or amortization, as the case may be, related to the specific directed **generating unit**; or
 - (2) 25% of the **market participant's** initial cost of property, plant and equipment for the specific directed **generating unit** or the **market participant's** initial **power purchase arrangement** acquisition cost related to the specific directed **power purchase arrangement**.
 - (C) the product of unamortized or undepreciated capital investment, as described in (B) above, multiplied by a deemed 30% common equity percentage of capital structure multiplied by a deemed 12% rate of return on equity;

- (D) if the **market participant** provides verifiable actual values for the items in both (B) and (C) then those will be used instead of the deemed values;
 - (E) the product of the tax rates multiplied by the rate of return on equity amount determined in (C), where income tax costs reflect the marginal income tax rates for both federal and provincial portions of income tax;
 - (F) total annual direct fixed operation and maintenance costs associated with the specific directed **generating unit**;
 - (G) total annual direct fixed fuel costs associated with the specific directed **generating unit**; and
 - (H) fixed charges from applicable **power purchase arrangements** associated with the specific directed **generating unit**.
- (ii) Must-run ratio is the ratio of the number of hours in the month when unforeseeable transmission must-run services were provided to the total number of hours in the month;
- (iii) Minimum must-run ratio is:
- (A) 12% for the first or second unforeseeable transmission must-run service event within a rolling 12-month period in which transmission must-run service is directed by the **ISO**;
 - (B) 20% for the third unforeseeable transmission must-run service event within a rolling 12-month period in which transmission must-run service is directed by the **ISO**;
 - (C) 30% for the fourth unforeseeable transmission must-run service event within a rolling 12-month period in which transmission must-run service is directed by the **ISO**;
 - (D) 40% for the fifth unforeseeable transmission must-run service event within a rolling 12-month period in which transmission must-run service is directed by the **ISO**; or
 - (E) 50% for the sixth or any additional unforeseeable transmission must-run service event within a rolling 12-month period in which transmission must-run service is directed by the **ISO**.

If there is more than one unforeseeable transmission must-run service event in a **settlement period**, the minimum must-run ratio shall be the highest applicable percentage described in (A) through (E) above.

(2) In lieu of the variable and fixed costs in subsections 6(1)(a) and 6(1)(b) above, if a **market participant** can demonstrate foregone future energy sales due to a transmission must-run **directive**, then the verifiable net opportunity cost related to foregone electricity sales incurred by the **market participant** to supply the directed transmission must-run service, taking into account offsetting **power pool** energy receipts. This applies only to **market participants** that have responded to a transmission must-run **directive** using hydroelectric generating units.

Maximum Transmission Must-Run Services Compensation

7 The maximum monthly amount to be paid by the **ISO** for transmission must-run service results in the recovery of fixed, operating and maintenance costs, including a reasonable rate of return for the service provider and is equal to the average monthly fixed cost plus variable costs as provided for in subsection 6 above.

Invoicing

8 A **market participant** that provide unforeseeable transmission must-run service in response to a **directive** from the **ISO** will submit an invoice to the **ISO** within fifteen (15) **business days** after the end of the month in which the service was provided. The amount of the invoice shall be determined in accordance with the method in subsection 6 above and will separately itemize the values used for each component specified (fixed and variable costs).

Audit Rights

9 The **ISO** has the right to audit a **market participant's** invoices and source information related thereto for transmission must-run services, provided that any such audit is:

- (a) conducted only on reasonable prior notice to the **market participant**;
- (b) conducted on the **market participant's** premises during normal business hours;
- (c) not conducted by or the information gathered made available to, those individuals at the **ISO** that determine contestability for purposes of the **ISO** procuring transmission must-run competitively;
- (d) conducted subject to section 103.1 of the **ISO rules** regarding confidential information; and that
- (e) no copies of records reviewed during the audit shall be made without the **market participant's** prior written consent.

Revision History

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

Applicability

1 This section applies to a **market participant** who has requested or is receiving **system access service** under Demand Opportunity Service Rate DOS.

Eligibility and Pre-Qualification

2(1) **System access service** under Rate DOS will be available only to a **market participant** that the **ISO** pre-qualifies for demand opportunity service.

(2) On an annual basis and at least forty-five (45) calendar days prior to submitting a transaction request for demand opportunity service, a **market participant** must submit to the **ISO** a completed pre-qualification application, available in the demand opportunity service section of the **ISO** website or from the **ISO**.

(3) The **market participant** must pay a non-refundable fee of \$5 000 to the **ISO** for evaluation of the **market participant's** eligibility for demand opportunity service when the pre-qualification application is submitted.

(4) To be eligible for demand opportunity service, the **ISO** must be satisfied that:

- (a) a **market participant** meets the commercial eligibility criteria for demand opportunity service provided in subsection 3 below;
- (b) the **market participant's** use of demand opportunity service would not proceed on any other applicable rate; and
- (c) there is sufficient transmission capacity and suitable system operation conditions capable of accommodating the request.

(5) A **market participant's** pre-qualification for demand opportunity service will only apply:

- (a) up to the demand opportunity service **contract capacity** which the **market participant** requested or such lower demand opportunity service **contract capacity** as the **ISO** determines is available;
- (b) for the specific type or types of demand opportunity service, as listed in Rate DOS, which the **market participant** requested and is eligible for; and
- (c) for a maximum of one (1) year from the date the **ISO** approves the **market participant's** pre-qualification.

(6) The **ISO** will notify a **market participant** in writing of approval or denial of approval of pre-qualification for demand opportunity service, within forty-five (45) calendar days of receiving a pre-qualification application.

Commercial Eligibility Criteria

- 3(1)** A **market participant** must provide to the **ISO** a clear, thorough and convincing case, with supporting facts, that demonstrates that the **market participant** would not increase **metered demand** under Rate DTS if Rate DOS was not available.
- (2)** The **market participant** must satisfy the **ISO** that a commercial business opportunity exists for the use of additional electric energy on either a temporary or repeated short-term basis.
- (3)** The **market participant** will be eligible for additional electric energy under Rate DOS either:
- (a) to replace an alternative source of energy where the **market participant**:
 - (i) has an available alternative source of energy, including means to employ it, that could rationally be used instead of electric energy from the **interconnected electric system**; and
 - (ii) the cost of utilizing the alternative source of energy is less than the cost of receiving additional electric energy under Rate DTS; or
 - (b) to take advantage of a market opportunity where the **market participant**:
 - (i) has a market or business opportunity that requires additional electric energy;
 - (ii) the cost of receiving additional electric energy under Rate DTS renders the opportunity uneconomic; and
 - (iii) the **market participant's** alternative is to forego the opportunity.
- (4)** In addition, the **market participant** will be eligible for additional electric energy only under the DOS Term type of Rate DOS for scheduled maintenance of a **generating unit** where the **market participant**:
- (a) has planned maintenance of an on-site **generating unit** that normally supplies electric energy to an industrial process on the same premises; and
 - (b) would reduce the load of its industrial process in these circumstances rather than pay the cost of receiving additional electric energy under Rate DTS.
- (5)** The **market participant** will not be eligible for additional electric energy under Rate DOS where:
- (a) the **market participant** has the opportunity to install facilities that will reduce the consumption of electric energy from the **interconnected electric system**; or
 - (b) the requirement for additional electric energy is the result of an unplanned **outage** of derate of an on-site **generating unit** that normally supplies electric energy to an industrial process on the same premises or otherwise displaces consumption of electric energy from the **interconnected electric system**.

Transaction Requests

- 4(1)** Once the **ISO** approves a **market participant's** pre-qualification for demand opportunity service under subsection 2 above, the **market participant** may submit a transaction request for demand opportunity service.
- (2)** A **market participant** may submit a transaction request for demand opportunity service for a **point of delivery**:
- (a) only in accordance with its confirmed pre-qualification under subsection 2(4) above, specifically:
 - (i) up to its pre-qualified capacity; and
 - (ii) for the pre-qualified type or types of demand opportunity service;
 - (b) for only one Rate DOS type in any single hour, even if the **market participant** is eligible for multiple Rate DOS types;
 - (c) with a minimum continuous duration of eight (8) hours and a maximum continuous duration of one (1) calendar month; and
 - (d) with a start date and end date in the same calendar month.
- (3)** A **market participant** must submit a completed transaction request form, available in the demand opportunity service section of the **ISO** website or from the **ISO**, at least one (1) hour and no more than ten (10) calendar days before the requested start time of the demand opportunity service transaction.
- (4)** The **ISO** will approve a transaction request for demand opportunity service if it determines that:
- (a) the request meets the requirements of subsection 4(2) and 4(3) above;
 - (b) the request form has been fully and correctly completed and submitted; and
 - (c) sufficient surplus capacity exists on the **transmission system** to accommodate the requested capacity for the duration of the Rate DOS transaction.
- (5)** The **ISO** will notify a **market participant** when a transaction request has been approved or has been denied approval.
- (6)** A **market participant** may not cancel or revise a Rate DOS transaction request after it is approved by the **ISO**.

Recallable Service

- 5(1)** To the extent practicable, in an **emergency**, demand opportunity service will be recalled in advance of **system access service** provided to **market participants** under Rate DTS and Rate FTS.
- (2)** Demand opportunity service is recallable:
- (a) in accordance with the provisions of Rate DOS;
 - (b) whenever **transmission system** capacity becomes insufficient to sustain demand opportunity service, either temporarily or permanently;
 - (c) when the Alberta **balancing authority area** lacks sufficient **ancillary services**; and
 - (d) in accordance with the provisions of section 2 of the **ISO tariff**.

(3) When the **ISO** issues a **directive** to curtail capacity provided under Rate DOS, a **market participant** must curtail in accordance with the response time and recall priority set out in Rate DOS for the Rate DOS type approved for the transaction.

Effect of Disqualification

6(1) From time to time, the **ISO** may audit a **market participant's** eligibility for and use of demand opportunity service to verify compliance with the eligibility requirements in subsection 2 above and in particular with the commercial eligibility criteria in subsection 3 above.

(2) The **ISO** may charge the **market participant** the cost of an audit conducted in accordance with subsection 7(1) above.

(3) If the **ISO** finds that the **market participant** is no longer eligible for demand opportunity service, all **metered energy** delivered to the **market participant** will be billed under Rate DTS as of the effective date of the disqualification and the **ISO** will terminate billing under Rate DOS.

(4) The **ISO** may, in its sole discretion, recover retroactive amounts for the period during which such **market participant** did not qualify for, but was billed under, Rate DOS.

Revision History

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

ISO Tariff – Section 13

Financial Security, Settlement and Payment Terms

Applicability

- 1(1)** This section applies to a **market participant** who has requested or is receiving **system access service** under any rate of the **ISO tariff**.
- (2)** An **owner** of an **electric distribution system** that is regulated by the **Commission** is not required to comply with the **ISO's** financial security requirements applicable to **system access service** charges in subsections 2 and 3 below.
- (3)** All other **market participants** must comply with the **ISO's** financial security requirements.

Financial Security Requirements

- 2(1)** Prior to receiving service, a **market participant** must provide the **ISO** with all financial information that the **ISO** reasonably requests in order to establish the financial security required from the **market participant**.
- (2)** The **market participant** must provide financial security in an amount of up to two (2) months' payment in advance for **system access service**.
- (3)** The **ISO** will estimate the amount of the financial security based on the **market participant's** historic use or on an estimate where actual use is not available.
- (4)** Financial security must be in a form satisfactory to the **ISO** which may include a guarantee, cash deposit or irrevocable letter of credit from a Canadian chartered bank, credit union, trust company or other financial institution with a minimum senior unsecured long-term debt A- credit rating or equivalent as determined by Standard & Poor's, Moody's Investor Services, DBRS or equivalent credit rating agency.
- (5)** The **ISO** may request, at any time after an energization authorization, additional or replacement security based on the **ISO's** estimate of the appropriate security required.
- (6)** A **market participant** must provide required additional or replacement security to the **ISO** within two (2) **business days** of such request.
- (7)** A **market participant** must report any event of default for borrowed funds or **material adverse changes** in its financial position to the **ISO** within two (2) **business days** of such event.
- (8)** Unsecured credit the **ISO** establishes for a **market participant** may be used to reduce the amount of security the **market participant** must provide, up to the limit of such unsecured credit not utilized to reduce any other security the **ISO** or the **owner** of the **transmission facility** requires.

Effect of Non-Compliance

- 3(1)** If a **market participant** fails to provide adequate financial security outlined in subsection 2 above, then either or both of the following may apply.
 - (a) the **ISO** may invoke a financial penalty which will be calculated at the Bank of Montreal Canadian prime rate plus 6%, until such time as the security has been provided to the **ISO**;

(b) the **ISO** may immediately withhold or suspend the **system access service** of the **market participant**.

(2) Any withholding or suspension of **system access service** under subsection 3(1)(b) above will not relieve the **market participant** from its obligation to pay any rate, charge or other amount that has accrued or is accruing, to the **ISO**.

Billing Procedures

4(1) The **ISO** will issue a statement of account for **system access service** no later than fifteen (15) **business days** after the end of each **settlement period**, which statement may include:

- (a) amounts determined on an initial basis for that **settlement period**;
- (b) amounts determined on an interim basis for the period two months prior to that **settlement period**; and
- (c) amounts determined on a final basis for the period four months prior to that **settlement period**.

(2) The **ISO** may review any statement of account and may issue a new statement of account based on that review.

(3) The **ISO** may choose not to issue a statement of account on an interim or final basis if it would result in a charge or refund of less than \$1 000.

(4) The **ISO** may use estimated values to produce a statement of account when **metered demand** or **metered energy** data is not available or is incomplete, **metering equipment** fails or the data is under dispute.

(5) The **ISO** may also use estimated values to produce a statement of account if the **ISO's** billing and settlement system is unable to produce a statement of account.

(6) If a statement of account is based on estimated values, the **ISO** will make an adjustment on a subsequent statement of account issued in accordance with subsection 4(1)(b) or 4(1)(c) above to reflect the use of actual or more appropriate estimated values.

(7) The **ISO** may deduct from a statement of account any amounts it owes to the **market participant** or its **affiliates**.

Totalized Billing

5(1) If a **market participant** is an industrial facility with multiple **points of delivery**, **points of supply** or both, the **ISO** may totalize the **points of delivery** and **points of supply** and produce one statement of account for the **market participant**.

(2) The **ISO** will base its decision to totalize on a review of:

- (a) the economics of providing more than a single **point of delivery** or **point of supply**;
- (b) reclassification of the site as a **Commission**-designated industrial system; or
- (c) the existence of a credible transmission bypass alternative.

Adjustments

6(1) If, forty-five (45) or more calendar days after an amount has been determined on a final basis for a **settlement period**, a **market participant** requests that a statement of account be recalculated and reissued as a result of:

- (a) unavailable or incomplete meter data;
- (b) inaccurate estimates of meter data; or
- (c) reconciliation with updated estimates of meter data;

the **ISO** may recover the cost of recalculating and reissuing the affected statement of account from the **market participant** that is taking service from the relevant **metering equipment**.

(2) The **market participant** must pay the **ISO** \$1 000 for each recalculated and reissued statement of account.

Request for Settlement Data

7(1) During regular business hours, the **ISO** will make available to a **market participant** any data required to verify a statement of account for **system access service**.

(2) The **market participant** will be responsible to pay all of the costs of retrieval and provision of the data.

Payment Terms

8(1) A **market participant** must pay the amounts shown on the statement of account no later than the twentieth **business day** after the end of the **settlement period**.

(2) The **market participant** must make payment by way of electronic funds transfer or wire transfer to the bank account the **ISO** specifies.

Interest and Other Charges

9(1) The **ISO** will charge interest, at the Bank of Montreal Canadian prime rate plus 6%, on overdue amounts from the due date to the date on which the **ISO** receives payment.

(2) The **ISO** will also charge a penalty on overdue amounts of an additional two (2) days' interest on the outstanding amount owing, calculated at the Bank of Montreal Canadian prime rate plus 6%.

(3) The **ISO** may also charge a defaulting **market participant** for all administrative and collection costs the **ISO** incurs to recover any amounts owed.

(4) The **ISO** may, upon notice, suspend **system access service** and realize upon any financial security if the **market participant** is not in compliance with subsection 8 above in full or partial satisfaction, as the case may be, of all amounts owing to the **ISO**.

(5) The **ISO** will not reinstate **system access service** to the **market participant** until the **market participant** has paid all amounts owing to the **ISO** in full and has restored or secured its credit facility in a manner satisfactory to the **ISO**.

Revision History

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

ISO Tariff – Section 14

Peak Metered Demand Waivers



Applicability

- 1 This section applies to a **market participant** who is receiving **system access service** under:
- (a) Demand Transmission Service Rate DTS; or
 - (b) Fort Nelson Demand Transmission Service Rate FTS.

Causes Eligible for Peak Metered Demand Waivers

2(1) The **ISO** may waive peak **metered demand** for a **market participant** for the purpose of calculating **billing capacity** when the peak **metered demand** was caused by one of the following:

- (a) **commissioning**;
- (b) activities required to repair and maintain **transmission facilities**;
- (c) load restoration activities that:
 - (i) follow an **outage** of **transmission facilities** or facilities that are part of an **electric distribution system**; or
 - (ii) are caused by an **emergency** on the **transmission system**;
- (d) compliance with a **directive** the **ISO** issues during an **emergency**; or
- (e) an event of **force majeure**.

(2) In addition, the **ISO** may waive peak **metered demand** for an **owner** of an **electric distribution system** for pre-scheduled activities required to maintain facilities that are part of its **electric distribution system**.

Requests for Peak Metered Demand Waivers

3(1) A **market participant** may request a peak **metered demand** waiver by submitting a completed *Peak Metered Demand Waiver Request* form, available on the **ISO** website or from the **ISO**.

(2) The **market participant** must submit the *Peak Metered Demand Waiver Request* form to the **ISO** no later than seven (7) **business days** after the end of the **settlement period** for which the waiver is being requested.

(3) Upon receipt of a peak **metered demand** waiver request, the **ISO** will confirm whether:

- (a) the peak **metered demand** was caused by an event set out in subsection 1(1) above; and
- (b) the **ISO** has sufficient information to make a determination on the request.

(4) If the **ISO** does not have sufficient information to make a determination on a peak **metered demand** waiver request, the **ISO** will:

- (a) request additional information from the **market participant**; or
- (b) request permission to audit the **market participant's** relevant records associated with the event.

Revision History

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

Applicability

1 This section applies to a **market participant** who has requested or is receiving **system access service** under any rate in the **ISO tariff**.

Assignment

2(1) A **market participant** may assign its agreement for **system access service** or any rights under it to another **market participant** who is eligible for the **system access service** available under such agreement and the **ISO tariff**, but only with the consent of the **ISO**, such consent not to be unreasonably withheld.

(2) If a Rate DTS, Rate FTS or Rate STS agreement for demand transmission service, Fort Nelson demand transmission service or supply transmission service has been assigned in accordance with subsection 2(1) above, all rights and obligations associated with the **system access service**, including any and all retrospective adjustments due to deferral account reconciliation or any other adjustments, will be applied to the account of the assignee.

Termination by Mutual Agreement

3 The **ISO** and a **market participant** may, by mutual written agreement, terminate any agreement entered into with respect to **system access service** under the **ISO tariff**, provided such termination does not relieve either the **ISO** or the **market participant** of any obligations accrued or accruing under the agreement prior to its termination.

Compliance With ISO Directives

4 A **market participant** must comply with all **directives** of the **ISO** in real-time, including those related to technical connection requirements and provision of **ancillary services**.

Notifications

5(1) All notices given or served upon the **ISO** in accordance with the **ISO tariff** must be in writing and marked “Important” and given by personal service, registered letter or fax, addressed to:

AESO
2500, 330 – 5th Avenue SW
Calgary, Alberta T2P 0L4

Attention: Commercial Services
Fax (403) 539-2509

with a copy to:

AESO
2500, 330 – 5th Avenue SW
Calgary, Alberta T2P 0L4

Attention: General Counsel
Fax (403) 539-2949

(2) All notices given or served upon the **market participant** must be in writing and given by personal service, registered letter or fax and sent to the address or addresses shown for such **market participant** in the relevant agreement for **system access service**.

(3) All notices shall be deemed duly given:

(a) upon delivery if personally delivered;

(b) five (5) **business days** after posting if sent by registered mail during normal postal service conditions; or

(c) on the same day, if emailed or faxed.

(4) In the event of disruption of normal postal services, all notices shall be sent by personal delivery.

Revision History

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

ISO Tariff – Appendix A Regulated Generating Units



Applicability

1 Under Supply Transmission Service Rate STS, a regulated **generating unit** connection cost charge applies to the regulated **generating unit** (“RGU”) MW listed in the table below.

Regulated Generating Unit	Owner	Type of Plant	RGU MW	Base Life
Barrier	TransAlta	Hydro	11.2	2020
Battle River 3	ATCO Power	Coal-fired thermal	147.3	2013
Battle River 4	ATCO Power	Coal-fired thermal	147.3	2013
Battle River 5	ATCO Power	Coal-fired thermal	368.2	2020
Battle River Total			662.8	
Bearspaw	TransAlta	Hydro	16.0	2020
Bighorn 1	TransAlta	Hydro	60.0	2020
Bighorn 2	TransAlta	Hydro	60.0	2020
Bighorn Total			120.0	
Brazeau 1	TransAlta	Hydro	160.0	2020
Brazeau 2	TransAlta	Hydro	190.0	2020
Brazeau Total			350.0	
Cascade 1	TransAlta	Hydro	17.0	2020
Cascade 2	TransAlta	Hydro	17.0	2020
Cascade Total			34.0	
Genesee 1	Capital Power	Coal-fired thermal	381.0	2020
Genesee 2	Capital Power	Coal-fired thermal	381.0	2020
Genesee Total			762.0	
Ghost 1	TransAlta	Hydro	1.0	2013
Ghost 2	TransAlta	Hydro	14.0	2020
Ghost 3	TransAlta	Hydro	14.0	2020
Ghost 4	TransAlta	Hydro	25.0	2020
Ghost Total			54.0	
H. R. Milner	ATCO Power	Coal-fired thermal	144.3	2012
Horseshoe 1	TransAlta	Hydro	5.0	2020
Horseshoe 2	TransAlta	Hydro	3.0	2020
Horseshoe 3	TransAlta	Hydro	3.0	2020
Horseshoe 4	TransAlta	Hydro	5.0	2020
Horseshoe Total			16.0	
Interlakes	TransAlta	Hydro	5.0	2020
Kananaskis 1	TransAlta	Hydro	5.0	2020
Kananaskis 2	TransAlta	Hydro	5.0	2020
Kananaskis 3	TransAlta	Hydro	9.0	2020
Kananaskis Total			19.0	

Regulated Generating Unit	Owner	Type of Plant	RGU MW	Base Life
Keephills 1	TransAlta	Coal-fired thermal	383.0	2020
Keephills 2	TransAlta	Coal-fired thermal	383.0	2020
Keephills Total			766.0	
Pocaterra	TransAlta	Hydro	14.0	2013
Rundle 1	TransAlta	Hydro	17.0	2020
Rundle 2	TransAlta	Hydro	33.0	2020
Rundle Total			50.0	
Sheerness 1	ATCO Power	Coal-fired thermal	378.1	2020
Sheerness 2	ATCO Power	Coal-fired thermal	378.1	2020
Sheerness Total			756.2	
Spray 1	TransAlta	Hydro	47.5	2020
Spray 2	TransAlta	Hydro	52.0	2020
Spray Total			99.5	
Sundance 1	TransAlta	Coal-fired thermal	280.0	2017
Sundance 2	TransAlta	Coal-fired thermal	280.0	2017
Sundance 3	TransAlta	Coal-fired thermal	353.0	2020
Sundance 4	TransAlta	Coal-fired thermal	353.0	2020
Sundance 5	TransAlta	Coal-fired thermal	353.0	2020
Sundance 6	TransAlta	Coal-fired thermal	357.0	2020
Sundance Total			1,976.0	
Three Sisters	TransAlta	Hydro	2.7	2020

Revision History

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

ISO Tariff – Appendix B

System Access Service Agreement Proformas

Applicability

1(1) The attached **system access service** agreement proformas are used for **system access services** provided under:

- (a) Demand Transmission Service Rate DTS;
- (b) Supply Transmission Service Rate STS;
- (c) Demand Opportunity Service Rate DOS;
- (d) Export Opportunity Service Rate EOS; and
- (a) Import Opportunity Service Rate IOS.

(2) The attached construction commitment agreement proforma is used for requests for **system access service** under section 4 of the **ISO tariff**.

Revision History

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

ISO Tariff – Appendix B System Access Service Agreement Proforma for Demand Transmission Service Rate DTS



This **DTS Agreement** effective the 1st day of _____, 201__ (the “**effective date**”).

Between:

Independent System Operator, operating as AESO
a body corporate with offices in the City of Calgary,
in the Province of Alberta
(the “**ISO**”)

and

[insert legal name of corporation or partnership],
[a body corporate or a partnership] with office[s] in the City of **[insert city]**,
in the Province of **[insert province]**
(the “**market participant**”)

RECITALS:

- A. This **DTS Agreement** sets out the particular details of the **system access service** that the **ISO** will provide to the **market participant** under Rate DTS of the **ISO tariff**.
- B. The **ISO tariff** contains additional terms and conditions of **system access service**. This **DTS Agreement** is comprised of both this document and the **ISO tariff**, and accordingly, both this document and the **ISO tariff** must be referred to and administered by the parties, even though the **ISO tariff** is not attached but incorporated into this **DTS Agreement** by reference.

In consideration of the premises to this **DTS Agreement**, the mutual covenants and agreements set forth in this **DTS Agreement** and other good and valuable consideration (the receipt and sufficiency of which is acknowledged by each of the parties), the parties agree as follows:

1. DEFINITIONS AND INTERPRETATION

- (a) Unless otherwise defined in this **DTS Agreement**, bolded terms, not including headings, used in this document have the meanings given to them in the *Consolidated Authoritative Documents Glossary*. In the event of any conflict or inconsistency between this document and the *Consolidated Authoritative Documents Glossary*, the latter shall prevail.
- (b) The **ISO tariff** shall be the **ISO tariff** in effect from time to time.
- (c) In the event of any conflict or inconsistency between this document and the **ISO tariff**, the latter shall prevail.

2. POINT OF DELIVERY, CONTRACT CAPACITY AND OTHER DETAILS

- (a) **Point of delivery** is located and described as follows:

Substation name and #:	[Name of Substation (123S)] ;
Legal Subdivisions (LSD):	[insert WxM] ;
Measurement Point Identification (MPID):	[insert assigned number]

8. **OTHER RATES AND CONDITIONS**

- (a) The primary service credit is applicable under this **DTS Agreement**.
Yes No
- (b) This **point of delivery** is designated to provide under-frequency load shed.
Yes No
- (c) The **market participant** is required to comply with a connection **remedial action scheme** for this **point of delivery**.
Yes No

9. **TERM**

This **DTS Agreement** will commence on the **effective date** and will continue unless it is terminated in accordance with the **ISO tariff**.

10. **PRIOR AGREEMENTS**

This **DTS Agreement** supersedes and replaces, as of the **effective date**, any other agreement for **system access service** under Rate DTS between the parties at the **point of delivery**.

11. **COMMISSIONING**

- (a) The **market participant** must undertake and complete **commissioning** in accordance with the requirements set out in the **ISO rules**.
- (b) **Commissioning** must be completed within ninety (90) days from the date that it commences.
- (c) The **market participant** may request changes to the **commissioning** period, energization **authorization** date and **commercial operation** date but such changes will only be effective if the **ISO** approves them in writing.

12. **COMMERCIAL OPERATION**

Upon completion of **commissioning**, provided the **market participant** has met its obligations and the **ISO** is satisfied that the **market participant's** facility will be safely and reliably integrated into the **interconnected electric system**, the **ISO** must issue a **commissioning** certificate certifying the date the facility may begin **commercial operation**.

13. **MARKET PARTICIPANT'S REPRESENTATIONS AND WARRANTIES**

The **market participant** represents and warrants to the **ISO** as follows:

- (a) the **market participant** is duly incorporated or organized, validly existing and in good standing under the laws of its jurisdiction of incorporation or organization, and duly registered and authorized to carry on business in the Province of Alberta;
- (b) this **DTS Agreement** has been duly authorized, executed and delivered by the **market participant** and constitutes a legal, valid and binding obligation of the **market participant**, enforceable against it in accordance with its terms, except to the extent that such enforceability may be limited by bankruptcy, insolvency, winding-up, reorganization,

and similar laws affecting the enforceability of creditors' rights generally and the availability of equitable remedies such as specific performance or injunction; and

- (c) the authorization, execution and performance by the **market participant** of this **DTS Agreement**:
 - (i) does not and will not violate any laws applicable to the **market participant**; and
 - (ii) is not in contravention of its constituting documents or its by-laws or the provisions of any loan agreement or other agreement to which it is a party or by which it is bound.

14. **NOTICES**

- (a) Notices will be provided as per Section 15(4) of the **ISO tariff**. The **market participant's** address for notices is:

Attention: _____

Telephone: _____

Fax: _____

Email: _____

- (b) The **market participant's** address for invoices, if different from the address for notices, is:

Attention: _____

Telephone: _____

Fax: _____

Email: _____

- (c) The **market participant** must provide any changes to its addresses to the **ISO** using the method posted on the **ISO** website as updated from time to time.

15. **AMENDMENTS**

- (a) The parties acknowledge that either may request an amendment to this **DTS Agreement**, including without limitation an amendment to the **contract capacity**. A party may request such an amendment by complying with the procedure for amending **DTS Agreements** posted by the **ISO** on its website. If such procedure is not posted, the party requesting an amendment may provide a notice to the other requesting such amendment.
- (b) Notwithstanding the foregoing, the parties acknowledge that the **ISO tariff** and the **ISO rules** may be amended from time to time during the term of this **DTS Agreement** by approval of the **Commission** and that this **DTS Agreement** shall be deemed amended upon each such approval.

- (c) Subject to Section 15(b), this **DTS Agreement** may only be amended by written instrument executed by the **ISO** and the **market participant**.

16. **MISCELLANEOUS**

- (a) The following matters shall be dealt with in accordance with the **ISO tariff** and the **ISO rules**:
 - (i) Assignment – Section 15 of the **ISO tariff**.
 - (ii) Confidentiality – **ISO rule** 103.1.
 - (iii) Dispute Resolution – **ISO rule** 103.2.
- (b) **Force majeure** shall be dealt with in accordance with the **ISO tariff** and the **ISO rules**.
- (c) Section 7 shall survive the termination of this **DTS Agreement** for either the time provided for in such section or the longest period provided by law.
- (d) This **DTS Agreement** will enure to the benefit and be binding upon the parties to this **DTS Agreement** and their respective successors and permitted assigns.
- (e) No waiver by any party of any breach (whether actual or anticipated) of any of the terms, conditions, representations or warranties contained in this **DTS Agreement** shall take effect or be binding upon that party unless the waiver is expressed in writing under the authority of that party. Any waiver so given shall extend only to the particular breach so waived and shall not limit or affect any rights with respect to any other or future breach.
- (f) Time is of the essence.
- (g) If at any time any one or more of the provisions of this **DTS Agreement** is or becomes invalid, illegal or unenforceable in any respect under any law, the validity, legality and enforceability of the remaining provisions of this **DTS Agreement** will not in any way be affected or impaired thereby to the fullest extent possible by law.
- (h) This **DTS Agreement** shall be governed by and interpreted in accordance with the laws of the Province of Alberta and the federal laws of Canada applicable therein, excluding any conflict of laws principles that may apply therein.
- (i) Whenever possible, each provision of this **DTS Agreement** shall be interpreted in such a manner as to be effective and valid under applicable law, however, each provision of this **DTS Agreement** is intended to be severable and if any provision is determined by a court of competent jurisdiction to be illegal, invalid or unenforceable for any reason whatsoever, such provision shall be severed from this **DTS Agreement** and will not affect the legality, validity or enforceability of the remainder of this **DTS Agreement** or any other provision of this **DTS Agreement**.
- (j) Each party will, from time to time, without further consideration, do such further acts and deliver all such further assurances, deeds and documents as shall be reasonably required in order to fully perform and carry out the terms of this **DTS Agreement**.
- (k) The parties may execute this **DTS Agreement** by fax or other electronic means and in separate counterparts, each of which when so executed and delivered shall be an original, and all such counterparts taken together shall constitute one instrument.



By signing this **DTS Agreement**, the **market participant** acknowledges that it has reviewed the **ISO tariff** and fully understands all rights and obligations contained in it.

IN WITNESS WHEREOF the **ISO** and the **market participant** have executed this **DTS Agreement** as of the **effective date**.

Independent System Operator, operating as AESO

Per: _____ Date:

Name:

Title:

[insert legal name of corporation or partnership]

Per: _____ Date:

Name:

Title:

ISO Tariff – Appendix B System Access Service Agreement Proforma for Supply Transmission Service Rate STS



This **STS Agreement** effective the 1st day of _____, 201__ (the “**effective date**”).

Between:

Independent System Operator, operating as AESO
a body corporate with offices in the City of Calgary,
in the Province of Alberta
(the “**ISO**”)

and

[insert legal name of corporation or partnership],
[a body corporate or a partnership] with office[s] in the City of [insert city],
in the Province of [insert province]
(the “**market participant**”)

RECITALS:

- A. This **STS Agreement** sets out the particular details of the **system access service** that the **ISO** will provide to the **market participant** under Rate STS of the **ISO tariff**.
- B. The **ISO tariff** contains additional terms and conditions of **system access service**. This **STS Agreement** is comprised of both this document and the **ISO tariff**, and accordingly, both this document and the **ISO tariff** must be referred to and administered by the parties, even though the **ISO tariff** is not attached but incorporated into this **STS Agreement** by reference.

In consideration of the premises to this **STS Agreement**, the mutual covenants and agreements set forth in this **STS Agreement** and other good and valuable consideration (the receipt and sufficiency of which is acknowledged by each of the parties), the parties agree as follows:

1. DEFINITIONS AND INTERPRETATION

- (a) Unless otherwise defined in this **STS Agreement**, bolded terms, not including headings, used in this document have the meanings given to them in the *Consolidated Authoritative Documents Glossary*. In the event of any conflict or inconsistency between this document and the *Consolidated Authoritative Documents Glossary*, the latter shall prevail.
- (b) The **ISO tariff** shall be the **ISO tariff** in effect from time to time.
- (c) In the event of any conflict or inconsistency between this document and the **ISO tariff**, the latter shall prevail.

2. POINT OF SUPPLY, CONTRACT CAPACITY AND OTHER DETAILS

- (a) **Point of supply** is located and described as follows:

Substation name and #:	[Name of Substation (123S)] ;
Legal Subdivisions (LSD):	[insert WxM] ;
Measurement Point Identification (MPID):	[insert assigned number]

(b) **Contract capacity** is the following amounts for and during the following periods:

MW from [insert date] up to and including [insert date];
MW [insert date] up to and including [insert date]; and
MW [insert date] for the balance of the term of this **STS Agreement**.

(c) Other details related to the connection project include:

ISO tariff in effect on date of permit and licence: _____
Total Project Costs: \$ _____
Participant-Related Costs: \$ _____
System-Related Costs: \$ _____
Generating Unit Type: _____

(d) Key dates:

(i) Date **Commission** issued permit and licence: [insert date or n/a]
(ii) Energization authorization date: _____
(iii) **Commissioning** period will commence on: _____
(iv) **Commercial operation** date: _____

3. SETTLEMENT

The **ISO** shall charge, and the **market participant** shall pay, amounts in accordance with Rate STS commencing in the **settlement period** in which the energization authorization date occurs.

4. CONTRIBUTIONS

As of the effective date of this **STS Agreement**, the **market participant's**:

- (a) **construction contribution** is estimated to be \$ [insert amount] and may be adjusted in accordance with the **ISO tariff**; and
- (b) **owner's contribution** for a **generating unit** is \$ [insert amount] [and may be adjusted in accordance with the **ISO tariff**].

5. ISO OBLIGATION TO PROVIDE SERVICE

Subject to Section 7, the **ISO** shall provide **system access service** under Rate STS to the **market participant** at the **point of supply** at the **contract capacity** pursuant to Section 2 of this **STS Agreement**.

6. MARKET PARTICIPANT'S OBLIGATION IN RELATION TO SERVICE

If the **market participant** takes **system access service** under Rate STS, the **market participant** shall take such service at the **point of supply** at the **contract capacity** pursuant to Section 2 of this **STS Agreement**.

7. MARKET PARTICIPANT'S PAYMENT OBLIGATION

The **market participant** shall pay to the **ISO** for **system access service** under Rate STS during the term of this **STS Agreement** the amount required pursuant to such rate.

8. **OTHER CONDITIONS**

The **market participant** is required to comply with a connection **remedial action scheme** for this **point of supply**.

Yes

No

9. **TERM**

This **STS Agreement** will commence on the **effective date** and will continue unless it is terminated in accordance with the **ISO tariff**.

10. **PRIOR AGREEMENTS**

This **STS Agreement** supersedes and replaces, as of the **effective date**, any other agreement for **system access service** under Rate STS between the parties at the **point of supply**.

11. **COMMISSIONING AND COMMERCIAL OPERATION**

(a) The **market participant** must undertake and complete **commissioning** in accordance with the requirements set out in the **ISO rules**.

(b) **Commissioning** must be completed within ninety (90) days from the date that it commences.

(c) The **market participant** may request changes to the **commissioning** period, energization authorization date and **commercial operation** date but such changes will only be effective if the **ISO** approves them in writing.

12. **COMMERCIAL OPERATION**

Upon completion of **commissioning**, provided the **market participant** has met its obligations and the **ISO** is satisfied that the **market participant's generating unit** will be safely and reliably integrated into the **interconnected electric system**, the **ISO** must issue a **commissioning** certificate certifying the date the **generating unit** may begin **commercial operation**.

13. **MARKET PARTICIPANT'S REPRESENTATIONS AND WARRANTIES**

The **market participant** represents and warrants to the **ISO** as follows:

(a) the **market participant** is duly incorporated or organized, validly existing and in good standing under the laws of its jurisdiction of incorporation or organization, and duly registered and authorized to carry on business in the Province of Alberta;

(b) this **STS Agreement** has been duly authorized, executed and delivered by the **market participant** and constitutes a legal, valid and binding obligation of the **market participant**, enforceable against it in accordance with its terms, except to the extent that such enforceability may be limited by bankruptcy, insolvency, winding-up, reorganization, and similar laws affecting the enforceability of creditors' rights generally and the availability of equitable remedies such as specific performance or injunction; and

- (c) the authorization, execution and performance by the **market participant** of this **STS Agreement**:
 - (i) does not and will not violate any laws applicable to the **market participant**; and
 - (ii) is not in contravention of its constating documents or its by-laws or the provisions of any loan agreement or other agreement to which it is a party or by which it is bound.

14. **NOTICES**

- (a) Notices will be provided as per Section 15(4) of the **ISO tariff**. The **market participant's** address for notices is:

Attention: _____

Telephone: _____

Fax: _____

Email: _____

- (b) The **market participant's** address for invoices, if different from the address for notices, is:

Attention: _____

Telephone: _____

Fax: _____

Email: _____

- (c) The **market participant** must provide any changes to its addresses to the **ISO** using the method posted on the **ISO** website as updated from time to time.

15. **AMENDMENTS**

- (a) The parties acknowledge that either may request an amendment to this **STS Agreement**, including without limitation an amendment to the **contract capacity**. A party may request such an amendment by complying with the procedure for amending **STS Agreements** posted by the **ISO** on its website. If such procedure is not posted, the party requesting an amendment may provide a notice to the other requesting such amendment.
- (b) Notwithstanding the foregoing, the parties acknowledge that the **ISO tariff** and the **ISO rules** may be amended from time to time during the term of this **STS Agreement** by approval of the **Commission** and that this **STS Agreement** shall be deemed amended upon each such approval.
- (c) Subject to Section 14(b), this **STS Agreement** may only be amended by written instrument executed by the **ISO** and the **market participant**.

16. **MISCELLANEOUS**

- (a) The following matters shall be dealt with in accordance with the **ISO tariff** and the **ISO rules**:
 - (i) Assignment – Section 15 of the **ISO tariff**.
 - (ii) Confidentiality – **ISO rule** 103.1.
 - (iii) Dispute Resolution – **ISO rule** 103.2.
- (b) **Force majeure** shall be dealt with in accordance with the **ISO tariff** and the **ISO rules**.
- (c) Section 7 shall survive the termination of this **STS Agreement** for either the time provided for in such section or the longest period provided by law.
- (d) This **STS Agreement** will enure to the benefit and be binding upon the parties to this **STS Agreement** and their respective successors and permitted assigns.
- (e) No waiver by any party of any breach (whether actual or anticipated) of any of the terms, conditions, representations or warranties contained in this **STS Agreement** shall take effect or be binding upon that party unless the waiver is expressed in writing under the authority of that party. Any waiver so given shall extend only to the particular breach so waived and shall not limit or affect any rights with respect to any other or future breach.
- (f) Time is of the essence.
- (g) If at any time any one or more of the provisions of this **STS Agreement** is or becomes invalid, illegal or unenforceable in any respect under any law, the validity, legality and enforceability of the remaining provisions of this **STS Agreement** will not in any way be affected or impaired thereby to the fullest extent possible by law.
- (h) This **STS Agreement** shall be governed by and interpreted in accordance with the laws of the Province of Alberta and the federal laws of Canada applicable therein, excluding any conflict of laws principles that may apply therein.
- (i) Whenever possible, each provision of this **STS Agreement** shall be interpreted in such a manner as to be effective and valid under applicable law, however, each provision of this **STS Agreement** is intended to be severable and if any provision is determined by a court of competent jurisdiction to be illegal, invalid or unenforceable for any reason whatsoever, such provision shall be severed from this **STS Agreement** and will not affect the legality, validity or enforceability of the remainder of this **STS Agreement** or any other provision of this **STS Agreement**.
- (j) Each party will, from time to time, without further consideration, do such further acts and deliver all such further assurances, deeds and documents as shall be reasonably required in order to fully perform and carry out the terms of this **STS Agreement**.
- (k) The parties may execute this **STS Agreement** by fax or other electronic means and in separate counterparts, each of which when so executed and delivered shall be an original, and all such counterparts taken together shall constitute one instrument.



By signing this **STS Agreement**, the **market participant** acknowledges that it has reviewed the **ISO tariff** and fully understands all rights and obligations contained in it.

IN WITNESS WHEREOF the **ISO** and the **market participant** have executed this **STS Agreement** as of the effective date.

Independent System Operator, operating as AESO

Per: _____ Date:

Name:

Title:

[insert legal name of corporation or partnership]

Per: _____ Date:

Name:

Title:

ISO Tariff – Appendix B System Access Service Agreement Proforma for Demand Opportunity Service Rate DOS



A **market participant** applying for pre-qualification for demand opportunity service should review the terms and conditions of such service contained in the **ISO tariff** and any other related information documents that appear on the **ISO's** website from time to time.

If approved, this application sets the parameters for a **market participant's** demand opportunity service transaction requests throughout the 12 months following such approval. Pre-qualification does not obligate the **ISO** to approve, or the **market participant** to request, any demand opportunity service. A non-refundable fee of \$5000.00 is payable with this application.

Application Details

Market participant: _____

Party administering demand opportunity service on behalf of the **market participant:**

market participant or company name:

Name of primary contact of administrator: _____

Phone: _____ Fax: _____ Email: _____

Facility name: _____

Facility location: LSD _____ SEC _____ TWP _____ RGE _____ MER _____

Connected substation (name and number): _____

Point of delivery: _____

Current demand transmission service **contract capacity** at the **point of delivery:** _____

Is this an application to renew a current pre-qualification? Yes No

Technical and Commercial Information

The following information is required in order for the **ISO** to determine whether the proposed use of demand opportunity service complies with the criteria set out in the **ISO tariff**.

- Requested start date: _____
- End date: 12 months from requested start date
- Requested demand opportunity service capacity: _____ MW
- Anticipated frequency of use: _____
- Total MWhs per month: _____

- Type of demand opportunity service expected to be used:

DOS 7 minute

DOS 1 hour

DOS Term

Technical Information: Please provide the following on an attachment labeled “Schedule A”.

- Load characteristic (static, synchronous machine or induction machine)
- Approximate load factor (demand opportunity service specific load only)
- Expected **power factor**

Schedule A: Attached

Commercial Information: Please read the eligibility criteria in the **ISO tariff** and provide a comprehensive business case, labeled “Schedule B”, demonstrating that the proposed use of demand opportunity service complies with those criteria. The business case must provide enough information to satisfy the **ISO** that the proposed use of electricity under demand opportunity service would not occur at the standard Rate DTS. The business case normally pertains to the end-user’s commercial circumstances and the end-user must be prepared to provide any additional information that the **ISO** reasonably requests.

Schedule B: Attached

Undertaking

The **market participant** undertakes to provide prompt notification to the **ISO** upon the occurrence of any financial, operational, and/or technical changes, where such changes materially impact the assumptions contained within the attached business case (“Schedule B”). Failure to provide such information to the **ISO** in a timely and comprehensive manner may result in the **ISO** auditing and/or reassessing the eligibility of the **market participant** to be pre-qualified for the use of demand opportunity service. Further, the **market participant** undertakes that the use of demand opportunity service contemplated in the business case will not be modified.

The **market participant** confirms that the contents of this application are true.

Market participant:

Name: _____ Title: _____
(Print name) (Print title)

Signature: _____ Date: _____

Please complete and send to the Alberta Electric System Operator.

Mail: 2500, 330 – 5th Avenue SW
Calgary, Alberta T2P 0L4

Attention: Commercial Services

Fax: (403) 539-2949

Email: dos.applications@aeso.ca

ISO Tariff – Appendix B System Access Service Agreement Proforma for Export Opportunity Service Rate XOS



This **Export Agreement** effective the 1st day of _____, 201__ (the “**effective date**”).

Between:

Independent System Operator, operating as AESO
a body corporate with offices in the City of Calgary,
in the Province of Alberta
(the “**ISO**”)

and

[insert legal name of corporation or partnership],
[a body corporate or a partnership] with office[s] in the City of [insert city]
in the Province of [insert province]
(the “**market participant**”)

RECITALS:

- A. This **Export Agreement** sets out the particular details of the **system access service** that the **ISO** will provide to the **market participant** under Rate XOS (1 hour) of the **ISO tariff**.
- B. The **ISO tariff** contains additional terms and conditions of **system access service**. This **Export Agreement** is comprised of both this document and the **ISO tariff**, and accordingly, both this document and the **ISO tariff** must be referred to and administered by the parties, even though the **ISO tariff** is not attached but incorporated into this **Export Agreement** by reference.

In consideration of the premises to this **Export Agreement**, the mutual covenants and agreements set forth in this **Export Agreement** and other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged by each of the parties), the parties agree as follows:

1. DEFINITIONS AND INTERPRETATION

- (a) Unless otherwise defined in this **Export Agreement**, bolded terms, not including headings, used in this document have the meanings given to them in the *Consolidated Authoritative Documents Glossary*. In the event of any conflict or inconsistency between this document and the *Consolidated Authoritative Documents Glossary*, the latter shall prevail.
- (b) The **ISO tariff** shall be the **ISO tariff** in effect from time to time.
- (c) In the event of any conflict or inconsistency between this document and the **ISO tariff**, the latter shall prevail.

2. POINT OF INTERCONNECTION

- British Columbia **Intertie** Saskatchewan **Intertie**

3. **SETTLEMENT**

The **ISO** shall charge, and the **market participant** shall pay, amounts in accordance with Rate XOS (1 hour) commencing on [insert date].

4. **ISO OBLIGATION TO PROVIDE SERVICE**

Subject to Section 7, the **ISO** shall provide **system access service** under Rate XOS (1 hour) to the **market participant** at the **point of interconnection** pursuant to Section 2 of this **Export Agreement**.

5. **MARKET PARTICIPANT'S OBLIGATION IN RELATION TO SERVICE**

If the **market participant** takes **system access service** under Rate XOS (1 hour), the **market participant** shall take such **system access service** at the **point of interconnection** pursuant to Section 2 of this **Export Agreement**.

6. **MARKET PARTICIPANT'S PAYMENT OBLIGATION**

The **market participant** shall pay to the **ISO** for **system access service** during the term of this **Export Agreement** the amount required pursuant to Rate XOS (1 hour).

7. **TERM**

This **Export Agreement** will commence on the **effective date** and will continue for a term of one (1) year, expiring on _____, 201__.

8. **PRIOR AGREEMENTS**

This **Export Agreement** supersedes and replaces, as of the **Effective Date**, any other agreement for **system access service** under Rate XOS (1 hour) between the parties at the **point of interconnection**.

9. **MARKET PARTICIPANT'S REPRESENTATIONS AND WARRANTIES**

The **market participant** represents and warrants to the **ISO** as follows:

- (a) the **market participant** is duly incorporated or organized, validly existing and in good standing under the laws of its jurisdiction of incorporation or organization, and duly registered and authorized to carry on business in the Province of Alberta;
- (b) this **Export Agreement** has been duly authorized, executed and delivered by the **market participant** and constitutes a legal, valid and binding obligation of the **market participant**, enforceable against it in accordance with its terms, except to the extent that such enforceability may be limited by bankruptcy, insolvency, winding-up, reorganization, and similar laws affecting the enforceability of creditors' rights generally and the availability of equitable remedies such as specific performance or injunction; and
- (c) the authorization, execution and performance by the **market participant** of this **Export Agreement**:
 - (i) does not and will not violate any laws applicable to the **market participant**; and
 - (ii) is not in contravention of its constating documents or its by-laws or the provisions of any loan agreement or other agreement to which it is a party or by which it is bound.

10. **NOTICES**

- (a) Notices will be provided as per Section 15(4) of the **ISO tariff**. The **market participant's** address for notices is:

Attention: _____

Telephone: _____

Fax: _____

Email: _____

- (b) The **market participant's** address for invoices, if different from the address for notices, is:

Attention: _____

Telephone: _____

Fax: _____

Email: _____

- (c) The **market participant** must provide any changes to its addresses to the **ISO** using the method posted on the **ISO** website as updated from time to time.

11. **AMENDMENTS**

- (a) The parties acknowledge that either may request an amendment to this **Export Agreement**. A party may request such an amendment by complying with the procedure for amending **Export Agreements** posted by the **ISO** on its website. If such procedure is not posted, the party requesting an amendment may provide a notice to the other requesting such amendment.
- (b) Notwithstanding the foregoing, the parties acknowledge that the **ISO tariff** and the **ISO rules** may be amended from time to time during the term of this **Export Agreement** by approval of the **Commission** and that this **Export Agreement** shall be deemed amended upon each such approval.
- (c) Subject to Section 11(b), this **Export Agreement** may only be amended by written instrument executed by the **ISO** and the **market participant**.

12. **MISCELLANEOUS**

- (a) The following matters shall be dealt with in accordance with the **ISO tariff** and the **ISO rules**:
- (i) Assignment – Section 15 of the **ISO tariff**.
 - (ii) Confidentiality – **ISO rule** 103.1.
 - (iii) Dispute Resolution – **ISO rule** 103.2.

- (b) **Force majeure** shall be dealt with in accordance with the **ISO tariff** and the **ISO rules**.
- (c) Section 6 shall survive the termination of this **Export Agreement** for either the time provided for in such section or the longest period provided by law.
- (d) This **Export Agreement** will enure to the benefit and be binding upon the parties to this **Export Agreement** and their respective successors and permitted assigns.
- (e) No waiver by any party of any breach (whether actual or anticipated) of any of the terms, conditions, representations or warranties contained in this **Export Agreement** shall take effect or be binding upon that party unless the waiver is expressed in writing under the authority of that party. Any waiver so given shall extend only to the particular breach so waived and shall not limit or affect any rights with respect to any other or future breach.
- (f) Time is of the essence.
- (g) If at any time any one or more of the provisions of this **Export Agreement** is or becomes invalid, illegal or unenforceable in any respect under any law, the validity, legality and enforceability of the remaining provisions of this **Export Agreement** will not in any way be affected or impaired thereby to the fullest extent possible by law.
- (h) This **Export Agreement** shall be governed by and interpreted in accordance with the laws of the Province of Alberta and the federal laws of Canada applicable therein, excluding any conflict of laws principles that may apply therein.
- (i) Whenever possible, each provision of this **Export Agreement** shall be interpreted in such a manner as to be effective and valid under applicable law, however, each provision of this **Export Agreement** is intended to be severable and if any provision is determined by a court of competent jurisdiction to be illegal, invalid or unenforceable for any reason whatsoever, such provision shall be severed from this **Export Agreement** and will not affect the legality, validity or enforceability of the remainder of this **Export Agreement** or any other provision of this **Export Agreement**.
- (j) Each party will, from time to time, without further consideration, do such further acts and deliver all such further assurances, deeds and documents as shall be reasonably required in order to fully perform and carry out the terms of this **Export Agreement**.
- (k) The parties may execute this **Export Agreement** by fax or other electronic means and in separate counterparts, each of which when so executed and delivered shall be an original, and all such counterparts taken together shall constitute one instrument.



By signing this **Export Agreement**, the **market participant** acknowledges that it has reviewed the **ISO tariff** and fully understands all rights and obligations contained in it.

IN WITNESS WHEREOF the **ISO** and the **market participant** have executed this **Export Agreement** as of the **effective date**.

Independent System Operator, operating as AESO

Per: _____ Date:
Name:
Title:

[insert legal name of corporation or partnership]

Per: _____ Date:
Name:
Title:

ISO Tariff – Appendix B System Access Service Agreement Proforma for Import Opportunity Service Rate IOS



This **Import Agreement** effective the 1st day of _____, 201__ (the “**effective date**”).

Between:

Independent System Operator, operating as AESO
a body corporate with offices in the City of Calgary,
in the Province of Alberta
(the “**ISO**”)

and

[insert legal name of corporation or partnership],
[a body corporate or a partnership] with office[s] in the City of [insert city],
in the Province of [insert province]
(the “**market participant**”)

RECITALS:

- A. This **Import Agreement** sets out the particular details of the **system access service** that the **ISO** will provide to the **market participant** under Rate IOS of the **ISO tariff**.
- B. The **ISO tariff** contains additional terms and conditions of **system access service**. This **Import Agreement** is comprised of both this document and the **ISO tariff**, and accordingly, both this document and the **ISO tariff** must be referred to and administered by the parties, even though the **ISO tariff** is not attached but incorporated into this **Import Agreement** by reference.

In consideration of the premises to this **Import Agreement**, the mutual covenants and agreements set forth in this **Import Agreement** and other good and valuable consideration (the receipt and sufficiency of which is acknowledged by each of the parties), the parties agree as follows:

1. DEFINITIONS AND INTERPRETATION

- (a) Unless otherwise defined in this **Import Agreement**, bolded terms, not including headings, used in this document have the meanings given to them in the *Consolidated Authoritative Documents Glossary*. In the event of any conflict or inconsistency between this document and the *Consolidated Authoritative Documents Glossary*, the latter shall prevail.
- (b) The **ISO tariff** shall be the **ISO tariff** in effect from time to time.
- (c) In the event of any conflict or inconsistency between this document and the **ISO tariff**, the latter shall prevail.

2. POINT OF INTERCONNECTION

- British Columbia **Intertie** Saskatchewan **Intertie**

3. **SETTLEMENT**

The **ISO** shall charge, and the **market participant** shall pay, amounts in accordance with Rate IOS commencing on [insert date].

4. **ISO OBLIGATION TO PROVIDE SERVICE**

Subject to Section 7, the **ISO** shall provide **system access service** under Rate IOS to the **market participant** at the **point of interconnection** pursuant to Section 2 of this **Import Agreement**.

5. **MARKET PARTICIPANT'S OBLIGATION IN RELATION TO SERVICE**

If the **market participant** takes **system access service** under Rate IOS, the **market participant** shall take such **system access service** at the **point of interconnection** pursuant to Section 2 of this **Import Agreement**.

6. **MARKET PARTICIPANT'S PAYMENT OBLIGATION**

The **market participant** shall pay to the **ISO** for **system access service** under Rate IOS during the term of this **Import Agreement** the amount required pursuant to Rate IOS.

7. **TERM**

This **Import Agreement** will commence on the **effective date** and will continue for a term of one (1) year, expiring on _____, 201__.

8. **PRIOR AGREEMENTS**

This **Import Agreement** supersedes and replaces, as of the **effective date**, any other agreement for **system access service** under Rate IOS between the parties at the **point of interconnection**.

9. **MARKET PARTICIPANT'S REPRESENTATIONS AND WARRANTIES**

The **market participant** represents and warrants to the **ISO** as follows:

- (a) the **market participant** is duly incorporated or organized, validly existing and in good standing under the laws of its jurisdiction of incorporation or organization, and duly registered and authorized to carry on business in the Province of Alberta;
- (b) this **Import Agreement** has been duly authorized, executed and delivered by the **market participant** and constitutes a legal, valid and binding obligation of the **market participant**, enforceable against it in accordance with its terms, except to the extent that such enforceability may be limited by bankruptcy, insolvency, winding-up, reorganization, and similar laws affecting the enforceability of creditors' rights generally and the availability of equitable remedies such as specific performance or injunction; and
- (c) the authorization, execution and performance by the **market participant** of this **Import Agreement**:
 - (i) does not and will not violate any laws applicable to the **market participant**; and
 - (ii) is not in contravention of its constating documents or its by-laws or the provisions of any loan agreement or other agreement to which it is a party or by which it is bound.

10. **NOTICES**

- (a) Notices will be provided as per Section 15(4) of the **ISO tariff**. The **market participant's** address for notices is:

Attention: _____

Telephone: _____

Fax: _____

Email: _____

- (b) The **market participant's** address for invoices, if different from the address for notices, is:

Attention: _____

Telephone: _____

Fax: _____

Email: _____

- (c) The **market participant** must provide any changes to its addresses to the **ISO** using the method posted on the **ISO** website as updated from time to time.

11. **AMENDMENTS**

- (a) The parties acknowledge that either may request an amendment to this **Import Agreement**. A party may request such an amendment by complying with the procedure for amending **Import Agreements** posted by the **ISO** on its website. If such procedure is not posted, the party requesting an amendment may provide a notice to the other requesting such amendment.
- (b) Notwithstanding the foregoing, the parties acknowledge that the **ISO tariff** and the **ISO rules** may be amended from time to time during the term of this **Import Agreement** by approval of the **Commission** and that this **Import Agreement** shall be deemed amended upon each such approval.
- (c) Subject to Section 11(b), this **Import Agreement** may only be amended by written instrument executed by the **ISO** and the **market participant**.

12. **MISCELLANEOUS**

- (a) The following matters shall be dealt with in accordance with the **ISO tariff** and the **ISO rules**:
- (i) Assignment – Section 15 of the **ISO tariff**.
 - (ii) Confidentiality – **ISO rule** 103.1.
 - (iii) Dispute Resolution – **ISO rule** 103.2.

- (b) **Force majeure** shall be dealt with in accordance with the **ISO tariff** and the **ISO rules**.
- (c) Section 6 shall survive the termination of this **Import Agreement** for either the time provided for in such section or the longest period provided by law.
- (d) This **Import Agreement** will enure to the benefit and be binding upon the parties to this **Import Agreement** and their respective successors and permitted assigns.
- (e) No waiver by any party of any breach (whether actual or anticipated) of any of the terms, conditions, representations or warranties contained in this **Import Agreement** shall take effect or be binding upon that party unless the waiver is expressed in writing under the authority of that party. Any waiver so given shall extend only to the particular breach so waived and shall not limit or affect any rights with respect to any other or future breach.
- (f) Time is of the essence.
- (g) If at any time any one or more of the provisions of this **Import Agreement** is or becomes invalid, illegal or unenforceable in any respect under any law, the validity, legality and enforceability of the remaining provisions of this **Import Agreement** will not in any way be affected or impaired thereby to the fullest extent possible by law.
- (h) This **Import Agreement** shall be governed by and interpreted in accordance with the laws of the Province of Alberta and the federal laws of Canada applicable therein, excluding any conflict of laws principles that may apply therein.
- (i) Whenever possible, each provision of this **Import Agreement** shall be interpreted in such a manner as to be effective and valid under applicable law, however, each provision of this **Import Agreement** is intended to be severable and if any provision is determined by a court of competent jurisdiction to be illegal, invalid or unenforceable for any reason whatsoever, such provision shall be severed from this **Import Agreement** and will not affect the legality, validity or enforceability of the remainder of this **Import Agreement** or any other provision of this **Import Agreement**.
- (j) Each party will, from time to time, without further consideration, do such further acts and deliver all such further assurances, deeds and documents as shall be reasonably required in order to fully perform and carry out the terms of this **Import Agreement**.
- (k) The parties may execute this **Import Agreement** by fax or other electronic means and in separate counterparts, each of which when so executed and delivered shall be an original, and all such counterparts taken together shall constitute one instrument.



By signing this **Import Agreement**, the **market participant** acknowledges that it has reviewed the **ISO tariff** and fully understands all rights and obligations contained in it.

IN WITNESS WHEREOF the **ISO** and the **market participant** have executed this **Import Agreement** as of the effective date.

Independent System Operator, operating as AESO

Per: _____ Date:

Name:
Title:

[insert legal name of corporation or partnership]

Per: _____ Date:

Name:
Title:

ISO Tariff – Appendix B Construction Commitment Agreement Proforma



CONSTRUCTION COMMITMENT AGREEMENT

THIS AGREEMENT made as of the ___ day of _____, 200__ (the “Effective Date”)

BETWEEN:

INDEPENDENT SYSTEM OPERATOR, operating as AESO,
a body corporate with offices in the City of Calgary, in the Province of Alberta (“ISO”)

-and-

•
a corporation incorporated under the
laws of the Province of • (hereinafter referred to as the “**Customer**”)

WHEREAS:

- A. The Customer has requested system access service from the Alberta Electric System Operator (the “ISO”) and intends to enter into, or amend, a system access service agreement with the ISO in relation to the Customer’s capacity requirements for the **[Project]**. This providing or amending of system access service will require the construction of new transmission facilities and a commitment by the Customer in relation to the expenditure of capital for such construction (the “**Proposed Project**”).
- B. The ISO Tariff requires the Customer to provide security to the AESO to fund estimated cancellation costs of the Proposed Project in an amount determined by the ISO.
- C. The AESO and its contractors must be held harmless from any negative financial consequences related to any cancellation of the Proposed Project. Prior to commencing the work set out in Schedule “A” hereto (the “**Project Work**”), the AESO requires that the Customer enter into this Construction Commitment Agreement (“**Agreement**”).

NOW THEREFORE in consideration of the mutual covenants and agreements set forth herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by each of the parties, the parties hereby agree as follows:

Defined Terms

1. Capitalized terms utilized in the Agreement shall have the meanings ascribed to such terms in the preamble or body of this Agreement, and in addition the following defined terms shall have the meanings ascribed to such terms below:

“**Act**” means the *Electric Utilities Act*, S.A. 2003, c. E-5.1;

“**ISO Tariff**” means the tariff of the AESO approved by the Commission;

“**Commission**” as defined in the Act means the Alberta Utilities Commission established by the Alberta Utilities Commission Act;

“**Cancellation Costs**” means all the aggregate amount of costs and expenses, as well as any losses, damages, penalties or other claims the AESO or its contractors may incur or be subject to

howsoever arising from the Proposed Project, and which are incurred by the AESO or its contractors relating to facilities planning and design, the competitive procurement process (if any), material and right-of-way procurements and construction of the Proposed Project (including without limitation all cancellation penalties and salvage and reclamation costs).

“Material Adverse Change” means:

- (a) a downgrade in the credit rating of the Customer or a guarantor of the Customer (“Guarantor”) by any credit rating agency; or
- (b) any event, circumstance or change which results, or would reasonably be expected to result, in a material adverse change in:
 - (i) the financial condition of the Customer or a Guarantor;
 - (ii) the ability of the Customer or a Guarantor to perform its obligations under any Security; or
 - (iii) the assets or business of the Customer or a Guarantor.

Term of Agreement

- 2. This Agreement shall take effect on the Effective Date and shall remain in full force and effect until the Proposed Project is energized and in-service, or, if upon the occurrence of a Cancellation Event (as hereafter defined) the Proposed Project is deemed cancelled and all amounts owing to the AESO hereunder have been paid in full.

ISO Tariff

- 3. In addition to the obligations of the Customer pursuant to this Agreement, the Customer shall remain fully subject to the ISO Tariff in respect of the Proposed Project.

Security

- 4. As security for the payment and performance of all present and future debts, liabilities and obligations of the Customer to the AESO, arising pursuant to this Agreement or the Security (as hereinafter defined), the Customer agrees to provide or cause to be provided to the AESO the guarantee(s), security and other documents set forth and described in Schedule “B” attached hereto (the **“Security”**), which security shall be in an amount adequate to fund the maximum of the estimated cost of the Project Work as determined by the AESO. If the AESO determines at any time that the existing Security is inadequate to fund the maximum of the estimated cost of the Project Work, the AESO shall have the right to require the Customer or any Guarantor to provide such additional guarantee(s), security or other documents as the AESO deems necessary (which shall form part of the Security hereunder), up to the maximum of the estimated cost of the Project Work.
- 5. If all or part of the obligations of the Customer to the AESO pursuant hereto are unsecured, and the Customer becomes aware of any Material Adverse Change, the Customer shall provide written notice thereof to the AESO within two (2) business day of the occurrence of such Material Adverse Change. Upon the occurrence of a Material Adverse Change, the AESO shall have the right to require the Customer or any Guarantor to provide such additional guarantee(s), security or other documents as the AESO deems necessary (which shall form part of the Security hereunder), up to the maximum of the estimated cost of the Project Work as determined by the AESO.
- 6. In no event shall the AESO be required to proceed with or cause any Project Work to be undertaken without first receiving the Security, or such additional guarantee(s), security or other documents as the AESO deems necessary contemplated in paragraph 4 or 5, in form and substance satisfactory to the AESO.

Cancellation of Proposed Project

7. The Proposed Project shall be deemed to be cancelled upon the occurrence of any of the following events (each, a “**Cancellation Event**”):
- (a) the Customer fails to provide or cause to be provided the Security in the form set out in Schedule “B” concurrently with the execution and delivery of this Agreement, or fails to provide or cause to be provided such additional guarantee(s), security or other documents as it may be required to deliver to the AESO pursuant to the terms and conditions hereof;
 - (b) the Customer terminates the Proposed Project, gives notice to the AESO, or the AESO otherwise becomes aware, that the Customer is not proceeding with the Proposed Project, or the Customer otherwise takes such action or inaction to cause the AESO, acting reasonably, to believe that the Customer is not proceeding with the Proposed Project;
 - (c) the Commission rejects or fails to approve the relevant application for the Proposed Project;
 - (d) the Customer fails to:
 - (i) execute a system access service agreement (in the AESO’s standard form); or
 - (ii) enter into an amendment of its existing system access service agreement with respect to the Proposed Project (in AESO’s standard form),within 30 days after the completion of the Proposed Project;
 - (e) the Customer or any Guarantor breaches any term, condition, proviso, agreement or covenant under this Agreement or the Security and fails to remedy such breach within five (5) days of receipt of written notice of such breach by the AESO to the Customer;
 - (f) any representation or warranty made or given by the Customer in connection with this Agreement is shown to be incorrect as at the date given or ceases to be true and correct during the term of this Agreement;
 - (g) the Customer or any Guarantor is found to be insolvent or bankrupt by a court of competent jurisdiction or makes an authorized assignment of its assets or a compromise or arrangement for the benefit of its creditors, makes a proposal to its creditors under the *Bankruptcy and Insolvency Act* (Canada), seeks relief under the *Companies’ Creditors Arrangement Act* (Canada), the *Winding Up Act* (Canada) or any other bankruptcy, insolvency or analogous law in Canada or the United States, files a petition or proposal to take advantage of any act of insolvency, consents to or acquiesces in the appointment of a trustee, receiver, receiver and manager, interim receiver, custodian or other person with similar powers over all or any substantial portion of its assets, files a petition or otherwise commences any proceeding seeking any reorganization, arrangement, composition or readjustment under any applicable bankruptcy, insolvency, moratorium, reorganization or other similar law affecting creditor’s rights or consents to, or acquiesces in, the filing of such a petition; or if a petition in bankruptcy is filed or presented against the Customer or any guarantor;
 - (h) there is instituted by or against the Customer or any Guarantor any formal or informal proceeding for the dissolution or liquidation of, settlement of claims against, or winding up of the affairs of, the Customer or any Guarantor, or a resolution is passed for dissolution, liquidation or winding up the Customer or any Guarantor;

- (i) the Customer or any Guarantor ceases or threatens to cease to carry on business or makes or agrees to make a bulk sale of assets or commits or threatens to commit an act of bankruptcy;
 - (j) a receiver, receiver and manager or receiver-manager of all or any part of the property, assets or undertaking of the Customer or any Guarantor is appointed;
 - (k) the Customer creates or permits to exist any charge, security interest, lien, encumbrance or claim against any of the collateral charged under the Security which ranks or could in any event rank in priority to or *pari passu* with the Security; or
 - (l) the holder of any charge, security interest, lien, encumbrance or claim against any of the collateral charged under the Security does anything to enforce or realize on such charge, security interest, lien, encumbrance or claim.
8. Upon the occurrence of a Cancellation Event, the Proposed Project shall be immediately deemed to have been cancelled, and the AESO or its agent, contractor or delegate may, without limiting or restricting other rights or remedies under contract, at law or in equity, do any one or more of the following:
- (a) refuse to continue to perform any Project Work;
 - (b) demand immediate payment of all Cancellation Costs;
 - (c) demand immediate payment under any guarantee granted to the AESO;
 - (d) exercise its rights under all or any part of the Security, and any other security in respect of the Proposed Project provided to the AESO by the Customer under separate construction commitment agreements; and
 - (e) commence such legal actions or proceedings against the Customer or the Guarantor as it determines.
9. The Customer shall forthwith, upon demand having been made therefore by the AESO, pay the Cancellation Costs to the AESO. If the Customer fails to pay to the AESO the Cancellation Costs upon demand, the AESO shall be entitled to charge the Customer interest calculated at the Bank of Montreal prime rate plus 6% on all amounts due from the date of demand to the date of payment to the AESO.
10. In the event that the Customer terminates the Proposed Project prior to its completion, the AESO shall use, and shall cause its contractors to use, reasonable commercial efforts to minimize the amount of the Cancellation Costs to the extent such is within their control.

Representations and Warranties

11. The Customer represents and warrants to the AESO as follows:
- (a) the Customer is a duly incorporated or organized, validly existing and in good standing under the laws of its jurisdiction of incorporation or organization;
 - (b) the Security is provided to the AESO free and clear of any and all security interests, mortgages, liens, charges, and encumbrance of any nature;
 - (c) this Agreement has been duly authorized, executed and delivered by the Customer and constitutes a legal, valid and binding obligation of the Customer, enforceable against it in accordance with its terms, except to the extent that such enforceability may be limited by

17. The AESO's rights and remedies hereunder are cumulative and not exclusive of any rights or remedies at law or in equity.
18. Time is of the essence of this Agreement and all documents or instruments delivered hereunder.
19. If at any time any one or more of the provisions hereof is or becomes invalid, illegal or unenforceable in any respect under any law, the validity, legality and enforceability of the remaining provisions hereof will not in any way be affected or impaired thereby to the fullest extent possible by law.
20. This Agreement will be governed by and interpreted in accordance with the laws of the Province of Alberta and the laws of Canada applicable therein. The Customer and the AESO submit to the nonexclusive jurisdiction of the Courts of the Province of Alberta and agree to be bound by any suit, action or proceeding commenced in such Courts and by any order or judgment resulting from such suit, action or proceeding, but the foregoing will in no way limit the right of the AESO to commence suits, actions or proceedings based on this Agreement in any jurisdiction it may deem appropriate.
21. This Agreement may be varied or amended only by or pursuant to an agreement in writing signed by the parties hereto.
22. All Schedules attached hereto will be deemed fully a part of this Agreement.
23. This Agreement may be signed in one or more counterparts, originally or by facsimile, each such counterpart taken together will form one and the same agreement.

THE AESO AND THE CUSTOMER have executed this Agreement as of the Effective Date:

INDEPENDENT SYSTEM OPERATOR, operating as AESO

Per: _____

Per: _____

(INSERT CUSTOMER'S NAME)

Per: _____

Per: _____

SCHEDULE “A”
To the Construction Commitment Agreement

between

INDEPENDENT SYSTEM OPERATOR, operating as AESO

and

[CUSTOMER]

dated

[DATE]

PROJECT WORK

SCHEDULE “B”

To the Construction Commitment Agreement

between

INDEPENDENT SYSTEM OPERATOR, operating as AESO

and

[CUSTOMER]

dated

[DATE]

SECURITY

ISO Tariff – Appendix C

Procedure for Foreseeable Transmission Must-Run Service



PROCEDURE FOR FORESEEABLE TRANSMISSION MUST-RUN SERVICE

1 This appendix shall come into force upon the approval of the *Settlement Agreement* by the Alberta Energy and Utilities Board and remain in force until replaced or revised through the creation of an **ISO rule** following reasonable efforts by all parties hereto to develop same.

2 The **ISO** shall issue an expression of interest inviting eligible **market participants** to express interest in contracting with the **ISO** for the supply of transmission must-run service, where an existing contract is not in effect. (Reference #1 in below diagram)

3 Based on **market participant** response to the expression of interest, the **ISO** shall fairly and reasonably determine if the expression of interest is contestable (Reference #2 in below diagram). The advice and direction of the **Market Surveillance Administrator** will be sought in all such matters and, should the subsequent determination be disputed the issue of whether the expression of interest is contestable may be determined by the **Commission**. (Reference #4 in below diagram)

4 Upon determination by the **ISO** that the expression of interest is contestable a request for proposal shall be issued by the **ISO** (Reference #3 in below diagram). The **ISO** shall fairly and reasonably determine if the request for proposal is contestable, again after seeking the advice and direction of the **Market Surveillance Administrator**. (Reference #5 in below diagram)

5 If either of the expression of interest or request for proposal is deemed by the **ISO** not to be contestable the **ISO** shall issue written reasons in that regard and a bilateral negotiation process shall commence. The bilateral negotiation process:

- (a) shall be subject to the maximum transmission must-run price specified by subsection 7 of section 11 of the **ISO tariff**,
- (b) may include all **market participants** who are effective providers of the required transmission must-run service, although preference will be given to those who responded to the expression of interest or request for proposal, and
- (c) shall not be limited by the pricing provisions of subsection 6 of section 11 of the **ISO tariff** in respect of unforeseeable transmission must-run service.

(Reference #6 in below diagram)

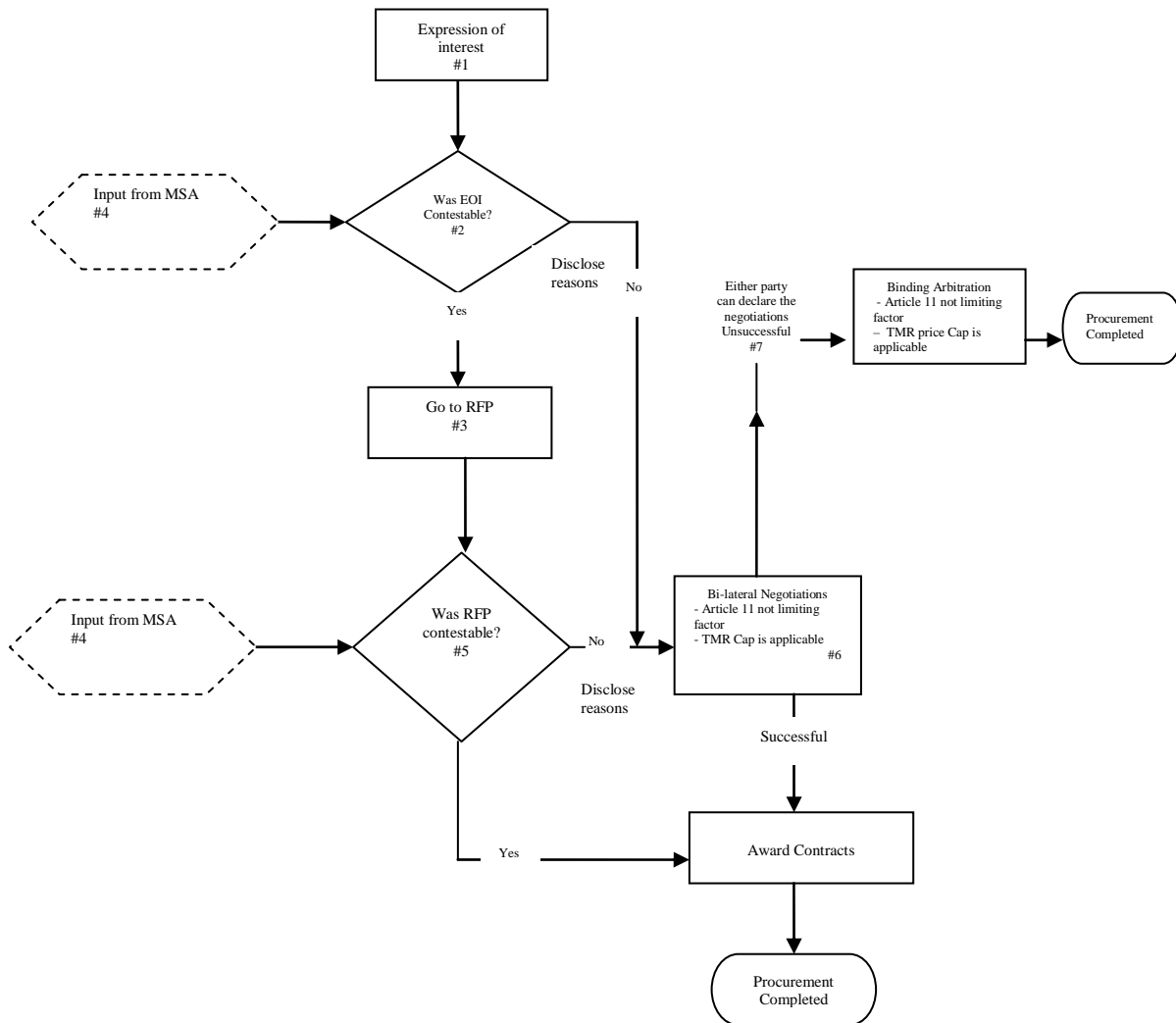
6 Any party to the bilateral negotiation process may declare it unsuccessful after thirty (30) days, at which time a binding arbitration process shall commence between the **ISO** and the **market participant** (Reference #7 in below diagram). In circumstances where multiple **market participants** may provide transmission must-run services to the **ISO**, the **ISO** shall act fairly and reasonably in its selection as to the party that is subject to binding arbitration. The binding arbitration process shall:

- (a) be subject to the maximum transmission must-run price specified by subsection 7 of section 11 of the **ISO tariff**, and
- (b) not be limited by the pricing provisions of subsection 6 of section 11 of the **ISO tariff** in respect of unforeseeable transmission must-run service.

(Reference #8 in below diagram)

7 The binding arbitration process shall employ the dispute resolution process established under section 103.2 of the **ISO rules** and proceed directly to arbitration as per section 103.2 of the **ISO rules**. Any arbitrator appointed pursuant to that dispute resolution process shall have an expert understanding and knowledge of the Alberta electricity marketplace. (Reference #8 in below diagram)

PROCEDURE FOR FORESEEABLE TRANSMISSION MUST-RUN SERVICE DIAGRAM



Revision History

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