



**Ontario Energy Board
Commission de l'énergie de l'Ontario**

DECISION AND RATE ORDER

EB-2017-0280

2017 UNIFORM TRANSMISSION RATES

BEFORE: Ken Quesnelle
Presiding Member

Emad Elsayed
Member

Peter C.P. Thompson, Q.C.
Member

November 23, 2017

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1. INTRODUCTION AND SUMMARY

The Ontario Energy Board (OEB) established the EB-2017-0280 proceeding on its own motion to issue the 2017 Uniform Transmission Rates (UTR).

There are five licensed electricity transmitters in Ontario that recover their revenues through Ontario's uniform transmission rates (UTR): Canadian Niagara Power Inc., Hydro One Networks Sault Ste. Marie (formerly Great Lakes Power Transmission Inc.), Five Nations Energy Inc., Hydro One Networks Inc. and B2M Limited Partnership. The OEB approves the revenue requirements and charge determinants of the individual transmitters in separate proceedings and uses them to calculate the UTR.

The revenue requirements of the five transmitters are allocated to three transmission rate pools, Network, Line Connection and Transformation Connection on the basis of a cost allocation study conducted annually by Hydro One Networks Inc. The costs are then divided by forecast consumption (charge determinants) to establish the UTR. The Independent Electricity System Operator (IESO) charges these rates to all wholesale market participants, including electricity distributors.

The total rates revenue requirement to be recovered through the UTRs for 2017 is \$1,522,695,955, down 2.7% from the total 2016 approved transmission rates revenue requirement.

The combined UTR for 2017 is \$6.53/kW, a \$0.02 or 0.3% decrease relative to the 2016 UTR (\$6.55/kW). This change in the UTR will be effective January 1, 2017 but implemented November 1, 2017.

The impact of this slight decrease may take some time to materialize, and will vary depending on the customer mix and load characteristics in the different service areas and the proportion of power withdrawn by individual distributors from the bulk transmission system.

Electricity distributors directly connected to the transmission system recover transmission costs from their customers through Retail Transmission Service Rates (RTSR), which are established for each rate class annually some on January 1 and some on May 1. The new UTR will be taken into account when new RTSR are approved effective January 1, 2018 or May 1, 2018, depending on when a specific distributor makes its annual rate adjustments. For any distributor whose rates for 2017 have already been established, the use of variance accounts will track differences between a distributor's transmission costs and the associated revenues it receives from its

customers, in order to ensure that its customers pay the true cost of transmission service over time.

2. THE PROCESS

The total revenue to be recovered for transmission services in 2017 is derived from the OEB's Decisions for the revenue requirements and charge determinants for each of the five transmitters in Ontario. The findings in this Decision involve only the implementation of findings in these previous decisions. The OEB has therefore determined that no person will be adversely affected in a material way by the outcome of this proceeding. In accordance with section 21(4)(b) of the Ontario Energy Board Act, this matter has been determined without a hearing.

3. 2017 UNIFORM TRANSMISSION RATES

Hydro One submitted its EB-2016-0160/EB-2017-0280 Draft Revenue Requirement and Charge Determinant Order (DRR/CDO), on October 10, 2017, which included consolidated information from the other four Ontario transmitters and a calculation of the 2017 UTR. OEB staff, intervenors in the EB-2016-0160 proceeding and the other Ontario transmitters were given the opportunity to comment on UTR documents filed.

On October 13, 2017 Canadian Niagara Power Inc. submitted that its 2016 revenue requirement was approved at \$4,647,201 in its EB-2014-0204 OEB Decision, not \$4,457,953, as shown by Hydro One in its DRR/CDO. This was due to certain adjustments to the previously approved 2016 revenue requirement related to disposition of deferral accounts in 2016, adjustments which were not applicable outside of the 2016 rate year. The OEB approved this amount for the purpose of setting the UTR on November 9, 2017 as part of the EB-2016-0160 proceeding.

This Decision and Rate Order incorporates the OEB's findings in the most recent approved revenue requirement and pool load forecasts (charge determinants) for each of the other Ontario transmitters: Five Nations Energy Inc., Canadian Niagara Power Inc., Hydro One Networks Sault Ste. Marie, Hydro One Networks Inc. and B2M Limited Partnership as shown below:

- Five Nations Energy Inc. (EB-2009-0387) issued December 9, 2010; and set as interim (EB-2015-0368) on December 29, 2015
- Canadian Niagara Power Inc. (EB-2014-0204) issued June 25, 2015 with approved 2016 order under EB-2015-0354, issued January 14, 2016 and confirmed on November 9, 2017 (EB-2016-0160)
- Hydro One Networks Sault Ste. Marie (EB-2016-0356) issued September 28, 2017
- Hydro One Networks Inc. (EB-2016-0160) Decision and Order issued September 28, 2017; November 9, 2017 and November 23, 2017
- B2M Limited Partnership (EB-2016-0349) 2017 final order issued on June 29, 2017.

The individual 2017 revenue requirement and charge determinant amounts for each of the five Ontario transmitters in the Ontario transmission rate pool were consolidated to arrive at the 2017 UTR and revenue allocators as shown in Appendix A.

4. FINDINGS

The OEB finds that the UTR calculations attached as Appendix A to this Order, appropriately reflect the OEB's Decisions for all of the Ontario Transmitters in the 2017 transmission rate pool.

5. ORDER

THE BOARD ORDERS THAT:

1. The final revenue requirements by rate pool and the uniform electricity transmission rates and revenue allocators for rates effective January 1, 2017 as shown in Appendix A, are approved.
2. The 2017 UTR are to be implemented as of November 1, 2017.
3. The 2017 Ontario Uniform Transmission Rate Schedules, attached as Appendix B, are approved.

DATED at Toronto November 23, 2017

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

Appendix A

2017 Uniform Transmission Rates

and

Revenue Disbursement Allocators

[EB-2016-0160, DRO Exhibit 5.0, November 16, 2017]

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November 23, 2017

Hydro One Networks Inc.
 Implementation of Decision with Reasons on EB-2016-0160

Uniform Transmission Rates and Revenue Disbursement Allocators
 (Effective for Period January 1, 2017 to December 31, 2017)
 (Implementation for November 1, 2017)

Transmitter	Revenue Requirement (\$)			
	Network	Line Connection	Transformation Connection	Total
FNEI	\$3,583,020	\$901,798	\$1,842,271	\$6,327,089
CNPI	\$2,631,703	\$662,364	\$1,353,135	\$4,647,201
H1N SSM	\$22,972,424.93	\$5,781,848	\$11,811,663	\$40,565,936
H1N	\$814,028,889	\$204,880,025	\$418,546,815	\$1,437,455,729
B2MLP	\$33,700,000	\$0	\$0	\$33,700,000
All Transmitters	\$876,916,037	\$212,226,034	\$433,553,884	\$1,522,695,955

Transmitter	Total Annual Charge Determinants (MW)			
	Network	Line Connection	Transformation Connection	
FNEI	187.120	213.460	76.190	
CNPI	522.894	549.258	549.258	
H1N SSM	3,498.236	2,734.624	635.252	
H1N	244,865.656	236,890.824	202,461.050	
B2MLP	0.000	0.000	0.000	
All Transmitters	249,073.906	240,388.166	203,721.750	

Transmitter	Uniform Rates and Revenue Allocators			
	Network	Line Connection	Transformation Connection	
Uniform Transmission Rates (\$/kW-Month)	3.52	0.88	2.13	
FNEI Allocation Factor	0.00409	0.00425	0.00425	
CNPI Allocation Factor	0.00300	0.00312	0.00312	
H1N SSM Allocation Factor	0.02620	0.02724	0.02724	
H1N Allocation Factor	0.92828	0.96539	0.96539	
B2MLP Allocation Factor	0.03843	0.00000	0.00000	
Total of Allocation Factors	1.00000	1.00000	1.00000	

Note 1: FNEI Rates Revenue Requirement and Charge Determinants per Board Decision and Order on EB-2009-0387 dated December 9, 2010. Set as Interim on December 29, 2015 under EB-2015-0368.

Note 2: CNPI Rates Revenue Requirement and Charge Determinants per OEB Decision EB-2014-0204 dated June 25, 2015.

Note 3: H1N SSM 2017 Rates Revenue Requirement and Charge Determinants per OEB Decision EB-2016-0356, issued September 28, 2017.

Note 4: H1N Rates Revenue Requirement and Charge Determinants per OEB Decision EB-2016-0160, issued September 28, 2017 and November 9, 2017.

Note 5: B2MLP 2017 Revenue Requirement per Board Decision and Order EB-2016-0349 dated June 29, 2017.

Note 6: Calculated data in shaded cells.

Appendix B

2017 Uniform Transmission Rate Schedules

[EB-2016-0160, DRO Exhibit 5.2, November 16, 2017]

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Decision and Rate Order

November 23, 2017

TRANSMISSION RATE SCHEDULES

Updated: 2017-11-16
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2017 ONTARIO UNIFORM TRANSMISSION RATE SCHEDULES

EB-2016-0160
EB-2017-0280

**The rate schedules contained herein shall be effective January 1, 2017
and Implemented as of November 1, 2017**

Issued: November 23, 2017
Ontario Energy Board

EFFECTIVE DATE: January 1, 2017	BOARD ORDER: EB-2017-0280	REPLACING BOARD ORDER: EB-2015-0313 January 14, 2016	Page 1 of 6 Ontario Uniform Transmission Rate Schedule
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TRANSMISSION RATE SCHEDULES

TERMS AND CONDITIONS

(A) APPLICABILITY The rate schedules contained herein pertain to the transmission service applicable to: •The provision of Provincial Transmission Service (PTS) to the Transmission Customers who are defined as the entities that withdraw electricity directly from the transmission system in the province of Ontario. •The provision of Export Transmission Service (ETS) to electricity market participants that export electricity to points outside Ontario utilizing the transmission system in the province of Ontario. The Rate Schedule ETS applies to the wholesale market participants who utilize the Export Service in accordance with the Market Rules of the Ontario Electricity Market, referred to hereafter as Market Rules. These rate schedules do not apply to the distribution services provided by any distributors in Ontario, nor to the purchase of energy, hourly uplift, ancillary services or any other charges that may be applicable in electricity markets administered by the Independent Electricity System Operator (IESO) of Ontario.

(B) TRANSMISSION SYSTEM CODE The transmission service provided under these rate schedules is in accordance with the Transmission System Code (Code) issued by the Ontario Energy Board (OEB). The Code sets out the requirements, standards, terms and conditions of the transmitter's obligation to offer to connect to, and maintain the operation of, the transmission system. The Code also sets out the requirements, standards, terms and conditions under which a Transmission Customer may connect to, and remain connected to, the transmission system. The Code stipulates that a transmitter shall connect new customers, and continue to offer transmission services to existing customers, subject to a Connection Agreement between the customer and a transmitter.

(C) TRANSMISSION DELIVERY POINT The Transmission Delivery Point is defined as the transformation station, owned by a transmission company or by the Transmission Customer, which steps down the voltage from above 50 kV to below 50 kV and which connects the customer to the transmission system. The demand registered by two or more meters at any one delivery point shall be aggregated for the purpose of assessing transmission charges at that delivery point if the corresponding distribution feeders from that delivery point, or the plants taking power from that delivery point, are owned by the same entity within the meaning of

Ontario's *Business Corporations Act*. The billing demand supplied from the transmission system shall be adjusted for losses, as appropriate, to the Transmission Point of Settlement, which shall be the high voltage side of the transformer that steps down the voltage from above 50 kV to below 50 kV.

(D) TRANSMISSION SERVICE POOLS The transmission facilities owned by the licenced transmission companies are categorized into three functional pools. The transmission lines that are used for the common benefit of all customers are categorized as Network Lines and the corresponding terminating facilities are Network Stations. These facilities make up the Network Pool. The transformation station facilities that step down the voltage from above 50 kV to below 50 kV are categorized as the Transformation Connection Pool. Other electrical facilities (i.e. that are neither Network nor Transformation) are categorized as the Line Connection Pool. All PTS customers incur charges based on the Network Service Rate (PTS-N) of Rate Schedule PTS. The PTS customers that utilize transformation connection assets owned by a licenced transmission company also incur charges based on the Transformation Connection Service Rate (PTS-T). The customer demand supplied from a transmission delivery point will not incur transformation connection service charges if a customer fully owns all transformation connection assets associated with that transmission delivery point. The PTS customers utilize lines owned by a licenced transmission company to connect to Network Station(s) also incur charges based on the Line Connection Service Rate (PTS- L). The customer demand supplied from a transmission delivery point will not incur line connection service charges if a customer fully owns all line connection assets connecting that delivery point to a Network Station. Similarly, the customer demand will not incur line connection service charges for demand at a transmission delivery point located at a Network Station.

(E) MARKET RULES The IESO will provide transmission service utilizing the facilities owned by the licenced transmission companies in Ontario in accordance with the Market Rules. The Market Rules and appropriate Market Manuals define the procedures and processes under which the transmission service is provided in real or operating time (on an hourly basis) as well as service billing and settlement processes for transmission service charges based on rate schedules contained herein.

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January 1, 2017

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REPLACING BOARD ORDER:
EB-2015-0313
January 14, 2016

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Rate Schedule

TRANSMISSION RATE SCHEDULES

(F) METERING REQUIREMENTS In accordance with Market Rules and the Transmission System Code, the transmission service charges payable by Transmission Customers shall be collected by the IESO. The IESO will utilize Registered Wholesale Meters and a Metering Registry in order to calculate the monthly transmission service charges payable by the Transmission Customers. Every Transmission Customer shall ensure that each metering installation in respect of which the customer has an obligation to pay transmission service charges arising from the Rate Schedule PTS shall satisfy the Wholesale Metering requirements and associated obligations specified in Chapter 6 of the Market Rules, including the appendices therein, whether or not the subject meter installation is required for settlement purposes in the IESO-administered energy market. A meter installation required for the settlement of charges in the IESO-administered that energy market may be used for the settlement of transmission service charges. The Transmission Customer shall provide to the IESO data required to maintain the information for the Registered Wholesale Meters and the Metering Registry pertaining to the metering installations with respect to which the Transmission Customers have an obligation to pay transmission charges in accordance with Rate Schedule PTS. The Metering Registry for metering installations required for the calculation of transmission charges shall be maintained in accordance with Chapter 6 of the Market Rules. The Transmission Customers, or Transmission Customer Agents if designated by the Transmission Customers, associated with each Transmission Delivery Point will be identified as Metered Market Participants within the IESO's Metering Registry. The metering data recorded in the Metering Registry shall be used as the basis for the calculation of transmission charges on the settlement statement for the Transmission Customers identified as the Metered Market Participants for each Transmission Delivery Point. The Metering Registry for metering installations required for calculation of transmission charges shall also indicate whether or not the demand associated with specific Transmission Delivery Point(s) to which a Transmission Customer is connected attracts Line and/or Transformation Connection Service Charges. This information shall be consistent with the Connection Agreement between the Transmission Customer and the licenced Transmission Company that connects the customer to the IESO-Controlled Grid.

(G) EMBEDDED GENERATION The Transmission Customers shall ensure conformance of Registered Wholesale Meters in accordance with Chapter 6 of Market Rules, including Metering Registry obligations, with respect to metering installations for embedded generation that is located behind the metering installation that measures the net demand taken from the transmission system if (a) the required approvals for such generation are obtained after October 30, 1998; and (b) the generator unit rating is 2 MW or higher for renewable generation and 1 MW or higher for non-renewable generation; and (c) the Transmission Delivery Point through which the generator is connected to the transmission system attracts Line or Transformation Connection Service charges. These terms and conditions also apply to the incremental capacity associated with any refurbishments approved after October 30, 1998, to a generator unit that was connected through an eligible Transmission Delivery Point on or prior to October 30, 1998 and the approved incremental capacity is 2 MW or higher for renewable generation and 1 MW or higher for non-renewable generation. The term renewable generation refers to a facility that generates electricity from the following sources: wind, solar, Biomass, Bio-oil, Bio-gas, landfill gas, or water. Accordingly, the distributors that are Transmission Customers shall ensure that connection agreements between them and the generators, load customers, and embedded distributors connected to their distribution system have provisions requiring the Transmission Customer to satisfy the requirements for Registered Wholesale Meters and Metering Registry for such embedded generation even if the subject embedded generator(s) do not participate in the IESO-administered energy markets.

(H) EMBEDDED CONNECTION POINT In accordance with Chapter 6 of the Market Rules, the IESO may permit a Metered Market Participant, as defined in the Market Rules, to register a metering installation that is located at the embedded connection point for the purpose of recording transactions in the IESO-administered markets. (The Market Rules define an embedded connection point as a point of connection between load or generation facility and distribution system). In special situations, a metering installation at the embedded connection point that is used to settle energy market charges may also be used to settle transmission service charges, if there is no metering installation at the point of connection of a

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TRANSMISSION RATE SCHEDULES

distribution feeder to the Transmission Delivery Point. In above situations:

- The Transmission Customer may utilize the metering installation at the embedded connection point, including all embedded generation and load connected to that point, to satisfy the requirements described in Section (F) above provided that the same metering installation is also used to satisfy the requirement for energy transactions in the IESO- administered market.
- The Transmission Customer shall provide the Metering Registry information for the metering installation at the embedded connection point, including all embedded generation and load connected to that point, in accordance with the requirements described in Section (F) above so that the IESO can calculate the monthly transmission service charges payable by the Transmission Customer.

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TRANSMISSION RATE SCHEDULES

RATE SCHEDULE: (PTS)

PROVINCIAL TRANSMISSION RATES

APPLICABILITY:

The Provincial Transmission Service (PTS) is applicable to all Transmission Customers in Ontario who own facilities that are directly connected to the transmission system in Ontario and that withdraw electricity from this system.

Monthly Rate (\$ per kW)

Network Service Rate (PTS-N):	3.52
\$ Per kW of Network Billing Demand ^{1,2}	
Line Connection Service Rate (PTS-L):	0.88
\$ Per kW of Line Connection Billing Demand ^{1,3}	
Transformation Connection Service Rate (PTS-T):	2.13
\$ Per kW of Transformation Connection Billing Demand ^{1,3,4}	

The rates quoted above shall be subject to adjustments with the approval of the Ontario Energy Board.

Notes:

1 The demand (MW) for the purpose of this rate schedule is measured as the energy consumed during the clock hour, on a "Per Transmission Delivery Point" basis. The billing demand supplied from the transmission system shall be adjusted for losses, as appropriate, to the Transmission Point of Settlement, which shall be the high voltage side of the transformer that steps down the voltage from above 50 kV to below 50 kV at the Transmission Delivery Point.

2. The Network Service Billing Demand is defined as the higher of (a) customer coincident peak demand (MW) in the hour of the month when the total hourly demand of all PTS customers is highest for the month, and (b) 85 % of the customer peak demand in any hour during the peak period 7 AM to 7 PM (local time) on weekdays, excluding the holidays as defined by IESO. The peak period hours will be between 0700 hours to 1900 hours Eastern Standard Time during winter (i.e. during standard time) and 0600 hours to 1800 hours Eastern Standard Time during summer (i.e. during daylight savings time), in conformance with the meter time standard used by the IMO settlement systems.

3. The Billing Demand for Line and Transformation Connection Services is defined as the Non-Coincident Peak demand (MW) in any hour of the month. The customer demand in any hour is the sum of (a) the loss-adjusted demand supplied from the transmission system plus (b) the demand that is supplied by an embedded generator unit for which the required government approvals are obtained after October 30, 1998 and which have installed capacity of 2MW or more for renewable generation and 1 MW or higher for non-renewable generation, on the demand supplied by the incremental capacity associated with a refurbishment approved after October 30, 1998, to a generator unit that existed on or prior to October 30, 1998. The term renewable generation refers to a facility that generates electricity from the following sources: wind, solar, Biomass, Bio- oil, Bio-gas, landfill gas, or water. The demand supplied by embedded generation will not be adjusted for losses.

4. The Transformation Connection rate includes recovery for OEB approved Low Voltage Switchgear compensation for Toronto Hydro Electric System Limited and Hydro Ottawa Limited.

TERMS AND CONDITIONS OF SERVICE:

The attached Terms and Conditions pertaining to the Transmission Rate Schedules, the relevant provisions of the Transmission System Code, in particular the Connection Agreement as per Appendix 1 of the Transmission System Code, and the Market Rules for the Ontario Electricity Market shall apply, as contemplated therein, to services provided under this Rate Schedule.

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TRANSMISSION RATE SCHEDULES

RATE SCHEDULE: (ETS)

EXPORT TRANSMISSION SERVICE

APPLICABILITY:

The Export Transmission Service is applicable for the use of the transmission system in Ontario to deliver electrical energy to locations external to the Province of Ontario, irrespective of whether this energy is supplied from generating sources within or outside Ontario.

Export Transmission Service Rate (ETS):

Hourly Rate

\$1.85 / MWh

The ETS rate shall be applied to the export transactions in the Interchange Schedule Data as per the Market Rules for Ontario's Electricity Market. The ETS rate shall be subject to adjustments with the approval of the Ontario Energy Board.

TERMS AND CONDITIONS OF SERVICE:

The attached Terms and Conditions pertaining to the Transmission Rate Schedules, the relevant provisions of the Transmission System Code and the Market Rules for the Ontario Electricity Market shall apply, as contemplated therein, to service provided under this Rate Schedule.

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