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Board Staff Interrogatory #1

Interrogatory

As part of its interrogatory no. 1, Milton Hydro provided a map to Hydro One that shows the area around Palermo TS and requested Hydro One to confirm its accuracy. Hydro One appears to have not confirmed its accuracy, and in its response to Milton Hydro interrogatory no. 1 it has provided its own diagram. Milton Hydro's map shows a "Hydro One Corridor", and the Hydro One diagram does not show any corridor.

- a. Please provide a map of the area (i.e. not an electrical line diagram) at a scale sufficient to enable parties to understand the location of the TS property, Milton Hydro's service area, and the location of the five poles in relation to Oakville Hydro's service area.
- b. Please explain the significance of the Hydro One Corridor in Milton Hydro's map.

<u>Response</u>

- a. Maps attached. The first map shows the Town of Milton and the relative location of Palermo TS as well as Milton's two other points of supply Hydro One Halton TS and Milton MS #6 supplied from Fergus TS through 44 kV shared LV facilities. The second map is of a scale and is labeled such that you can zoom into the area surrounding Palermo TS and view the location of the 5 poles (black dots) owned by Hydro One on their property, property lines and other details.
- b. There is no particular significance of the Hydro One Corridor other than it is information included on our base map and is where HONIs 230 kV transmission circuits supplying Palermo TS are located. Also the double circuit pole line within Milton currently serving Burlington is partially located on this corridor. This pole line has an interesting history in that the poles and one of the circuits which served Milton at that time were purchased from Ontario Hydro in 1980 as a result of the Municipal boundary changes accompanying the restructuring of Halton Region. The remaining circuit on this pole line continued to be owned by Ontario Hydro and served Burlington. As partial fulfillment of an agreement between Milton and Ontario Hydro relating to a joint supply planning study that resulted in the construction of Halton TS in the early 1990's, Milton Hydro gave up three of the 5 circuits that supplied Milton from Palermo TS. Milton Hydro sold the poles and the circuit (M8) (2.2 km) to Ontario Hydro in 1997 for \$64,000. We understand that this double circuit pole line has recently been purchased by Burlington Hydro.

Board Staff Interrogatory #2

Interrogatory

Ref: Milton Hydro evidence, paragraph 17: "In Milton Hydro's view, and Hydro One Distribution's view, the M1 and M3 lines, which are located entirely on Hydro One distribution's transformer station property"

- a. Is it Milton Hydro's understanding that Hydro One defines its distribution service area to include property between its physical transformer equipment and the fence around the transformer station?
- b. Does Milton Hydro receive service from Hydro One Distribution at the fence of a TS other than Palermo, or is it permitted to attach its own feeders to the transformer equipment inside the TS property?
- c. Is Milton Hydro able to provide verification that Hydro One Distribution shares its view, as suggested in the referenced paragraph?

Response

- a. No. In response to Milton Hydro's interrogatories Issue 7.1 and Issue 7.2,
 - "7. Please confirm that the Hydro One property on which Palermo TS sits is not part of Hydro One Distribution's service territory."

Hydro One responded: "The Palermo TS site is not part of Hydro One Distribution's service territory."

b. At Palermo TS, Milton Hydro receives service from Hydro One at the site property boundary which is adjacent to the HWY 25 municipal road allowance.

At HONI's Halton TS located in Milton, Milton Hydro receives the bulk of it's supply to the Town of Milton. Milton Hydro owns nine feeders that egress from this station and this ownership extends up to but not including the cable pothead termination clamps on the TS structure.

Only to the extent in a. above.

Board Staff Interrogatory #3

Interrogatory

As a partially embedded distributor, Milton Hydro pays for some of its transmission service to the IESO and some of its transmission service to the host distributor.

- a. What rate does Milton Hydro pay for its transmission network service from the Palermo TS, and what rate does it pay for wholesale network transmission service from the other points of supply? What rate does Milton Hydro pay for its transmission connection service from the Palermo TS, and what rate does it pay for wholesale connection transmission service from the other points of supply?
- b. What was the difference in cost per kW for Network and Connection Service paid to the IESO, compared to the combined cost per kW for Retail Transmission Network Service plus Retail Transmission Connection Service plus the Shared Line rate all paid to Hydro One Distribution, in the period prior to November 2007 when the rate paid to the IESO was changed?
- c. Assuming that Hydro One's application for new Retail Transmission Service rates and the new Subtransmission rate were approved, what would be the difference between the Uniform Transmission Rates (combined Network and Connection), compared with the combined Retail Transmission Service Rates and the Subtransmission rate? Tom can you handle this one?
- d. Does Milton Hydro have available an estimate of its costs of transmission service received through Palermo TS via the host distributor over the period May 1, 2002 to January 1, 2008? Does it have available an estimate of what the same amount of electricity would have cost if delivered directly to Milton Hydro and billed at the IESO's wholesale rates?

Response

a. Milton Hydro has three points of supply. Two of these points of supply have been considered embedded (Palermo TS and from Fergus TS to Milton MS# 6) and therefore are subject to Hydro Ones Retail Transmission Service Rates which are intended to recover Hydro One's related wholesale transmission costs (pass through). At Milton Hydro's main point of supply, Halton TS, Milton Hydro is considered a Transmission Customer and therefore wholesale transmission rates apply. Wholesale transmission services are billed by the IESO and Retail by Hydro One.

Our records indicate that wholesale transmission rates are as follows.

Effective May 1, 2002, Network = \$2.83 /kW and Connection (including Transformation) \$2.32 /kW.

Effective Nov. 1, 2007 Network = \$2.31 /kW and Connection \$2.20 /kW.

Our records indicate that Hydro One's Retail Transmission Service Rates are as follows:

Effective May 1, 2002, Network = \$2.70 /kW and Connection (including Transformation) \$2.29 /kW.

Effective May 1, 2005 Network = \$2.61 /kW and Connection \$2.21 /kW.

Effective May 1, 2006 Network = \$2.52 /kW and Connection \$2.09 /kW.

b. It is important to recognize in attempting to do these sorts of comparisons that there are differences in the billing determinants which govern the rates calculated to produce a given revenue requirement for wholesale and retail transmission services.

Wholesale Network services are based on transmission customers aggregate monthly coincident peak (CP) demand (with provincial power system) by delivery point whereas Retail Network Services are based on customers aggregate TOU Peak demand by delivery point.

Wholesale and Retail Connection Services however, both make use of customers monthly Maximum Non Coincident Peak (NCP) demand.

However, up until May 1, 2005 the demands used for Retail Transmission Services were based on individual versus aggregate feeder demands.

Both wholesale and Retail transmission services billing demands (as well as energy used for commodity purchases and wholesale market services) are loss adjusted to the wholesale delivery point which is on the high voltage side of the TS. However once Milton Hydro installed wholesale market compliant meters in the fall of 2004 on our pole line just outside of the Palermo TS property, replacing the previous metering located at the M1 & M3 Breakers, the loss adjustment applied to metered quantities from Jan 1, 2005 to September of 2006 was based on Hydro Ones Average Total Loss Factor of 3.4% as opposed to the engineering studies (actual) loss factor that has been averaging about .53%. The losses based on the engineering studies is what would have applied to billing determinants since market opening if Milton Hydro was a wholesale transmission customer at Palermo TS. As a result of an OEB decision losses based on engineering studies have been used on these feeders since October of 2006

Since May 1, 2006 billing determinants for Shared LV Charges are based on individual feeder (not aggregated) monthly maximum NCP, non loss adjusted.

Rate Effective May 1, 2006 = \$.63 /kW

Rate Effective May 1, 2007 = \$.633 /kW

From May 1, 2002 to April 30, 2006 we understand that shared LV costs were based on 1999 data and a rate of \$.56 /kW.

In summary we would expect that cost comparisons based on simple addition of rates without using the appropriate billing determinants will result in an overstating of wholesale cost estimates

	Wholesale Transmission (\$/kW)	Retail Transmission + Shared LV (\$/kW)
May 1,2002	5.15	5.57
May 1,2005	5.15	5.45
May 1,2006	5.15	5.24
May 1,2007	5.15	5.243

c. The Uniform Transmission Rates are effective November 1, 2007:

Networks	\$2.31 / kW
Connection	<u>\$2.20 / kW</u>
	\$4.51 /kW

The combination of the Retail Transmission Service Rate and the Subtransmission (ST) rate is:

ST	\$0.58 / kW
Network	\$2.01 / kW
Transformation Connection	<u>\$1.38</u> / kW
	\$3.97 / kW

- d. The table below estimates the relative cost of service to Town of Milton consumers as an embedded Retail customer of Hydro One versus a directly connected Wholesale customer at Palermo TS. Cost estimates include:
 - 1) Wholesale and Retail Transmission charges recognizing that the wholesale estimate is likely overstated at least for Wholesale Network Services because billing determinants used are the same as for Retail Transmission Charges

- 2) Shared LV and Specific LV Line Charges using Hydro One calculations. The assumption is that a charge type the same as or similar to the Specific LV Line charge would have been used by Hydro One if Milton Hydro were considered a wholesale customer.
- 3) The impact of applying Hydro One Average Total Loss Factor over the period Jan1, 2005 to September 30, 2006 to demand and energy based charges versus the actual loss factor provided, based on engineering studies.

Palermo TS M1 and M3 Supply to Town of Milton – May 1,2002 to December 31, 2007

	Embedded	Wholesale	Variance
Transmission Network	\$2,703,510	\$2,852,002	-\$148,492
Transmission Connection	\$2,283,863	\$2,360,592	-\$76,729
Shared LV Lines	\$508,583		\$508,583
Specific LV Lines		\$17,169	-\$17,169
Loss Factor			
Transmission Network		-\$21,541	\$21,541
Transmission Connection		-\$18,281	\$18,281
Energy		-\$281,704	\$281,704
Uplift		-\$27,481	\$27,481
Totals	\$5,495,956	\$4,880,756	\$615,200

The \$615,200 is the amount that Milton Hydro's ratepayers are owed over the above period.

