EB-2007-0681

IN THE MATTER OF the Ontario Energy Board Act 1998, S.O.1998, c.15, (Schedule B);

AND IN THE MATTER OF an application by Hydro One Networks Inc. for an order approving or fixing just and reasonable rates and other charges for the distribution of electricity.

EVIDENCE OF THE INTERVENOR MILTON HYDRO DISTRIBUTION INC. ("MILTON HYDRO")

Introduction

This evidence deals with the cost allocation and rate design for Hydro One Distribution's ("HONI Distribution") LV assets, in particular the functionalization of LV lines into shared LV lines and specific LV lines, the characterization of certain feeders which supply Milton Hydro from the Hydro One Networks Palmero substation, as shared LV lines, the lack of any relationship between HONI Distribution's charges relative to its costs incurred to provide the service, the gross overcharging for the provision of the LV service, and, finally, recommendations to the Board of ways to solve the problem.

1. One of Milton Hydro's wholesale supply points is from Palermo TS located on the municipal boundary between Milton and Oakville. The power flows through two 27.6 kV feeders, M1 and M3, which run over Hydro One Networks Inc. ("Networks") property from HONI Transmission's Palermo Transformer Station within the municipality of Oakville to the Oakville/Milton boundary, a distance of .24 km. This portion of the lines is owned by Networks and is part of HONI Distribution's rate base. The Networks transformer station property, which the lines traverse, are not part of HONI Distribution's service area, nor are they part of Oakville Hydro's service area. The remaining length of the M1 and M3 feeders are owned by Milton Hydro.

2. Since the M1 and M3 feeders were built in 1983 they have been dedicated to serving Milton Hydro's load. There are no other lines attached to the .24 km of M1 and M3 lines on Networks property serving the Oakville or any other service territory. Milton Hydro's bulk meters are located at the point where Milton Hydro's part of the M1 and M3 feeders meet the HONI Distribution-owned portion at the Hydro One property line, on the Oakville/Milton municipal boundary (note: prior to 2006, metering was located at the Palermo TS M1 &M3 breakers).

3. HONI Distribution characterizes (functionalises) the .24 km of the M1 and M3 feeders as shared LV lines. In HONI Distribution's evidence, they are referred to as "common ST lines" (Ex. G. 1, tab 4, sch. 4, p. 2).

4. In HONI Distribution's evidence they have replaced the LV rate class with the ST rate class. It consists of essentially the same group of assets and, for purposes of this evidence, can be assumed to be identical (see Ex. H, tab 9, sch. 14, p. 1). The ST/LV assets include lines operating at sub-transmission voltages like 44 kV and 27.6 kV. Prior to 1998, these assets were considered transmission assets and were allocated accordingly. In its rate order RP-1998-0001 issued on March 15, 1999, the Board approved Hydro One Services Company's (now Networks) proposal to move the LV assets from transmission to distribution, consistent with the provision in the *Electricity Act of 1998*, which established 50 kv as the dividing line between transmission and distribution assets (subject to the Board's ability to decide otherwise in particular circumstances).

5. In its direct evidence in RP-2000-0023, and again in this case, HONI Distribution divided the LV lines into two categories, specific and shared (see RP-2000-0023) (Ex. E. T2, Sch. 2, pp. 1-24, especially pp. 6 and 8). Specific lines were defined as "those within the boundary of an LDC and serving only the customers of that LDC" (p. 8). It is worth noting that virtually all specific LV lines are located in HONI Distribution (RP-2000-0023, E. 2, 2, p. 13), which is not surprising, given how they have been defined. Specific LV line facilities in other LDCs accounted for only $150,000 of $56.94 million worth of specific LV lines as of the date the RP-2000-0023 evidence was filed. On the other hand, the shared LV lines were allocated to the extent of 82.6% to LDCs other than HONI Distribution, and only 14.7% to HONI Distribution, and 2.7% to the directs embedded in LDCs (RP-2000-0023, Ex. E, T. 2, s. 2, pp.13-14). The brunt of the higher demand driven charges were absorbed by other LDCs, rather than HONI Distribution itself.

6. The distinction HONI Distribution made in RP-2000-0023 between shared lines and specific lines was based on the former Hydro One costing system. That system was described in HONI Distribution's RP-2000-0023 evidence as follows:

> "The primary distinction in the former Ontario Hydro costing system was between common and non-common costs. Some lines in Figure 1 were designated as "pooled facilities" and these were included in common cost along with those that were designated as "common facilities". All common costs were allocated together to set the bundled rates paid by all

> LDCs, including former Ontario Hydro's Power District. The rationale for this cost treatment was as follows:
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> The common function consists of the costs that have been incurred to ensure a level of service common to all customers. It generally consists of the costs of the facilities and activities associated with the provision of a high-voltage electricity supply system (above 50 kV) and with those low voltage (below 50 kV) bulk power lines required to deliver electricity to distributors' boundaries. Source: User Guide to Understanding the 1989 Cost of Power Allocation Process", p. 4. (Emphasis added)" (Ex. E, tab 2, sch. 2, p. 6)

7. Under this system, all LDCs, whether or not they take any service from HONI Distribution's sub-transmission lines, paid their share of such "pooled facilities". They were considered in effect "transmission" assets. They were built to ensure a level of service common to all customers and since all distributors paid a portion of the costs of such facilities, the burden on any particular distributor was not that large.

8. In RP-2000-0023 HONI Distribution described the specific facilities as follows:

> "The cost of lines designated as "specific" facilities were defined as non-common costs, and were allocated only to the user LDCs. The rationale for this allocation is as follows:
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> "The common / non-common boundary for bulk power lines is based on the view that all lines that deliver power to a distributor's boundary perform the same function regardless of voltage level and should, therefore, be treated the same for cost allocation purposes. Since only certain customers require that Ontario Hydro provide LV lines for the purpose of electricity distribution within their boundary, such facilities are treated as non-common." (Ex. E, tab 2, sch. 2, p. 8)

9. While this distinction has some logic, it does not deal with the fundamental difference in circumstances among shared LV lines that were built on Network's property to connect a Networks transformer station on that property to a contiguous single utility service area, and lines that were constructed to service several LDC service areas, and that do serve several such areas, or between lines of, say, 30 km in length and .25 km in length.

10. Moreover, the theory underlying the shared LV line charges was shattered by the Board's decision in RP-2000-0023. HONI Distribution had proposed in that case that shared LV

line costs should be allocated among all LDCs (including HONI Distribution) and distribution connected direct customers (Ex. E 2, tab 2, sch. 14). This approach was consistent with their treatment as transmission assets under the old Ontario Hydro system. However, the Board eventually accepted AMPCO's proposal, that the pool of customers from which the shared LV line charges should be collected be restricted to only those LDCs that were physically connected to LV facilities (RP-2000-0023, par. 2.037). The decision drastically shrunk the pool from which to recover the costs of shared LV lines and drove the shared LV line charge from $0.17 per kW to $0.56 per kW, a 325% increase, the bulk of which was borne by non-HONI Distribution customers.

11. HONI Distribution had argued in that case that the LV facilities were constructed by Ontario Hydro as a least cost transmission solution to meet the demand on behalf of the pool of customers at large and that, accordingly, <u>all LDCs and direct industrial customers benefited from lower costs as members of the pool</u> (*our emphasis*) and they contributed to those costs. (RP-2000-0023, par. 2.0.9)

12. The Board's answer to this argument was that there was no application before them to consider designating LV lines as transmission lines (par. 2.0.31). The import of the Board's comment is not entirely clear, but it seems that they were saying their decision might have been different had the LV facilities been considered part of the transmission assets, rather than the distribution assets, presumably because it would have then been easier to respect the original rationale, benefits provided, and cost allocation deriving from these factors, had the assets remained part of the transmission rate base. The notion of "user pay", which AMPCO and Toronto Hydro had introduced to support their position has generally not been viewed as an important principle of cost allocation and rate design, except when one is considering a direct customer charge, like a standardized connection charge where no allocation of common costs is required at all.

Just and Reasonable Rates

13. There is a gross disparity in the manner in which HONI Distribution charges for the LV shared line and an LV specific line. Milton Hydro's shared LV line charges are based on the maximum demand at the delivery points, which is where the ownership of the two

feeders changes from Hydro One to Milton Hydro (Ex. H, Tab 9, Sch. 10, p. 1). These are the amounts that were previously recovered in the bundled bulk rate by Ontario Power Generation Inc., the successor to Hydro One Services Inc. and later Networks (RP-2000-0023, Ex. E, tab 2, sch. 3, p. 1). Specific lines are charged on a very different basis, a fixed charge per km. The amount proposed in this case is $729 per km.

14. These rates and charges translate into an amount paid by Milton Hydro to HONI Distribution as follows: Milton Hydro paid HONI Distribution $608,831 (HONI says $508,581 (Ex. H, tab 9, sch. 5, p. 1) over the period May 1, 2002 to January 1, 2008). Had this .24 km of line (HONI says .48 km - the pole line has 2 circuits on it therefore times 2) been functionalized and charged as a specific LV line, the charge over the same period would have been $14,916.00, assuming that the current specific LV Line Rate of $526 per km was charged throughout the period (HONI says $17,169 for .48 km of line). Even assuming HONI's numbers for the two amounts, the difference is a factor of more than 25 times, which cannot be justified, given the fact that, had the Networks transformer station been located on the Milton side of the boundary, the .24 km of line on HONI's transformer station property would have been characterized by HONI Distribution as specific.

15. Moreover, the charge for the shared LV line is not related to the costs of the facilities, which consist of five wooden poles and .24 km of line at replacement cost, which Milton Hydro estimates at $30,000. (HONI says the cost would be somewhat greater, but admits that a detailed study has not been done).

16. A charge that bears no relationship at all to the facility in question is too extreme an intra class inequity to constitute a just and reasonable rate. It is worth noting that the LV rate class, now the S1 rate class, is forecast to have revenue-to-cost ratio of 2.25 in 2008, which itself represents an outrageous overcharge for the class as a whole (Ex. GT2, tab 1, sch. 1, p. 19).

17. In Milton Hydro's view, and HONI Distribution's view, the M1 and M3 lines, which are located entirely on HONI Distribution's transformer station property, does not lie within HONI Distribution's service area, nor, in Milton Hydro's view, does it traverse Oakville

Hydro's service area. The M1 and M3 feeders therefore meet the current definition of a specific LV line in that they lie entirely within either the transmission station property or Milton Hydro's service area. Alternatively, M1 and M3 should be considered a new category of facility which is "dedicated" to a single LDC, which is defined to mean it was constructed to serve one LDC's load, and, aside from crossing property that is part of Networks' transformer station property, does not traverse the service area of any other LDC.

Loss Factors

18. Finally, HONI Distribution is applying a standardized loss factor to power flows through its shared LV lines which is independent of the length of the line. Milton Hydro takes power from shared LV lines from two different Networks owned transformer stations, at Palmero, through feeders M1 and M3, and from another feeder line approximately 30 km in length which originate at another Networks transformer station (Fergus TS) and traverses HONI Distribution's service territory. The loss factor is approximately 3% of total energy, in both cases. The amounts of money are substantial. Moreover, HONI Distribution only commenced applying this loss factor to Milton Hydro on January 1, 2005 and ceased applying the loss factor in October 2006. There seems to be some confusion about the application of the loss factor.

Conclusion

Milton Hydro proposes that the Board declare the M1 and M3 lines to be specific LV lines; alternatively that the Board create a new category for the LV dedicated lines, as more fully described above, which would bear charges equivalent to the specific LV lines.

Town of Milton

Municipal boundary

1.7 km to TS boundary

Town of Oakville

Regional Road 25

Legend

- Milton Hydro
- Hydro One
- Burlington Hydro
- Oakville Hydro
- Municipal boundary
- Hydro One high voltage corridor

Ownership as of 2006

Hydro One corridor

240 m on 5 poles to station connection pole

A4M-1
A4M-3
A4M-5
A4M-7
A4M-8
A4M-6
A4M-4
A4M-2

Palermo TS

Tremaine Road

Town of Milton

Municipal boundary

2.3 km to TS boundary

Burnhamthorpe Road

City of Burlington

Town of Oakville