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AUG 24 2007

ONTARIO ENERGY BOARD



Susan Frank
Vice President and Chief Regulatory Officer
Regulatory Affairs

BY COURIER

August 24, 2007

Ms. Kirsten Walli
Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON.
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EB-2007-0630

OEB BOARD SECRETARY	
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Dear Ms. Walli:

EB-2007-0630 – Distributed Generation – Rates and Connection – Hydro One Networks' Written Comments

In response to the Ontario Energy Board web posting on issues of rates and connection in relation to distributed generation on July 13, 2007 Hydro One Networks Inc. is pleased to provide the attached comments.

I am providing three (3) copies of written comments on behalf of Hydro One Networks Inc. Electronic copy in searchable Adobe Acrobat (PDF) is being filed by email to Boardsec@oeb.gov.on.ca.

Sincerely,

Susan Frank

Attach. (3)

EB-2007-0630, DISTRIBUTED GENERATION: RATES AND CONNECTION HYDRO ONE NETWORKS INC.'S COMMENTS ON DISCUSSION PAPERS

INTRODUCTION

Hydro One is pleased to comment on the Ontario Energy Board's Staff Discussion Paper and the related EESC report on Distributed Generation (DG). Hydro One is responsible for connecting, and maintaining the connections of, generators to both its transmission and distribution (wires) systems and has rates which may be affected by the issues raised. Primarily due to its work with the Renewable Energy Standard Offer Program (RESOP), Hydro One has been dealing with the potential connection of a very large number of new generators to the distribution system and hopes that its lessons from this experience, as provided in the perspectives below, can be beneficial.

SCOPE AND DEFINITIONS

DG can offer many social and environmental benefits. Hydro One believes these societal benefits should be recognized and supported by a variety of funding or financing avenues which are available. Furthermore, Hydro One believes that electricity distributors should address the costs and benefits of DG accruing to their distribution systems. In this context, we wish to differentiate between two types of DG, load displacement generation (LDG) and merchant generation, as these have different attributes and service needs from wires companies and incur different costs.

LDG involves generation that is used to displace all or part of the customer's electricity demand. It is usually located behind the meter at the customer's site and may not be separately metered. Settlement is done on a net basis. Wires companies will incur costs for stand-by supply, connections and potential reinforcements or other accommodations of their systems to enable the incorporation of these generators, as well as on-going account management services, net of system benefits.

Merchant Generation involves generators with contractual obligations to supply power directly to either the transmission or distribution system (that is, its primary purpose is not to displace or reduce an entity's own electricity use). It will be separately metered. Wires companies will incur costs for station service, connections, potential reinforcements or other accommodations of their systems to enable the incorporation of these generators, as well as on-going account management services, net of system benefits.

HYDRO ONE'S EXPERIENCE WITH RESOP

Hydro One is anticipating working with a very large number of DG projects, due to the RESOP, which is focused on renewable energy projects up to 10 MW in size. At this

time, there are:

- 1,000 expressions of interest in connecting to Hydro One's distribution system,
- over 550 applications for a full Connection Impact Assessment,
- 40 applications for a cost estimate from Hydro One and
- about 10 generators currently connected to Hydro One's distribution system¹.

The 1,000 projects for which Hydro One has received expressions of interest comprise 907 mid-size projects (1 to 10 MW in capacity) and 94 small projects (less than 1 MW).

In addition to this work, Hydro One has received 50 requests for initial feasibility assessments of large projects (greater than 10 MW) which are not included within the RESOP scope and is also working on about 35 net metering projects (generally up to 500 kW). Hydro One expects that the 94 smaller projects and the net metering projects will be for the purpose of load displacement.

SUMMARY OF HYDRO ONE'S POSITION

Hydro One believes there should be no artificial barriers to distributed generation (DG), but also that a balanced assessment of both the benefits and costs of DG as it impacts the wires business, is needed. The extent to which new DG is beneficial to transmission and distribution systems varies widely, depending on the type of generation and its location. To the extent new DG is located in areas which have net loads (that is, the area uses more electricity than it produces), it can defer or avoid new wires facilities. When the DG is located near a load, it can reduce system losses. In particular, well-located LDG that is generally operated at less than the customer's load is likely to result in improved losses in distribution and transmission systems and also has the potential to defer system reinforcement costs. When the DG is located in areas which can benefit from greater diversity of supply sources, the net result can also be an improvement in system reliability.

New DG can also have the reverse effect, however. In particular, much of Ontario's renewable potential is located far from major load centres, sometimes in areas which are already major net exporters of power. Such new supply may actually require increased wires facilities to deliver it to Ontario's consumers. Projects located on lower voltage (and higher loss) distribution lines distant from load, can increase losses, and to the extent that new generators add to, rather than reduce, the usage of transmission facilities, they can increase transmission losses as well. DG can also result in an adverse impact on voltage regulation. Finally, the accumulation of generation on a particular facility or in a particular area, can have a substantial impact on the reliability and operation of the transmission system. Utilities, in these cases, must make new investment to mitigate the negative impacts of these forms of generation.

¹ This number is in flux, as some projects which had been underway prior to the implementation of the RESOP, later "switched" to take advantage of the RESOP terms.