

UNDERTAKING

Undertaking

TO PROVIDE COST OF RESOP

Response

The costs Hydro One incurs related to generation connecting to its distribution system, or the systems of Local Distribution Companies (LDCs) that are served by Hydro One distribution, are generally expected to be driven by generators pursuing a contract under the RESOP, and upcoming CESOP.

The distributed generation (DG) related costs are included in three areas in the 2008 distribution rate filing (EB-2007-0681) as follows:

	2008 Costs * (\$million)
OM&A	
• Development	
○ Data collection, engineering and studies	0.4
○ Standards and technology	0.7
• Shared Services (Asset management)	
○ Planning and studies, includes connection impact assessments	3.4
Total OM&A	4.5
Capital	
• Development (execution of actual connections), net of contributions	8.4

* All costs include fully burdened labour costs.

There are several factors which contribute to uncertainty with regard to the extent that these costs may increase beyond 2008. These revolve primarily around the issue of how much of the government's Supply Mix objectives are expected to result from generators connecting to the distribution systems (of all distributors). Costs can also vary as a result of the OPA's review of its RESOP program and the OEB's decisions with respect to the Connection Cost Allocation reviews underway for both transmission and distribution.

As an example, major investments will likely be required if the intent is to add large amounts of distributed generation, and establish a system where increased connection capability would be available widely (although not necessarily everywhere) in Hydro

1 One's transmission and distribution service areas. These investments could include some
2 or all of the following, depending on the scope of the objective:

- 3 • distribution system controls and intelligence (e.g. communications,
4 monitoring, protection and control) to add operational capabilities such that
5 more generation can be added but then constrained off if necessary to ensure
6 reliability for other connected customers (this would be an element of a
7 "smart" distribution system).
- 8 • upgrade of some of Hydro One's single phase lines to three phase lines
- 9 • dedicated distribution lines for larger generators and/or networking of existing
10 distribution lines
- 11 • need for expanded transmission capability (e.g. new TS's or TS facilities, new
12 lines, and voltage support) to incorporate additional distribution facilities
13 including distributed generation, as well as to transfer output from the new
14 generation to customers.

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16 The question of how to fund any major investment such as those outlined above is
17 critical. On-going and planned OEB Connection Cost Allocation reviews provide an
18 opportunity to consider the economic level of distribution system and transmission
19 system expansion to support distributed generation (in the context of the overall value of
20 such DG to the province). An understanding of the eventual objective for such
21 distribution connected generation would be useful to inform this review.
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