

1 Q. At page 13 of the Regulated Activities: Evidence it states, *"From a workforce*  
2 *management perspective, several technology-based tools have been*  
3 *implemented over the past number of years resulting in time savings and*  
4 *more efficient operations including the automation of employee timesheets*  
5 *and travel claims."* Please explain:  
6

- 7 a. what specific technology-based tools were implemented and at what  
8 cost (including training costs) and how many full-time equivalents  
9 were eliminated as a result;  
10 b. how many full-time equivalents were eliminated by reason of  
11 automation of employee timesheets and travel claims;  
12 c. what, if any, savings on an annual basis will these several technology-  
13 based tools produce and explain whether and, if so, how these  
14 savings have been incorporated into the Test Year Revenue  
15 Requirement?  
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18 A. a. Hydro has implemented a wide variety of technology-based tools  
19 across its system, including the following examples:

- 20 • Development of an in-house web-based application that provides  
21 system-wide access to operating data, equipment alarms, and  
22 equipment status information. Cost - \$30,000.  
23 • Development of a weekly schedule generator for maintenance  
24 staff. Cost - \$3,000.  
25 • Development of a Planned Outage Management database for  
26 coordinating all major planned equipment maintenance outages.  
27 Cost - \$17,000.

- 1 • Development of an Interactive Voice Response (IVR) system for  
2 customer service. Cost - \$170,000.
- 3 • Development of an automated employee timesheet and travel  
4 claim application. The development cost is unavailable, as it was  
5 not separated from other related initiatives at the time.
- 6 • Development of a switching order database. Cost - \$6,000.
- 7 • Implementation of a remote monitoring system at Bay D'Espoir at  
8 Granite Canal. Cost - \$27,000.
- 9 • Consolidation of asset physical and financial databases into one  
10 central tool. Cost - \$43,000.
- 11 • Remote access to improve effectiveness of mobile workforce.  
12 Cost - \$69,000.
- 13 • Video conferencing to permit reductions in some travel costs. Cost  
14 - \$50,000.
- 15 • Communication review for telephone equipment, bandwidth  
16 reduction, leased telephone reduction, and cell phone reduction  
17 since 2003. The collective savings resulting from these actions is  
18 in excess of \$150,000 per year.

19  
20 Several capital budget proposals that have been approved by the Board  
21 have contributed to staff reduction. These include server consolidation,  
22 end user refresh program and storage area network. These and other  
23 changes have resulted in a reduction of 12 FTEs in the Information  
24 Systems Department.

25 The remote monitoring of Granite Canal allows personnel at Bay d'Espoir  
26 to better diagnose issues at the Granite facility, so better decisions are  
27 made regarding whether to immediately dispatch a repair crew, and the

1 repair crew composition. This reduces unnecessary travel (possibly by  
2 helicopter).

3 Of the above technology applications, the primary focus was more  
4 effective utilization of the existing workforce, as opposed to elimination of  
5 positions. The information extracted from the tools allows Hydro to  
6 increase the level of service provided (reliability, system security,  
7 equipment availability, etc) using the same workforce complement, or to  
8 offset rising costs in other areas (such as reducing travel or helicopter  
9 time). The contributions of the above are difficult to separate from the  
10 results of other initiatives Hydro takes to increase reliability or reduce  
11 cost, but the contributions are nevertheless significant.

12 For a further discussion of technology implementation and its impacts on  
13 cost, see the response to CA 122 NLH.

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- 15 b. One and one half positions were eliminated as a result of  
16 implementing the automated time sheet and travel claim system.
- 17
- 18 c. As noted in part (a), segregation of cost savings from implementation  
19 of technology-based tools from other cost savings is difficult. However  
20 the savings resulting from the impacts of all of Hydro's cost saving  
21 endeavors in this area are reflected in the current Test Year Revenue  
22 Requirement.