

January 13, 2011

## Board File Number: EB-2010-0332

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### **Hydro One Networks Inc. – 2011-2014 Board-Approved CDM Programs**

#### **INTERROGATORIES**

**Ref: Exhibit B, Tab 1, Schedule 2 Page 3 of 24,**

1. The Canadian Energy Efficiency Alliance (The Alliance) acknowledges Hydro One's extensive experience in developing, delivering and implementing CDM programs. Please provide completed evaluations of all programs and sample copies of presentations, or other documentation that have been provided to North American utilities which have emulated any of its programs.
2. While the Alliance complements Hydro One in participating in the redevelopment of the Ontario Power Authority ("OPA")-Contracted Province-Wide Conservation and Demand Management Programs (OPA Programs), what process was followed to develop these programs? Please respond commenting on the following aspects of the process and the resulting program designs:
  - a. What limitations, if any, did Hydro One encounter in participating in redeveloping the OPA programs including availability of resources, timely access to information, particularly respect to the proposed program designs, projected program budgets, cost/benefit analysis of plans, programs and specific measures as well as estimated targets. Please file all copies of such documents provided by the OPA except for any currently posted on the OPA web site.
  - b. What evaluations of earlier OPA programs were provided to Hydro One? Please file copies of all evaluations of OPA programs provided to Hydro One.
  - c. What market research completed by the OPA or contracted for by the OPA was shared with Hydro One? Please file copies of all market research reports provided to Hydro One.
  - d. Did Hydro One have access to the results of pilot programs funded under the Conservation fund? What role did the reports and lessons learned have in the selection and development of the programs included in the OPA programs? Please provide copies of any documents provided by the OPA except for any currently posted on the OPA web site.
  - e. The OEB's CDM Code requires each LDC to file a CDM Strategy and provides a template for doing so, which Hydro One appears to have conformed to in its application. Did the OPA provide similar documentation to Hydro One? If so please file any shared OPA documents that would approximate what is included in the OEB template requirements.

January 13, 2011

**Ref: Exhibit B, Tab 1, Schedule 2 Page 4 of 24,**

3. At line 6, Hydro One notes that the cost effectiveness of all OPA Programs has been verified by the OPA. Please provide copies of the document(s) that verifies their cost effectiveness including details of the calculations, assumptions and sources of assumptions.
4. At line 14, Hydro One asserts that all requested Board Approved Programs pass the Code required tests (Total Resource Cost (TRC) Test and Program Administration Cost (PAC) Test). Please provide the results of these tests including details of the calculations, assumptions and sources of assumptions.
5. Has Hydro One completed any Participant Cost Tests on its requested programs? If so please provide the results of these tests including details of the calculations, assumptions and sources of assumptions. If not, how can Hydro One be sure that participants will benefit from its requested programs?
6. Is a Hydro One aware of, or have a copy of any Participant Cost Tests completed by the OPA or others with respect to the OPA Programs or any of its previous programs? Please file any related documentation.

**Ref: Exhibit B, Tab 1, Schedule 2 Page 6 of 24,**

7. At line 14, Hydro One notes that the OPA programs are expected to help achieve approximately 80% of the Hydro CDM targets. This contrasts to evidence in the same exhibit on page 2 which cites the third party contractor's estimate that the OPA programs will only result in 71% of Hydro One's target. Please provide the rationale for the difference of 7%?
8. At line 27, Hydro One outlines how its budgets were estimated based on an estimated percentage of Hydro One's participation. Given the vast size of Hydro One's territory, does Hydro One anticipate added costs to deliver programs? How will these be accounted for? Given that the OPA funding agreement was not final at the time of filing evidence, what contingencies have been built into the requested fund for either OPA programs or requested programs?

**Ref: Exhibit B, Tab 1, Schedule 2 Page 8 and 9 of 24**

9. Figure 3 illustrates Hydro One's share of the province wide budget, total peak (kW) reductions and total energy (kWh) reductions. Where the budget data has not been broken down by program, please provide the detail or the rationale for not doing so? Has the OPA provided that level of detail to Hydro One? If so please file a copy of the information. In particular, differentiate program budgets which are pure demand response with zero energy (kWh) reductions shown.
10. Ministerial conservation-related directives since the passage of the Green Energy and Green Economy Act to both the OPA and the Board have ensured that LDC targets include both peak reductions and energy reductions. In Hydro One's view, how has this impacted both

January 13, 2011

the design and selection of OPA programs and its requested programs, particularly with respect to programs and budgets allocated to demand response programs which deliver no energy saving results. Figure 3 appears to indicate the allocation of significant resources to these programs. Does Hydro One support the apparent preference for demand response over energy savings?

11. At line 10, (p 9), Hydro One illustrates its approach to allocation of budgets for the OPA programs – based on a \$/kW (peak demand reduction). What would the allocation of the same budget be if a allocation based on \$/kWh (energy reductions) was used?

**Ref: Exhibit B, Tab 1, Schedule 2 Page 10 of 24**

12. The Alliance agrees with Hydro One that Board approved programs are required in order to meet its targets. In section 4.1, Hydro One indicates that the OPA expects its OPA contracted programs will achieve 1037 MW of the combined total of the LDC target of 1330 MW target. If this is the case OPA programs will deliver 77% {calculated} of the LDC expected results.
- a) Please replicate this calculation on a kWh basis.
  - b) Why does Hydro One anticipate that 80% of its kW results will come from OPA programs? Please provide specific calculations and related assumptions used, including information from the consultant reports and any other information Hydro One used to determine that 80% was the correct portion of its target that OPA programs would be able to deliver.
  - c) Please replicate Hydro One's anticipated share of the total LDC target on a kWh basis.
  - d) Does Hydro One know how will the results and budgets associated with the OPA's delivery of transmission connected be accounted for, given that even transmission connected customers are located within LDC service territories with a large portion in terms of energy use are in Hydro One territory.
13. In determining what requested Programs to design, or in the actual development of those programs what limitations if any did Hydro One face? Please respond with respect to the following: availability of resources, timely access to information, particularly respect to proposed OPA program designs, project program budgets, and cost/benefit analysis of plans, programs and specific measures as well as estimated targets.
14. Does Hydro One anticipate the need for any changes to the Board's CDM Code as a result of having gone through the first iteration of program design?
15. At line 16, Hydro noted that it had reviewed a range of programs as potential OEB approved programs. Please provide the results of the extensive review and the rationale for Hydro One's choices.

January 13, 2011

16. Please file the cost/benefit analyses for the six selected programs, including calculations, assumptions and sources for assumptions.

**Ref: Exhibit B, Tab 1, Schedule 2 Page 12 of 24**

17. At line 22, Hydro One notes that programs like Double Return Plus empower customers to manage and reduce their own peak as well as save energy. As a result it has high positive TRC and PAC ratios (ref /Figure 4) and delivers both demand and energy savings. Does Hydro One have similar data with respect to programs that reduce demand with no energy savings, either from the OPA or from other programs in North America? If so, please file.

**Ref: Exhibit B, Tab 1, Schedule 2 Page 16 of 24**

18. Regarding Municipal and Hospital Energy Efficiency Performance, In its submission in EB-2010-0215, Toronto Region Conservation Authority shared its lessons learned from performance based conservation:

- i. performance based conservation delivers far greater energy savings than previous approaches to energy (and water) conservation,
- ii. the larger part of the savings is found in low/no cost improvements,
- iii. successful and sustainable conservation has more to do with good management than with technology,
- iv. conservation programs have to support building managers with information, tools and resources so that they can recognize the unique set of conservation opportunities in their facilities,
- v. benchmarking can identify buildings with high conservation potential, inform target setting and point to where savings are to be found in each building, and
- vi. monthly savings reporting flags variances in predicted savings, identifies measures which do not perform as intended, verifies savings which have been achieved and guides continuous improvement

Has Hydro One reviewed this material, and if so, how has it been taken into account in the development of the Municipal and Hospital Energy Efficiency Performance Program?

- a) How will the Municipal and Hospital Energy Performance Program relate to the Green Energy and Economy Act requirements for energy management plans in the broader public sector?
- b) What additional resources would be required to apply this program to the entire public sector, including Ontario government facilities within Hydro One's territory?
- c) What is the reason for only requiring the customers to commit to participation until December 31, 2014? What resources would be required to extend this deadline

January 13, 2011

given that in the same TRCA submission found that savings are still to be found after five years of participation in such programs?

**Ref: Exhibit B, Tab 1, Schedule 2 Page 19 of 24**

19. At line 12, Hydro One notes that it remains a winter peaking utility. Please describe how the requested programs address winter peaks. Please describe any shortcomings in the OPA programs with respect to saving energy or reducing peak in winter.

**Ref: Exhibit B, Tab 1, Schedule 2 Page 21 of 24**

20. In Figure 6, Hydro One illustrates how low income customers are eligible for the OPA approved programs. Do any of these programs other than the Appliance Retirement Initiative **not** require a portion of the cost of the project or measure to be paid by the customer? With respect to requested programs, does either of the residential programs require the cost of the project or measure to be paid by the customer?

**Ref: Exhibit B, Tab 1, Schedule 2 Page 23 of 24**

21. At line 10, Hydro One notes that it has worked with the OPA in an effort to improve existing programs. Please outline any improvements in programs that Hydro One suggested to the OPA but were not included. Are there additional improvements required to the programs?

**Ref: Exhibit C, Tab 1, Schedule 1, Page 1 of 58**

22. Is this exhibit exactly as provided by the OPA, or is it a summary developed by Hydro One? If it is a summary, please file the full document.

**Ref: Exhibit C, Tab 1, Schedule 1, Page 4 of 58**

23. At line 6, the incentives for a number of energy saving measures are listed. Has Hydro One examined the contribution of the incentive to the total cost of the measure in geographically diverse areas of its service territory? If so, is Hydro One concerned about program uptake in areas which such products are relatively higher priced than the average? What has been Hydro One's experience to date with similar OPA initiatives run in 2006?

**Ref: Exhibit C, Tab 1, Schedule 1, Page 34 of 58**

24. At line 22, the ERIP program is described as focusing on equipment replacement. In its submission to EB-2010-0215, the Toronto Region Conservation Authority said "it is now well documented that prescriptive measures [equipment replacement] can not only fail to achieve optimal savings, but in some cases actually lead to an

January 13, 2011

increase in consumption”. Has Hydro One’s research or program evaluations found similar issues?

**Ref: Exhibit C, Tab 1, Schedule 1, Page 40 of 58**

25. In a discussion of the Demand Response 1 – **Commercial** program, at line 23, the exhibit indicates that “an **Industrial** Program Change Management Committee has been established to manage change to the DR initiative in an organized and ongoing manner”? Is Hydro One aware if this committee applies to commercial DR? Is Hydro One aware of any other “change management committees” for OPA programs? If so, please list and describe their function.

**Ref: Exhibit C, Tab 1, Schedule 1, Page 41 of 58**

26. At line 13, the exhibit indicates that “DR1 is to achieve maximum cost effective peak demand reduction **and energy savings**”. Is Hydro One aware of any expected targets for energy savings from Demand Response OPA programs? If so, why do none of the OPA programs for DR include energy saving targets for Hydro One?

**Ref: Exhibit C, Tab 1, Schedule 1, Page 53 of 58**

27. At Line 3, the Exhibit says that “Ontario has not had a full functioning **energy** management initiative for industrial customers...except for ERIP”. Did Hydro One have programs that applied to its industrial customers under MARR? Has Hydro One worked with Union Gas or Enbridge Gas with respect to their industrial programs?

**Ref: Exhibit C, Tab 1, Schedule 2, Page 47 of 67**

28. At line, 10, the description of initiative elements asked that the memorandum of understanding include “annual benchmarking and monitoring of electrical energy use”. Did Hydro One consider including a requirement to benchmark other fuels to ensure that electrical savings were not achieved with a disproportionately high impact on other energy forms? Did Hydro One consider the electrical savings associated with reduced water use? If not, why not? Could the program be revised to include other energy forms and water?

**Ref: Exhibit C, Tab 1, Schedule 2, Page 59 of 67**

29. At line 3, Hydro One cited “bringing demand response and energy efficiency together” as evidence of non-duplication of an OPA program for its Double Return Plus. Was this improvement suggested to the OPA for its DR programs? If not, why not? If so, in Hydro One’s view, why wasn’t it acted on?

January 13, 2011

**Ref: Exhibit C, Tab 1, Schedule 2, Page 60 of 67**

30. At line 9, Hydro One cites the requirement for an Action Plan by the customer. How will this link with the Energy Management Plans required under the Green Energy and Green Economy Act?