Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 1 Page 1 of 1

GEC INTERROGATORY 1

2 QUESTION

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- 3 Strategic Objective 1 (Power System Plan)
- 1. (B-2-1, p. 1) Please provide the timeline for the IPSP consultations, evidence production and hearing stages that underlies the revenue request and any updates thereto.

- 7 Timelines for these proceedings are dependent on certain decisions and events that are
- beyond the control of the OPA. Factors that would impact IPSP timelines include the date
- on which the Minister issues the Supply Mix Directive to the OPA, the content of that
- Directive and the timing of regulatory proceedings to be determined by the OEB.
- The OPA has incorporated the following estimated timelines in establishing its 2011 Budget
- 12 for IPSP proceedings:
- Q3 2010 to Q2 2011: Analytical Work;
- Q1 2011 to Q2 2011: Stakeholder Consultations; and
- Q2 2011 to Q3 2011: Evidence Development.
- The OEB is responsible for determining the regulatory stages and timeline to be followed
- once the OPA's application has been submitted. The OPA's budget assumes that the
- application will be submitted in Q3 2011 and regulatory proceedings will be underway by
- 19 Q4 2011, continuing into 2012.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 2 Page 1 of 1

GEC INTERROGATORY 2

2 **QUESTION**

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- 3 Strategic Objective 1 (Power System Plan)
- 2. (B-2-1, p. 6 & 7) Please provide details of the economic metric OPA will utilize in the ECT. How is OPA determining such a metric and proceeding to apply the ECT "in the second quarter of 2011" prior to the development of a current IPSP and in particular in the absence of a current cost estimate for nuclear?

- 9 As part of the Economic Connection Test ("ECT"), the OPA will use a \$/kW metric as a
- screening tool to initiate development work for transmission expansion projects. The metric
- measures the estimated cost of the project (offset by credits that represent additional
- benefits provided by the project) against the amount of Feed-in-Tariff ("FIT") renewable
- generation enabled by the expansion. The metric is compared against a threshold value of
- \$500/kW, a level consistent with historical transmission investment in Ontario. The use of
- this metric is unique to the FIT standard offer program, for the purpose of implementing
- 16 renewable energy development policy.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 3 Page 1 of 1

GEC INTERROGATORY 3

2 **QUESTION**

- 3 Strategic Objective 1 (Power System Plan)
- 3. Please provide the planning outlook report referred to at B-1-1 p.9, line 8.
- 5 **RESPONSE**
- 6 Please see the response to Board Staff Interrogatory 2, at Exhibit I-1-2.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 4 Page 1 of 1 Plus Attachment(s)

GEC INTERROGATORY 4

2 **QUESTION**

- 3 Strategic Objective 2 (CDM)
- 4. (B-2-1, p. 3) Please file the master agreement with the LDCs for province-wide CDM programs, or if not yet available, the latest draft and a summary of outstanding issues.
- 6 **RESPONSE**
- 7 Please see the Master Agreement filed as Attachment 1 to this exhibit.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 5 Page 1 of 2

GEC INTERROGATORY 5

2 QUESTION

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- 3 Strategic Objective 2 (CDM)
- 5. (B-2-1, p. 3) We understand that some or all OPA-contracted province-wide CDM programs are not mandatory for the LDCs.
- a. Which province-wide programs are optional and which are mandatory for LDCs?
- b. Where programs are optional, please provide any available information and/or estimates of LDC participation in each program including estimates of the degree of opportunity coverage (i.e. percentage of potential savings, number of measures and potential participants covered),
- 11 c. Where programs are optional, please provide details of the extent to which OPA will
 12 ensure that savings potential is realized (i.e. where LDCs are not delivering the
 13 program or measure) and the mechanism that OPA intends to use for that purpose in
 14 each case.

- a. All OPA-Contracted Province-Wide CDM Programs are optional for LDCs. As specified
 in the Minister's March 31, 2010 Directive to the OEB, "each distributor must meet its
 CDM Targets through:
- (i) the delivery of Board approved CDM Programs delivered in the distributor's service area ("Board-Approved CDM Programs");
- (ii) the delivery of CDM Programs that are made available by the OPA to distributors in the distributor's service area under contract with the OPA ("OPA-Contacted Province-Wide CDM Programs"); or,
- (iii) a combination of (i) and (ii)".
- 25 b. Seventy-seven LDCs filed a CDM Strategy with the OEB in November, 2010 in
- accordance with the OEB CDM Code for Electricity Distributors. Many of these were
- found to be incomplete by the Board and are to be resubmitted shortly. It is expected
- that nearly all LDCs intend to deliver all four of the OPA Contracted Province Wide
- 29 Programs in their service territory (Consumer, Low Income, Business and Industrial).
- The LDC CDM Strategies filed with the Board are available on the Board's website at the
- 31 **following link**:

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 5 Page 2 of 2

- http://www.oeb.gov.on.ca/OEB/Industry/Regulatory+Proceedings/Policy+Initiatives+and+
 Consultations/Conservation+and+Demand+Management+(CDM)/CDM+Code/CDM+Stra
 tegies+Programs+and+Reports
- c. While all OPA-Contracted Province-Wide CDM Programs are optional for LDCs, most LDCs that filed a CDM Strategy with the OEB indicated that they plan to offer all four OPA-Contracted Province-Wide CDM Program in the their service area. Where an LDC registers with the OPA for delivery of an OPA-Contracted Province Wide Program, it is the OPA's expectation that the LDC will deliver all initiatives within that program, unless the LDC provides reasonable justification as to why an individual initiative should not be offered.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 6 Page 1 of 2

GEC INTERROGATORY 6

QUESTION 2

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- Strategic Objective 2 (CDM) 3
- 6. Achieving the conservation potential: 4
- a. Please provide all Ontario conservation potential studies that OPA has and any 5 summary of the overall potential. 6
- b. In determining cost-effectiveness of CDM opportunities does OPA assume that 7 avoided costs include nuclear capacity? If so please provide OPA's assumption for the cost of that capacity and energy. Please provide a comparison of the values used in avoided costs with the results of the RFP for nuclear power.
- c. The draft Supply Mix Directive calls for acceleration of cost effective CDM where 11 possible. Is OPA conducting research and planning to achieve CDM where cost-12 13 effective beyond the specific targets in the directives in anticipation of the supply mix directive? 14
 - d. Please indicate OPA's plan and specific budgetary estimates for items that are anticipated to address the opportunity for added CDM (i.e. beyond the minimum targets) given OPA's assumption for the extent to which the LDCs will target beyond their pro-rata apportionment of the minimum.

- a. In developing the IPSP, the Ontario Power Authority will update the estimated 20 conservation potential. Work in this regard will continue throughout 2011. 21
- The CDM potentials that the OPA has for the first IPSP are included in the first IPSP 22 (EB-2007-0707) evidence at Exhibit D-4-1 and its Attachments. 23
- b. The avoided costs do not include the capital cost of nuclear power plants. 24
- The avoided costs include nuclear generation fuel costs, used fuel disposal costs, and 25 variable operating and maintenance costs to the extent that nuclear energy production 26 is saved by implementing any CDM measure. 27
- OPA has no information on the comparison of avoided nuclear fuel or operating costs in 28 relation to the results of an RFP for nuclear power because the OPA has no information 29 30 on these results.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 6 Page 2 of 2

- c. No, the OPA is not specifically conducting such activities in anticipation of the Supply
 Mix Directive. Please see the response to part a, above. Work to update the
 conservation potential will be ongoing throughout 2011.
- d. These items will be developed as part of the second IPSP, subsequent to the OPA receiving a new Supply Mix Directive from the Minister of Energy.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 7 Page 1 of 2

GEC INTERROGATORY 7

2 QUESTION

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- 3 Strategic Objective 2 (CDM)
- 4 7. Regarding OPA's measure savings estimates:
- a. For which measures and programs does OPA expect to estimate savings using "deemed" assumptions? For which does it expect to estimate savings on a custom basis?
- b. Please describe the process by which deemed assumptions have been developed?
- c. Does OPA use any deemed free ridership or deemed net-to-gross ratio
 assumptions? If so, are such assumptions updated whenever program designs (e.g. incentive levels, aggressiveness of marketing campaigns, etc.) change? How frequently are they updated?
- d. What process does OPA have in place to ensure that actual savings are consistent with both deemed assumptions and custom project savings estimates?
- e. Does the process include an independent annual audit?
 - i. If so, how is the auditor selected?
 - ii. Who has input into its selection?
 - iii. Does the selection and oversight or management of the auditor involve external stakeholders as is the case with gas DSM (e.g. akin to the gas utilities' Evaluation and Audit Committees)? If so, please explain which stakeholders are involved and how OPA decided which to involve?
 - iv. Does it involve external stakeholders in any other way? If so, please explain.
 - f. Does OPA involve external stakeholders in the evaluation planning, including prioritization of evaluation studies (e.g. akin to the Evaluation and Audit Committees in place for gas DSM)?

RESPONSE

27 a) During program planning, the OPA develops resource savings projections for each program based on program-specific input assumptions, including: program participation levels, measure/project-level resource savings and net-to-gross ("NTG") adjustment factors, such as free-ridership. These input assumptions are informed by a number of sources, including: market research, previous program evaluations, jurisdictional review and the OPA Prescriptive and Quasi-Prescriptive Measure and Assumptions Lists.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 7 Page 2 of 2

- During program evaluation, actual results are assessed in accordance with the OPA
- 2 Evaluation Measurement & Verification ("EM&V") Framework and Protocols and
- compared to program design estimates. Actual evaluated results, rather than program
- design input assumptions, are used for the purposes of determining NTG ratios
- 5 (including free ridership) and savings impacts.
- b) The OPA's Measures and Assumptions Lists are managed internally by OPA staff. The
- 7 lists are continuously updated and informed by: independent third-party measure-
- specific research, results of third-party evaluation on OPA-funded conservation
- 9 programs and external stakeholder submissions for new and/or revised measures. More
- information on the OPA's submissions process for new measures and revisions to
- existing measures is available on the OPA website at:
- 12 http://www.powerauthority.on.ca/measures-assumptions-lists/submission-process-for-
- 13 **measures**
- c) During program planning, assumptions regarding NTG adjustments, including free
- ridership, are used as one of the inputs to develop resource savings projections. The
- NTG adjustment assumptions used in program planning are typically informed by a
- number of sources, including: market research, previous program evaluations, and
- jurisdictional reviews. The OPA's Measures and Assumptions Lists do not contain
- default free ridership levels or other NTG adjustments, as these adjustment factors are
- 20 a function of program design and delivery.
- During program evaluation, an assessment of the actual NTG adjustments for the
- program is done in accordance with the OPA EM&V Framework and Protocols. Actual
- evaluated results, rather than program design input assumptions, are used for the
- purposes of determining net-to-gross adjustments (including free ridership) and savings
- 25 impacts.
- 26 d) The OPA verifies the actual savings through EM&V processes that comply with the OPA
- 27 EM&V Framework and Protocols. The verified savings help to inform the input
- assumptions used in the design of subsequent programs.
- e) No, the annual audits that support Natural Gas Demand Side Management activities are
- not a characteristic of the EM&V process that supports electricity Conservation and
- Demand Management activities. This is because EM&V for electricity CDM activities is
- 32 performed by independent third-party contracted evaluation managers selected by a
- competitive Request for Proposal process. EM&V conclusions are inherently
- independent.
- 35 f) In 2007 the OPA developed, after a comprehensive stakeholder consultation, the EM&V
- Framework and Protocols. External stakeholders have not been involved in evaluation
- planning for specific CDM Programs, which are subject to the EM&V Framework and
- 38 Protocols.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 8 Page 1 of 2

GEC INTERROGATORY 8

2 QUESTION

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- 3 Strategic Objective 2 (CDM)
- 8. Regarding integration of delivery of OPA's and Ontario's gas utilities' CDM programs:
- a. Please summarize, separately for each OPA program, whether the program is being jointly delivered with Union Gas and/or Enbridge Gas and how the joint delivery is functioning or will function (including how both measure and non-measure costs will be shared).
 - For programs for which there is currently no agreement in place regarding joint delivery, please (addressing each program separately):
 - i. describe OPA's current plans for joint delivery, coordinated delivery and/or other forms of collaboration with the gas utilities;
 - ii. discuss when OPA began discussions with the gas utilities and how long OPA has been in discussions with the gas utilities on the topic of joint delivery, coordinated delivery or other forms of collaboration;
- iii. explain why decisions on joint delivery, coordinated delivery or other forms of collaboration have not yet been finalized.

- a. At present there are no OPA arrangements in place with Union Gas and Enbridge Gas for the delivery of 2011-2014 Province-Wide Consumer, Commercial and Institutional and Industrial Programs for distribution-connected customers nor for the Industrial Accelerator program and the suite of Demand Response programs for the transmission-connected industrials.
- Both Union and Enbridge Gas participated in the OPA/LDC Work Group for the design of the Province-Wide Low Income Program. The OPA, with input from the OPA/LDC Low Income Working Group, is currently working on finalizing a Memorandum of Understanding ("MOU") with Union Gas and Enbridge Gas that would detail cooperative joint delivery arrangements for the Low Income Conservation Program.
- b. i) The OPA plans are to implement the MOU with gas utilities for the Low Income Program and gain experience. The OPA also plans to continue the dialogue with gas utilities for joint delivery opportunities for other 2011-2014 Province-Wide CDM programs.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 8 Page 2 of 2

- With respect to the Industrial Accelerator program and the suite of DR programs for transmission-connected customers, the OPA currently has Memoranda of Understanding with the gas utilities to explore ways to coordinate activities and collaborate. The MOUs are confidential and privileged documents.
 - ii) Initial informal discussions began in Spring 2010 and are ongoing with an initial focus on Low Income Program delivery.
 - The MOUs with the gas utilities in respect of the programs for transmission-connected customers have been in place as of Spring 2010 and discussions are ongoing.
 - iii) The OPA, with input from the OPA/LDC Low Income Working Group, is currently working on finalizing a MOU with Union Gas and Enbridge Gas that would detail cooperative joint delivery arrangements for the Low Income Conservation Program. This timing is consistent with the Minister's July 5th, 2010 directive to the OPA which recognizes that "2011 may be a transition year with regards to establishing a robust and integrated gas and electric low-income energy strategy".
 - In 2011, the OPA also plans to continue the dialogue with gas utilities for joint delivery opportunities for other 2011-2014 Province-Wide CDM programs. This approach is consistent with the Minister's April 23, 2010 directive to the OPA which stated that the OPA should seek opportunities for gas and electric coordination, "where appropriate and having regard to its overall mandate and that of the electricity distributors". In 2010 the OPA/LDC Working Groups' focus was on getting the OPA Province-Wide Programs into market in 2011 given that LDCs' CDM targets start in 2011. The OPA also began seeking opportunities for coordination through dialogue with gas utilities starting in early 2010 and plans to continue this dialogue until final decisions on joint or coordinated delivery can be made.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 9 Page 1 of 1

GEC INTERROGATORY 9

2 **QUESTION**

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- 3 Strategic Objective 2 (CDM)
- 4 9. Regarding transmission system investments:
- a. Does OPA have a policy to require assessment of localized energy efficiency (i.e. efficiency beyond what will be achieved through province-wide or LDC initiatives, but may be cost-effective as resources to defer "poles and wires" investments), demand response, distributed generation and other alternatives to transmission investments?
 - b. Does the policy require pursuing non-transmission alternatives if they are less expensive, on a societal cost basis, than "poles and wires"? If not, why not?

- 12 a) Aggressive province-wide and LDC specific CDM targets are being assumed for local 13 area planning. Additional potential for avoided transmission investment which may be 14 identified through the planning process will be considered.
- b) See part a) above.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 10 Page 1 of 1

GEC INTERROGATORY 10

2 **QUESTION**

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- 3 Strategic Objective 2 (CDM)
- 10. What is the weighted average measure life assumed for savings generated in 2009, 2010, and 2011?

- For the purpose of determining savings persistence, the OPA does not assume a standard
- weighted average measure life for all measures in the portfolio of CDM programs. The OPA
- 9 develops persistence profiles for savings implemented in a given year, based on a bottom
- up analysis of the specific measures and their expected useful lives in each conservation
- 11 program.
- For the purpose of this interrogatory, the OPA has calculated a weighted average measure
- life weighted by both energy savings and demand savings. These figures were developed
- based on OPA funded conservation programs implemented in 2009, 2010 and 2011.
- Savings implemented in 2009 represent final results, while savings implemented in 2010
- and 2011 are forecasts only and are subject to change.

OPA funded CDM programs - implementation year	Weighted average life of demand savings (years)	Weighted average life of energy savings (Years)
2009	3	9
2010	4	10
2011	4	13



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 11 Page 1 of 6

GEC INTERROGATORY 11

2 QUESTION

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- 3 Strategic Objective 2 (CDM)
- 4 11. (C-1-1 p. 3) please explain:
- 5 a. What portion of the 2011 "net revenue requirement" of \$62.1 million is associated with CDM?
- b. What portion of the 2011 "OPA budget" of \$64.1 million OPA budget is associatedwith CDM?
- c. What portion of 2011 OPA "total program spending" is associated with CDM?
- d. How many of the 2011 budgeted 235 FTEs are associated with CDM? How many of those are in the Conservation Division?
- e. One of the footnotes to the Conservation net annual peak reductions (MW, 2005 base) states that "2010 savings forecast does not consider 2009 verified results".
 - i. How did 2009 verified results differ from the 2009 savings assumed to persist in 2010 in this table?
- ii. What would the 2010 number be if it did consider 2009 verified results?
 - iii. The footnote appears to apply only to peak demand savings (i.e. it is not also attached to the energy savings heading). Is that correct? If not, please answer the above two questions for net annual energy reduction (GWh) as well.
- f. Do the 2011 budgeted savings consider 2009 verified results?
- g. What portion of savings in each of the three years shown are savings that persist from previous years vs. new incremental savings generated in the year in question?
- h. With respect to "savings still persisting from previous years" (footnote *), does OPA adjust the volume of savings assumed to be persisting based on the assumed life of measures installed in previous years? For example, if 10% of the new incremental annual savings generated in 2006 had a life of only 3 years, would OPA have only shown those savings as persisting in years 2006, 2007 and 2008? If not, why not?
- i. Provide separately for 2009, 2010 and 2011 the portion of new incremental annual MW savings and new incremental annual GWh savings that have a life of 1 year, 2 years, 3 years and so on up to 30 years or more. What is the weighted average measure life?

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 11 Page 2 of 6

- j. Please provide a table that shows for each year starting with 2005 and continuing through 2011 budget the following for both net annual peak demand reduction and net annual energy reduction:
 - i. New incremental annual savings generated that year
 - ii. Annual savings still persisting from previous years
- iii. Total net annual savings akin to the numbers provided in Table 1 for 2009 through 2011 budget (footnote * suggests that the numbers provided in Table 1 are the sum of "i" and "ii" requested above).
- 9 iv. OPA's budget

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- v. The portion of OPA's budget (in millions of dollars) associated with CDM. Are the values provided in B-2-1 p. 16 (Table 1) the total costs associated with CDM?
- vi. The number of OPA FTEs
- vii. The number of OPA FTEs associated with CDM
- viii. New Incremental annual MW and GWh (separately, per response to "i" above)
 per FTE associated with CDM (i.e. consistent with response to "vii" above)
- ix. New incremental annual MW and GWh per million dollars of OPA budget associated with CDM (i.e. consistent with response to "v" above)

<u>RESPONSE</u>

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- Please note that the OPA has revised the net peak demand reductions and net annual energy reductions shown in Table 1 of C-1-1 (p. 3) to reflect more current information. The
- updated values are reflected in responses e) to j) below.
- 22 a) As illustrated in Exhibit D-2-2, page 2, \$16.4 million is the total 2011 budget for the
- Conservation division. This amount includes Compensation and Benefits for employees
- in the division, Professional and Consulting Fees budgeted within the division, budgeted
- 25 Conservation and Technology Funds payments, and Operating and Administration
- Expenses for the division. Support for Conservation is also provided by staff from
- Power System Planning, LARA, BS&S and Communications but this is not reflected in
- the \$16.4 million figure above. Please see the response to Board Staff Interrogatory 1,
- 29 at Exhibit I-1-1.
- For further detail on the OPA's staffing and compensation, please see the response to
- VECC Interrogatory 2, at Exhibit I-9-2, which provides the following information for 2010
- budget, 2010 unaudited actual and 2011 budget:
 - Regular and Temporary FTEs by Strategic Objective;

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 11

Page 3 of 6

- Compensation and Benefits by Strategic Objective; and
- Average Compensation and Benefits by Strategic Objective.
- b) See the response to a) above.
- c) As illustrated in Exhibit A-2-1, page 5, \$356.9 million or 16% of the OPA's total program spending of \$2,145.9 is related to CDM.
- d) As illustrated in Exhibit D-2-1, page 9, the 2011 budget includes 68 regular employees and 1 temporary employee within the Conservation division. Please see the response to a) above.
 - e) & f) Please see updated values in Table 1 below. All savings shown here consider verified results from 2009 programs. Please note that the demand savings shown are estimates for all provincial conservation activities (including non OPA-funded), while the energy savings shown are for OPA-funded conservation activities only. Savings for 2010 and 2011 are estimates only and are subject to change.

14 **Table 1**

	2009 Actual	2010 Forecast	2011 Budget
Provincial Conservation -Net Annual	1,650	1,837	2,368
Peak Demand Reduction at the			
Generator Level (MW - 2005 Base)			
OPA Funded Conservation - Net Annual	1,842	2,170	2,627
Energy Reduction at the Generator Level			
(GWh)			

16 g) Please see Table 2 below.

17 **Table 2**

N	letric	2009 Actual		2010 Forecast 2011 Budget			
Provincial Conservation -Net Annual Peak Demand Reduction at the Generator Level (2005 Base)							
	Incremental	721	44%	716	39%	1002	42%
	Persisting	929	56%	1121	61%	1365	58%
	Total	1650	100%	1837	100%	2368	100%
0	PA Funded Conservation - Net Ann	ual Energy Red	uction at t	he Generator Lev	/el		
	Incremental	629	34%	756	35%	519	20%
	Persisting	1213	66%	1414	65%	2108	80%
	Total	1842	100%	2170	100%	2627	100%

h) The OPA determines savings based on the assumed effective useful life (i.e., persistence) of measures implemented in previous years. The persistence of CDM savings generally depends on the type of CDM resource and/or the policy instrument

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Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 11 Page 4 of 6

used to generate the savings. Demand response resources do not typically persist 1 2 beyond the period of intervention (e.g., demand response program payments). Energy efficiency resources tend to be associated with longer persistence as appliances. 3 equipment, and retrofits implemented in a given year continue to deliver savings for the 4 5 useful life of the more efficient measure. The OPA assumes that demand response resources have a persistence of one year, that energy efficiency savings from CDM 6 7 programs have a persistence profile based on the measure lives of the individual CDM measures promoted in the program, and that energy efficiency savings from codes and 8 standards have 100% persistence. 9

- In the example given in question h), the OPA would assume that the MW and MWh savings that begin to accrue in 2006 would persist through 2008, if the savings are associated with energy efficiency measures that have effective useful lives of three years.
- i) Please see Table 3 on the following page. Data is shown for OPA-funded conservation activities only. 2009 incremental are based on final results for 2009 programs.
 Incremental 2010 and 2011 savings are projections and are subject to change. Savings from demand response programs are based on contracted capacity with an assumed persistence of one year.
- The weighted average measure life is contained in the response to GEC Interrogatory 10, at Exhibit I-2-10.

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Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 11 Page 5 of 6

1 Table 3

	2	009	2	010	20	011
	Incremental	Incremental	Incremental	Incremental	Incremental	Incremental
Savings life	demand	energy	demand	energy savings	demand	energy savings
(years)	savings MW	savings GWh	savings MW	GWh	savings MW	GWh
1	78%	15%	73%	5%	80%	4%
2	0%	0%	4%	16%	1%	10%
3	0%	0%	0%	0%	0%	0%
4	0%	2%	1%	7%	0%	5%
5	1%	5%	0%	1%	0%	1%
6	0%	5%	2%	13%	0%	1%
7	0%	3%	1%	6%	0%	1%
8	0%	18%	0%	2%	0%	7%
9	7%	17%	0%	3%	1%	8%
10	0%	7%	0%	0%	1%	9%
11	3%	18%	0%	1%	4%	6%
12	1%	2%	0%	0%	0%	4%
13	4%	0%	5%	1%	0%	0%
14	0%	0%	0%	0%	0%	1%
15	0%	1%	5%	24%	2%	5%
16	0%	1%	0%	1%	0%	3%
17	0%	0%	0%	0%	0%	0%
18	1%	1%	3%	5%	3%	6%
19	2%	4%	0%	0%	0%	0%
20	1%	3%	4%	14%	1%	16%
21	0%	0%	0%	0%	0%	0%
22	0%	0%	0%	0%	0%	0%
23	0%	0%	0%	0%	0%	1%
24	0%	0%	0%	0%	0%	0%
25	0%	0%	0%	0%	2%	3%
26	0%	0%	0%	0%	0%	0%
27	0%	0%	0%	0%	0%	1%
28	0%	0%	0%	0%	0%	0%
29	0%	0%	0%	0%	0%	0%
30	0%	0%	0%	0%	1%	1%
31	0%	0%	0%	0%	0%	0%
32	0%	0%	0%	0%	0%	0%
33	0%	0%	0%	0%	2%	3%
34	0%	0%	0%	0%	0%	0%
35	0%	0%	0%	0%	0%	0%

4 j) Please see requested Table 4 below.

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Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 11 Page 6 of 6

1 Table 4

Question		2005	2006	2007	2008	2009	2010	2011
	Provincial Conservation - Net Peak Demand Savings at the Generator Level (2005 Base)							
i)	Incremental	n/a	608	1,180	789	721	716	1,002
ii)	Persisting from previous years	n/a	0	310	793	929	1,121	1,365
iii)	Annual	n/a	608	1,490	1,583	1,650	1,837	2,368
	OPA Funded Conservation - Net Peak Demand Savings at t	he Generato	or Level (20	05 Base)				
	Incremental		318	602	752	675	643	779
	Persisting from previous years			20	219	317	463	634
	Annual		318	622	971	992	1,105	1,413
	OPA Funded Conservation - Energy Savings at the Generat	or Level						
i)	Incremental	n/a	405	498	418	629	756	519
ii)	Persisting from previous years	n/a	0	405	830	1,213	1,414	2,108
iii)	Annual	n/a	405	903	1,248	1,842	2,170	2,627
iv)	OPA Budget (Fees)\$M - Total		31.1	57.4	67.5	65.1	65.1	64.1
v)	OPA Budget (Fees) \$M - CDM		5.9	19.7	26.4	20.1	16.5	16.4
vi)	OPA FTEs (total)		98	141	184.4	193.7	231.2	235
vii)	OPA FTEs (CDM)		14	32.9	70.2	63.1	65.8	69
viii)	Incremental Provincial MW/FTE(CDM)	n/a	43.4	35.9	11.2	11.4	10.9	14.5
viii)	Incremental OPA-funded GWh/FTE(CDM)	n/a	28.9	15.2	6.0	10.0	11.5	7.5
	Incremental OPA-funded MW/OPA Budget (CDM)		53.9	30.6	28.5	33.6	39.0	47.5
	Incremental OPA-funded GWh/OPA budget (CDM)		68.6	25.3	15.8	31.3	45.8	31.6

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In 2006 and 2007, a greater proportion of provincial savings were derived from non-OPA programs. With respect to OPA-funded programs in the same period, a high proportion of program management functions were outsourced to third parties. Correspondingly, the incremental energy and peak achievement in 2006 and 2007 per OPA FTE (CDM) were relatively high. In subsequent years, it became apparent that the external conservation delivery capability in the market was not sufficient to sustain the model that had been implemented in 2006 and 2007 and the OPA accordingly brought more program management expertise in-house. The OPA is of the view that the incremental peak and energy achievement per unit of OPA budget (CDM) are more informative metrics than incremental savings per FTE.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 12 Page 1 of 2

GEC INTERROGATORY 12

2 **QUESTION**

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18

- 3 Strategic Objective 2 (CDM)
- 12. How much is OPA's total CDM budget (i.e. administration, delivery and measure
- 5 costs...), including contracts with LDCs?

- 7 The Conservation division and CDM program budgets for 2011 are shown in the table
- below. These represent costs that are directly attributable to conservation activities
- 9 budgeted for 2011. In addition to the Conservation division staff included in this budget,
- further conservation activity support is provided by staff in all other divisions, the costs of
- whom are included in the other divisional budgets. Please see the response to Board Staff
- 12 Interrogatory 1, at Exhibit I-1-1.
- For further detail on the OPA's staffing and compensation, please see the response to
- VECC Interrogatory 2, at Exhibit I-9-2, which provides the following information for 2010
- budget, 2010 unaudited actual and 2011 budget:
- Regular and Temporary FTEs by Strategic Objective;
 - Compensation and Benefits by Strategic Objective; and
 - Average Compensation and Benefits by Strategic Objective.

Category	2011 budget (in thousands)
Compensation & Benefits	8,182
Professional & Consulting Fees	3,602
Operating & Administration	771
Conservation/Technology Funds	3,866
Total CDM fee budget	16,421
Program by segment	2011 budget (in thousands)
Residential program	\$118,334
Commercial & Institutional program	\$131,973
Industrial program	\$36,749

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 12 Page 2 of 2

Low Income program	\$15,804
Other (conservation fund and others)	\$54,052
Total Program Spending:	\$356,912

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 13 Page 1 of 1

GEC INTERROGATORY 13

2 QUESTION

1

- 3 Strategic Objective 2 (CDM)
- 4 13.What % of overall savings forecast for 2011 is expected to be met through OPA led
- programs? Please provide separately for both total net annual MW and GWh
- reductions and new incremental annual MW and GWh reductions generated from 2011
- programs (i.e. not including savings that are still persisting from previous years).

- 9 The OPA has revised the net peak demand reductions and net annual energy reductions
- shown in Table 1 of C-1-1 (p. 3) to reflect more current information. The updated values
- are shown in response to GEC Interrogatory 11, at Exhibit I-2-11.
- Please note that the demand savings shown in Table 1 of Exhibit I-2-11 are estimates for
- all provincial conservation activities (including non-OPA funded), while the energy savings
- shown are for OPA funded conservation activities only. The contribution of OPA programs
- to the energy savings shown, therefore, is 100%
- The OPA estimates the contribution of OPA funded programs to the revised 2011 provincial
- 17 net demand savings forecasts as follows:

	2011 Net Incremental Demand Savings*	2011 Net Annual Demand Savings*
OPA Funded Programs	78%	60%

^{18 *}Updated estimates of conservation savings expected to be met through programs and/or policy instruments, rather than

¹⁹ OPA funded programs, are anticipated to be made available as part of the Integrated Power System Plan process. As

such, the numbers above are estimates only and are subject to change.



Filed: February 11, 2011 EB-2010-0279 Exhibit 1

Tab 2 Schedule 14 Page 1 of 2

GEC INTERROGATORY 14

2 **QUESTION**

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- 3 Strategic Objective 2 (CDM)
- 4 14. What are OPA's forecasted MW and GWh savings for 2012, 2013, 2014? In
- 5 responding, please show two ways:
- a. total net annual savings, including savings persisting from previous years; and
- 5 b. new incremental annual savings.

- 9 Forecasted savings are shown for OPA funded programs only. Projections for conservation
- resources from other sources that are part of provincial conservation projections (e.g.,
- government programs, codes and standards, etc.) for 2012-2014 are being developed as
- part of the new Integrated Power System Plan ("IPSP") and are not available at this time.
- The OPA is also currently in the process of developing projections for the OPA funded
- Aboriginal Conservation Program and so these projections are also not available.
- Annual savings consist of new incremental savings in a given year plus any savings that
- persist from programs implemented in previous years.
- All MW and GWh savings are net and shown at the generator level (including avoided
- transmission losses and distribution losses, where applicable). Note that LDCs' CDM
- targets are at the end-user level (not including avoided transmission and distribution
- 20 losses).
- Demand Response forecasts are based on contracted MW capacity at the end of each
- 22 year, with an assumed persistence of one year.
- 23 Projections shown below are based on: final results from OPA funded CDM programs
- implemented in 2006-2009; an outlook for 2010 programs that the OPA developed in
- July 2010; and, forecasts for 2011-2014 programs developed in June 2010.

Incremental MW Savings from OPA Funded Programs	2012	2013	2014
OPA-Contracted Province-Wide CDM Programs	333	430	514
Transmission-Connected Industrial Accelerator Program	20	51	88
OPA-Delivered suite of Demand Response Programs	608	648	652

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 14 Page 2 of 2

Total Incremental Savings from OPA Funded Programs	961	1,129	1,254
			,
Annual MW Savings from OPA Funded Programs*	2012	2013	2014
Savings persisting from 2006 - 2010 OPA Programs	464	462	445
OPA-Contracted Province-Wide CDM Programs	490	790	1,112
Transmission-Connected Industrial Accelerator Program	22	73	161
OPA-Delivered suite of Demand Response Programs	608	648	652
Total Annual Savings from OPA Funded Programs	1,584	1,973	2,370
Incremental GWh Savings from OPA Funded Programs	2012	2013	2014
OPA-Contracted Province-Wide CDM Programs	649	708	729
Transmission-Connected Industrial Accelerator Program	163	407	698
OPA-Delivered suite of Demand Response Programs	5	5	5
Total Incremental Savings from OPA Funded Programs	817	1,121	1,432
Annual GWh Savings from OPA Funded Programs*	2012	2013	2014
Savings persisting from 2006 - 2010 OPA Programs	1,775	1,762	1,647
OPA-Contracted Province-Wide CDM Programs	1,136	1,766	2,419
Transmission-Connected Industrial Accelerator Program	174	581	1,279
OPA-Delivered suite of Demand Response Programs	5	5	5
Total Annual Savings from OPA Funded Programs	3,090	4,114	5,350

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 15 Page 1 of 2

GEC INTERROGATORY 15

2 QUESTION

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19

- 3 Strategic Objective 2 (CDM)
- 15. (B-2-1, p. 1) The Minister of Energy's March 31, 2010 Directive requires the delivery of 4 1330 MW and 6000 GWh of new annual savings for the period beginning January 1. 5 2011 and ending four years later. That translates to an average of 333 new MW per 6 year and 1500 new GWh per year over the four year period. Table 1 in C-1-1 appears 7 to suggest that OPA will generate only 105 new incremental MW (not counting MW 8 replacing those that whose life "ended" in 2010) and only 333 new incremental annual 9 GWh (again not counting GWh whose life ended in 2010). In other words OPA appears 10 to be forecasting that it will be achieving only about 30% the new MW savings the 11 province needs to achieve per year and only about 20% of the new GWh savings the 12 province needs to achieve per year to meet the four year savings goals established by 13 14 the Minister. Please explain:
 - a. Why OPA's 2011 savings forecasts appear so low relative the four year goal.
 - b. How OPA plans to do to make up for the low 2011 numbers in subsequent years.
- 17 c. Why the steep trajectory in savings growth implied by the 2011 forecast is optimal and/or appropriate.

RESPONSE

- a. For clarity, the LDCs' aggregate target is to achieve 1,330 MW of demand savings (compared to a base year of 2011) persisting at the end of 2014 and to achieve a cumulative energy savings of 6,000 GWh over the four year period of 2011-2014.
- The OPA forecasts that approximately 202 MW and approximately 469 GWh will be achieved in 2011 as a result of the implementation of OPA-Contracted Province-Wide CDM Programs.1 Details on the incremental and annual projections associated with the OPA-Contracted Province-Wide Programs for each year in 2012-2014 are provided in response to GEC Interrogatory 14, at Exhibit I-2-14, which shows the forecast increase in incremental savings over the four year period. These province-wide programs, including projected resource savings, were developed by the OPA in collaboration with

30 LDCs.

-

¹ These savings are at the end user level and do not include transmission and distribution system losses.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 15 Page 2 of 2

- Based on the Minister's March 31, 2010 Directive to the OEB, LDCs have the ability to meet their CDM Targets through a combination of OPA-Contracted Province-Wide CDM
- Programs and Board-Approved CDM Programs not solely through OPA-Contracted
- 4 Province-Wide CDM Programs. Based on current projections, it is estimated that the
- 5 OPA-Contracted Province-Wide Programs will help LDCs to achieve approximately 78%
- and 91% of the provincial LDC aggregate demand and energy savings targets,
- respectively. The OPA will, as always, continue to monitor its portfolio performance over
- the four year period to optimize program performance.
- 9 b. Please see the response to a., above.
- 10 c. Please see the response to a., above.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 16 Page 1 of 1

GEC INTERROGATORY 16

2 QUESTION

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11

- 3 Strategic Objective 2 (CDM)
- 4 16. (B-2-1 p. 2, lines 11-13) How many conservation FTEs are in each of the four
- 5 divisions listed?

- 7 The following table provides a breakdown of the Conservation FTEs within the
- 8 Conservation Division. The work of the Conservation is supported by staff from all other
- 9 divisions as required. Please see the response to Board Staff Interrogatory 1, at
- 10 **Exhibit I-1-1**.

	Regular	Temporary	Total
LDC Conservation	22.0	0	22.0
Innvoation & Evaluation	20.0	0	20
Marketing & Conservation Awareness	8.9	0	8.9
Demand Response & Industrial Programs	11.0	1.0	12
VP Office	6.0	0	6
Total Conservation Division	67.9	1.0	68.9

- For further detail on the OPA's staffing and compensation, please see the response to
- VECC Interrogatory 2, at Exhibit I-9-2, which provides the following information for 2010
- budget, 2010 unaudited actual and 2011 budget:
- Regular and Temporary FTEs by Strategic Objective;
- Compensation and Benefits by Strategic Objective; and
- Average Compensation and Benefits by Strategic Objective.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 17 Page 1 of 1

GEC INTERROGATORY 17

2 QUESTION

1

- 3 Strategic Objective 2 (CDM)
- 4 17. (B-2-1 p. 3) Please explain in detail what the Change Management Framework is and
- 5 how it will be structured.

- As described in Exhibit B-2-1, pages 3-4, the Change Management Framework is intended
- 8 to coordinate and facilitate the successful implementation of OPA-Contracted Province-
- 9 Wide CDM Programs in 2011-2014 with a view to reducing peak electricity demand and
- electricity consumption in a cost effective manner and enhancing operational effectiveness.
- 11 The Master CDM Program Agreement between the OPA and LDCs describes the
- contractual requirements of the Change Management Process. That is filed as
- Attachment 1 to GEC Interrogatory 4, at Exhibit I-2-4.
- 14 The OPA plans to work collaboratively with LDCs to develop any additional processes and
- requirements to implement the Change Management Framework in the 2011-2014 period.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 18 Page 1 of 1

GEC INTERROGATORY 18

2 **QUESTION**

1

- 3 Strategic Objective 2 (CDM)
- 18. (B-2-1 p. 9, line 1) What is the budget or forecasted 2011 spending on the mass media
- 5 campaigns?
- 6 RESPONSE
- 7 The 2011 mass media budget is \$6.4 million. This amount is included in the OPA's
- 8 program spending, and does not form part of the OPA's operating budget that is recovered
- 9 through fees.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 19 Page 1 of 1

GEC INTERROGATORY 19

2 **QUESTION**

1

- 3 Strategic Objective 2 (CDM)
- 4 19. (B-2-1 p. 9, lines 4-5) What is the "targeted approach" that will be used?
- 5 **RESPONSE**
- 6 The targeted approach includes marketing tactics that are geared to specific Business
- segments, including: Commercial, Industrial, Small Business, Government & Institutional,
- 8 and Agricultural.
- 9 Segment specific tactics may include: dedicated web pages; custom printed collateral
- highlighting relevant conservation program information; print media in segment-based
- publications; and online case studies organized by business segment.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 20 Page 1 of 1

GEC INTERROGATORY 20

2 **QUESTION**

1

- 3 Strategic Objective 2 (CDM)
- 20. (B-2-1 p. 9, lines 7-10) Regarding the 'culture of energy conservation in Ontario' metric established in 2010:
- a. What is the metric? Lines 9-10 suggest that the metric may in fact be multiple metrics (or "benchmarks"). Is that the case? In any event, please describe in detail.
- b. Has the metric already been measured? If so, please provide all results to date. Ifnot, when will it first be measured?

10 **RESPONSE**

Please see the response to Alliance Interrogatory 19, at Exhibit I-7-19.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 21 Page 1 of 1

GEC INTERROGATORY 21

2 **QUESTION**

1

- 3 Strategic Objective 2 (CDM)
- 21. (B-2-1 p, 9, lines 28-29) Regarding the expectation of a 45% level of awareness of the province-wide brand by the end of 2011:
- a. Has OPA established a baseline awareness level (i.e. current levels of awareness against which future levels can be compared to assess progress)?
- b. If so, what is it? If not, why not?

- a. The baseline awareness level for the 'Cleaner Ontario' province-wide brand, which is being launched in 2011, was the awareness level for the Every Kilowatt Counts brand at the end of 2009, which was 41%.
- b. Please see the response to a., above.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 22 Page 1 of 2

GEC INTERROGATORY 22

2 QUESTION

1

- 3 Strategic Objective 2 (CDM)
- 22. (B-2-1, pp. 15-16) Please explain how each of the 2011 Milestones will be measured so that it can be definitively determined whether the milestones were reached.

- Milestone 1 (lines 4-6, Exhibit B-2-1, p. 15) will be measured by the successful completion
- of its five sub-components (lines 7-18).
- 9 The response to Alliance Interrogatory 14, at Exhibit I-7-14 describes metrics that the OPA
- will use to measure the first sub-component (lines 7-9, Exhibit B-2-1, p. 15).
- The second sub-component (lines 10-12) will be measured by whether a Change
- Management Framework has been incorporated into the Master CDM Program Agreement
- between the OPA and the LDCs.
- The third sub-component (lines 13-14) will be measured by whether transmission-
- connected customers have the ability to participate in the Industrial Accelerator initiative
- and various demand response initiatives in 2011.
- 17 The fourth sub-component for Milestone 1 (lines 15-16) will be measured based on
- compliance with the OPA-LDC CDM Master Agreement.
- The fifth sub-component (lines 17-18) will be measured by whether: a) evaluation reports
- 20 have been completed to support the verification of savings achieved in 2010; b) such 2010
- results have been allocated to individual LDCs; and, c) 2011 program evaluations for OPA-
- 22 Contracted Province-Wide CDM Programs have been initiated in 2011 (e.g., some field
- verification and analysis must occur before and during participant activity in a program).
- Milestone 2 (lines 19-22, Exhibit B-2-1, p. 15) will be measured by the successful
- completion of its five sub-components.
- 26 Response to Alliance Interrogatory 17 describes metrics that the OPA will use to measure
- 27 the first sub-component (lines 23-24, Exhibit B-2-1, p. 15).
- The second sub-component (lines 25-26) will be measured by whether the OPA has
- delivered the capability building and enabling initiatives that are included within the OPA-
- 30 Contracted Province-Wide Programs. An overview of these initiatives is provided in the
- response to Alliance Interrogatory 16, at Exhibit I-7-16.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 22 Page 2 of 2

- The third sub-component (lines 27-28) will be measured by whether the OPA: a) actively
- 2 participates in the LDC-OPA marketing work group; b) develops and delivers marketing
- training webinars in 2011; c) provides LDCs with best available information on residential
- 4 and business sector profiles; and, d) provides LDCs with marketing toolkits (including
- templates) to support local CDM program marketing efforts.
- The fourth sub-component (lines 29-30) will be measured by whether the OPA: a) delivers
- two technology symposiums in 2011; and, b) designs, completes and supports several
- 8 Engineered Calculation Spreadsheets that assist LDCs in calculating potential savings and
- 9 potential incentives for retrofit projects.
- The fifth sub-component (lines 31-33) will be measured by the number of projects that the
- 11 Conservation and Technology Development Funds commit to in 2011 and the extent to
- which these projects can inform the development of future CDM programs, and/or
- accelerate the commercialization of demand and supply side technologies.
- Milestone 3 (lines 1-2, Exhibit B-2-1, p. 16) will be measured by whether the OPA has: a)
- participated in building code and equipment standards development through research,
- tracking the implementation of codes and standards and the resulting impacts on
- forecasted provincial electricity use and the provision of input to government; and, b)
- worked with municipalities to help them identify, develop and implement community
- 19 planning projects, policy and programs that drive energy efficiency and sustainable
- 20 communities and then tracked the implementation of such initiatives.
- 21 Milestone 4 (lines 3-4, Exhibit B-2-1, p.16) will be measured by whether the Business
- Leadership Program has been launched by the OPA in 2011.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 23 Page 1 of 6

GEC INTERROGATORY 23

2 QUESTION

1

- 3 Strategic Objective 2 (CDM)
- 23. For each year from 2005 through 2010, please provide (by program and in aggregate across all programs):
- 6 a. OPA's MW savings goal
- 5 b. OPA's GWh savings goal
- c. OPA's verified MW savings if available (if not, provide unverified values and indicate they are unverified)
- d. OPA's verified GWh savings if available (if not, provide unverified values and indicate they are unverified)

- The requested information is provided in the tables below. All savings shown are net
- incremental savings, shown at the generator level (i.e. including avoided distribution and
- transmission losses, where applicable). All savings from programs implemented in 2006-
- 16 2009 are considered final.
- Savings for Demand Response 1, Demand Response 2, Demand Response 3, and York
- 18 Region and Loblaw Demand Response are based on total contracted capacity and an
- 19 assumed persistence of 1 year.
- 20 Please note that year by year forecasts were not available for all initiatives. As such,
- caution should be taken when comparing aggregate forecasts against aggregate results,
- 22 for a given year.
- 23 Please also note that these savings represent incremental (first year) savings only.
- 24 Incremental savings from each program year should not be added together.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 23 Page 2 of 6

		At the Generator Level				
		Net Incremental Peak		Net Incremental Energy		
		Demand	Savings	Savings (GWh)		
		(M)	W)			
Year, Program, Initiative	Verified Results	Forecast	Final	Forecast	Final	
2006 Conservation Portfolio						
Consumer Program						
Secondary Refrigerator Retirement Pilot	Unverified	1.3	1.4	6	6	
Hot/Cool Savings	Unverified	41.9	13.7	56	15	
Every Kilowatt Counts – Spring	Unverified	11.5	1.0	76	146	
Every Kilowatt Counts – Autumn	Unverified	16.1	3.6	65	238	
Consumer Program Total		70.7	19.6	204	405	
Business Program						
Demand Response 1	Unverified	0.0	0.0	0	0	
Loblaw & York Region Demand Response	Unverified	n/a	10.7	0	0	
Business Program Total		0.0	10.7	0	0	
Industrial Program						
Demand Response 1	Unverified	268.0	284.7	0	0	
Loblaw & York Region Demand Response	Unverified	n/a	3.2	0	0	
Industrial Program Total	·	268.0	287.9	0	0	
2006 Conservation Portfolio Total		338.7	318.2	203.5	405	

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 23 Page 3 of 6

		At the Generator Level			
		Net Incremental Peak N		Net Incremental Energy	
		Demand	Savings	Savings	(GWh)
		(MW)			
ear, Program, Initiative	Verified Results	Forecast	Final	Forecast	Final
2007 Conservation Portfolio					
Consumer Program					
Great Refrigerator Roundup	Verified	11.4	1.9	53	15
Cool Savings	Verified	41.1	15.6	n/a	23
Aboriginal – Pilot	Unverified	2.5	1.0	n/a	21
Every Kilowatt Counts	Verified	3.2	5.4	137	140
peaksaver®	Unverified	27.9	12.8	n/a	0
Summer Savings	Verified	49.3	48.6	156	87
Renewable Energy Standard Offer	Unverified	n/a	0.7	n/a	1
Consumer Program Total		135.3	86.0	346	287
Business Program					
peaksaver®	Unverified	n/a	1.5	n/a	0
Electricity Retrofit Incentive	Unverified	4.3	1.9	15	5
Toronto Comprehensive – Toronto Hydro	Unverified	n/a	139.5	n/a	172
Toronto Comprehensive – City of Toronto	Unverified	n/a	0.0	n/a	0
Toronto Comprehensive – Building Owners & Managers Association –	Verified	16.1	0.8	n/a	6
Toronto					
Demand Response 1	Verified	n/a	5.4	n/a	0
Loblaw & York Region Demand Response	Unverified	n/a	10.7	n/a	0
Renewable Energy Standard Offer	Unverified	n/a	1.3	n/a	6
Business Program Total		20.4	161.1	15	189
Industrial Program					
Demand Response 1	Verified	214.4	334.8	39	0
Loblaw & York Region Demand Response	Unverified	n/a	17.6	n/a	0
Renewable Energy Standard Offer	Unverified	0.0	0.6	n/a	3
Industrial Program Total		214.4	353.0	39	3
Low-Income Consumer Program					
Affordable Housing – Pilot	Unverified	0.2	0.3	n/a	5
Social Housing – Pilot	Unverified	1.6	1.5	n/a	13
Energy Efficiency Assistance for Houses – Pilot	Unverified	1.4	0.5	n/a	2
Low-Income Consumer Program Total		1.8	1.8	n/a	17
2007 Conservation Portfolio Total		373.3	602.4	400	498

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 23 Page 4 of 6

1

		At the Generator Level			
		Net Incremental Peak Demand Savings (MW)		Net Incremental Energy Savings (GWh)	
ear, Program, Initiative	Verified Results	Forecast	Final	Forecast	Final
008 Conservation Portfolio					
Consumer Program					
Great Refrigerator Roundup	Verified	2.9	3.9	28	36
Cool Savings	Verified	15.6	15.9	22	25
Every Kilowatt Counts Power Savings Event & Appliance Exchange Event	Verified	2.1	6.9	38	127
peaksaver®	Unverified	35.1	36.0	0	1
Summer Sweepstakes	Verified	1.1	10.2	0	40
Aboriginal – Pilot	Unverified	2.0	n/a	4	n/a
Electricity Retrofit Incentive	Verified	0.3	0.2	6	5
Toronto Comprehensive – Toronto Hydro	Unverified	3.7	7.5	0	38
Toronto Comprehensive – City of Toronto		2.9	0.2	0	2
Renewable Energy Standard Offer	Unverified	0.0	0.9	0	1
Consumer Program Total		65.7	81.7	97	276
Business Program					
peaksaver®	Unverified	0.3	0.5	0	0
Electricity Retrofit Incentive	Verified	15.7	10.6	47	54
Toronto Comprehensive – Toronto Hydro	Verified	0.5	1.3	0	8
Toronto Comprehensive – City of Toronto	Verified	12.1	0.6	0	24
Toronto Comprehensive – Building Owners & Managers Association – Toronto	Verified	45.0	3.9	0	15
High Performance New Construction	Unverified	2.3	0.4	6	0
Power Savings Blitz	Verified	21.9	0.5	31	3
Demand Response 1	Verified	0.0	5.4	0	0
Demand Response 3	Verified	0.0	0.0	0	0
LDC Custom – Business – Hydro One Networks Inc. – Double Return	Verified	9.0	14.5	0	0
Loblaw & York Region Demand Response	Unverified	0.0	10.7	0	0
Renewable Energy Standard Offer	Unverified	21.0	1.0	0	4
Other Combined & Heat & Power	Unverified	n/a	7.8	n/a	29
Business Program Total		127.9	57.1	84	138
Industrial Program					
Demand Response 1	Verified	1.1	465.8	0	0
Demand Response 3	Verified	94.3	91.1	0	0
LDC Custom – Business – Hydro One Networks Inc. – Double Return	Verified	21.0	33.8	0	0
Loblaw & York Region Demand Response	Unverified	0.0	20.6	0	0
Industrial Program Total		116.4	611.3	0	0
Low-Income Consumer Program					
Toronto Comprehensive – Toronto Hydro	Unverified	1.5	2.1	0	5
Low-Income Consumer Program Total		1.5	2.1	0	5
08 Conservation Portfolio Total		311.5	752.2	181	418

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 23 Page 5 of 6

		At the Generator Level			
		Net Incremental Peak Demand Savings (MW)		Net Incremental Energy Savings (GWh)	
ear, Program, Initiative	Verified Results	Forecast	Final	Forecast	Final
2009 Conservation Portfolio					
Consumer Program					
Great Refrigerator Roundup	Verified	4.2	5.4	37	36
Cool Savings	Verified	16.1	20.3	25	31
Every Kilowatt Counts Power Savings Event & Appliance Exchange Ever	Verified	5.4	5.4	46	54
peaksaver®	Verified	63.9	27.3	3	0
Multi-Family Energy Efficiency Rebates	Verified	5.4	0.3	49	2
Electricity Retrofit Incentive	Verified	0.0	2.4	0	26
Toronto Comprehensive – Toronto Hydro	Unverified	0.4	1.6	0	14
Toronto Comprehensive – City of Toronto	Verified	0.0	1.4	0	10
LDC Custom - Thunder Bay Hydro - Phantom Load	Verified	0.0	0.0	1	0
LDC Custom - Toronto Hydro - Summer Challenge	Verified	0.0	0.4	2	1
Consumer Program Total		95.4	64.5	162	173
Business Program					
peaksaver®	Verified	0.4	0.2	0	0
Electricity Retrofit Incentive	Verified	23.6	19.0	76	128
Toronto Comprehensive – Toronto Hydro	Verified	4.1	2.0	14	14
Toronto Comprehensive – City of Toronto	Verified	5.8	3.5	21	13
Toronto Comprehensive – Building Owners & Managers Association – T	Verified	14.5	2.9	51	15
High Performance New Construction	Unverified	2.7	4.2	10	9
Power Savings Blitz	Verified	32.2	47.8	113	186
Demand Response 1	Verified	6.4	10.2	1	0
Demand Response 3	Verified	108.0	2.9	0	0
LDC Custom - PowerStream - Data Centres	Unverified	120.0	0.3	0	0
Loblaw & York Region Demand Response	Unverified	10.7	10.7	0	0
Business Program Total		328.3	103.6	286	367
Industrial Program					
Demand Response 1	Verified	121.2	177.7	15	8
Demand Response 2	Verified	0.0	127.5	0	79
Demand Response 3	Verified	64.6	179.3	0	1
Loblaw & York Region Demand Response	Unverified	20.6	20.6	0	0
Industrial Program Total		206.4	505.2	15	88
Low-Income Consumer Program					
Toronto Comprehensive – Toronto Hydro	Unverified	0.3	1.8	0	2
Low-Income Consumer Program Total		0.3	1.8	0	2
09 Conservation Portfolio Total		630.4	675.1	463	629

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 23 Page 6 of 6

		At the Generator Level			
		Net Incremental Peak Demand Savings (MW)		Net Incremental Energy Savings (GWh)	
		Forecast	Revised	Forecast	Revised
Year, Program, Initiative	Verified Results		outlook		outlook
2010 Conservation Portfolio					
Consumer Program	Unverified	71.2	58.1	118	94
Business Program	Unverified	163.8	124.4	658	627
Industrial Program	Unverified	395.0	429.0	39	35
Low-Income Consumer Program	Unverified	n/a	n/a	n/a	n/a
Loblaw & York Region Demand Response	Unverified	n/a	31.3	n/a	0
2010 Conservation Portfolio Total		630.0	642.8	815	756

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 24 Page 1 of 2

GEC INTERROGATORY 24

QUESTION 2

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- Strategic Objective 3 (Procurement) 3
- 24. Regarding 2010 CDM performance: 4
- 5 For each program in which OPA does not expect to achieve its 2010 target, please provide a detailed explanation for the shortfall. 6
 - b. Where any shortfall is attributed to general economic conditions, please explain, and provide budget and staff data verifying the added steps OPA took following the 2008 economic crash to overcome the difficulty.

- 11 a) Final results for 2010 programs are not yet available. A forecast for the 2010 programs was established in November 2009. A revised outlook for the 2010 programs was done 12 13 in July 2010 based on preliminary results from the first two quarters of 2010 and a revised forecast for the remainder of the year. The comparison of the 2010 forecast to 14 the OPA's most recent outlook for 2010 is provided in Table 1 on page 2 15
- b) The projected deficit in MW and GWh savings associated with the Consumer Program 16 in 2010 is attributed to lower than expected contributions from LDC custom projects and 17 the peaksaver® initiative. 18
- The main reason for the anticipated underperformance in peak demand reduction from 19
- the Business Program is the reallocation of expected resource savings associated with 20
- DR3 from the Business Program to the Industrial Program. It should be noted that this 21
- 22 reallocation is not expected to result in a shortfall in total DR3 results (i.e., the reduction
- from DR3 Business Program performance is expected to be offset by DR3 Industrial 23
- Program performance). From an energy savings standpoint, the main reason for the 24
- projected shortfall in GWh savings is due to a lower than expected contribution from 25
- 26 LDC custom projects.
- The Industrial Program is forecast to fall slightly below its GWh target due the fact that 27
- the Industrial Accelerator Program launched later than planned in 2010. 28

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 24 Page 2 of 2

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1 Table 1

		At the Generator Level			
		Net Incremental Peak Demand Savings (MW)		Net Incremental Energy Savings (GWh)	
		Forecast Revised		Forecast	Revised
Year, Program, Initiative	Verified Results		outlook		outlook
2010 Conservation Portfolio					
Consumer Program	Unverified	71.2	58.1	118	94
Business Program	Unverified	163.8	124.4	658	627
Industrial Program	Unverified	395.0	429.0	39	35
Low-Income Consumer Program	Unverified	n/a	n/a	n/a	n/a
Loblaw & York Region Demand Response	Unverified	n/a	31.3	n/a	0
2010 Conservation Portfolio Total		630.0	642.8	815	756

b) The OPA does not attribute any predicted shortfall in 2010 program performance relative to the forecast it developed in November 2009 to economic conditions. These economic conditions were anticipated and embedded into the forecast when the targets were developed in late 2009.

Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2

> Schedule 25 Page 1 of 1

GEC INTERROGATORY 25

2 QUESTION

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- 3 Strategic Objective 3 (Procurement)
- 4 25. (B-3-1 page 3) Please provide the average length of time between application and
- award of conditional offers for micro-FITs that has occurred in each quarter since the
- program started. What staff resources have been available in each quarter to deal with
- 7 the high volume of applications?

8 RESPONSE

9 microFIT Program

Period	microFIT Applications	Average Days to Process Conditional Offers	OPA Staff available
Q4-09	1,925	48	5
Q1-10	6,258	130	5
Q2-10	8,569	87	5
Q3-10	4,016	77	9
Q4-10	3,307	13	9
Totals	24,075	83	9

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- 11 As application volume increased and specific issues arose (e.g. ground mount solar in
- July 2010), an additional six Case Managers were trained and deployed to work solely on
- the microFIT program to ensure service levels were maintained. The total shown in the
- table above reflects these additions, as well as some attrition.
- Staff resources reported above are those with responsibilities specific to the microFIT
- program. These staff are supported by resources from other divisions as required.
- For further detail on the OPA's staffing and compensation, please see the response to
- VECC Interrogatory 2, at Exhibit I-9-2, which provides the following information for 2010
- budget, 2010 unaudited actual and 2011 budget:
 - Regular and Temporary FTEs by Strategic Objective;
 - Compensation and Benefits by Strategic Objective; and
 - Average Compensation and Benefits by Strategic Objective.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 26 Page 1 of 1

GEC INTERROGATORY 26

2 **QUESTION**

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- 3 Strategic Objective 3 (Procurement)
- 4 26. (B-3-1 page 3) Micro-FIT program participants have complained about lengthy delays in
- the connection agreement and connection processes. Is OPA aware of this problem?
- What efforts is OPA making to help address this issue?

- 8 The process for allowing micro-scale generating facilities to connect is managed by the
- 9 LDC in whose service territory the project is proposing to connect. Each LDC has
- responsibility for managing its own requirements for operating its systems and maintaining
- its system assets. The OPA continues to work with all parties to facilitate a smooth and
- efficient process for the connection of micro-scale generation facilities.



Filed: February 11, 2011 EB-2010-0279 Exhibit I Tab 2 Schedule 27 Page 1 of 1

GEC INTERROGATORY 27

2 **QUESTION**

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- 3 Strategic Objective 3 (Procurement)
- 27. (B-3-1 page 3) Please list and explain the repeated delays in the FIT program steps (TAT/DAT tests, initial contract awards, ECT test etc.).

- 7 There were no delays in the awarding of contracts with respect to applications that were
- received during the FIT launch period. Please also see the response to Board Staff
- 9 Interrogatory 4, at Exhibit I-1-4.

