

December 12, 2011  
Sent by courier, email, and RESS

Kirsten Walli  
Board Secretary  
Ontario Energy Board,  
2300 Yonge St.  
Suite 2700, P.O. Box 2319  
Toronto, Ontario  
M4P 1E4  
Canada

Dear Ms. Walli:

**Re: OEB File No. EB-2011-0123  
Guelph Hydro Electric Systems Inc. (Guelph Hydro)  
2012 Electricity Distribution Rate Application**

Please find enclosed Guelph Hydro's responses to the Undertakings given during the Oral Hearing in the above-captioned matter on December 5, 2011.

In addition to providing its responses to the Undertakings, Guelph Hydro wishes to address one item discussed during the cross-examination by Board Staff that requires clarification but was not the subject of an undertaking. At page 62 of the transcript, the following exchange took place:

"MS. SEBALJ: So moving on to the rate adder calculation, on November 23rd, you, of course, refiled your GEA plan. And the summary table 2, which is at page 38 of the compendium, it doesn't show any OM&A costs for the renewable generator connection upgrades.

So that is table 2, the first line, renewable generator connection upgrades, and it is zero all the way across. However, the renewable generator connection adder calculation, which is at the compendium, page 59, shows an OM&A of -- let me just pull it up so I am saying the right thing -- of 65,256 -- sorry, 250 -- no -- yes, in 2012, 82,650 in 2013, 91,350 in 2014, and 104,400 in 2015.

And then of course at page 3 of the Report of the Board, "Framework for Determining the Direct Benefits Accruing to Customers of a Distributor under O.Reg. 330.09," which is at page 60 of the compendium, says -- defines:

"Eligible investment costs as set out in O.Reg. 330.09 and Section 79.15 of the act are not limited to only the initial capital investment costs, but also includes the upfront OM&A

costs necessary for the purpose of enabling the connection of a qualifying generation facility. However, given that section 79.1 focuses solely on the initial investment, ongoing OM&A costs that are incurred by the distributor after the investment has been made will not be eligible for provincial recovery."

So can you please confirm that Guelph Hydro is seeking OM&A costs for renewable generation?

MS. BIRCEANU: I confirm.

MS. SEBALJ: And that is in accordance with the rate adder calculations at page 59 of the compendium?

MS. BIRCEANU: That's correct.

MS. SEBALJ: So does that mean that the table at page 38 should be corrected?

MR. QUESNELLE: I believe your microphone is switched off.

MS. BIRCEANU: It's on now, yes. So...

MR. WENINGER: I believe you are correct. There's a discrepancy between the background working documents and what made its way into table 2 on the compendium, page 38. You are correct."

Guelph Hydro has considered this matter and offers the following comments in this regard:

The explanation for the apparent inconsistency between Table 2 shown on compendium page 38 and the fact that Guelph Hydro has calculated a renewable generator connection rate rider/adder based on the OM&A costs associated with the "Smart Grid Technician" resources facilitating these connection requests is as follows: The original GEA Plan costing tables did not directly allocate the Smart Grid Technician resources against the various proposed projects or against the anticipated renewable connection work. Through the interrogatory process, the Smart Grid Technician costs were apportioned on a percentage basis against the various projects in a specific new table, but the actual project cost tables included in the GEA Plan were not updated to reflect the percentage allocation.

The GEA Plan Tables 1, 2 and 3 (page 38 of Oral Hearing compendium) are accurate in the sense that all costs are included in the portfolio, but the "Additional Technical Staffing Resources" have not been allocated across the various proposed program elements. For the Board's assistance, Table 2 has been revised with the "Additional Technical Staffing Resources" (Smart Grid Technicians) OM&A separated into "connections" and "Smart Grid" OM&A as follows:

**Original Table 2:**

<b>Table 2: Project / Investment - OM&amp;A Summary</b>						
	2011	2012	2013	2014	2015	Total
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
<b>Renewable Generator Connection</b>	\$0	\$0	\$0	\$0	\$0	\$0
<b>In-Home Display Messaging Project</b>	\$0	\$92	\$92	\$92	\$92	\$368
<b>Electric Vehicle Pilot</b>	\$0	\$200	\$290	\$30	\$20	\$540
<b>Smart Grid High School Education</b>	\$0	\$75	\$35	\$35	\$20	\$165
<b>Demonstration "Smart Grid-Smart</b>	\$0	\$45	\$130	\$55	\$10	\$240
<b>Additional Technical Staffing Resources</b>	\$0	\$174	\$174	\$174	\$174	\$696
<b>Total</b>	\$0	\$586	\$721	\$386	\$316	\$2,009

**Revised Table 2:**

<b>Revised Table 2: Project / Investment - OM&amp;A Summary</b>						
	2011	2012	2013	2014	2015	Total
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
<b>"Connections OM&amp;A" - Additional Technical Staffing Resources</b>	\$0	\$65	\$83	\$91	\$104	\$344
<b>In-Home Display Messaging Project</b>	\$0	\$92	\$92	\$92	\$92	\$368
<b>Electric Vehicle Pilot</b>	\$0	\$200	\$290	\$30	\$20	\$540
<b>Smart Grid High School Education</b>	\$0	\$75	\$35	\$35	\$20	\$165
<b>Demonstration "Smart Grid-Smart Home"</b>	\$0	\$45	\$130	\$55	\$10	\$240
<b>"SmartGrid OM&amp;A" - Additional Technical Staffing Resources</b>	\$0	\$109	\$91	\$83	\$70	\$352
<b>Total</b>	\$0	\$586	\$721	\$386	\$316	\$2,009

We trust that this information will be of assistance to the Board. Should you have any questions in this regard or with respect to the undertaking responses, please do not hesitate to contact me.

Respectfully Submitted,



Cristina Birceanu

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**EB-2011-0123**

**IN THE MATTER OF** the *Ontario Energy Board Act*, 1998,  
being Schedule B to the *Energy Competition Act*, 1998, S.O.  
1998, c.15;

**AND IN THE MATTER OF** an Application by Guelph Hydro  
Electric Systems Inc. to the Ontario Energy Board for an  
Order or Orders approving or fixing just and reasonable  
rates and other service charges for the distribution of  
electricity as of January 1, 2012.

**UNDERTAKING RESPONSES OF GUELPH HYDRO ELECTRIC SYSTEMS INC.**

**DELIVERED DECEMBER 12, 2011**

**UNDERTAKING NO. J1.1: TO UPDATE LIST OF PROJECTS AND VERIFY MATH IS  
CORRECT IN LIGHT OF OPA REVIEW.**

**Guelph Hydro's Response:**

Guelph Hydro has updated the anticipated number of renewable generator connection requests for 2011 and 2012 in Tables 7 and 8 (the updated tables are set out below), and notes that there is a greater number of both Micro Generation microFIT ( $\leq 10\text{kW}$ ) and small Generation ( $\leq 250\text{kW}$ ) FIT projects than originally anticipated.

Guelph Hydro has considered the current OPA FIT/microFIT program review, but based on the greater than originally anticipated number of "small" and "micro" projects in 2011 and 2012, Guelph Hydro does not anticipate relief from these expected project connections during the current program review. There are a substantial number of projects currently in the queue that are planning for connection in 2012.

The longer term prospects (2013-2015) cannot be anticipated pending the outcome of the current FIT/microFIT program review, and as a result the previous projections for 2013-2015 have not been changed. While Guelph Hydro expects that customer incentives through the rate paid to certain types of renewable projects will be adjusted downward, Guelph Hydro also notes that the cost per unit of generation for this technology is also declining as the renewable energy market is developing in Ontario, and depending on the outcome of the review, there still may be viable business cases for the market to continue at a level of activity similar to the current level.

**Revised TABLE 7: NUMBER OF ANTICIPATED RENEWABLE GENERATION CONNECTIONS [MICROFIT/FIT]**

<b>Number of Renewables by Year</b>	<b>Prior to 2011</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Micro Generation (<= 10 kW)	29	56	50	40	40	40	255
Small Generation (<= 250 kW)	0	5	24	7	7	7	50
Small Generation (> 250 kW, <= 500 kW)	0	0	1	0	0	0	1
Mid-Size Generation (> 500 kW, <= 10 MW)	0	0	0	1	1	1	3
<b>Total</b>	<b>29</b>	<b>61</b>	<b>75</b>	<b>48</b>	<b>48</b>	<b>48</b>	<b>309</b>

*of the 56 Micro Generation projects (<=10 kW) forecasted for 2011, 46 projects have been connected YTD in 2011*

*of the 5 small Generation projects (<= 250 kW) forecasted for 2011, 2 projects have been connected YTD in 2011*

**Revised TABLE 8: ANTICIPATED RENEWABLE GENERATION CONNECTION GENERATION IN MW [MICROFIT/FIT]**

<b>Renewables by Year [MW]</b>	<b>Prior to 2011</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Micro Generation (<= 10 kW)	0.13	0.38	0.34	0.21	0.21	0.21	1.47
Small Generation (<= 250 kW)	0.00	1.34	5.28	1.12	1.12	1.12	9.98
Small Generation (> 250 kW, <= 500 kW)	0.00	0.00	0.50	0.00	0.00	0.00	0.50
Mid-Size Generation (> 500 kW, <= 10 MW)	0.00	0.00	0.00	10.00	3.00	1.14	14.14
<b>Total</b>	<b>0.13</b>	<b>1.72</b>	<b>6.12</b>	<b>11.33</b>	<b>4.33</b>	<b>2.47</b>	<b>26.09</b>

**UNDERTAKING NO. J1.2: TO PROVIDE AN UPDATE ON THE DISCUSSIONS. BETWEEN GUELPH HYDRO AND THE PROJECT PROPONENT FOR THE 10-MEGAWATT SOLAR PROJECT CONNECTING AT HANLON M23.**

**Guelph Hydro's Response:**

Guelph Hydro had discussions with the generator proponent on April 14, 2011, at a meeting to review options for connection of this project to Guelph Hydro's distribution system. To date, Guelph Hydro has completed a pre-FIT assessment of the project for connection to the distribution system.

Up to date, the details of the project include the following:

Size of project (~10MW)

Type of generation (Solar)

Possible in service date (~2013)

**UNDERTAKING NO. J1.3: TO PROVIDE RESPONSE AS TO WHETHER GUELPH HYDRO HAS CONNECTED PRIVATE GENERATORS TO ITS SYSTEM IN THE PAST AND, IF SO, GIVE BRIEF DESCRIPTION OF EACH OF THE PROJECTS, COVERING ITS SIZE IN KILOWATTS OR MEGAWATTS, THE TYPE OF PROJECT - CO-GEN, HYDROELECTRIC, RENEWABLE, ET CETERA - THE COST TO CONNECT TO THE SYSTEM AND A BRIEF DESCRIPTION OF THE CONNECTION WORK.**

**Guelph Hydro's Response:**

The following table lists private generators previously connected by Guelph Hydro to its distribution system, for the period 2005 – June 2011:

Project	Size MW	Type	Connection Cost*	Connection Description	Connection Date
Ecotricity Solar Southgate	0.100	Solar	\$ 6,000	Guelph Hydro CIA, Hydro One Threshold CIA, Metering and Telemetry Equipment	Jun-11
H06-63 WOODLAWN	0.250	Solar	\$ 16,000	Guelph Hydro CIA, Hydro One Threshold CIA, Metering and Telemetry Equipment	Jul-11
Guelph Ecotricity	2.800	Landfill Gas	\$ 275,000	Guelph Hydro CIA, Hydro One CIA. Engineering, material and labour associated with Connection to the distribution system. Protection and control upgrades at a Hydro One owned transformer station.	2005
Stone Rd Co-Gen	1.395	Co-Generation	\$ 62,000	Guelph Hydro CIA, Hydro One CIA, Metering and Telemetry equipment	2007
*Not all costs have been accounted for					

**UNDERTAKING NO. J1.4: TO PROVIDE A DESCRIPTION OF THE WORK REQUIRED TO CONNECT THIS PARTICULAR 10-MEGAWATT SOLAR PROJECT, INCLUDING A COST BREAKDOWN INTO THE FOLLOWING CATEGORIES: ENGINEERING, MATERIAL, LABOUR AND OVERHEAD.**

**Guelph Hydro's Response:**

The work to connect this particular 10MW solar project to Guelph Hydro's distribution system will require completion of the following items:

- Guelph Hydro connection impact assessment;
- Hydro One connection Impact assessment;
- Transformer station protection and control upgrades; and
- Connection costs which include the physical connection of 2 supply feeders at 15kV to the project facility.

The budgetary estimate to complete the above work was calculated to be \$525,000 (within tolerance of +/- 15%), and is broken down into the following categories:

<b>Engineering</b>	\$ 24,150
<b>Material</b>	\$ 207,000
<b>Contracting</b>	\$ 253,000
<b>Labour</b>	\$ 14,950
<b>Overhead</b>	\$ 25,300
	\$ 524,400



## UNDERTAKING NO. J1.5: TO PROVIDE NUMBER OF PROJECTS TO CONNECT IN 2012.

### Guelph Hydro's Response:

Guelph Hydro has included separate 2012 FIT and microFIT project connection estimates in the following tables, with screen captures extracted from the OPA web-tools used to manage project applications.

- FIT Project Summary:**

A total of 29 FIT projects within Guelph Hydro's service territory are currently in either Capacity Allocated Approved, Exempt or Reviewed status, as shown on the following detailed application table obtained through the OPA webtool. Guelph Hydro notes that LDCs do not have direct access or knowledge of OPA contract status until advised by the customer that they have an OPA contract in hand, in order to finalize the project connection requirements.

FIT Applications for <b>Guelph Hydro Electric Systems Inc.</b>		
Applications by Stage		
	Applications in your service area which require you to perform DAT testing	None
	Applications in your service area which have completed DAT testing	None
	Applications in your service area which are undergoing TAT	None
	Applications in your service area which require an ECT	None
	Applications in your service area for which a Connection Assessment has been requested	None
	Applications in your service area that have been issued contracts	None
<a href="#">View</a>	<a href="#">Export</a>	Applications in your service area which are Capacity Allocation Exempt
		29
<a href="#">Export</a>	All applications in your region, including those in your service area (Export only)	
		428
Search Tools		
By Transformer Station	<input type="text"/>	<a href="#">Search</a>
By Application Id	<input type="text"/>	<a href="#">Search</a>

		Application Id	Reference Number	Priority Date	Connection Point	Current State	DAT Required By
Appl.	Tests	1384	FIT-FS18B9I	2009-10-17 03:02:00	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-APPROVED	
Appl.	Tests	2190	FIT-FTTJ7X5	2010-03-02 15:47:25	HANLON TS	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2637	FIT-F0G8UV1	2010-04-16 09:26:31	CAMPBELL TS DESN 2	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2719	FIT-F1AUQFV	2010-04-22 09:56:15	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2990	FIT-F6TXU9Z	2010-05-25 09:11:22	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2969	FIT-FGWZP61	2010-05-25 09:16:18	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2948	FIT-FRCM4HY	2010-05-25 09:19:56	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2962	FIT-FHMTIZ1	2010-05-25 09:22:45	CAMPBELL TS DESN 2	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2960	FIT-FRT66R3	2010-05-25 09:25:34	CAMPBELL TS DESN 2	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2951	FIT-F49NP3Q	2010-05-25 09:28:20	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2954	FIT-F6IA2XY	2010-05-25 09:31:21	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2952	FIT-F4AJ1P8	2010-05-25 09:34:53	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2964	FIT-F1KH8GG	2010-05-25 09:37:38	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2998	FIT-FZ90V61	2010-05-25 09:41:21	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2963	FIT-FC42V9K	2010-05-25 09:45:48	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2958	FIT-FHJZCB8	2010-05-25 09:48:47	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2971	FIT-FSW890D	2010-05-25 09:51:08	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2938	FIT-FF95WA5	2010-05-26 10:00:19	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2991	FIT-FDSVTU	2010-05-26 10:08:13	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	2968	FIT-FYECE6E	2010-05-26 10:13:32	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	1492	FIT-FJ0Q9B4	2010-06-02 13:35:07	HANLON TS	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	3510	FIT-FMRNY1R	2010-06-04 12:51:35	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-REVIEWED	
Appl.	Tests	5121	FIT-FAV6DVY	2010-09-28 11:10:11	HANLON TS	CAPACITY-EXEMPT-ALLOCATED	
Appl.	Tests	5563	FIT-FAIM6LS	2010-11-16 21:26:11	HANLON TS	CAPACITY-EXEMPT-ALLOCATED	
Appl.	Tests	5602	FIT-F8L5131	2010-11-20 12:04:31	CAMPBELL TS DESN 2	CAPACITY-EXEMPT-ALLOCATED	
Appl.	Tests	5372	FIT-F3RZQCJ	2010-12-03 09:58:15	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-ALLOCATED	
Appl.	Tests	5383	FIT-FIP0VCV	2010-12-03 10:02:19	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-ALLOCATED	
Appl.	Tests	5352	FIT-FPQ0S0A	2010-12-03 10:04:53	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-ALLOCATED	
Appl.	Tests	5349	FIT-F7FYXD7	2010-12-03 10:07:01	CAMPBELL TS DESN 1	CAPACITY-EXEMPT-ALLOCATED	

- A total of 140 Pre-FIT assessments were completed by Guelph Hydro as of December 1, 2011.
- 2 FIT projects connected to the distribution system with a combined capacity of 0.350MW as of December 1, 2011.
- 23 FIT Connection impact assessments were completed as of December 1, 2011.
- Guelph Hydro is currently working with 4 FIT customer projects through the metering installation/connection phase. Of these 4 projects, Guelph Hydro estimates that 3 FIT projects will be connected to the distribution system by the

end of 2011. These 3 projects along with the 2 FIT projects currently connected will have a combined generation capacity of approximately 1.34MW.

- Guelph Hydro estimates that a total of 24 projects will be connected to the distribution system in 2012 with a combined capacity of approximately 5.28MW based on discussions with project proponents.

- **MicroFIT Project Summary:**

A total of 354 microFIT applications within Guelph Hydro's service territory have been submitted to the OPA as of December 1, 2011. Of those 354 projects, 23 applications have been terminated

Admin HomePage		
<b>SUMMARY:</b> Total Registrants: 314 Total Submitted Applications: 354 Total Contracts Issued: 63		
<b>Projects Summary:</b> <a href="#">Click to view breakdown</a>		
Count	Source	Capacity
1	Renewable biomass	2 kW
5	Solar photovoltaic (Non-Rooftop)	50 kW
29	Solar photovoltaic (PV)	145.79 kW
319	Solar photovoltaic (Rooftop)	2568.79 kW
<b>TOTAL</b>		<b>2766.58 kW</b>

- 63 microFIT projects have accepted contracts offered by the OPA as of December 1, 2011;
- 75 microFIT projects are connected to Guelph Hydro's distribution system with a combined capacity of 0.48MW as of December 1, 2011

Guelph Hydro estimates that by the end of 2011, a total of 85 microFIT projects will be connected to the distribution system with a combined capacity of approximately 0.51MW.

Guelph Hydro estimates that a total of 50 microFIT projects will be connected to the distribution system in 2012 with a combined capacity of approximately 0.34MW based on 2010 and 2011 actuals. Guelph Hydro notes that this level of activity is higher than the originally estimated level of approximately 40 projects each in 2011 and 2012.