EB-2010-0142

ONTARIO ENERGY BOARD

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

AND IN THE MATTER OF an Application by Toronto Hydro-Electric System Limited for an order approving just and reasonable distribution rates and other charges for electricity distribution to be effective May 1, 2011 (the "Toronto Hydro 2011 Rates Application").

POLLUTION PROBE

CROSS-EXAMINATION REFERENCE BOOK

March 27, 2011

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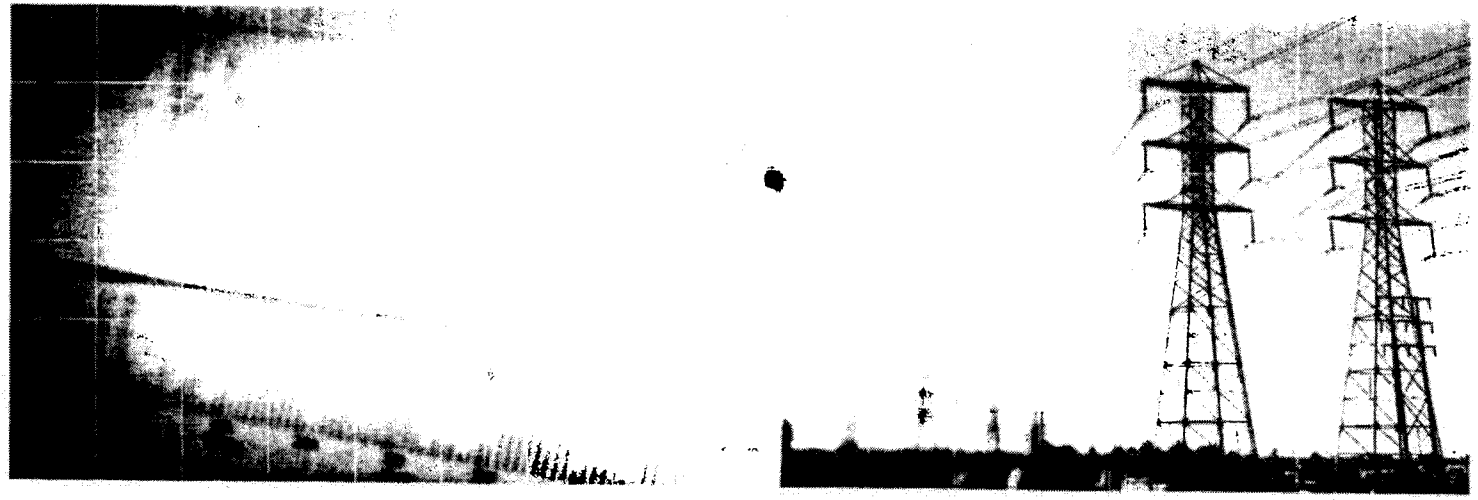
2009 Yearbook of Electricity Distributors

Ontario Energy Board

Published on August 25, 2010



General Statistics For the year ended December 31, 2009 (Alphabetically Listed)	Tillsonburg Hydro Inc.	Toronto Hydro-Electric System Limited	Veridian Connections Inc.	Wasaga Distribution Inc.	Waterloo North Hydro Inc.	Welland Hydro-Electric System Corp.
Population Served	15,140	2,503,281	308,114	17,300	154,370	50,331
Municipal Population	15,000	2,503,281	419,985	17,300	154,370	50,331
Seasonal Population	0	0	1,601	1,200	0	0
Total Customers	6,738	690,243	111,994	11,869	51,089	21,916
Residential Customers	5,907	611,357	101,547	11,010	45,113	19,803
General Service <50kW Customers	675	64,781	8,501	801	5,300	1,725
General Service >50kW Customers	87	12,953	1,049	33	661	172
Large User (>5000kW) Customers	0	47	4	0	1	2
Scattered Unmetered Loads	69	1,105	893	25	14	214
Sub Transmission	0	0	0	0	0	0
Total Service Area (sq km)	24	630	639	61	672	86
Rural Service Area (sq km)	3	0	386	8	607	0
Urban Service Area (sq km)	21	630	253	53	65	86
Total km of Line	156	9,794	2,201	236	1,541	443
Overhead km of Line	102	4,153	1,280	125	1,059	330
Underground km of Line	54	5,641	921	111	482	113
Total kWh Sold (excluding losses)	184,230,659	24,588,094,033	2,473,069,287	117,509,098	1,360,024,644	402,158,613
Total Distribution Losses (kWh)	9,399,202	961,179,992	95,395,026	6,291,175	51,743,018	17,458,601
Total kWh Purchased	193,629,861	25,549,274,025	2,568,464,313	123,800,273	1,411,767,662	419,617,214
Winter Peak (kW)	36,361	4,108,656	433,843	24,315	233,874	78,842
Summer Peak (kW)	41,632	4,607,346	488,365	26,445	259,232	85,983
Average Peak (kW)	35,707	3,489,158	397,920	20,639	223,335	71,014
Capital Additions in 2009	$ 1,020,825	$ 261,125,162	$ 30,741,373	$ 2,086,187	$ 17,408,533	$ 2,015,222

8. Summary of Wholesale Market Electricity Charges in Ontario's Competitive Marketplace

In early August 2002, the IESO released "A Guide to Electricity Charges in Ontario's Competitive Marketplace". That guide shows how market charges flow from the wholesale market to the retail market, and how these charges may appear on a typical consumer's utility bill. The bar chart contained in this section is taken directly from that Guide. Also shown here, is a summary of this month's market results that correspond with the charge items indicated in the chart.

IESO Wholesale Market	Arithmetic Average		Weighted Average	
	Current Month	Year-to-Date	Current Month	Year-to-Date
Commodity Charge				
HOEP	$35.05	$29.52	$35.98	$31.61
Global Adjustment	$31.05	$30.56	$31.05	$30.56
Total	$66.10/MWh or 6.61 ¢/kWh	$60.08/MWh or 6.01 ¢/kWh	$67.03/MWh or 6.70 ¢/kWh	$62.17/MWh or 6.22 ¢/kWh
Wholesale Market Service Charges				
CMSC	$0.73	$1.13	$0.76	$1.09
IOG	$0.09	$0.15	$0.08	$0.12
Other Hourly	$0.87	$1.15	$1.01	$1.17
Monthly	$1.16[1]	$1.23[1]	$1.16[1]	$1.23[1]
IESO Administration	$0.82	$0.82	$0.82	$0.82
OPA Administration	$0.48	$0.48	$0.48	$0.48
Rural/Remote Settlement	$1.30	$1.18	$1.30	$1.18
Total	$5.45/MWh or 0.55 ¢/kWh	$6.14/MWh or 0.61 ¢/kWh	$5.61/MWh or 0.56 ¢/kWh	$6.09/MWh or 0.61 ¢/kWh
Wholesale Transmission Charge	$7.80/MWh or 0.78 ¢/kWh	$7.72/MWh or 0.77 ¢/kWh	$7.80/MWh or 0.78 ¢/kWh	$7.72/MWh or 0.77 ¢/kWh
Debt Retirement Charge	$7.00/MWh or 0.70 ¢/kWh	$7.00/MWh or 0.70 ¢/kWh	$7.00/MWh or 0.70 ¢/kWh	$7.00/MWh or 0.70 ¢/kWh
Totals	$86.35/MWh or 8.64 ¢/kWh	$80.94/MWh or 8.09 ¢/kWh	$87.44/MWh or 8.74 ¢/kWh	$82.98/MWh or 8.30 ¢/kWh

Note: Year-to-Date is since January 1, 2009

[1]Updated: January 19, 2010

There are two commodity charges quoted above. The arithmetic average price would be representative of the average commodity charge for a customer whose electrical demand is relatively consistent throughout the day, the night and the weekends. The weighted average price would be applicable to a customer whose consumption mirrored that of the total system. The actual average commodity price paid by a wholesale customer will be very sensitive to their consumption pattern.

Calculation of Total Cost of Toronto Hydro's Line Losses in 2009

961,180 mWh X $82.98 per mWh

= $79.8 million

Calculation of 2009 Distribution Losses as Percentage of Sales

$$\frac{961{,}180 \text{ mWh}}{24{,}588{,}094 \text{ mWh}} \times 100\% = 3.9\%$$

Ministry of Energy

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Ontario

FEB 1 7 2011

MC-2011-625

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

In my capacity as the Minister of Energy and pursuant to the authority granted to me under subsection 25.30(2) of the *Electricity Act, 1998*, I am providing the Ontario Power Authority (OPA) with direction for the preparation of an integrated power system plan (the "Plan"). This Supply Mix Directive replaces the Supply Mix Directive issued on June 13, 2006 and the Supply Mix Directive issued on September 17, 2008.

Pursuant to this Authority, I hereby direct the OPA to prepare a Plan to meet the government's goals as set out in this Supply Mix Directive as follows:

Demand

In developing the Plan, the OPA shall use a medium electricity demand growth scenario. This scenario balances the expected growth in residential and commercial sectors with modest, post-recession growth in the industrial sector. Under this scenario, Ontario's demand would grow moderately (approximately 15 per cent) between 2010 and 2030, based on the projected increase in population and conservation as well as shifts in industrial and commercial needs.

It is feasible that technological changes could drive higher electricity demand growth through, for example, greater adoption of electric vehicles and the potential electrification of public transit. The Plan needs, therefore, to have the flexibility to accommodate the potential for a higher growth outcome.

Conservation

The OPA shall plan to achieve through Conservation and Demand Management (CDM) a peak demand reduction target of 7,100 megawatts (MW) and an energy savings target of 28 terawatt-hours (TWh) by the end of 2030. Further, the OPA shall plan to achieve interim CDM targets as follows: 4,550 MW and 13 TWh by the end of 2015; 5,840 MW and 21 TWh by the end of 2020; and 6,700 MW and 25 TWh by the end of 2025. These interim CDM targets are to serve as milestones to measure progress towards the overall 2030 CDM target.

The Plan shall seek to exceed and accelerate the achievement of these CDM targets if this can be done in a manner that is feasible and cost-effective. The targets are to be measured from a base year of 2005.

.../cont'd

The above-noted targets shall also include electricity savings forecasted through the implementation of codes, standards, regulations and other initiatives that are progressive and reasonable based on OPA analysis.

Consistent with my directive to the Ontario Energy Board (OEB) dated March 31, 2010, the definition of CDM should be inclusive of load reduction from initiatives such as geothermal heating and cooling, solar heating and fuel switching and customer-based generation for the purpose of load displacement. The definition should be exclusive of generation that is contracted-for under the OPA's Feed-in Tariff (FIT) and microFIT Programs and other generation that is separately metered for the purpose of injecting electricity into the transmission system or a distribution system.

Nuclear

The OPA shall continue to plan for nuclear generation to account for approximately 50 per cent of total Ontario electricity generation. To this end, the Plan shall provide for the refurbishment of 10,000 MW of existing nuclear capacity at the Bruce Nuclear Generating Station and the Darlington Nuclear Generating Station as well as the procurement of two new nuclear generating units (about 2,000 MW) at the Darlington site. The Government will pursue this procurement where it can be achieved in a cost-effective manner.

Nuclear refurbishment is a complex task and Ontario will need a coordinated plan for refurbishment that takes into account various considerations. To this end, the OPA shall continue to work with Ontario Power Generation (OPG), Bruce Power, and the Ministry of Energy to ensure that the Plan includes an updated coordinated refurbishment schedule.

Coal Phase-out and Potential Conversion

Since 2003, Ontario has shut down eight coal-fired generating units, including the recent closures of two units each at OPG's Nanticoke and Lambton Generating Stations. The shutdown of two additional units at the Nanticoke Generating Station will take place before the end of 2011.

The Government's commitment to replace all coal-fired generation by the end of 2014 will be met. The OPA shall work with the Independent Electricity System Operator (IESO) and OPG to determine opportunities for advancing the closure of additional units.

The Government has directed the OPA to negotiate with OPG for a contract for biomass fuelled generation from the 215 MW Atikokan Generating Station in Northwestern Ontario. It is expected that this plant could be operating on biomass by 2013.

Two units at OPG's Thunder Bay Generating Station are to be converted to run on natural gas over the period leading up to 2014. Opportunities to co-fire with biomass will continue to be examined.

In developing the Plan, the OPA shall assess the conversion of some or all of the remaining units at Lambton and Nanticoke to natural gas under a range of different scenarios for nuclear generation and system peaking requirements. The government will make a decision on conversion of some or all of these units in 2012. This decision will be made once planning work on continued operation of the operating units at the Pickering Nuclear Generating Station

.../cont'd

and the refurbishment of the remaining units at the Bruce and Darlington nuclear generating stations is further advanced, providing better information on the availability of nuclear capacity.

In order to plan properly for the possibility of conversion, the government anticipates that planning and approval work for the natural gas pipeline infrastructure required to Nanticoke will begin soon.

Renewables - Hydroelectric Resources

New hydroelectric developments are underway by OPG, including the Niagara Tunnel and the 440 MW Lower Mattagami redevelopment as well as additional private sector developments. The Plan shall allow for future hydroelectric development where it is cost-effective to build and to connect to the transmission system.

The Plan shall provide for installed hydroelectric capacity to reach 9,000 MW by 2018. The OPA shall continue to explore cost-effective opportunities for further hydroelectric development and maximize existing hydroelectric resources. Additional cost-effective hydroelectric resources should be developed if they are identified. It is expected that the Plan shall provide for hydroelectric generation to account for approximately 20-25 per cent of total Ontario electricity generation.

Renewables Other Than Hydroelectric (Wind, Solar, Bio-energy)

The June 2006 Supply Mix Directive required that the OPA plan to use the existing base of 7,850 MW of renewable energy (hydroelectric generation) and to double this capacity to 15,700 MW by 2025 including hydroelectric, wind, solar, and bio-energy.

Since then, there have been a number of renewable energy procurements through initiatives such as the Renewable Energy Supply (RES) programs (RES I, II and III), the Renewable Energy Standard Offer Program and the FIT Program. As a result of these successful procurements, as well as the Green Energy Investment Agreement, the additional renewable capacity expected to come into service is greater than the levels envisaged in 2006. Based on forecast assessments of what the system can accommodate, the OPA shall plan for 10,700 MW of renewable energy capacity, excluding hydroelectric, by 2018.

The government will look for opportunities to incorporate additional capacity from renewables into the Plan taking into consideration the cost-effectiveness for Ontario electricity consumers, planned transmission additions, and electricity demand growth.

It is expected that the Plan shall provide for renewables, excluding hydroelectric, to account for approximately 10-15 per cent of total Ontario electricity generation by 2018.

Natural Gas

Natural gas will continue to play a strategic role in Ontario's supply mix by complementing intermittent supply from sources such as wind and solar, meeting local and system requirements, and ensuring that adequate capacity is available as nuclear plants are modernized. The OPA shall continue to plan on natural gas usage for these strategic purposes.

.../cont'd

The 2007 Integrated Power System Plan submitted to the OEB included a forecasted need for three additional gas plants in the Province, including one in the Kitchener-Waterloo-Cambridge area and one in the southwest GTA. Due to changes in demand along with the addition of approximately 8,400 MW of new supply since 2003, the outlook has changed and two of the proposed plants, including the proposed plant in Oakville, are no longer required. A transmission solution to maintain reliable supply in the southwest GTA will be required.

As indicated in the 2007 Plan, procurement of a natural gas-fired plant in the Kitchener-Waterloo-Cambridge area is still necessary to ensure adequate regional electricity supply.

Transmission

The government recognizes the need to pace transmission upgrades and the importance of striking a balance between a clean economy and limiting ratepayer cost burdens. Long-term planning for transmission should allow for the expansion of the system to include renewables in order to foster a cleaner economy and should also be able to adjust if conditions change.

The Plan shall include the five priority transmission investment projects identified by the OPA for system reliability, serving new load and renewables incorporation out to 2018. For the purposes of preparing the Plan, the OPA shall assume these projects will proceed. These priority projects are:

- Device(s) to enhance transfer capability, such as series or static var compensation, or other similar devices, in Southwestern Ontario
- Upgrading existing line(s) west of London;
- A new line west of London;
- Enhance the East West tie along the east shore of Lake Superior through a new line; and
- New line to Pickle Lake.

The OPA, as the provincial transmission planner shall define and make recommendations about the scope and timing of these transmission projects on the basis of their rationale, as part of the Plan. The OPA shall also immediately work in cooperation with Hydro One and make recommendation(s) on the scope and timing of transmission projects to be undertaken by the transmitter pursuant to an amendment of the transmitter's licence conditions resulting from a directive issued to the OEB by the Minister of Energy in early 2011.

In addition to this, the OPA shall identify other cost-effective transmission and distribution solutions through ongoing decision processes – integrated planning and economic tests – and maximize use of the existing system.

The OPA shall develop a plan for remote community connections beyond Pickle Lake, including consideration for the relevant cost contributions from benefiting parties, such as the federal government. This plan may also consider the possibility of interim solutions as appropriate that reduce consumption of diesel fuel.

.../cont'd

Smart Grid

The OPA shall give planning consideration to the Smart Grid developments that are taking place in Ontario. The OPA should also ensure that distribution level investment associated with smart grid and renewable connections is considered in the context of the Plan.

Reliability and Operability

The Plan shall consider potential electricity storage, the availability of imports from other jurisdictions and other methods in order to meet Ontario's reliability and operability requirements throughout the duration of the Plan.

The economics of storage technologies will depend on the differential between peak and off-peak costs, the capital and operating costs of the storage facility and the relative costs of other peak managing options. Examination of storage opportunities should include a determination as to whether the customer and system benefits exceed the development and operating costs of the storage system.

Impacts of the Plan on Electricity Consumers

The government recognizes that electricity investments are important for individual and business consumers from a variety of perspectives, including cost. The OPA shall develop the Plan mindful of total bill impacts and the impact that the costs associated with the choices it makes within the Plan has on electricity rates generally.

Consultation

Ontario's Aboriginal peoples play an important role in the development of Ontario's electricity system. The Government will retain responsibility for addressing Aboriginal economic opportunities in the energy sector. The Government expects the OPA to carry out the procedural aspects of any Crown duty to consult First Nation and Métis communities in developing the Plan.

Regulatory Observance

The Plan shall comply with Ontario Regulation 424/04 (Integrated Power System Plan) made under the *Electricity Act, 1998*, and all other applicable statutory and regulatory requirements, as amended from time to time.

Sincerely,

Brad Duguid
Minister

Ontario
Executive Council
Conseil des ministres

Order in Council
Décret

On the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and concurrence of the Executive Council, orders that:

Sur la recommandation du soussigné, le lieutenant-gouverneur, sur l'avis et avec le con- sentement du Conseil des ministres, décrète ce qui suit:

WHEREAS it is desirable to achieve reductions in electricity consumption and reductions in peak provincial electricity demand.

AND WHEREAS the Minister may, with the approval of the Lieutenant Governor in Council, issue directives under section 27.1 of the *Ontario Energy Board Act, 1998* in order to direct the Board to take steps to promote energy conservation, energy efficiency, load management or the use of cleaner energy sources, including alternative and renewable energy sources.

AND WHEREAS the Minister may, with the approval of the Lieutenant Governor in Council, issue directives under section 27.2 of the *Ontario Energy Board Act, 1998* in order to direct the Board to establish conservation and demand management targets to be met by distributors and other licensees.

NOW THEREFORE the Directive attached hereto is approved and shall be and is effective as of the date hereof.

Recommended: _____
Minister of Energy and Infrastructure

Concurred: _____
Chair of Cabinet

Approved and Ordered: MAR 3 1 2010
Date

_____
Lieutenant Governor

O.C./Décret : 437/2010

MINISTER'S DIRECTIVE

TO: THE ONTARIO ENERGY BOARD

I, Brad Duguid, Minister of Energy and Infrastructure, hereby direct the Ontario Energy Board pursuant to sections 27.1 and 27.2 of the *Ontario Energy Board Act, 1998*, as described below.

The Board shall take the following steps in order to establish electricity conservation and demand management ("CDM") targets to be met by licensed electricity distributors ("distributors") within the timeframe specified herein:

1. Subject to paragraph 5, the Board shall, without a hearing and in accordance with the requirements of this Directive, which relate to the conservation and demand-management targets to be met by distributors and other licensees including the OPA, amend each distributor's licence to add a condition requiring the distributor to achieve reductions in electricity consumption and reductions in peak provincial electricity demand through the delivery of CDM programs ("CDM Programs") by the amounts specified by the Board (the "CDM Targets"), over a four-year period beginning January 1, 2011.

2. In establishing CDM Targets for each distributor, the Board shall:

   (a) ensure that the total of the CDM Targets established for all distributors is equal to 1330 megawatts (MW) of provincial peak demand persisting at the end of the four-year period and 6000 gigawatt hours (GWh) of reduced electricity consumption accumulated over the four-year period;

   (b) specify for each distributor, a CDM Target for the reduction of provincial peak electricity demand and a CDM Target for the reduction of electricity consumption, each of which must be greater than zero; and,

   (c) have regard to information obtained from the Ontario Power Authority ("OPA"), developed in consultation with distributors, regarding the reductions in provincial peak electricity demand and electricity consumption that could be achieved by individual distributors through the delivery of CDM Programs.

3. The Board shall amend the licence of each distributor as follows:

   (a) by adding a condition that specifies 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-Contracted Province-Wide CDM Programs"); or,

(iii) a combination of (i) and (ii)

(b) by adding a condition that specifies that the distributor must deliver a mix of CDM Programs to all consumer types in the distributor's service area, whether through Board-Approved CDM Programs, OPA-Contracted Province-Wide CDM Programs or a combination of the two, as far as is appropriate and reasonable having regard to the composition of the distributor's consumer base;

(c) by adding a condition that requires the distributor to comply with rules mandated by a code issued by the Board.

4. The Board shall amend licenses of distributors to ensure that:

(a) distributors utilize the same common Provincial brand (which includes any mark or logo that the Province has used or is using, created or to be created by or on behalf of the Province, and which will be identified to the Board by the Ministry as a provincial mark or logo for its conservation programs) with all Board-Approved CDM Programs;

(b) that the brand identified in (a) shall be the same brand utilized by the OPA and distributors for OPA-Contracted Province-Wide CDM Programs, once those programs have been created; and,

(c) that the brand shall be used by distributors in conjunction with or co-branded with distributor's own brand or marks.

and the Board shall, upon receipt of written direction from the Ministry, which may be issued from time to time, and as a condition of license, require any one or more distributors to cease using the Provincial brand described in this paragraph at such time or in such way as may be specified in such direction.

5. The Board shall not amend the licence of any distributor that meets the conditions set out below:

(a) with the exception of embedded distributors the distributor is not connected to the Independent Electricity System Operator (IESO)-controlled grid; or,

(b) the distributor's rates are not regulated by the Board.

6. The Board shall issue a code that includes rules relating to the reporting requirements and performance incentives associated with CDM Programs and to the planning, design, approval, implementation and the evaluation, measurement and verification ("EM&V") of Board-Approved CDM Programs and to such other matters as the Board considers appropriate.

In developing such rules, the Board shall have regard to the following objectives of the government in addition to such other factors as the Board considers appropriate:

(a) that Board-Approved CDM Programs shall not duplicate OPA-Contracted Province-Wide CDM Programs that are available from the OPA at the time of Board approval;

(b) that the Board shall encourage opportunities for coordinating CDM Programs between the distributor and other relevant entities such as other electricity distributors, natural gas distributors and the OPA;

(c) that the Board shall not preclude consideration of CDM Programs or funding for CDM Programs on the basis that a distributor's CDM Targets have been or are expected to be exceeded;

(d) that a tiered performance incentive mechanism shall be available to distributors for verified electricity savings with incentives beginning to accrue once a distributor meets 80% of each CDM Target; performance incentives shall not be offered for electricity savings achieved beyond 150% of each CDM Target;

(e) that Board approval for funding of any given Board-Approved CDM Program shall correspond to the period in which the Board-Approved CDM Program is offered, provided that the period is no longer than the period for which CDM Targets are established;

(f) that the Board shall require distributors to use OPA cost-effectiveness tests, as modified by the OPA from time to time, for assessing the cost-effectiveness of Board-Approved CDM Programs;

(g) that the Board shall require distributors to use the OPA protocol process and third-party vendor of record list, as modified by the OPA from time to time, when conducting EM&V of Board-Approved CDM Programs;

(h) that the Board shall consider the definition of CDM to be inclusive of load reduction from initiatives, such as geothermal heating and cooling, solar heating and fuel switching, but exclusive of initiatives that are associated with the OPA Feed-in Tariff Program and the OPA Micro Feed-in Tariff Program; and,

(i) that all Board-Approved CDM Programs shall utilize the same common provincial brand (which includes any mark or logo that the Province has used or is using, created or to be created by or on behalf of the Province, and which will be identified to the Board by the Ministry as a provincial mark or logo for conservation) used for OPA-Contracted Province-Wide CDM Programs, once such programs are created, and used in conjunction with or co-branded with any brand or mark used by the distributor.

7. The Board shall not approve CDM Programs until OPA-Contracted Province-Wide CDM Programs have been established.

8. The Board shall, in approving Board-Approved CDM Programs, continue to have regard to its statutory objectives, including protecting the interests of consumers with respect to prices.

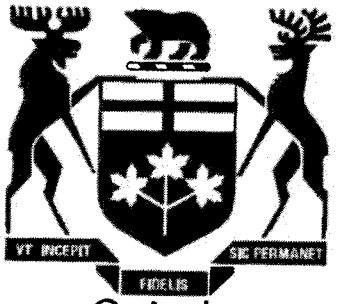
9. The Board shall conduct, or cause to be conducted, targeted audits of EM&V carried out by the distributor or third-parties on behalf of the distributor, as necessary.

10. The Board shall annually review and publish the verified results of each individual distributor's CDM Programs and the consolidated results of all distributor CDM Programs, both Board-Approved CDM Programs and OPA-Contracted Province-Wide CDM Programs and take steps to encourage distributors to improve CDM Program performance.

11. The Board shall permit distributors to meet a portion of their CDM Targets through the delivery of CDM Programs targeted to low-income consumers.

12. The Board shall have regard to the objective that lost revenues that result from CDM Programs should not act as a disincentive to a distributor.

Minister of Energy and Infrastructure



Ontario

ONTARIO ENERGY BOARD

FILE NO.: **EB-2010-0142**

VOLUME: **Technical Conference**

DATE: **January 24, 2011**

--- On resuming at 3:25 p.m.

MS. SEBALJ: Jay, I think you are up. We are on.

MR. SEAL: While you push the button, Jay, I believe I had indicated to Jack earlier today that I would come back with some information, so -- with respect to the RSVA power accounts. So I did check back at the shop.

And in May of 2010, so for our 2010 rate year, the Board approved an amount of a $265,000 credit to customers for the RSVA power non-global adjustment part, cleared, which was reflective of the December 2008 balance exclusive of interest.

So I think that was the information that I said I would provide.

MS. SEBALJ: Okay. I also understand just at the break, I can't remember who it is from Toronto Hydro, indicated that the table that you had been asking for, Jay, that had the breakdown of the vehicles is not in the evidence. So that needs to be marked as an undertaking.

MR. SHEPHERD: That's right. This is the table for 2011 that is the same as the tables for 2007 through 2010 in SEC No. -- technical conference question number 3. So if we can get the equivalent table for 2011, that would be good.

MS. SEBALJ: That we will now mark as JT1.11.

UNDERTAKING NO. JT1.11: TO PROVIDE EQUIVALENT TABLE FOR 2011 AS APPEARS IN SEC TECHNICAL CONFERENCE QUESTION NO. 3.

MR. SHEPHERD: So I don't have that many more

INTERROGATORIES OF POLLUTION PROBE

INTERROGATORY 2:

Reference(s): Exhibit M1, Tab 1, Schedule 1, page 7

a) Please provide the formula that Toronto Hydro uses to calculate the dollar value of the annual difference between actual and forecast losses in the RSVA Power variance account.

b) Please provide the dollar values of the annual differences between the actual and forecast losses in the RSVA Power variance account for each of the past five years.

c) Would Toronto Hydro oppose a proposal to exclude the dollar value of the annual difference between actual and forecast losses from the RSVA Power variance account? If yes, please explain why.

RESPONSE:

a) THESL is currently undertaking a review of the RSVAPower account details and process for booking amounts to this account (which include amounts related to the cost of power as well as amounts related to Global Adjustment). An amount of $5,596, not including amounts related to Global Adjustment, is currently booked in this account.

b) Please see response to part (a).

c) THESL would oppose a proposal to assume the risk of variances between actual and deemed losses because THESL cannot reasonably control actual losses on its distribution system. While THESL can attempt to minimize losses operationally and through investments in lower-loss equipment, the objective of loss minimization must

INTERROGATORIES OF POLLUTION PROBE

be balanced against other operational objectives (such as reliability) and must also be undertaken on a cost-effective basis.

Furthermore, for any given state and configuration of distribution equipment and set of operating procedures, losses vary exponentially (as the square) with current, as a matter of physics. Therefore actual losses will be highly dependent on demand conditions which THESL cannot control and which themselves depend on factors such as temperature and economic activity.

Therefore THESL takes the view that the responsible approach to the issue of minimizing losses is not for utilities to assume risk for variances between actual and deemed losses (however they would be determined), but rather for loss minimization to be among the objectives sought to be furthered in operational procedures (together with safety and reliability among others) and in the investments THESL makes in its distribution system.

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INTERROGATORY 6:

Reference(s): **Exhibit M1, Tab 1, Schedule 1, page 7**
Exhibit M1, Tab 5, Schedule 1

Please describe the actions that Toronto Hydro is taking in 2010 and will take in 2011 to reduce its distribution system losses. Please describe additional cost-effective actions that Toronto Hydro could take to reduce its distribution system losses. In both responses, please quantify the potential impact in MWh of these actions on Toronto Hydro's losses.

RESPONSE:

There are a number of transformer replacement and voltage conversion projects in 2010 and 2011 that will provide distribution system efficiencies, as a secondary benefit. The impact of these projects on system losses in MWh is not known with any precision but would likely be in the order of 5-10 GWh.