EB-2008-0272

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 a review of an Application filed by Hydro One Networks Inc. under section 78 of the *Ontario Energy Board Act, 1998*, seeking changes to the uniform provincial transmission rates (the "Hydro One 2009-10 Transmission Rates Application").

POLLUTION PROBE

CROSS-EXAMINATION REFERENCE BOOK

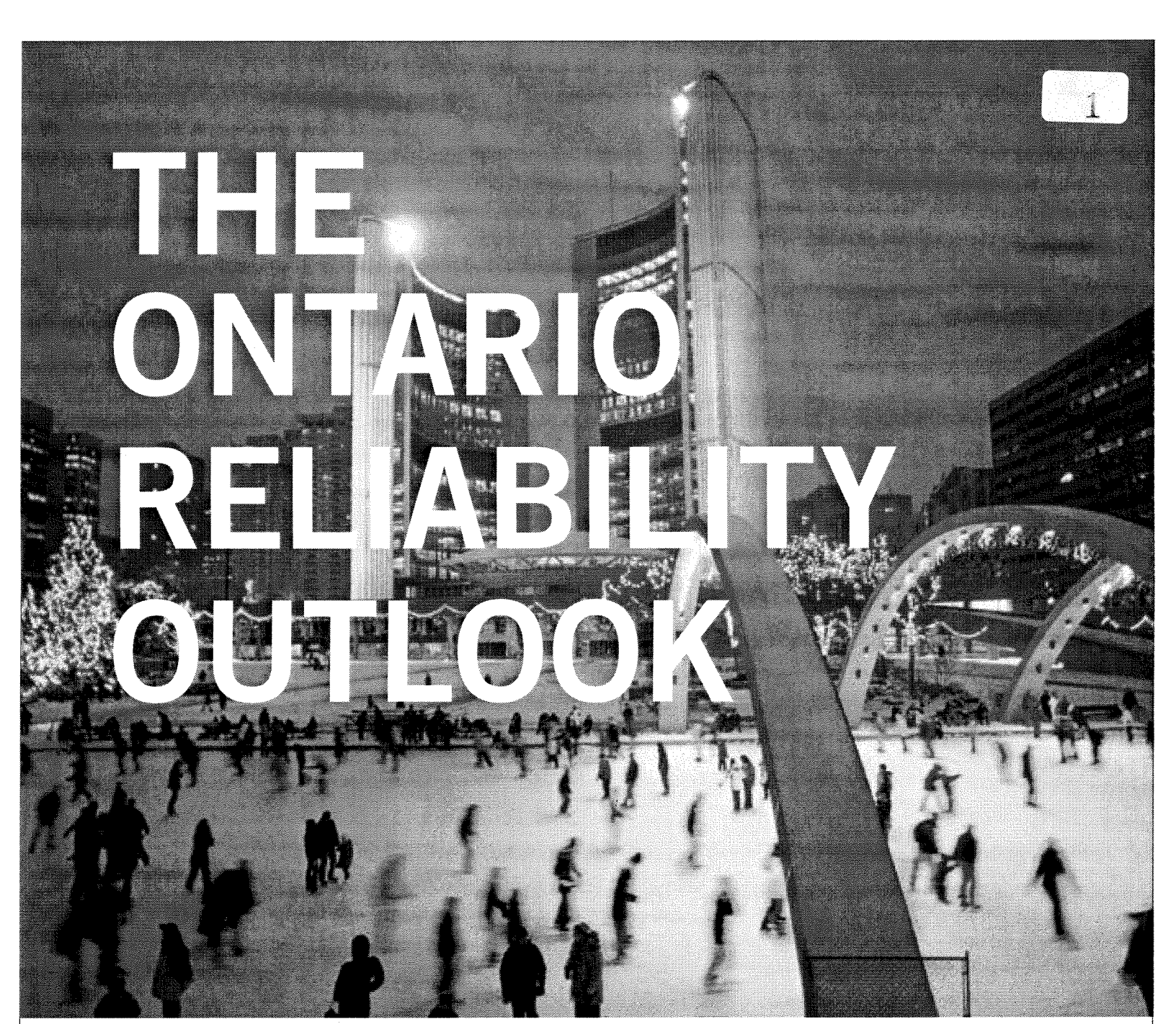
February 23, 2009

KLIPPENSTEINS
Barristers & Solicitors
160 John St., Suite 300
Toronto ON M5V 2E5

Murray Klippenstein
Basil Alexander
Tel: (416) 598-0288
Fax: (416) 598-9520

Counsel for Pollution Probe

INDEX



1

THE ONTARIO RELIABILITY OUTLOOK

FEBRUARY
2006
VOLUME 1 ISSUE 1

ieso
Power to Ontario. On Demand.

SUPPLY TO CENTRAL TORONTO

Toronto is one of the largest cities in North America without generation within its own vicinity to meet local demands. As a result, supply to the central area of Toronto (the area bounded by Highway 427, Lake Ontario, Eglinton Avenue and Victoria Park Avenue) is delivered through two main transmission paths and transformer stations (TS) – Manby TS in the west and Leaside TS in the east.

Manby TS is fed from Richview TS by five 230 kilovolt (kV) circuits. Leaside is fed by six 230 kV circuits from Cherrywood TS. These two stations and the circuits in and out of them are operating at or near maximum capacity during periods of high demand.

The supply to central Toronto will be exposed to the potential overload of the:

- 230 kV circuits from Cherrywood TS to Leaside TS;
- 230/115 kV auto-transformers at Leaside TS;
- 115 kV circuits from Leaside TS to Hearn TS;
- 230 kV circuits from Richview TS to Manby TS;
- 230/115 kV auto-transformers at Manby TS; and
- 115 kV circuits from Manby TS to downtown Toronto

Because the paths into central Toronto are forecast to be near their capacity, additional generation located outside the area cannot meet the need for power within Toronto during peak load periods. As a result, 250 MW of generation must be in service by June 1, 2008 to help meet local demand for electricity (particularly in the summer) without overloading equipment and prompting the need for rotating load shedding. Present forecasts indicate that 500 MW of total capacity should be planned for summer, 2010.

The IESO, the OPA, Toronto Hydro and Hydro One have considered alternatives and supplemental activities to the minimum generation requirements, including increased conservation and demand management, distributed generation, cogeneration and renewable energy. While all of the above alternatives should be part of the solution to address Toronto's needs, they are needed in addition to the minimum generation requirements in order to achieve an appropriate level of reliability.

This generation is necessary to provide needed flexibility to adequately address the risk to reliability of an aging transmission infrastructure within the city, and to allow for the incorporation of a new transmission supply to restore the assurance of long-term reliable electricity supplies for Toronto. This third transmission supply could bring about 1,000 MW of power to Toronto and should be in service early in the next decade, such that together with local generation within the city, a continued reliable and diverse supply for the city under hot summer weather conditions can be assured.

TORONTO

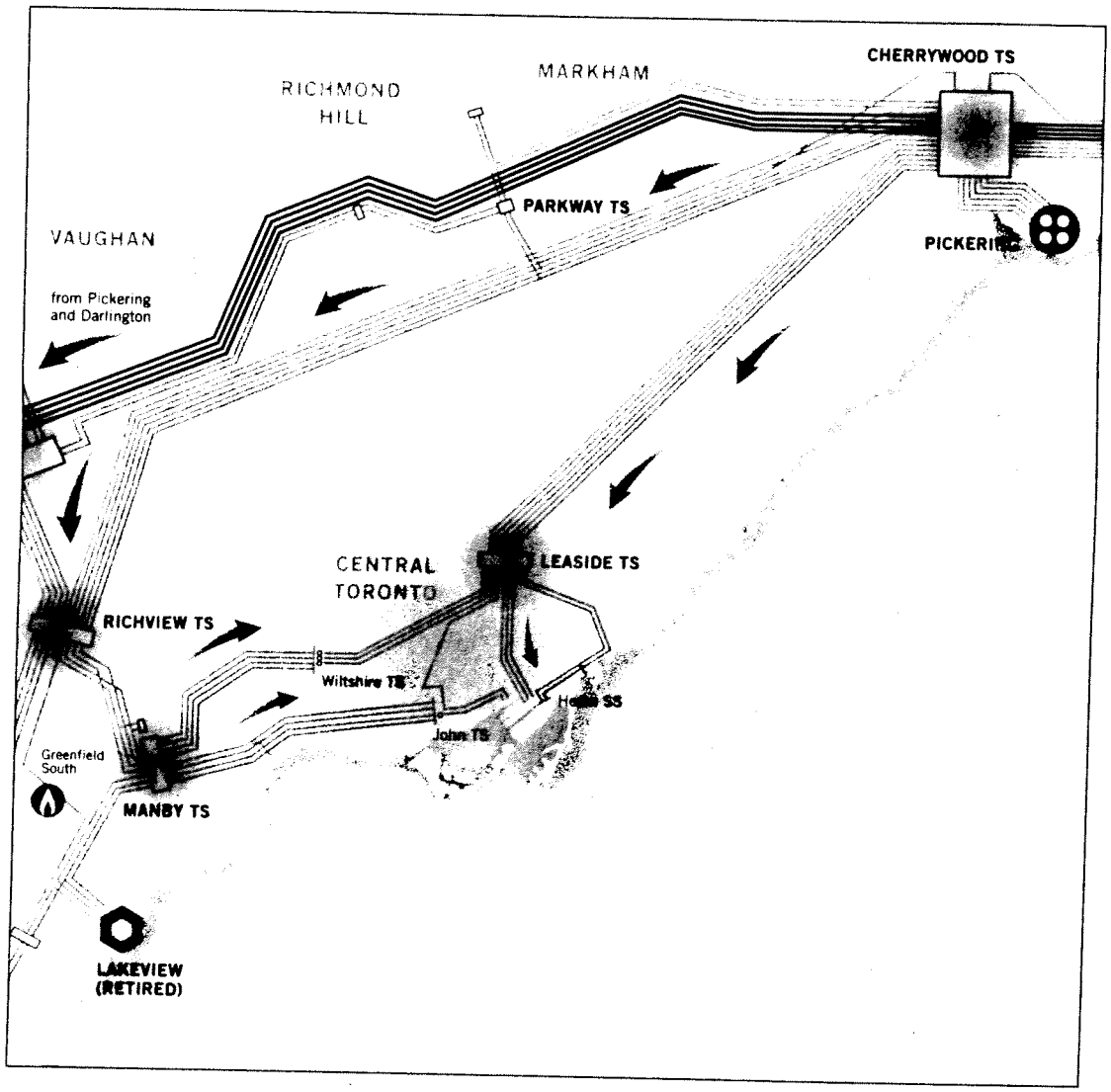
Population
2,629,030*

Central Toronto System Peak
2,350 MW

Ontario System Peak
26,160 MW

Installed Generation
0 MW

*Statistics Canada estimates, 2004, and Ontario Ministry of Finance projections



The transmission system serving central Toronto was at or near capacity during peak periods in the summer of 2005.

REMARKS FOR

THE HONOURABLE DWIGHT DUNCAN

MINISTER OF ENERGY

LAUNCH OF CLEAN ENERGY STANDARD OFFER, CHP AND EXPANSION OF WATERPOWER PROJECTS IN ONTARIO'S NORTH

THURSDAY, JUNE 14, 2007

9:10AM (APPROX)

10-15 MINUTES

HILTON TORONTO, TORONTO BALLROOM III (LOWER LEVEL)
145 RICHMOND STREET WEST

CHECK AGAINST DELIVERY

Thank you, Minister Broten.

I'm pleased to be here today to announce two initiatives that will help strengthen our electricity system … and help Ontario fight climate change.

But before I do that, I want to set the context for today's announcement by sharing with you some of the challenges we have overcome over the last four years…and the achievements we have made.

I also want to look ahead … to the future of Ontario's electricity system.

* * * * *

As we head into the summer of 2007 … it's hard to believe how far we've come since the dismal summer of 2003.

Four years ago, Ontario's electricity system was in real trouble … thanks to a decade of neglect by our predecessors.

The blackout of the summer of 2003 was the door slamming shut on a lost decade for Ontario's electricity system.

In that time, demand for electricity in Ontario grew by 8.5 per cent … yet capacity fell by 6 per cent.

Our predecessors actually took 1,865 more megawatts offline than they brought on over the course of their mandate …

Put another way, that's the equivalent of Niagara Falls running dry.

We've turned this around.

Ontario is in the midst of completely rebuilding and rethinking our electricity system.

Over the past three-and-a-half years, we have made changes to:

- the structure of our electricity market
- electricity pricing
- our supply mix, as we replace coal-fired plants with cleaner technologies
- the way we use energy, as our province builds a culture of conservation.

Since 2003, some 3,000 megawatts of new supply have come online … and we have set the wheels in motion to bring online an additional 10,000 megawatts.

There's no place in North America that will build more new generation than Ontario over the next five years.

The supply we're bringing online is from a mix of sources, including nuclear, natural gas, hydro, wind, biomass and biogas.

In doing so, we're opening up the market to the kinds of opportunities that have never been seen before in this province.

Today, we are taking another major step forward.

This morning, I am pleased to announce three more initiatives that will help shape our energy future:

- A Clean Energy Standard Offer Program that is the first of its kind in North America

- A Combined Heat and Power initiative that will help Ontario businesses use energy more efficiently and lower greenhouse gas emissions.

- Expanding our successful Renewable Energy Standard Offer program for waterpower projects in Northern Ontario.

Today's announcement demonstrates the McGuinty government's leadership and commitment to create a cleaner and greener Ontario.

Our Clean Energy Standard Offer Program will encourage greater use of clean sources of energy to generate electricity in Ontario.

It will remove obstacles for smaller clean-source generating projects (10 megawatts or less) by providing a simplified process and stable pricing over a 20-year contract.

This program will further encourage distributed generation in Ontario, and that means reduced emissions, increased reliability, reduced peak demand and reduced transmission losses in our electricity system.

Clean Energy Standard Offer will compensate generators based on a regular operating schedule.

When they contribute power to the grid, rates will be incremental to the Hourly Ontario Electricity Price.

The Ontario Power Authority will post a Request for Expressions of Interest, intended as the first step towards a potential future Combined Heat and Power procurement for larger and more complicated projects.

The RFEI follows the successful RFP last year, which led to contracts for more than 400 MW of new generation.

I want to take a moment to recognize the staff of the Ontario Power Authority and the Ministry of Energy who have worked very hard on developing the programs that are being announced today. Thank you for your commitment to Ontario's energy future.

I also want to recognize some important players in the area of Combined Heat and Power who are here today …

Markham District Energy … Enwave … and Oshawa Power and Utilities Corporation Energy Services…you, and many of your colleagues in this room, are leaders in Ontario's energy sector and I know you will play an even greater role in the years ahead.

Smaller scale, local generation has become progressively competitive as new technologies have been introduced… but we know distributed energy can face

technical, regulatory and commercial obstacles.

That is why we will work with the OEB and other stakeholders to identify and assess current barriers, such as complicated license application processes.

Wherever possible, we will streamline and simplify the process.

We'll also look to other jurisdictions, to ensure Ontario has the benefit of best practices, policies and regulations when it comes to encouraging distributed generation.

Taken together, Clean Standard Offer and Ontario's Combined Heat and Power initiative will help strengthen our system …

They will reduce pressure on the grid …

And they will give our cities the tools they need to ensure they have the power they need …

There's been a lot of ink spilled lately about a so-called 'third line' for delivering electricity to Toronto.

Let me set the record straight — we're committed to ensuring that Toronto has the power it needs — and that our system meets the needs of all electricity consumers in the province.

Clean Standard Offer and Combined Heat and Power are two important tools that will allow the City of Toronto to address the energy needs facing this community.

Combined with Ontario's significant conservation initiatives, Toronto has a good opportunity to move forward to ensure its immediate and medium term needs for electricity are met without the need for a new transmission line.

Make no mistake, a safe and reliable supply of electricity to Canada's largest city is a priority for our government …

It's critical to the continued growth and prosperity of this city, this province and this country.

But more than protecting our supply of electricity, these initiatives will help protect our planet.

Clean Standard Offer and Combined Heat and Power are just the latest in a long line of firsts from this government when it comes to fighting climate change.

In the past four years, Ontario has emerged as a leader in North America and the world when it comes to reducing greenhouse gas emissions.

We're the first jurisdiction in the world committed to phasing out coal-fired generation.

Since 2003, we've cut generation from coal plants by 32 per cent.

As a result, carbon dioxide emissions are down by 29 per cent — a reduction equivalent to taking two million cars off the road.

We've made Ontario the leader for solar power in North America.

One of the world's largest solar farms is being built in Sarnia, and will supply 40 megawatts of emission-free electricity when it's needed most.

In a little over three years, Ontario has become the leader in wind power generation in Canada.

Ontario now has four commercially operating wind farms, including Canada's largest in Sault Ste. Marie.

Ontario was the first in Canada to ban inefficient lighting, a move that's inspiring other jurisdictions to follow with bans of their own.

We're leading the way when it comes to smart metering — giving Ontarians a tool to fight climate change and control their energy costs by moving usage to off-peak hours.

We're the first Ontario government in 10 years to have a robust energy conservation strategy.

We're building a culture of conservation, and treating electricity like the precious resource it is.

We have made possible up to $2 billion in funding for conservation initiatives — more than any other government in this province's history.

This investment is funding five provincewide programs through the Ontario Power Authority's Conservation Bureau.

We're leading the world when it comes to fighting climate change, and we're doing it by putting Ontario first.

All together, we have come a long way in the last four years with a number of firsts.

Working together, we are moving Ontario forward.

Thank you.

-30-

David S. O'Brien
President and Chief Executive Officer
14 Carlton Street
Toronto, Ontario
M5B 1K5

Telephone: 416-542-3333
Facsimile: 416-542-2602
www.torontohydro.com

toronto hydro corporation

July 13, 2007

Councillor Paula Fletcher
City Hall
100 Queen Street West, Suite C44
Toronto, ON M5H 2N2

Dear Councillor Fletcher,

Further to our conversation yesterday regarding the information released by Toronto Hydro at a meeting on July 10th, I want to state emphatically that neither Toronto Hydro nor Hydro One is pursuing any option such as the so called "Third Line" as the preferred solution to the security of supply issues facing the city. Minister Duncan has made it very clear that the government does not support the Third Line as an option and we support that opinion. The meeting in question was part of our outreach to our stakeholders as we prepare for our 2008 rate application to the Ontario Energy Board. Unfortunately a piece of outdated information was included in the presentation, which gave the impression that Toronto Hydro and Hydro One were pursuing the "Third Line" option. Nothing could be further from the truth. I would like to apologize for this misinformation and as the head of Toronto Hydro Corporation, I take full responsibility for this unfortunate incident.

The material that has been provided to you by Mr. Gibbons has been taken out of context, and it was made very clear by my staff to all in attendance that Toronto Hydro is, first and foremost, committed to seeking demand side management and distributed generation solutions to the supply concerns that all parties recognize must be addressed. This is consistent with public statements from the Minister and Ontario Power Authority. Toronto Hydro will continue to seek solutions to this issue through prudent conservation measures, using the tools that have been made available to us by the provincial government.

I know that you understand that we must find a solution to the supply constraints to Toronto as soon as possible. We will ensure that the process that is put in place to find the answers is open, transparent, includes a significant focus on DSM, and will meet the needs of Toronto. We have

serious concerns about the security of our supply in that we do not have enough capacity in the transmission lines feeding Toronto to switch between these lines, should there be a failure of one or both of the lines. Our objective is to finally begin to address the issue and no longer ignore a problem that has been building for the last 20 years. Our intention is to explore all options to find an acceptable solution that provides adequate security for Toronto's electricity supply.

The preferred solution is DSM and other conservation options and we are committed to full public discussion about this. I want to reiterate that we are not pursuing any options other than DSM and other conservation measures. You have my personal commitment that conservation will always be our priority as a first line of defence against the infrastructure issues that we face. We have committed hundreds of millions of dollars to maintain and rebuild our distribution system in Toronto, and we will continue to supplement our capital expenditures by using all options available to us to meet demand growth through conservation.

Toronto Hydro Corporation has taken the lead on so many DSM initiatives. We have much more to do, and we are pushing forward aggressively. Please be assured that we will be looking to fully exploit DSM opportunities in the context of resolving the security of supply issue, and that we will be seeking your assistance in this regard.

Sincerely,

David S. O'Brien
President and Chief Executive Officer

\cb

Cc: The Honourable Dwight Duncan, Minister of Energy
Mayor David Miller
Peter Tabuns, MPP (Toronto-Danforth)
Dr. Jan Carr, Chief Executive Officer, Ontario Power Authority
Jack Gibbons, Chair, Ontario Clean Air Alliance
Laura Formusa, Acting President and CEO, Hydro One Inc.

Ontario Energy Board

Commission de l'énergie de l'Ontario

Ontario

12

26

EB-2007-0680

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 or fixing just and reasonable rates and other charges for the distribution of electricity to be effective May 1, 2008, May 1, 2009, and May 1, 2010.

BEFORE: Paul Sommerville
Presiding Member

Paul Vlahos
Member

David Balsillie
Member

DECISION

May 15, 2008

initiative in January 2008 to better understand this issue. In the Board's view it would not be appropriate for the Board to direct a different regulatory treatment for the Applicant than for the sector as a whole by eliminating the provision for a true-up. Moreover, while there is always room for improvement in this area, the Applicant's line losses do not appear to be excessive. The Board does not accept Pollution Probe's proposal and accepts the Company's provision for line losses at 3.1%.

5.3 Distributed Generation

Currently, virtually all of the electricity for Downtown Toronto is supplied through two transmission lines. Concern about ability to supply Downtown Toronto in the future has caused the OPA to consider a third line, at a capital cost of $600 Million.

Pollution Probe noted that neither the Government of Ontario nor Toronto Hydro support a third line. The solution, according to Pollution Probe, is more distributed generation ("DG").

Pollution Probe noted that 300MW of DG would eliminate the supply problem but acknowledged the Applicant's possible limitations as to the size of installation which could be accommodated on the Applicant's distribution system. Pollution Probe therefore proposed that the embedding of thirty 10MW generators within Toronto would be sufficient to avoid the third line.

Pollution Probe also contended that, along with distributed generation, CDM could further reduce the requirement for this additional supply. Pollution Probe compared the budgets for the CDM ($22Million) and Supply-Side Infrastructure ($906Million) programs, inferring a lack of strong commitment to CDM by the Applicant.

The Applicant asserted that the issue of whether or not there should be new transmission supply to Toronto is a transmission issue that should be addressed elsewhere, such as in the IPSP proceeding currently before the Board. It also suggested that issues concerning distributed generation, transmission and distribution cost responsibility and rate design are being reviewed by the Board at this time in other generic proceedings.

The Applicant contended that possible solutions examined include connections for DG and self-generation, but that these must make sense from engineering, economic and

regulatory perspectives. For example, DG customers are required to fully fund connections to the network since they do not currently pay distribution or use-of-system charges if they do not take load. This system protects load ratepayers from subsidizing the costs for distributed generators to connect to the Applicant's system.

Board Findings

Leaving aside the question of the need for the third transmission line, which the Board acknowledges is best addressed through other proceedings, including the IPSP application currently before the Board, the Board considers that the Applicant should facilitate connections for DG and self-generation, where they can be implemented practically and economically, both from the perspective of the generator and of the Applicant and its load customers.

With regard to conservation and demand management, it would be premature for the Board to comment on the specific suggestions made by Pollution Probe, as the IPSP proceeding has not yet been completed.

The Board observes that the Applicant's study of distributed generation has not been rigorous. Therefore, the Board directs the Applicant to conduct a study into the capability, costs and benefits of incorporating into the Applicant system, a significant (up to 300MW) component of bi-directional distributed generation in Toronto. In this study, the Applicant should also incorporate the outcomes, as they pertain to distributed generation, of two items which are currently being considered by the Board: 1) enabler lines and their connection costs; and 2) the IPSP. The study should also be responsive to any new policy or regulatory developments in these areas. This study shall be filed as part of the Company's next application dealing with rates beyond the test period dealt with in this proceeding.

29

Pollution Probe (PP) INTERROGATORY #1 List 1

Interrogatory

Issue 4.1: Are the proposed 2009 and 2010 Sustaining and Development and Operations capital expenditures appropriate, including suchfactors as system reliability and asset condition?

1. Does Hydro One's existing transmission infrastructure limit the installation of bi-. directional distributed generation (e.g., renewable energy and/or combined heat and power plants) in downtown Toronto? If so, please provide a qualitative and quantitative (i.e. in MW) description of these limitations.

Response

The amount of generation that can be accommodated in the area is constrained by the short circuit rating of 115kV equipment of the Leaside TS and Hearn SS in the east and Manby TS in the west.

The Ontario Power Authority has provided a transmission constraints matrix that specifies the maximum amount of generation that can be connected at different locations on the system as part of the CHP-2 RFP for additional generation. This limits new generation to 70 MW in the Manby area and 20MW in the Leaside area (which includes Hearn). These limits apply to all new generation with the exception of micro (i.e., < 10 kW) solar.

Pollution Probe (PP) INTERROGATORY #2 List 1

Interrogatory

Issue 4.1: Are the proposed 2009 and 2010 Sustaining and Development and Operations capital expenditures appropriate, including such factors as system reliability and asset condition?

2. Please describe Hydro One's proposed activities and budgets in 2009 and 2010 to remove transmission constraints with respect to the installation of distributed generation in downtown Toronto.

Response

For 2009-2010, Hydro One will be carrying out project development work associated with identifying the feasibility and scope of work required to upgrade the short circuit rating of Manby TS, Leaside TS and Hearn TS, which will mitigate the constraints to the installation of distributed generation in downtown Toronto.

A total of $450K is budgeted for development work regarding Manby and Leaside over the next two years. The estimate for the work at Hearn is currently being developed, but this work is expected to be done during the 2009-2010 time frame and will be accommodated within approved budgets.

Pollution Probe (PP) INTERROGATORY #3 List 1

Interrogatory

Issue 4.1: Are the proposed 2009 and 2010 Sustaining and Development and Operations capital expenditures appropriate, including such factors as system reliability and asset condition?

3. Will Hydro One's transmission system be capable of accepting up to 300 MW of new bi-directional distributed generation in downtown Toronto by December 31, 2010? If not, please explain why not, and please also state how many MW of new bi-directional distributed generation in downtown Toronto your system will instead be able to accept by December 31, 2010. When answering this interrogatory, please exclude the Portlands Energy Centre from your definition of "new bi-directional distributed generation".

Response

No, we do not expect Hydro One's transmission system to be capable of accepting 300MW of new generation in downtown Toronto by December 2010. Please refer to Interrogatory Exhibit I, Tab 5, Schedule 1.

The feasibility determination and development work to be done during 2009-2010 will provide timing and scope of the uprating work required for Leaside TS, Manby TS and Hearn TS. Please refer to Interrogatory Exhibit I, Tab 5, Schedule 2.

No new generation can be incorporated until such time as the uprating work is complete, other than that specified in Interrogatory I, Tab 5, Schedule 1.

Pollution Probe (PP) INTERROGATORY #4 List 1

Interrogatory

Issue 4.1: Are the proposed 2009 and 2010 Sustaining and Development and Operations capital expenditures appropriate, including such factors as system reliability and asset condition?

4. If Hydro One's transmission system will not be capable of accepting up to 300 MW of new bi-directional distributed generation in downtown Toronto by December 31, 2010, please fully describe the incremental measures that would need to be implemented to achieve this goal. For each measure, please state its cost and the number of additional MW of distributed generation that it would permit in downtown Toronto.

Response

Depending on the outcome of the feasibility determination and development work indicated in response to Interrogatory Exhibit I, Tab 5, Schedule 2, and once the uprating work is complete, it is expected that it will be possible to incorporate 300 MW of Distributed generation in the downtown Toronto. The detailed estimates for this work, and the MWs that will be enabled, will be prepared as part of the development work during 2009 and 2010.

Ontario Power Authority

REQUEST FOR PROPOSALS FOR APPROXIMATELY 500 MW OF COMBINED HEAT AND POWER GENERATION IN ONTARIO ("CHP II RFP")

Request for Proposals No.: CHP II-2007

RFP Issued: May 16, 2008

Amended June 6, 2008

Further Amended on August 14, 2008; August 20, 2008, October 2, 2008, October 8, 2008, November 7, 2008 and December 17, 2008

TABLE OF CONTENTS

PAGE

The Discount Factor for the Proposal will be calculated as the product of the point score awarded in Stage 3 and a scaling factor of .0025. As a result, Proposals receiving higher point scores in Stage 3 will be given a higher Discount Factor.

3.5. Stage 5 – Selection of Contract Facilities

The ultimate stage of the Evaluation Process will select Proposals based on transmission limits (Section 3.5.1 and on Evaluated Cost and Adjusted Evaluated Cost (Sections 3.5.2 – 3.5.4).

3.5.1. Application of Restricted Circuit, Zone and Area Screens

Proposals will first be screened based on their proposed Connection Point to account for transmission limitations within Restricted Circuits, Zones and Areas as set out in Appendix Q.

Screening based on transmission limits is applied to recognize that the fact the available transmission and capacity on the existing Transmission Systems is limited in certain parts of the Province. The transmission limit screening process, will select Proposals which have the lowest Adjusted Evaluated Costs and which, in the aggregate, have Contract Capacities that do not exceed the applicable transmission limits, providing a reasonable assurance that significant Transmission System upgrade costs will be avoided.

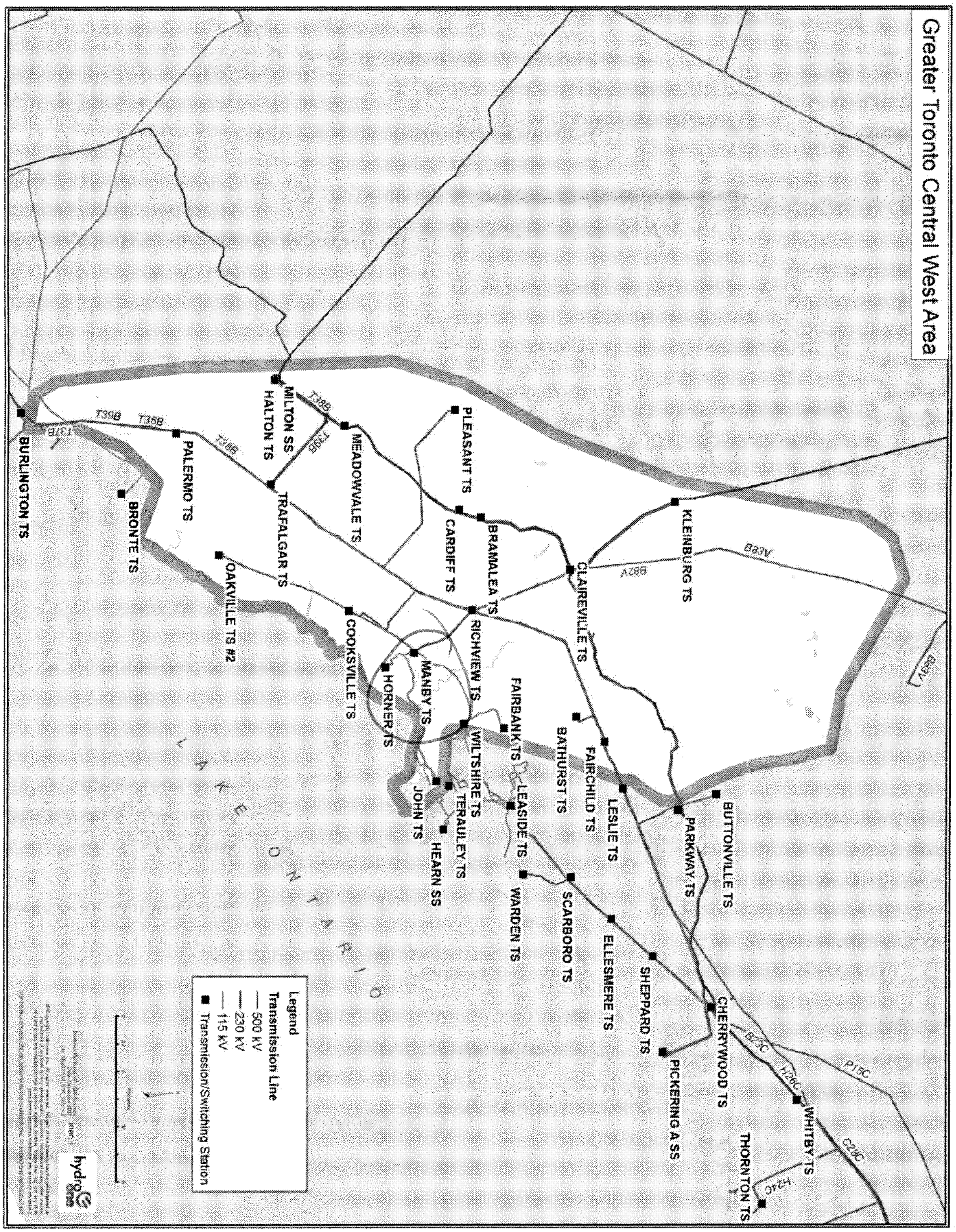
Restricted Circuit Limits, Zone Limits and Area Limits are only estimates and should not be relied upon by Proponents as being definitive of the actual transmission restrictions and limits that may in fact be applicable to any project or Proposal. Restricted Circuit Limits, Zone Limits and Area Limits are only for evaluation purposes pursuant to this CHP II RFP. Proponents should check with the IESO, Transmitter or LDC, as applicable, to determine any specific technical requirements (including specific transmission restrictions) applicable as part of the normal generation connection process.

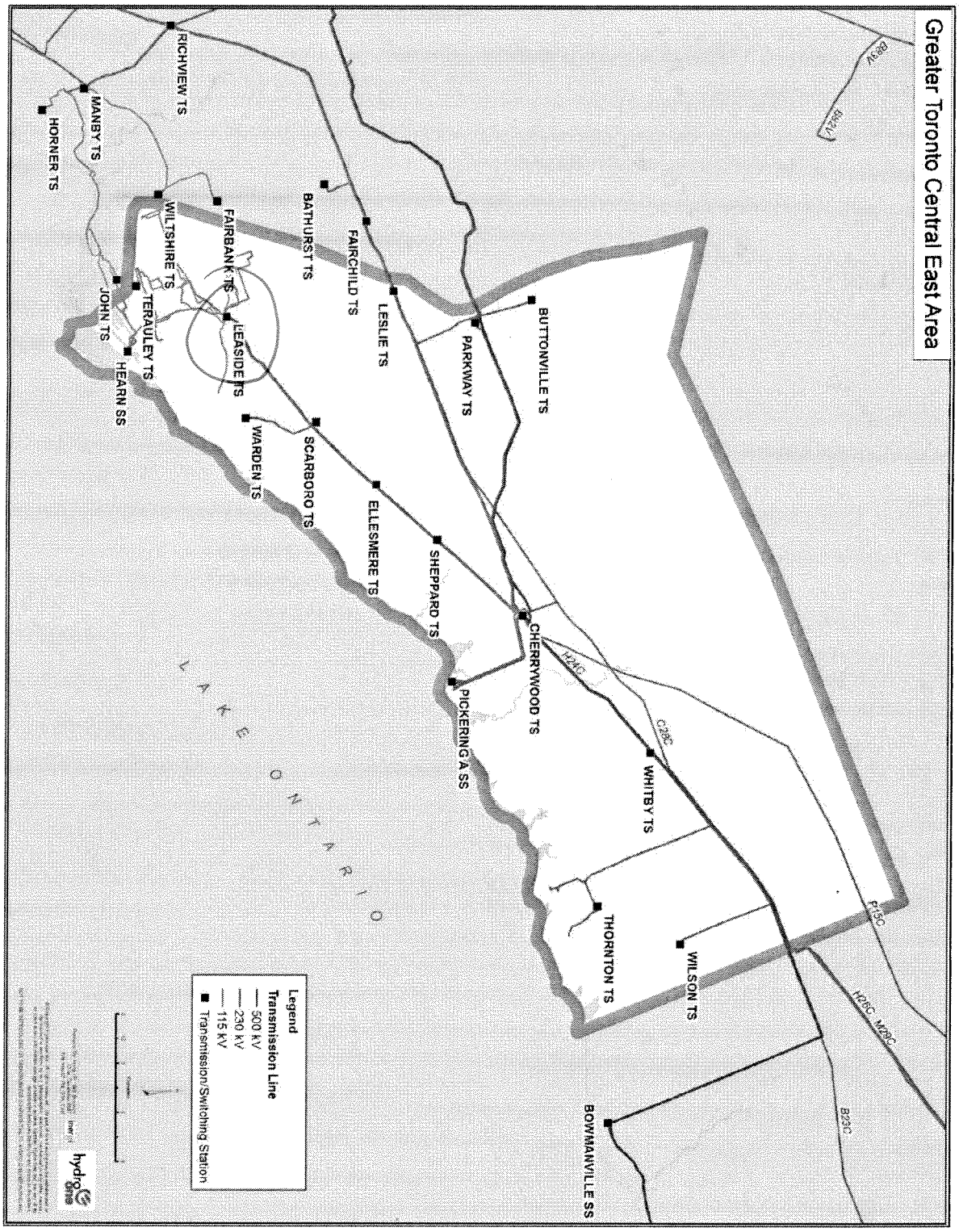
(1) Application of the Circuit Screen

Proposals with Connection Points located within a Restricted Circuit will be subject to an initial screening. The Restricted Circuits and their respective Restricted Circuit Limits are designated in

Areas	Zones	Definition
Niagara		Beck 2 TS, Beck 1 SS, Allanburg TS, Decew Falls SS 230 kV circuits from Beck 2 TS to Beach TS up to Hannon Jct. 230 kV circuits from Beck 2 TS to Burlington TS up to Hannon Jct. 230 kV circuits from Beck 2 TS to Allanburg TS 230 kV circuits from Allanburg TS to Middleport TS All 115 kV circuits connected from Allanburg TS, Beck 1 SS and Decew Falls SS
West of London		All transmission facilities west of Buchanan TS, including the following circuits connected to Buchanan TS: 230 kV circuits: W42L, W43L, W44LC, W45LC, W36, W37, N21W, N22W. All 115 kV circuits connected to Buchanan TS, as well as circuit B8W, T11T, WT1A.
	Sarnia-Lambton	230 kV circuits: Scott TS to Buchanan TS Lambton TS to Longwood TS Lambton TS to Chatham SS Lambton TS to Greenfield SS N6S, N7S All 115 kV circuits connected to Scott TS, including N5K to Wallaceburg TS, including Wallaceburg TS and circuit S2N.
Greater Toronto Central West		All 230 kV circuits connected to the following stations: Trafalgar TS, Richview SS, Cooksville SS, Manby East TS and Manby West TS, Claireville TS, Parkway TS, Cherrywood TS (west of the municipality of Clarington) Manby 115 kV system

Areas	Zones	Definition
	Manby 115 kV system	The 115 kV systems supplied from Manby East TS and Manby West TS.
Greater Toronto Central East		All 230 kV circuits connected to the following stations: Parkway TS and Cherrywood TS (west of the municipality of Clarington) The Leaside 115 kV system Leaside x Cherrywood 230 kV system
	Leaside 115kV system	All 115 kV circuits connected to Leaside TS
	Leaside x Cherrywood 230 kV system	All 230 kV circuits connected to Cherrywood TS and Leaside TS including tapped stations
Eastern		All circuits and stations south of the normally open switch at Pembroke TS and east to the western border of the municipality of Clarington. Excludes the 230 kV circuits connecting Des Joachims TS and Minden TS, and those running southeast from Minden TS are not included. (please refer to the area map)
	Hawthorne 115 kV system	Hawthorne 115 kV TS and circuits A8RM, A3RM, A4K, A6R, A5RK, 79M1, H9A, A2


Greater Toronto Central West Area
BURLINGTON TS
BRONTE TS
PALERMO TS
OAKVILLE TS #2
TRAFALGAR TS
MILTON SS
HALTON TS
MEADOWVALE TS
COOKSVILLE TS
PLEASANT TS
CARDIFF TS
BRAMALEA TS
RICHVIEW TS
MANBY TS
HORNER TS
CLAIREVILLE TS
KLEINBURG TS
FAIRBANK TS
WILTSHIRE TS
JOHN TS
TERAULEY TS
HEARN SS
BATHURST TS
FAIRCHILD TS
LEASIDE TS
LESLIE TS
BUTTONVILLE TS
PARKWAY TS
WARDEN TS
SCARBORO TS
ELLESMERE TS
SHEPPARD TS
PICKERING A SS
CHERRYWOOD TS
WHITBY TS
THORNTON TS
T37B
T39B
T36B
T38B
B82V
B83V
B88V
B23C
H26C
P15C
C28C
H24C
LAKE ONTARIO
Legend
Transmission Line
500 kV
230 kV
115 kV
Transmission/Switching Station
hydro one


Greater Toronto Central East Area
RICHVIEW TS
MANBY TS
HORNER TS
WILTSHIRE TS
FAIRBANK TS
JOHN TS
TERAULEY TS
HEARN SS
LEASIDE TS
BATHURST TS
FAIRCHILD TS
LESLIE TS
WARDEN TS
SCARBORO TS
ELLESMERE TS
PARKWAY TS
BUTTONVILLE TS
SHEPPARD TS
CHERRYWOOD TS
PICKERING A SS
WHITBY TS
THORNTON TS
WILSON TS
BOWMANVILLE SS
B15C
H26C
M29C
B23C
C28C
H24C
L
A
K
E
O
N
T
A
R
I
O
Legend
Transmission Line
500 kV
230 kV
115 kV
Transmission/Switching Station
hydro one

Areas	Area limit (MW)	Zones	Zone Limit (MW)	Circuits	Limit per Circuit (MW) unless indicated otherwise	Multiple Circuits in Common Corridor
				115 kV circuits: W3T, T11T	0	Yes: W3T & W4T
				115 kV circuits: W4T, T11T	0	
Greater Toronto Central West	500	Manby West 115kV system	70 (80 MVA)	115kV: Manby West to Strachan TS sections of K13J, K14J, H2JK, K6J	0	
				115kV: Strachan TS to John TS sections of K13J, K14J, H2JK, K6J	35 (40 MVA)	Yes: K13J, K14J, H21J & K6J
				H9EJ and H10EJ (new John TS to Esplanade TS cable circuits)	35 (40 MVA)	Yes: H9EJ, H10EJ
		Manby East 115 kV system	0			
		Remainder of the area	circuit limited	All 230kV circuits: B15C, B16C	200	Yes
				230kV circuits: K21C, K23C	150	Yes
				230kV circuits: R14T, R17T,R19T, R21T (Trafalgar TS x Hanlan Jct. x Pleasant TS)	0	
				Any 230kV circuits: R2K (Richview x Vansco Jct.), R15K (Richview x Vansco Jct.), R24C	0	
Greater Toronto Central East	500	Leaside 115kV system	20	Any 115kV circuits: L12C, H8LC, H6LC, L9C, L12C, L4C, H5E, H7E, L13W, L14W, L15W, C5E, C7E	0	

Areas	Area limit (MW)	Zones	Zone Limit (MW)	Circuits	Limit per Circuit (MW) unless indicated otherwise	Multiple Circuits in Common Corridor
		Leaside x Cherrywood 230 kV system	50			
		Remainder of the area	circuit limited	All 230kV circuits: H24C, H26C Columbus Jct. to Oshawa Area Jct.	250	Yes
				All 230kV circuits: M29C, B23C east of Whitby TS tap to Oshawa Area Jct.	200	Yes
				230 kV circuit: C28C	50	
Eastern	235	**Hawthorne 115 kV system**	20			
		Remainder of the area	circuit limited	230 kV Circuits: B5D, D5A	50	
				Additional restriction on Hawthorne 115 kV system and B5D, D5A	50 (sum of all)	
				230kV Circuits: L24A, B31L	0	
				230kV Circuits: X1H, X2H, X3H, X4H, X21, X22	235 (sum of 6 circuits)	Yes: X1H, X2H, X3H & X4H and X21 & X22
				Hinchinbrooke - St. Lawrence 230kV circuits: L20H, L21H, L22H (Brockville tap and west)	0 (sum of 3 circuits)	Yes
				Hinchinbrooke - St. Lawrence 230kV circuits: L20H, L21H, L22H (East of Brockville tap)	0	
				230 kV circuits: M32S, C3S	0 (sum of both	