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File No.

13 December 2007

Sent Via E-Mail: Boardsec@oeb.on.ca

Hard copies to follow by mail

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
Suite 2700
Toronto, Ontario M4P 1E4

Dear Ms. Walli:

**Re: EB-2007-0707 - Ontario Power Authority – Application for Approval
of the Integrated Power System Plan and Procurement Processes
- City of Toronto Submission on the OPA’s Draft Issues List**

Further to the City of Toronto’s letter of November 13, 2007, please find enclosed the City’s submission on the Ontario Power Authority draft Issues List.

This will confirm that City Council, at its meeting held December 12, 2007, ratified the steps taken in the City’s letter of November 13, 2007, to obtain Intervenor Status in this Application.

In accordance with Procedural Order No. 1, this is to confirm that the City intends to make oral submissions at the Issues Proceeding.

Kindly ensure that any communications with respect to this proceeding are directed to my attention.

I appreciate your assistance in this matter.

Very truly yours,

(original signed by)

Michael A. Smith

Michael A. Smith

Solicitor

City of Toronto

Copies: Mayor David Miller
Bruce Bowes, Chief Corporate Officer
Richard Butts, Deputy City Manager
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December 13, 2007

Sent Via E-Mail: Boardsec@oeb.on.ca

Ms. Kirsten Walli
Board Secretary
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27th Floor
Toronto, ON M4P 1E4

Dear Ms Walli:

Re: EB-2007-0707 - Ontario Power Authority – Application for Approval of the Integrated Power System Plan and Procurement Processes City of Toronto Submission on OPA’s Draft Issues List

The City of Toronto supports the initiative by the Government of Ontario and the Ontario Power Authority (the “OPA”) to develop an Integrated Power System Plan (the “IPSP”) for Ontario. We are encouraged by the inclusion of conservation targets and procuring the supply of energy from renewable sources.

The City of Toronto comments regarding the IPSP and the OPA draft issues list will focus on:

- whether the plan meets the objectives of the Minister of Energy’s direction (section 25.30 of the Electricity Act);
- the City of Toronto third transmission line option (Exhibit E Tab 5 Schedule 5);
- conservation demand management and distributed generation; and
- the need for on-going consultation.

Ministerial Direction

Subsection 25.30(1) (a) of the Electricity Act requires an integrated power system plan: “(a) that is designed to assist through effective management of electricity supply, transmission, capacity and demand, the achievement by the Government of Ontario of, (i) its goals relating to the adequacy and reliability of electricity supply, including electricity supply from alternative energy sources and renewable energy sources, and (ii) its goals relating to demand management”.

The City of Toronto believes the IPSP plan does not address the reliability of supply and the ability to connect energy generated from distributed generation and renewable sources, to the extent it needs to be addressed in Central and Downtown Toronto. Further, Toronto City Council has taken the following position during its meeting of December 12th by adopting the following motion:

“Toronto City Council request the Provincial Government and the Ontario Power Authority to undertake an aggressive approach to conservation demand management, with investment commensurate with energy supply allocations.”

Section 1(6) of the OPA’s proposed draft issues list raises questions about whether the IPSP plan, strengthens the transmission system to:

- Enable the achievement of the supply mix goals set out in the Supply Mix Directive;
- Facilitate the development and use of renewable energy resources such as wind power, hydroelectric power and biomass in parts of the province where the most significant development opportunities exist;
- Promote system efficiency and congestion reduction and facilitate the integration of new supply, all in a manner consistent with the need to cost effectively maintain system reliability.

The City of Toronto agrees that these are important issues but believes that the IPSP has not adequately addressed them in Central and Downtown Toronto.

The City of Toronto is concerned that the OPA’s plan to strengthen the transmission system to address reliability of supply in Toronto do not sufficiently address alternatives and should be revised in a manner and with a scope that would more fully and directly:

- Promote system efficiency
- Promote system reliability in a cost-effective manner
- Reduce congestion over the long-term in a cost-effective manner
- Facilitate the integration of new distributed energy supply.

The limited scope of the proposed technical development proposed by the OPA to address reliability in Central and Downtown Toronto is not sufficiently inclusive as it does not incorporate other necessary considerations outlined below.

The City requests the OEB to consider if the recommended funding of development work to address alternative solutions to potential reliability issues in central and downtown Toronto, particularly engineering and technical studies to establish the scope of facilities and detailed costs for the third transmission line options, is economically prudent and cost effective considering the other Supply Mix Directive and IPSP Regulation requirements, particularly

- maintaining the ability to use natural gas capacity at peak times and pursuing applications that allow high efficiency and high value use of natural gas;
- giving consideration to the priorities and views of the City of Toronto, expressed in its established plans and policies discussed below, as required by the Integrated Power System Plan Regulation;
- enabling the achievement of the goals regarding conservation and load reduction, in accordance with the priority accorded by the Supply Mix Directive;
- facilitating the development of renewable energy resources within the City of Toronto;
- identifying and developing innovative strategies to accelerate the implementation of conservation, energy efficiency and demand management measures;
- identifying opportunities to use natural gas in high efficiency and high value applications in electricity generation.

Consultation

The IPSP Regulation (O.Reg. 424/04) requires the OPA to: “consult with consumers, distributors, generators, transmitters and other persons who have an interest in the electricity industry in order to ensure that their priorities and views are considered in the development of the plan”. However, at this stage, the OPA is not recommending solutions to address potential reliability needs for Toronto. Rather, the OPA recommends that development work be undertaken so that appropriate solutions are available to address reliability needs if they materialize in the mid-term. The OPA believes the cost of development work is a prudent expenditure necessary to permit effective decision making for complex and large capital cost projects in a period and environment of significant uncertainty. It is not evident that the OPA proposes to continue with stakeholder consultations through the course of this development work.

The City proposes that the OPA needs to assess the impact of the proposed development work on Toronto Hydro’s proposed distribution infrastructure renewal.

The City also proposes that the OPA assess the impact of the proposed development work regarding the third transmission line in terms of Toronto’s Official Plan policies.

Toronto's Official Plan contains numerous policies that support electricity demand reduction through energy efficient design, renewable energy generation and district-based heating and cooling within the context of its contemplated growth scenario. Policies of particular relevance include: 2.2-1 Structuring Growth in the City; 2.2.3-3 (cvii) Avenues; 2.3.1-5 Healthy Neighbourhoods; 3.4-1, 18, 20 and 22 The Natural Environment; 5.3.2-1 Implementation Plans and Strategies for City-Building; and 5.3.4-1 Leadership and Advocacy. In the long run, the implementation of these policies will help to lower Toronto's electricity demands. The implications of an increased energy supply proposed by the OPA should be evaluated in the context of the reduced energy future that is contemplated by the Official Plan.

Several of the preliminary route proposals fall within areas designated as "Utility Corridors" in Toronto's Official Plan which include hydro and rail corridors. Hydro corridors are used primarily for the transmission of energy, and may also be used for a range of secondary uses such as parks,

pedestrian and bicycle trails, agriculture, parking lots, open storage, essential public services, stormwater management ponds, public transit facilities and garden centres with temporary buildings. In 2003 at the request of the Province, the City undertook a study to identify future municipal secondary uses, such as parklands, bike trails, transit stations and potential high order transit routes for the provincially-owned hydro corridors. The Hydro Corridors Planned Public Uses Study was approved by City Council in 2005 for submission to the Province, where it is currently under review.

In addition, City Planning staff are routinely involved in development approvals related to secondary uses within transmission corridors. It is important that City Planning staff maintain an awareness of transmission options under consideration, so that potential constraints on secondary uses within the corridors are understood.

There are several areas where the proposed route for a new high voltage transmission line could have impacts on future high order transit as identified in Map 4 of the Official Plan and on designated Natural Areas:

The corridor south of McNicoll Ave between Kennedy Ave and Victoria Park Ave. is identified in the Toronto Official Plan, Map 4, as a priority segment for the expansion of higher order transit. It would be important to ensure that any new high voltage transmission line accommodates the opportunity to implement future transit routes.

Any proposed route for the above ground transmission line should also address the Natural Areas designation. The Don Valley south of Eglinton to the Waterfront is designated as a Natural Area in the Official Plan, Maps 20 and 21. On lands identified as hydro corridors on Maps 13-23, hydro uses will have primacy of use, while Natural Areas are to be maintained in a natural state, allowing for utilities only where 'no reasonable alternatives are available' and where the utilities are 'designed to have only minimal adverse impacts on natural features and functions.' The addition of new high voltage transmission lines could create additional hazards for Toronto's natural heritage, in particular migratory bird populations. Below ground options may also have implications for the Natural Areas.

Along Commissioners Street in the Portlands on Toronto's waterfront Map 4 of the Official Plan identifies this corridor as a priority segment for the expansion of higher order transit. Additionally, the lands adjacent to this corridor are expected to undergo significant intensification as the Waterfront area develops. A number of Secondary Planning exercises have been undertaken for this area. A new high voltage transmission line should be evaluated in that context.

For any proposed right-of-way on City streets where the wires are not buried, numerous issues will need to be considered related to improving and protecting the quality of the public realm. There may also be potential visual impacts or servicing impacts on adjacent development projects of new transmission towers and lines that will require careful analysis by the City.

The importance of addressing local issues and concerns has been underscored by Toronto City Council, which adopted the following motion during its meeting on December 12, 2007:

1. Whatever supply option is pursued in the City of Toronto by the Ontario Power Authority through the Ontario Energy Board (OEB) Hearing process, an effective community consultation program be developed and implemented in areas affected by the new generation and/or transmission options pursued.
2. Studies of the various options to be pursued should be done in consultation with all the affected parties, including residents, business, the local energy utilities and the City of Toronto, with the cost of any necessary professional and technical services identified funded by the Ontario Power Authority or other provincial/electricity ratepayer sources.
3. Subject to consideration of the priorities of the Supply Mix Directive, and a recognition that the supply mix priorities may be unique for Toronto in a provincial context, the Ontario Power Authority be encouraged to explore options contained in the Integrated Power System Plan (IPSP), which would strengthen the transmission system supplying central and downtown Toronto without undue impact on Toronto residents, communities and businesses.

A preliminary list of areas of concerns specific to the City, by way of example, are:

- Impact on Forestry, including removal, injury or disfiguring of trees to establish new transmission corridors;
- Potential environmental damage of transmission infrastructure to land holdings, including parks, ravine lands, open space system (City-owned and Toronto & Region Conservation Authority owned lands) and associated facilities;
- Herbicide application to control vegetation growth;
- Cost of relocating City facilities; and
- Health concerns, which are discussed below.

We therefore request that the IPSP adopt the establishment of a community consultation program based on the concerns and program components cited above and that the OEB provide corresponding direction to the OPA through amendment of the IPSP.

Concerns over Health Impacts

The City of Toronto wishes the OEB to consider health impacts of the third transmission line.

Toronto Public Health has reviewed the current information on health effects of exposure to electromagnetic fields (EMFs). Studies have shown a link between EMFs and the development of leukemia in children. Overall levels of EMFs in and right next to hydro corridors can be higher than ambient indoor and outdoor levels in other parts of the city. In 1993, based on the evidence then available, the former City of Toronto adopted a policy of prudent avoidance, which encouraged limiting exposure to EMFs in public spaces where practical and feasible at little or no cost. In 2002, the International Agency for Research on Cancer (“IARC”) published its review on the potential for EMFs to cause cancer. Based on this review IARC classified extremely-low frequency magnetic fields as a possible carcinogen.

Intervention levels are found within 20 metres of a 115 kV line; 40 metres from 230kV line; and 55 metres from 500 kV line. Properties containing sensitive land-uses, defined as residences, schools, daycares or recreation facilities, cause the greatest concern with respect to increased exposure to higher levels of EMF's. Given the built-up nature of the City, any new above ground transmission line running through the City will likely subject many additional properties to increased exposure of EMF's.

The City requests the OEB consider whether the IPSP adequately takes into account the policies and programs of municipalities in the achievement of the Supply Mix Directives concerning conservation and renewable resources.

City of Toronto's Climate Change, Clean Air and Sustainable Energy Action Plan

In particular, the City is concerned that the IPSP recommendations regarding near term development work to address reliability in Toronto incorporate or take into account City initiatives and planning. The City of Toronto's Climate Change, Clean Air and Sustainable Energy Action Plan contains numerous policies and programs that support significant electricity demand reduction through energy efficient design, renewable energy generation and district-based heating and cooling.

In July 2007, Council adopted the City of Toronto's Climate Change, Clean Air and Sustainable Energy Action Plan (the "Plan"), establishing the following reduction targets for greenhouse gas and smog emissions;

- 6% by 2012 (the Kyoto target)
- 30% by 2020
- 80% by 2050

Vision:

Toronto will become a world leader in the sustainable use of energy from local, clean and renewable sources. It will strive to achieve energy self-sufficiency.

Goals:

- To ensure that Toronto's energy supply becomes and remains environmentally sustainable, safe, secure and affordable.

Objectives:

- Maximize energy efficiency in Toronto's buildings and infrastructure
- Become a leader in renewable and clean energy sources
- Develop local sources of energy generation and distribution
- Turn Toronto's sustainable energy advantage into an economic advantage.

Achieving energy sustainability is an essential element in meeting the City's goals regarding climate change and improved air quality. Energy sustainability will also assist in ensuring a reliable supply of energy, in reducing long-term energy costs, and in reducing the outflow of

energy dollars from the local economy. Programs that improve the energy efficiency of existing building stock, such as Toronto's high-rise residential buildings, can also help to leverage additional benefits, including increased recycling and water efficiency. Ensuring that new buildings such as office towers are constructed to be as energy-efficient as possible can increase building value, improve indoor air quality, and increase employee productivity.

The Plan envisions that by 2030 Toronto's energy consumption has been reduced by 21% (31% on a per capita basis). The plan anticipates that local renewable energy resources, while only accounting for 5% of the total energy supply, are on a solid footing by 2030 and will have the local capacity to contribute dramatically more to the energy supply in the period of 2030 to 2050.

The City uses a neighbourhood-based approach to land use planning. The City's plan proposes planning energy systems on the same basis. When energy issues are reviewed on a building-by-building level, significant opportunities to make our energy use more sustainable can be missed. At the same time, a macro-level energy system (large, centralized energy generation along with an extensive transmission and distribution network), which is how energy has historically been dealt with in Ontario, does not lend itself to local energy planning.

The City has begun a long-term process of moving towards an energy system that encourages local, clean and renewable energy generation; pursues community-based solutions to energy efficiency challenges, and is integrated with other City planning processes.

Toronto has huge renewable energy resources that have generally been left untapped. Local renewable energy sources currently supplies less than 0.6% of Toronto's energy needs with the major sources being Deep Lake Water Cooling and energy produced from capturing methane released in the waste streams. Toronto's Climate Change, Clean Air and Sustainable Energy Plan recommends a number of early actions, and longer-term suggestions, which can quickly make Toronto Canada's renewable energy leader.

Summary

Based upon the foregoing, the City of Toronto proposes the following issues be added to the Issues List:

- a. Do the OPA's implementation priorities as set out at Ex. B-1-1 p. 2 (the IPSP) comply with Supply Mix Directive priorities and the legislation?
- b. Are there preferable implementation priorities that would comply with the Supply Mix Directive priorities and the legislation?
- c. Has OPA's planning approach adequately weighed and evaluated health, safety, planning and environmental impacts and risks and considered environmental sustainability appropriately and applied these in its plan development?
- d. Does the IPSP apply the correct standard for economic prudence and cost effectiveness?
- e. Does the IPSP regulation require on-going consultation regarding recommendations in the IPSP for further development work regarding competing alternative ways to meet the requirements of the Supply Mix Directive?

- f. Does the IPSP Regulation consultation requirement extend to residents, business, local energy utilities and municipalities?
- g. How will the regulatory approvals for non-Near-Term matters identified in IPSP be addressed in future? Will possible streamlining of approvals foreclose the normal course review and public interest considerations for matters such as leave-to-construct applications?
- h. The OEB *Report on the Review and Filing Guidelines for the IPSP* and the OPA *Scope of OEB Review and Effect of Approved Plan* seem to take different approaches to this proceeding; the former more broad, and the latter more narrow. How will the Board determine which approach should be used to determine the scope of the review and content of the IPSP, as well as the parameters of the terms "economically prudent" and "cost effective"?

Ontario Cities are in the position to shape Ontario energy use and greenhouse gas reduction. It is the City's belief that energy conservation, efficiency and renewable energy sources provide the most sustainable alternatives for meeting future energy needs, for reducing greenhouse gas emissions and for ensuring public health.

The City of Toronto is in support of the overall IPSP that is before the OEB however we do have issues with whether the IPSP properly recognizes and implements the relative priorities of the Supply Mix Directive and takes into account local priorities, plans and initiatives. It is important for our community that local issues and concerns be heard and responded to as an important component of the planning process. To this end, based on our Council's direction, we are seeking the inclusion in the IPSP of an effective community consultation program for areas affected by new generation and /or transmission options, including local energy utilities and the City of Toronto, funded by the OPA.

Sincerely,



Richard Butts
Deputy City Manager
City of Toronto

Copies:

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Shirley Hoy, Toronto City Manager
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