April 12, 2010

FOR INFORMATION

**To:** The Board of Governors of Exhibition Place

**From:** Dianne Young

Chief Executive Officer

Subject: Green Energy and Green Economy Act and Ontario Power Authority

Feed-In-Tariff Program related to "Campuses"

## **Summary:**

In 2004, the Board approved an Environmental Plan with an objective to reach 100% net energy self-sufficiency by December 31, 2010. Subsequently, an energy study determined that meeting this goal would require the construction of approximately 2.0 Megawatts of rooftop photovoltaic (PV) plants. A demonstration PV plant (100 kW) was constructed on the Horse Palace roof in 2006. One of the "lessons learned" from the Horse Palace project was that Exhibition Place would never be able to fund the construction of additional PV plants from its state-of-good-repair capital budget which is already extremely underfunded given the nature of our site. Therefore, in order to reach its target of 2.0 Megawatts of PV, Exhibition Place would have to forge partnerships with third parties (eg. TREC, Toronto Hydro, private sector companies) allowing these third parties to lease roof space and in turn, the third parties would construct the PV plants at their cost.

The Horse Palace PV project was accepted into the Ontario Power Authority (OPA) Standard Offer Program – Renewable Energy (RESOP) as of December 2007 and has been receiving 42 cents per kilowatt since that time. In 2008, the Province launched a review of the RESOP program and no further RESOP applications were accepted. This review resulted in a new renewable energy program under the *Green Energy and Green Economy Act*, 2009 and the Feed-In-Tariff (FIT) regulations in September 2009.

While the suspension of the RESOP program delayed Exhibition Place from moving forward with the construction of new PV plants, Exhibition Place staff took this opportunity to "ready" our facilities for PV plants. For example, in 2008/09 Exhibition Place reroofed the Better Living Centre (BLC) and also increased the roof load at a cost of approximately \$1.5M.

Generally, the FIT program is very positive for the promotion of PV production. However, in November 2009, the province introduced a "one project per property" regulation that negative implications for campus sites such as Exhibition Place. The

regulation, which was never part of the RESOP criteria, is detrimental to our commitment to build 2 Megawatts of PV plants on the site, as it treats buildings on campuses different than similarly sized buildings not on campuses. The impact of the regulation on Exhibition Place will be to reduce the price paid for electricity generated by PV to a level which renders the installation of more than 500 kilowatts uneconomic.

## Financial Implications

The FIT rules relating to "campuses" will have negative financial consequences for Exhibition Place and other public sector campuses. As an example, to qualify for the payment of 61 cents per kilowatt Exhibition Place could only build one project of 500 kW or less on the site which is equivalent to the size of the proposed BLC installation.

#### **Decision History:**

In 2004, the Board approved of an Environmental Plan that had as one of its goals net electrical energy self-sufficiency by December 31, 2010. Subsequently, an energy study determined that meeting this goal would require the construction of approximately 2.0 Megawatts of rooftop photovoltaic (PV) plants.

At its meeting of December 4, 2009, the Board approved of an agreement with Toronto Hydro Energy Services Inc. (THESI) to build and manage, at the sole cost of THESI, a PV power installation of at least 500 kW on the roof of the Better Living Centre (BLC). This agreement between the Board and THESI was ultimately approved by City Council at its meeting in January 2010.

As part of the 2009 Strategic Plan, the Board approved of an Environmental Goal to Exemplify and demonstrate environmental stewardship and leadership in all aspects of our businesses and operations.

#### <u>Issue Background:</u>

As a Strategic Plan Objective, Exhibition Place staff are to Actively promote the reduction of grid-supplied electric energy use and Proactively demonstrate environmental stewardship, in general and specifically innovative "green" technologies.

In 2006, Exhibition Place completed the first phase of the 2.0 Megawatt PV plant with the construction of 100 kW on the Horse Palace. One of the "lessons learned" from the Horse Palace project was that Exhibition Place would never be able to fund the construction of additional PV plants from its state-of-good-repair capital budget which is already extremely underfunded given the nature of our site. Therefore, in order to reach its target, Exhibition Place would have to forge partnerships with third parties (eg. TREC, Toronto Hydro, private sector companies) allowing these third parties to lease roof space and in turn, the third parties would construct the PV plants at their cost.

#### Comments:

The Horse Palace PV project was accepted into the RESOP program and Exhibition Place has been receiving 42 cents per kilowatt produced since 2007. In 2008, the Province launched a review of the RESOP program and no further RESOP applications were accepted. This review resulted in a new renewable energy program under the *Green Energy and Green Economy Act*, 2009 and the Feed-In-Tariff (FIT) regulations in September 2009.

While the suspension of the RESOP program delayed Exhibition Place from moving forward with the construction of new PV plants, Exhibition Place staff took this opportunity to "ready" our facilities for PV plants. For example, in 2008/09 Exhibition Place reroofed the Better Living Centre and also increased the roof load at a cost of approximately \$1.5M.

Generally, the FIT program is extremely positive for the construction of PV installations however, in November 2009, the province introduced a regulation that addresses "campus" sites such as Exhibition Place which was never part of the RESOP criteria and is detrimental to our commitment to build 2.0 Megawatts of PV plants across several roofs of our 22 buildings through the formation of partnerships with third party companies.

The particular term of the FIT Rules that are problematic are found in Section 2.1(c) which sets out the "one project per property" rule for applications and its effect on "campus" situations such as found at Exhibition Place which are considered to be "one property".

Section 2.1(c) - "with respect to solar PV projects, only one rooftop facility shall be permitted on any single property. For greater certainty, a single rooftop facility may have generating equipment located on multiple buildings on a single property so long as the total capacity of the generating equipment located on the property is reflected in a single application and shares a common connection point."

The rule was introduced to address the harm resulting from possible "gaming" of the FIT financial system which has higher payments for smaller installation. For example, without this definition a shopping mall could build 10 kW PV installations on the roofs of each leased space and for each of these applications could earn 80.2 cents per kilowatt rather than the lower price that would be paid by OPA based on one application dealing with the accumulated total of all the PV installed on the roof (ie 63 cents or 53 cents per kW). However, the unfortunate consequences is that large pieces of property containing multiple large buildings such as campuses or municipal properties are detrimentally affected as stated below.

Staff of Exhibition Place and the City of Toronto have met with representatives of the Ministry of Energy and the OPA to outline for them the issues resulting from these terms which are as follows:

- Section 2.1(c) makes it impossible to have incremental projects in campus settings. Once a rooftop PV project is constructed on a property under a FIT contract, no additional rooftop PV project expansions can be permitted as they would require separate Applications.
- OPA have now issued a clarification to indicate that it would be possible in the initial Project Application to speak to PV installations on various roofs; however, to do this the application would need to have the full details of each of the PV installations pursuant to section 3.1(d) of the FIT Rules; all installations would have to be completed within three years following the contract date in accordance with FIT and the price that would be paid by the OPA would be equivalent to the total capacity to be built out. For example, in the negotiations with THESI for the BLC, THESI had committed to building at least 500 kW and has made this commitment on the basis of its financial feasibility study that it would be paid 63 cents per kilowatt. However, if the Exhibition Place final intent is to build a total capacity of 2.0 Megawatt with the BLC roof installation being only part then our Application would need to be for the total and all phases would only be paid the lower price set for the total capacity (ie a overall plant totaling 2.0 Megawatt), in other words 53 cents per kilowatt.
- Exhibition Place has at least 22 separate building structures. Some of these structures are almost 100 years old with 25 year roofs while others are only 12 years old. There will never be a moment in time when Exhibition Place will be able to make one application for all the roofs on the campus with all the particulars (and then complete the projects within a 3-year timeframe) because there will never be any time when all the roofs have been replaced and are structurally ready to proceed at once.
- Large assembly buildings on campuses like Exhibition Place are being treated differently than similar size buildings in other settings. For example, a "big box" retail chain can make multiple applications for each of its stores and "right size" its PV array per store, but campus buildings cannot do this same feasibility planning simply because all our buildings are located on one campus site. Yet the size of the buildings at Exhibition Place are equivalent (ie Better Living Centre roof is 16,972 sq. meters)
- The FIT rules are forcing Exhibition Place just to do a "quick" one off application to include only one roof that is ready and not develop any further PV on any other roof in the future or just sit back and wait to see if the FIT rules are revised for campuses during the review process in 2012.

At our meeting with the Ministry and OPA, staff suggested that the Province introduce a new rule as follows:

For the purposes of Section 2.1 (a) (IV), 2.1(b), and 2.1(c), Projects and Facilities shall not be considered to be on a single property, if such Projects or Facilities are situated on municipally owned lands.

The Provincial representatives indicated they were very reluctant to introduce any such change at this time.

In addition to the staff meeting, Deputy Mayor Pantalone wrote a letter to the Minister of the Environment (Appendix "A") to raise our concerns as the construction of additional PV projects on the site is part of the Exhibition Place commitment in the Environmental Leaders Program.

In addition, following the above-noted staff meeting, Exhibition Place and City of Toronto staff met with representatives of University of Toronto, York University, and the Housing Company, all of which have campuses that would be unfairly impacted. As a result of this meeting, a joint letter was sent to the Premier (attached as Appendix "B") outlining the concerns of these organizations.

# Leadership by Exhibition Place

Exhibition Place has been recognized nationally and internationally for its leadership in the promotion and demonstration of green technologies. Not only are we the location of the largest municipal trigeneration plant; initially the largest PV installation in Canada; have a geothermal plant in a 100-year old building and North America's first urban wind turbine but we have also taken steps to reduce our energy use by 40% since 2005.

Campuses are ideal settings to promote a "local distribution energy model" because power produced at any one location at Exhibition Place can be used throughout the campus without having to be transported back to the Toronto Hydro grid and therefore avoiding grid capacity issues. The same circumstances will likely apply in other City campus properties and in the boarder public sector hospitals, universities etc.

Exhibition Place has had to work extremely hard to secure the funding for all our energy initiatives but all these projects must be done outside of the City's "State-of-Good-Repair" annual Capital budget. Each of the "green" projects at Exhibition Place has only been accomplished through loans and grants from various government programs or partnerships with the private sector. Because of the new FIT rules, Exhibition Place will not be competitive or as attractive a site for investment by the private sector as other 'big box" retail or other private sector locations. Why would the private sector build PV at Exhibition Place if they could receive a higher return on investment if they build on roofs for "big box" retail owners?

Unfortunately, because of the limitations on campuses under the FIT rules, the THESI PV project on the BLC is in serious jeopardy and it will be impossible to achieve the Board's commitment to the Ministry of the Environment under the Environmental Leadership Program to build 2.0 Megawatts of PV power on our site. Letters have already been written to the Ministry of the Environment and a joint letter to Premier McGuinty from the Exhibition Place, the City, York University and University of Toronto.

# Contact:

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Submitted by:

Dianne Young Chief Executive Officer



# Joe Pantalone Deputy Mayor City of Toronto

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Saturday Community Office • 9-11am CHIN Building (By appointment) 622 College Street • Ground Floor

February 23, 2010

The Honourable John Gerretsen Minister of the Environment 77 Wellesley Street West 11th Floor, Ferguson Block Toronto ON M7A 2T5

#### Dear Minister Gerretsen

I am writing to inform you of some concerns that have been brought to my attention regarding the Feed-In-Tariff (FIT) regulations related to the *Green Energy and Green Economy Act*, 2009 as it affects "campus" properties such as Exhibition Place.

As you know, Exhibition Place has been a leader in Ontario in the development of renewable technologies on its site. As early as 2004, The Board of Governors of Exhibition Place set an aggressive goal of achieving net energy self-sufficiency by December 31, 2010 and since 2004, we have had many accomplishments:

- Location of first urban wind turbine in North America
- Largest municipally owned tri-generation plant in Canada
- In 2006 built the largest PV rooftop installation in Canada and was one of the first to be accepted in the Provincial RESOP program
- Completed a geothermal plant in the 100 year old Press Building
- Demonstrated LED technologies on our roadways, pathways and parking lots
- In partnership with Toronto Renewable Energy Cooperative and the Toronto District School Board, is the host for the elementary school "energy" program which has had thousands of students coming to our site to learn about "green" technologies
- Initiated an "energy efficiency" program which has had the effect of the reduction in energy use by 40%

We are extremely proud to be a member of Ontario's Environmental Leaders Program and in 2009, we were recognized for our efforts by the 2009 Canadian Council of Ministers of the Environment. One of our goals as an Environmental Leader is the construction of 2.0 Megawatts of additional rooftop PV. This goal is now in jeopardy

because of the limitations placed on campus sites such as ours which are detailed in the attached report from Ms. Dianne Young, CEO.

Again, the commitment of Exhibition Place to environmental leadership is not in question. However, our ability as a local board of the City to financial support this direction has been negatively impacted by the FIT Regulations and this negative consequence may also impact other MUSH sector organizations.

Any assistance that you or your Office can provide to alter the direction taken would be greatly appreciated.

Sincerely

Joe Pantalone

Deputy Mayor, City of Toronto

Chair, The Board of Governors of Exhibition Place

c.c Anne Buntic, Director, Ministry of the Environment

March 26, 2010

Honourable Dalton McGuinty, The Premier of Ontario Legislative Buildings Queen's Park Toronto, ON M7A 1A1

#### Dear Premier:

We wish to congratulate you and your government on the innovative *Green Energy and Green Economy Act*. Clearly it has far reaching and positive implications for Ontario and its public institutions. We look forward to taking advantage of the feed-in tariff (FIT) program to make our public buildings more sustainable and generate new sources of revenues to fulfill our mandates. In light of your bold vision for an *Open Ontario*, we the undersigned members of the public sector share responsibility for not only bringing it to reality, but in fact leading by example.

We have, however, encountered a significant and unintended consequence of the current rules of the FIT Program that severely limits our ability to deliver on the promise of this program. This is the so-called "one property – one project - one connection" rule (rule 2.1 c).

As you know, many of our institutions, like universities and colleges, social housing, hospitals, the City Of Toronto and other municipalities, have multiple buildings on single "campus" properties. The "one property" rule essentially prevents us from developing prudent, orderly, long-term plans to take optimum advantage and derive optimum benefits from the FIT program.

Exhibition Place, a local board of the City of Toronto, is a case in point. It had already launched a sustainability plan which includes fully reducing its reliance on the grid for electricity. To this end, it has implemented initiatives to conserve energy as well as introduce renewable energy sources such as solar and fuel cells. Exhibition Place has now been advised that once the presently planned solar project on one building has been completed, it cannot put solar elsewhere on the grounds without taking measures that are completely unfeasible for practical and economic reasons. Ironically, its 21 other buildings on the grounds are similar in size to retail or commercial establishments within the private sector, yet those private sector properties would not be subject to the same restrictions simply because they are not located on one campus.

The OPA program administrators are aware of these significant barriers to the public sector and have made some recent improvements to the rules around multiple project applications. Unfortunately, they have not addressed the key barriers to participation by public sector campuses:

Project aggregation which makes it not financially feasible for public sector campuses to install systems on more than just one or two large rooftops.

- > One application on one day which is onerous given the variety of conditions of the buildings on our campuses (eg roof structures, building support structures, age of buildings).
- > Required phase-in over three years which may not be possible with our limited resources and the state of repair of our roofs.

On behalf of the undersigned public institutions in Ontario and other similar institutions such as York Univerity, we ask you to use the good graces of your office to put this right.

Sincerely,

Mayor David Miller City of Toronto

Keiko Nakamura
Chief Executive Officer
Toronto Community Housing

Professor David Naylor

President, University of Toronto

Deputy Mayor Joe Pantalone

Chair, Board of Governors of Exhibition Place

c.c. The Honourable Brad Duguid, Minister of Energy and Infrastructure