TO:	**CHAIR AND MEMBERS CORPORATE SERVICES COMMITTEE MARCH 25, 2014**
FROM:	**MARTIN HAYWARD MANAGING DIRECTOR, CORPORATE SERVICES AND CITY TREASURER, CHIEF FINANCIAL OFFICER**
SUBJECT:	**UPDATE - ROOFTOP SOLAR PV SYSTEMS ON MUNICIPAL BUILDINGS UNDER THE FIT 3.0 PROGRAM RULES**

RECOMMENDATIONS

That on the recommendation of the Managing Director, Corporate Services and City Treasurer, Chief Financial Officer:

a) This report **BE RECEIVED** for information; and

b) Civic Administration **BE DIRECTED** to explore and pursue future Feed-In Tariff opportunities for the implementation of rooftop solar PV Systems on suitable municipally owned buildings planned for the future.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Relevant reports that can be found at www.london.ca under City Hall (meetings) include:

- Update on Corporate Energy Management and Report Requirements (October 7, 2013 meeting of the Civic Works Committee, Agenda Item #6)

- Joint Venture – FIT Program (January 15, 2013 meeting of the Strategic Priorities and Policy Committee, Agenda Item #2)

- Roof Lease Agreement for Employing Solar PV Systems on City of London's Municipal Buildings and Properties (January 8, 2013 meeting of the Corporate Services Committee, Agenda Item #20)

- Phase 1 Strategy for Employing Solar PV Systems on City of London's Municipal Buildings and Properties (September 25, 2012 meeting of the Investment and Economic Prosperity Committee, Agenda Item #5)

- Strategy for Employing Solar PV Systems on City of London's Municipal Buildings (September 11, 2012 meeting of the Investment and Economic Prosperity Committee, Agenda Item #2)

BACKGROUND

Context

Subsequent to the launch of the Ontario Power Authority's (OPA) Feed-in Tariff (FIT) program in 2009, City of London facilities' rooftops were considered, with Council's approval, as potential hosts for solar photovoltaic generating systems (PV Systems) under various iterations of the program rules that have evolved since the program inception. Six applications were submitted under the FIT 1.0 program and nine applications were submitted under the FIT 2.1 program.

To insulate itself from the financial risks associated with the ownership, maintenance and monitoring of power generation plants the City of London only participated as a system host through roof leases for the proposed rooftop PV System project applications submitted in the FIT 1.0 and FIT 2.1 program windows.

London Hydro was the sole owner of the FIT 1.0 applications and has managing control of the Joint Venture, London Renewable Energy Initiative (LREI), which owned the FIT 2.1 applications. London Hydro's involvement in both sets of applications provided the City with confidence that any installations on its roofs would belong to a tenant having sufficient expertise to own and operate electrical power generating systems for the duration of the 20 year term of the contract demanded by the OPA.

Over the last twelve months, the Ontario Power Authority's (OPA) Feed-in Tariff (FIT) program has undergone a significant change – including the issuance of a new set of FIT 3.0 rules. Furthermore, Ontario recently updated its long-term energy plan titled *Achieving Balance* which was released December 2, 2013. The long-term energy plan includes an explanation of the provincial government's future renewable energy procurement goals.

The purpose of this report is to provide Committee and City Council with an update on the FIT program and to outline the new opportunities that these recent changes present.

Discussion

The FIT 2.1 program was vastly oversubscribed. The number of applications for contracts received by the OPA represented four times the available electrical grid capacity allotted to the program and as a result the OPA was unable to accommodate the majority of applications.

As previously indicated in the *Update on Corporate Energy Management and Report Requirements*, the OPA rejected all of the applications submitted by LREI on the basis of a perceived risk associated with early termination clauses in the roof lease agreement with the City of London. The early termination clauses were seen as necessary at that time to protect the City's interests in the event that it needed to close or repurpose a host facility within the 20 year FIT contract period. Early termination clauses were not evident in successful submissions from other applicants that contained no protection for the lessor in this regard.

Rather than being rejected for technical deficiencies, most of the failed FIT 2.1 applications throughout the province were similar to LREI's in that they were victims of the popularity of the program. The OPA anticipated that the program would be oversubscribed and included specific terms in the program rules which made its decision relating to applications non-negotiable.

However, despite this tremendous province wide competition for capacity, there were 22 successful FIT 2.1 applications for rooftop solar projects within the City of London, which combined represent 5,355 kilowatts (kW) of electrical supply. To put this generating capacity into context, if these systems operated continually for the 1250 full sun hours that can reasonably be expected in the London area each year they have the combined potential to serve the electrical needs of 620 average sized houses annually.

<u>Continued Opportunities</u>

Over the last twelve months, the FIT program has undergone significant changes that include the issuance of a new set of rules (FIT 3.0) and directional changes issued by the Ministry of Energy. The changes that effect the rooftop solar segment of the program are outlined below.

On June 12, 2013 the Ministry of Energy issued a directive to the OPA instructing it to open a new FIT contract application window in the fall of 2013 and indicating that it was to also open further contract application windows up until 2018. This procurement plan for the years 2014 through to 2018 was further clarified in the *Achieving Balance* long term energy plan that stated 150 megawatts (MW) of grid capacity will be allotted to the FIT program in each of the next four years.

The November 4, 2013 opening of the most recent contract application window occurred shortly after the October 9, 2013 release of the FIT 3.0 rules and as a result there was insufficient time to submit competitive and thoroughly reviewed applications.

The rates per kilowatt hour offered by the OPA for rooftop PV Systems under the FIT 3.0 rules were between 37% and 39% lower than those offered under the FIT 2.1 rules. While the effect of these rate reductions was somewhat softened by the relaxing of the domestic content rules, they have dramatically changed the rooftop PV System business environment. Whereas the prevailing roof lease rate in the industry was previously $80 per kW of installed generating capacity, it is now $15 per kW. However, the OPA has indicated that the current rates will be held unchanged through the next application window which lends near term stability to the industry.

The OPA's minimum requirements for a tenant's property access rights are now defined in the new program rules. This important update will enable LREI to avoid FIT 2.1-type rejection of future applications. The rooftops of the municipal facilities named in the *Solar Facility Lease* continue to be available to LREI for the forthcoming contract application windows in 2014 and beyond, however, it will be necessary to update the terms of the *lease* to meet the requirements of the FIT program rules that are current as of the date that applications are due to be resubmitted.

Changes to the Program Rules and New Opportunities

The current FIT 3.0 Rules include the following two notable changes:

- The granting of priority points for municipally owned projects in addition to municipally hosted projects.
- The introduction of the Unconstructed Rooftop Solar Pilot (URSP) which makes it possible to apply for a rooftop PV System contract on a planned future building.

With the City's existing commitment to LREI the new priority points for municipal participation do not have an effect on the opportunity for PV systems on the City of London's existing rooftops. Even in the absence of this commitment, the new municipal participation points would not represent a competitive advantage for the City since LREI as a community cooperative continues to qualify for the maximum possible priority points.

Introduction of the URSP by the OPA offers a new opportunity for the City to make additional suitable rooftops available to LREI for participation in the FIT program.

Under the URSP project the building construction and configuration would be designed to permit the installation of a PV System which will minimize the City's exposure to ongoing maintenance costs associated with such installations.

The following new buildings/additions are scheduled to be completed by 2018:

1. South London Community Centre – addition (currently in the design stage)
2. New Multi-purpose Recreation Centre – Southwest
3. New Multi-purpose Recreation Centre – East/Southeast
4. New Fire Station No. 15 – South East London

Conclusion:

Consistent with the City of London 2011-2014 Strategic Plan for key outcomes such as A Strong Economy and A Green & Growing City coupled with the Plan's governance principle of Fiscal Responsibility, the proposed approach of working with LREI remains very wise.

By partnering with the London Hydro controlled LREI in its pursuit of the implementation of rooftop PV Systems on municipal buildings the City continues to be positioned to benefit from economic activity associated with PV System projects while insulating itself from the financial risks associated with financing, owning and operating a power generation system.

With the introduction of the new URSP program by the OPA and with the planned opening of additional FIT application windows over the next four years, the potential exists for the City to expand the roster of municipal rooftops that are suitable as hosts for PV Systems.

The FIT program continues to evolve and consequently, further reports on this subject will be brought forward from time to time to keep Council informed and to seek direction.

ACKNOWLEDGEMENTS

This report was prepared with the assistance if Jay Stanford: Director – Environment, Fleet & Solid Waste, Jamie Skimming: Manager – Air Quality and Daryl Diegel – Corporate Energy Management Coordinator.

PREPARED BY:	PREPARED AND SUBMITTED BY:
STEVEN MACDONALD **CORPORATE ENERGY MANAGEMENT ENGINEER, FACILITIES**	**JIM KLINGENBERGER** **MANAGER, FACILITIES ASSETS, ENERGY & RELIABILITY**
REVIEWED & RECOMMENDED BY:	**RECOMMENDED BY:**
KEN OWEN **DIVISION MANAGER, FACILITIES**	**MARTIN HAYWARD** **MANAGING DIRECTOR, CORPORATE SERVICES AND CITY TREASURER, CHIEF FINANCIAL OFFICER**

c: Vinay Sharma, Chief Executive Officer, London Hydro