



STAFF REPORT ACTION REQUIRED

Status of the Community Energy Plan for Mount Dennis Area and the Eglinton Crosstown LRT

Date:	August 18, 2016
To:	Parks and Environment Committee
From:	Chief Corporate Officer
Wards:	All
Reference Number:	P:\2016\Internal Services\E&E\Pe16006e&e (AFS #22889)

SUMMARY

Community groups in Weston and Mount Dennis have voiced concerns over the Metrolinx/Crosslinx Transit Solutions initial proposal construction of an 18 megawatt (MW) natural gas power plant in their community to provide backup power for the Eglinton LRT.

City Council requested that staff from the Environment and Energy Division (EED) meet with Metrolinx, Crosslinx Transit Solutions and Toronto Hydro to discuss the Crosslinx plan for the back-up power plant facility. EED reported on the outcome of these meetings to Executive Committee meeting on May 24, 2016.

At a community organized event for this issue held on July 19, 2016, Honourable Laura Albanese (MPP York South-Weston) indicated that she has written to the relevant Ministers to work with Metrolinx on low-carbon back-up power alternatives for the Eglinton LRT. A report is expected later this summer from Metrolinx on this issue.

City Council also requested EED prepare a Community Energy Plan for the area. This report provides an update on the progress of the Community Energy Plan – see Attachment 1 for the draft plan.

RECOMMENDATIONS

The Chief Corporate Officer recommends that:

1. The Parks and Environment Committee receive this report for information.

Financial Impact

There is no financial impact resulting from the approval of this report.

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information

DECISION HISTORY

City Council on December 9 and 10, 2015, adopted the following:

1. City Council request Metrolinx, Crosslinx Transit Solutions and Toronto Hydro to meet with staff from Environment and Energy to discuss the Crosslinx plan for a back-up power facility for the Eglinton Crosstown LRT near the proposed Mount Dennis station and the former Kodak Lands site.
2. City Council request the Director, Environment and Energy, to report back to Executive Committee on the results of the meeting(s).
3. City Council request the Director, Environment and Energy, to develop a Community Energy Plan for the Mount Dennis Area and to report back to the Parks and Environment Committee in the first quarter of 2016.

Member Motion MM11.19 *"Feasibility of Integrating Alternative Energy Components in the Back-up Power Facility at Mount Dennis Station on the Eglinton Crosstown LRT Line"* - by Councillor Frank Di Giorgio, seconded by Councillor Frances Nunziata
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.MM11.19>

ISSUE BACKGROUND

Crosslinx Transit Solutions has been awarded the contract by Metrolinx to design, build, finance and maintain the Eglinton Crosstown LRT. In the tender document, Metrolinx requested proponents to aim for lowest 30-year life-cycle electricity costs for the LRT, for which Crosslinx Transit Solutions initially proposed to construct an 18MW natural gas fired power plant at the western terminus of the transit line, near the proposed Mount Dennis station and the former Kodak Lands site. See Attachment 2 for Metrolinx Transit Hub study with plans and a map of the Kodak Lands.

Community groups in the Mount Dennis area have voiced concerns regarding the initially proposed Crosslinx Transit Solutions power plant, intended to provide backup power for the Eglinton LRT in the case of a bulk power disruption (ie. Hydro-One system failure).

In the last 13 years, there were three bulk power disruptions in Toronto: the August 2003 eastern blackout, the July 2010 transformer fire at Manby station, and the 2013 June flood of Manby station.

The Environment and Energy Division reported to Executive Committee on May 24, 2016 that Metrolinx is conducting an ongoing exploration of alternative energy options for the Eglinton Crosstown LRT Backup Power Facility near Mount Dennis Station in consultation with Toronto Hydro.

On July 19, 2016 the community groups organized an information event with presentations from the Canadian solar industry association, energy storage companies, and City of Toronto Community Energy Planning staff. See Attachment 2 for the presentation by community energy planning staff.

City's authority with respect to the proposed Metrolinx back-up power system:

- The City approves development application site plans and zoning, but not electricity plants technology.
- Electricity plants, and in particular if grid connected, require a number of permissions from the province and provincial agencies, including:
 - o Noise and Air Emissions (Ministry of Environment)
 - o Grid connection and dispatch protocol (Independent Electricity System Operator, Toronto Hydro)
 - o Electricity Generator license (Ontario Energy Board)

COMMENTS

Community Energy Plan

The Environment and Energy Division as directed by Council is developing a Community Energy Plan (CEP) for Mount Dennis – see Attachment 1 for a draft plan. The draft plan will be subject to community and stakeholder consultation early this fall after the Metrolinx report is issued on back-up power alternatives.

The community engagement portion of the CEP is led by the two local councillor's offices (Councillors Nunziata and DiGiorgio).

Community Energy Planning (CEP) is an area-based approach to energy planning that calculates energy needs for existing and future development. CEP identifies opportunities to integrate local, low-carbon, and resilient energy solutions at the building and neighbourhood-scale. The key areas addressed by CEP are:



Climate Change

Meeting future GHG reduction targets will require efficient buildings and low-carbon energy solutions at the building- and neighbourhood-scale.



Growth

As Toronto continues to grow, energy conservation and accessing local sources of low-carbon energy can alleviate constraints in energy infrastructure and reduce GHG emissions.



Energy Resilience

Backup power solutions for multi-unit residential buildings and recreation centres can mitigate vulnerability to area-wide power outages associated with extreme weather.



Local Economic Benefit

Identify conservation and low-carbon energy opportunities in an area, with associated investment, and job creation potential.

Key findings from the Community Energy Plan include:

1. **Energy conservation potential for New Development:** the area is being planned as Mobility Hub around the new Eglinton Crosstown LRT Mount Dennis Station:
 - a. Analysis by City Planning staff indicates growth potential in residential development to accommodate 2,000 to 3,000 new residents, as well as, commercial development in the area the next 25 years, in addition to the new LRT Station, and Maintenance and Storage Facility (MSF). Furthermore, West Park Health Care Centre is proposing construction of a new 70,000 m² hospital building.
 - b. All new construction has the potential to achieve Tier 2 of the Toronto Green Standard (TGS), which would reduce energy use, electricity demand and emissions by 19%, 16%, and 23%, respectively compared to the mandatory Tier 1.
2. **Energy Conservation potential for households:** there are 1,536 homes, 30 multi-residential buildings (11 hi-rise, 3 mid-rise, and 16 low rise), which could achieve energy use reductions of 25%. The City of Toronto programs available include: Hi-RISE for multi-residential and Home Energy Loan Program for single-family homes.

3. **Energy Resilience** - Explore strategic backup power needs/capability for existing and new multi-residential buildings for essential systems (e.g. common areas, elevators, water pumping to upper floors) that allow residents to withstand area-wide power outages (i.e. 2013 ice storm power outage.)
4. **Alternative energy solutions potential at proposed Metrolinx Eglinton LRT storage facility in Mt Dennis.** At this time, based on meetings with Metrolinx and Toronto Hydro, alternative energy sources that could be considered include:
 - Roof space at the proposed facility could support one or two 0.5MW PV system, depending on the proposed green roof layout and size, a capacity far below the back-up power capacity required by Metrolinx.
 - Heat recovery from the back-up power facility for new development on-site and adjacent property is an option that Metrolinx seems open to at this time.

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SIGNATURE

Josie Scioli
Chief Corporate Officer

ATTACHMENTS

Attachment 1 – DRAFT Community Energy Plan
Attachment 2 – July 19, 2016 Community organized Information Session at York Civic Centre – presentation by Environment and Energy Division staff on Community Energy Planning.