

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON APRIL 4, 2018</b>
<b>FROM:</b>	<b>KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR ENVIRONMENTAL &amp; ENGINEERING SERVICES AND CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>OUTCOME OF ONTARIO MUNICIPAL GREENHOUSE GAS (GHG) CHALLENGE FUND APPLICATIONS</b>

**RECOMMENDATION**

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following report **BE RECEIVED** for information.

**PREVIOUS REPORTS PERTINENT TO THIS MATTER**

The relevant reports that can be found at [www.london.ca](http://www.london.ca) under City Hall (Meetings) is:

- Report to the October 24<sup>th</sup> 2017 Civic Works Committee (CWC) Meeting, Municipal Greenhouse Gas (GHG) Challenge Fund Applications (Agenda Item #15)
- Report to the August 29<sup>th</sup> 2017 Civic Works Committee (CWC) Meeting, Community Energy Action Plan – Update and Status (Agenda Item #11)

**2015-19 STRATEGIC PLAN**

Municipal Council has recognized the importance of climate change mitigation, related environmental issues and the need for a more sustainable city in its 2015-2019 - Strategic Plan for the City of London ([2015 – 2019 Strategic Plan](#)). Specifically, the Community Energy Action Plan (CEAP), addresses all four Areas of Focus, at one level or another, as follows:

**Strengthening Our Community**

- Healthy, safe, and accessible city

**Building a Sustainable City**

- Convenient and connected mobility choices
- Strong and healthy environment

**Growing our Economy**

- Local, regional, and global innovation
- Strategic, collaborative partnerships

**Leading in Public Service**

- Collaborative, engaged leadership
- Excellent service delivery

**DISCUSSION**

**PURPOSE**

The purpose of this report is to provide an update on the applications submitted to the Ontario Municipal GHG Challenge Fund program in November 2017 (Deferred Matter, File No. 92).

## CONTEXT

The Ontario Municipal GHG Challenge Fund, announced in August 2017, is one of the programs funded by revenue from Ontario's Cap & Trade program in support of Ontario's Climate Change Action Plan. This fund is administered by the Ontario Ministry of Environment and Climate Change (MOECC). It complements other programs funded by Cap & Trade revenue, such as the Green Ontario (GreenON) Fund programs for residents and businesses, the Ontario Municipal Commuter Cycling Program, and the Green Commercial Vehicle Program.

Five applications were submitted to the Municipal GHG Challenge Fund in November 2017:

1. **Renewable natural gas (RNG) production from landfill gas** – This project would upgrade the landfill gas (50% methane content) collected at the W12A Landfill, which is currently flared for GHG emission reduction purposes, to pipeline-quality renewable natural gas (>95% methane) for pipeline injection.
2. **Compressed natural gas (CNG) vehicle infrastructure** – This application addressed two key prerequisites needed for any future use of CNG vehicles within the City fleet – CNG fuelling and CNG vehicle maintenance infrastructure.
3. **Building energy retrofits and asset renewal** – This application aggregated many of the projects already planned by Facilities for 2018 and 2019 identified in the Phase 6 Facility Renewal and Energy Retrofit Program measures list, which includes building automation and lighting retrofits at facilities.
4. **Wastewater treatment plant upgrades** - This application included waste heat recovery for power generation using the Organic Rankine Cycle (ORC) Engine and aeration blower replacement, two projects already planned by Environmental & Engineering Services for completion in 2019.
5. **Bike share system for London** – This application included capital costs for bike share system of around 350 to 400 bikes, along with the associated bike share stations, marketing and promotion.

## DISCUSSION

Two of the five submissions, CNG vehicle infrastructure and the bike share system, were accepted by the Ontario Municipal GHG Challenge Fund as follows:

Project	Estimated Project Cost Submitted	Proposed Funding Requested	Outcome
1. RNG production from landfill gas	\$15,708,000	\$7,854,000	Not Successful after detailed review with MOECC
2. CNG vehicle infrastructure	\$1,382,625	\$691,312.50	Funding Approved \$691,312.50
3. Building energy retrofits and asset renewal	\$400,000	\$200,000	Not Successful in this round
4. Wastewater treatment plant upgrades	\$12,298,156	\$3,074,539	Not Successful in this round
5. Bike share system for London	\$1,645,000	\$822,500	Funding Approved \$822,500

Additional details on the next steps for the two successful applications including the Transfer Payment Agreements were provided to Civic Works Committee on March 19, 2018 and Council on March 27, 2018.

With respect to the RNG production from landfill gas project, in discussion with MOECC staff it was determined that the project met a majority of criteria to be successful; however the limitations on a key agreement clause, environmental attributes, did not allow the City of London to sell the environmental benefits of RNG (i.e., as a renewable fuel in the current US and future Canadian renewable fuels programs, or any other program that places a value on GHG emission reductions and are willing/required to pay a premium). At the moment and according to the Municipal GHG Challenge Fund agreement clauses, the RNG that City of London would produce could only be sold for its energy content and the current the market rate for natural gas per gigajoule of energy in Ontario is approximately \$4.3 per gigajoule. This project is not financially viable at this price per gigajoule. MOECC staff indicated that additional funding programs are being developed where a project of this nature may be considered.

Discussions are underway in Ontario with Union Gas and Enbridge Gas that could provide an opportunity to sell RNG at a premium to the gas distribution companies in order to blend in this RNG into the natural gas that is provided to all of their customers in Ontario. This is similar in principle with the blending of ethanol (10%) into the gasoline sold at all gas stations in Ontario. City staff are participating in this process to ensure that the interest of the City of London to sell RNG from landfill gas is reinforced, as Union Gas are well aware of the potential of the W12A Landfill to be a significant supplier of RNG. These discussions and continued financial and environmental analysis of opportunities to recover additional energy and revenue from landfill gas are in keeping with Council direction on October 11, 2016.

At time of writing this report, there have been no comments offered by MOECC staff with respect to submission #3 and #4 identified on the previous table.

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