



REPORT FOR ACTION

Biodiesel Pilot Funding Requirements

Date: May 8, 2018

To: Budget Committee

From: General Manager, Fleet Services Division

Wards: All

SUMMARY

The purpose of this report is to identify the source and funds required to conduct a biodiesel pilot to evaluate the use of B10 biodiesel (10% biofuel, 90% diesel) in the four (4) coldest winter months and B20 biodiesel (20% biofuel, 80% diesel) for the remaining eight (8) months of the year. The results of the pilot will allow the Fleet Services Division to identify a plan for the City to move forward with a comprehensive biodiesel strategy.

RECOMMENDATIONS

The General Manager, Fleet Services Division recommends that:

1. City Council authorize the following adjustments and increases to the Approved 2018 Fleet Services Capital Budget and 2019-2027 Plan:
 - a. Create a new capital project named "Biodiesel Pilot Project" with total project cost of \$198,400, and cash flows of \$131,700 in 2018 and \$66,700 in 2019 with 2019 to be funded from the Vehicle and Equipment Reserve (XQ0003).
 - b. Reallocate \$131,700 project cost and cash flow from the Fleet Management and Fuel System Integration Project (CFL048-04) to the new capital project, "Biodiesel Pilot Project", through an in-year budget adjustment in 2018, with a net zero budget impact to the 2018 Approved Fleet Capital Budget.

FINANCIAL IMPACT

The cost estimate for the Biodiesel Pilot Project is \$198,400, which includes costs for fuel premium, fuel site upgrade, and vehicle maintenance. The breakdown of the estimated project cost is illustrated in Table 1 below.

Table 1: Estimated Project Cost Breakdown

	2018	2019	Total Project Cost
Biodiesel Cost	\$ 8,400	\$ 15,700	\$ 24,100
Fuel Site Upgrade Cost	\$ 62,100	\$ 4,600	\$ 66,700
Vehicle Maintenance Cost	\$ 61,200	\$ 46,400	\$ 107,600
Total Estimated Cost	\$ 131,700	\$ 66,700	\$ 198,400

The 2018 required cash flow of \$131,700 will be funded through reallocation of permanent underspent capital funding from the Fleet Management and Fuel System Integration Project (CFL048-04). The 2019 cash flow of \$66,700 will be funded from the Vehicle and Equipment Reserve (XQ0003) and requested through the 2019 budget submission.

It is estimated that the one year biodiesel pilot will cost \$198,400. The pilot will require funding in 2018 of an estimated \$131,700 for costs associated with:

- (a) fuel site infrastructure upgrades to accommodate the increased biodiesel mix including installation of fuel filters and tank warmers;
- (b) biodiesel premium costs for B10 (\$0.03/liter) and B20 (\$0.06/liter);
- (c) expected maintenance costs as a result of potential fuel line plugging, additional replacements of fuel and diesel particulate filters and any other maintenance requirements associated with an increased biodiesel mix; and,
- (d) any vehicle specific requirements such as fuel tank heaters that may be required to maintain biofuel temperatures above freezing when vehicles are parked outside during below 0°C temperatures.

The estimated 2019 costs of \$66,700 are associated with:

- (a) biodiesel premium costs for B10 (\$0.03/litre) and B20 (\$0.06/litre); and,
- (b) vehicle maintenance costs for replacement of fuel filters, diesel particulate filter change outs, diagnostics, etc.

The funds for this project will be reallocated from the Fleet Management and Fuel System Integration Project (CFL048-04) to a new capital project to be created to track all costs associated with B10 and B20 biodiesel usage.

TTC vehicles will be included in the pilot and incremental estimated costs of \$15,600 in 2018 and \$14,805 in 2019 will be funded through TTC's Operating budget. TTC costs have not been included in the total project costs outlined above.

The Interim Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At the September 6, 2016 meeting of the Government Management Committee the Committee received the third quarter status report on the City of Toronto's Consolidated Green Fleet Plan (see item GM14.12). That report includes a discussion on the City's experiences with the use of biodiesel and associated costs and included as one of its five objectives, the development of selection criteria for alternative fuels.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.GM14.12>

At its meeting on February 27, 2018 the Parks and Environment Committee requested a report on the potential greenhouse gas reductions resulting and cost associated with the City switching to the use of different diesel fuels on appropriate vehicles.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.PE17.6>

At its July 4, 2017 meeting, City Council adopted TransformTO: Climate Action for a Health, Equitable and Prosperous Toronto, which included the target to transition 45 percent of the City-owned fleet to low-carbon vehicles by 2030.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.PE19.4>

At its February 2, 2018 meeting, City Council had before it, report PE24.4 entitled "Evaluating Biodiesel for City Fleet Operations" and directed the General Manager of Fleet Services Division (FSD) and the Director of Purchasing and Materials Management Division (PMMD) to "report to the Parks and Environment Committee at their next meeting on February 23, 2018, and prior to the issuance of the next Request for Proposals, with information regarding proposed criteria for any future tender on biodiesel in the City of Toronto's fleet".

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PE24.4>

At its meeting on April 24, 25 and 26, 2018, City Council directed the General Manager, Fleet Services to conduct a pilot with approximately one hundred (100) City of Toronto fleet vehicles with fuel provided under the current fuel supply contract for B10 in the coldest months of the year and B20 for the balance of the year with the goal of the pilot expanding biofuel usage once the results have been evaluated. Council further directed the General Manager, Fleet Services, in consultation with the Interim Chief Financial Officer, to report to the May 28th, 2018 meeting of Budget Committee with identification of the source of funds for the pilot project.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PE26.5>

COMMENTS

Consistent with TransformTO's goal of reducing the City of Toronto's carbon footprint by 80% by 2050, Fleet Services Division will undertake a one year pilot project to begin in the summer 2018. The pilot will evaluate the costs, operational impacts and environmental benefits of using B10 and B20 biodiesel. The pilot will be conducted on one hundred (100) diverse City operating vehicles. This will allow for the monitoring of all seasonal operating requirements. Vehicles will be provided by varying divisions and agencies including Toronto Water, Transportation, Solid Waste, Fleet Services and the TTC.

FPD will report back to the Parks and Environment Committee in Q1 2019 with the interim result of the pilot and a strategy to move forward with a comprehensive biodiesel strategy.

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SIGNATURE

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