

TTC Environmental Plan - Staff Response

Meeting Date: April 23, 2008

Subject: TTC Environmental Plan - Staff Response

Action Item: X

Recommendation

It is recommended that the Commission:

- a. continue the use of B5 Bio-diesel fuel for TTC buses and non-revenue vehicles, when fuelled on TTC property; and
- b. consider, in the year 2012, further increases to the amount of green energy purchased beyond the projected 25%, subject to an assessment of the availability and funding for the additional green energy at that time.

Funding

The funding for these environmental initiatives will be identified with the purchase authorizations, as required.

Background

At its meeting of December 6, 2007, the Commission directed staff to:

1. report back in conjunction with City staff on bio-fuels, in particular focusing on research that seems to indicate the loss of lands for food production, and possible policy changes that the TTC may need to adopt; and
2. report back on the feasibility of increasing the amount of electricity from renewable or sustainable sources to levels such as 35%, 45%, 55% and 65%.

The Commission currently uses a B5 bio-diesel blend for its buses and non-revenue vehicles consisting of 95% ultra low sulphur diesel and 5% renewable bio-fuel (based on 100% soybean oil). This blend has been used in revenue and non-revenue diesel vehicles since September 2006.

At its meeting of December 6, 2007, the Commission directed staff to purchase 25% of its electricity from renewable or sustainable sources by 2012, subject to approval of the funds required.

Discussion

Bio-diesel Use TTC's B5 blend is currently supplied by Suncor, which obtains pure soy bio-diesel from U.S. sources, primarily AG Processing and Cargill. At the TTC, the use of bio-diesel is limited to 5% (B5), as use of higher blend ratios may cause fuel system problems in older vehicles and equipment in TTC fleets.

The Federal government has stated a comprehensive strategy for renewable fuels with four components:

- increasing the retail availability of renewable fuels through regulation;
- supporting the expansion of Canadian production of renewable fuels;
- assisting farmers to seize new opportunities in this sector; and
- accelerating the commercialization of new technologies.

In December 2006, Environment Canada issued a Notice of Intent to develop regulations that will require 5% renewable content based on the gasoline pool by 2010 and 2% renewable content in diesel and heating oil by 2012, upon successful demonstration of renewable diesel fuel use under the range of Canadian conditions.

TTC staff consulted City staff on the use of bio-fuel. The City of Toronto purchases on-road diesel fuel containing bio-diesel, made from soybeans, which replaces diesel from fossil sources. The City of Toronto's Green Fleet Plan 2008-2011, adopted March 2008, states that Toronto is using bio-fuels as part of a temporary solution to reducing fossil fuel use and will continue to assess the benefits of the bio-fuels that are available. In addition, Council directed the City to:

Evaluate bio-fuels to determine which products and feedstocks provide the greatest environmental benefits on a life-cycle basis, and the environmental impact of converting forests and food-producing land to growing crops for fuel.

TTC staff recommends that the current use of B5 bio-diesel continue until the City's environmental evaluation of bio-diesel products is completed. TTC staff will continue to communicate with City staff on green fleet issues.

Green Energy

At its meeting of December 6, 2007, the Commission directed staff to purchase 25% of its electricity from renewable or sustainable sources by 2012, subject to approval of the funds required. The Province's electricity supply mix currently includes about 3% green power and through various initiatives that amount is to be increased to approximately 10% by 2010. In order to achieve its 25% goal for green power, the Commission would need to purchase up to 15% of its electricity from green sources. Currently the premium to purchase this 15% would range between \$1.6M and \$2.6M annually,

based on 436 million kilo-watt-hours of electricity use. There is currently a limited supply of green sourced electricity and as a result, the purchase of green power will be introduced gradually over several years as it becomes available.

Staff recommend that the incremental purchase of green power to levels beyond the 25% be considered in 2012 once the 25% goal has been achieved. In addition, the availability and cost of additional green power will be more reliably assessed at that time.

Justification

The use of B5 bio-diesel to reduce fossil fuel use and the purchase of green electricity are consistent with the TTC's Environmental Plan.

April 3, 2008

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