

## **Reverse Vending Machine Pilot Project and Increased Recycling in Public Places**

*(City Council on April 11, 12 and 13, 2000, adopted this Clause, without amendment.)*

**The Works Committee recommends that:**

- (1) the terms of reference for the reverse vending machine pilot project outlined in the following report (March 6, 2000) from the Commissioner of Works and Emergency Services be approved; and**
- (2) the Commissioner of Works and Emergency Services be authorized to operate a reverse vending machine pilot project with TOMRA Systems Inc. and Urban Intelligence Inc., in consultation with the Toronto Zoo, the Toronto Transit Commission and any other City departments.**

Purpose:

To respond to a request from the Works Committee to report on developing a reverse vending machine pilot project and on increasing the use of recycling containers in malls and public places.

Financial Implications and Impact Statement:

There are no financial implications arising from this report.

Recommendation:

It is recommended that this report be received for information.

Background:

At its meeting of September 8, 1999, the Works Committee had before it a report entitled "Soft Drink Containers Originating from Vending Machines." The Committee requested the Commissioner of Works and Emergency Services to:

- (i) work with interested parties to develop a voluntary pilot project at City-owned facilities for reverse vending machines, to be funded by the private sector; and to report back to the Committee with the terms of reference for such a pilot project; and**
- (ii) report back to the Committee on increasing the use of recycling containers in malls and public places.**

Comments:

(1) Reverse Vending Machine Pilot:

Discussions have been held with Urban Intelligence Inc., who deputed at the September 8, 1999 Works Committee meeting on behalf of their client, TOMRA Systems Inc., concerning a pilot program to test reverse vending machines. TOMRA, in conjunction with Urban Intelligence Inc., has offered to supply three reverse vending machines (RVMs) to the City at no cost for three months. TOMRA Systems Inc. produces a range of “smart” RVMs which use laser scanners to distinguish between glass, PET, and aluminium containers and which can issue coupons.

The project will test RVMs as a method of recovering recyclable beverage containers in public places. The RVMs will issue coupons to patrons who return PET, aluminum or glass containers to the RVM. Since the City of Toronto is not in a deposit-return environment, a third party corporate sponsor will provide some type of coupon (e.g., for a specific product or event) which will give an incentive for the public to deposit containers in the RVMs. The project will track the recovery of the recyclable containers and the costs and revenues involved.

Solid Waste Management Services staff have been investigating City-owned facilities as potential host sites. It is important to have three high profile locations with a high level of pedestrian traffic. The Zoo is interested in exploring the possibility of participating, pending appropriate approvals. The Parks and Recreation Division’s Ferry Docks are also interested in being a potential host site to one of the RVMs. The TTC is being investigated as a potential host and have been contacted in writing to request their involvement. The Toronto School Board has also been contacted and has expressed interest in participating in this project. It is expected that the locations will be confirmed before the end of April 2000.

The following are draft terms of reference for the reverse vending machine pilot project:

Terms of Reference:

- (1) The City is interested in participating in a reverse vending machine pilot project to be funded by the private sector.
- (2) The City will work with TOMRA Systems Inc. and their consultant to enlist three high profile locations at which to site “smart” reverse vending machines.
- (3) The pilot will commence in the summer of 2000 and last for a period of approximately three months.
- (4) TOMRA will be responsible for the supply, installation (including provision of an appropriate shelter such as a kiosk or awning), repairs to the RVMs for the duration of the pilot, and the removal of the RVMs upon completion of the pilot.

- (5) The pilot project host site staff will be responsible for emptying and marketing the containers collected by the RVM and the host site will keep the proceeds from the sale of the materials.
  - (6) TOMRA and their consultant will source and provide private sector sponsored coupons to be dispensed by the machine, with the sponsors of the coupons subject to the approval of the Commissioner of Works and Emergency Services.
  - (7) TOMRA and their consultant may source and display advertising on the machines, subject to the approval of the Commissioner of Works and Emergency Services, and the host site. TOMRA and their consultant will also cover the costs of promoting the pilot project.
  - (8) TOMRA Systems Inc. will have liability insurance on the machines in an amount deemed necessary by the Commissioner of Works and Emergency Services.
- (2) Increasing the Use of Recycling Containers in Malls and Public Places:

The collection of recyclable materials and waste in malls is the responsibility of the malls' property management. An initial investigation indicates that many malls and concourse areas have some sort of recycling containers for public use in the food court areas. The effectiveness of these containers is not known. The primary recyclable material generated in high volumes at malls, however, is corrugated cardboard which would be a "behind the storefront" operation.

According to the Ministry of the Environment (MOE) Regulation 103/94, retail shopping establishments and retail shopping complexes (a group of retail shopping establishments) must implement a source separation recycling program if its floor area is at least 10,000 square metres.

As for recycling containers in public areas, Works and Emergency Services is in the process of replacing a large portion of the existing curbside litter bins with over 3000 new multi-compartment litter bins in most areas of the City. The new litter bins are substantially larger than the old litter bins and have three compartments to accommodate litter and recyclables (newspapers and containers), which will provide "away-from-home" recycling opportunities for pedestrians.

The City has promoted the new three-compartment litter/recycling bins in a recent issue of Waste Watch and has had a kick-off media event with the Mayor on November 24, 1999, at City Hall. We will continue to promote the proper use of the bins including putting information on the City's web page. As well, Corporations Supporting Recycling (CSR) is arranging for their members to sponsor advertising panels on 40 of the new litter bins in the downtown area which will educate pedestrians on the proper use of these bins.

In addition, the Canadian Soft Drink Association, in conjunction with the Canadian Bottled Water Association (participation to be confirmed), is planning a promotional campaign to encourage the proper use of our new OMG Media bins. Students hired as "Roving Recyclers"

will hand out contest entry forms to people observed using the OMG Media bins to recycle their single-serve beverage containers.

Contest participants will be eligible to win a variety of prizes ranging from a personal computer to T-shirts. The contest will be promoted on 80 OMG Media bin advertising panels, as well as in convenience stores. We have been advised that all the funding for this project (\$100,000.00) is now coming from the Waste Diversion Organization (WDO) (see separate report on the WDO on this agenda).

Conclusions:

The draft terms of reference will form the further development of the pilot project. Discussions are underway with potential host sites for the reverse vending machines. Following completion of the pilot project, we will report back on the results including diversion, costs, revenues, and host site experience with the reverse vending machines.

The use of recycling containers in malls is mandated by MOE regulations and is the responsibility of the malls' property management. The City is replacing existing litter bins in most areas of the City with new three-compartment bins which provide "away-from-home" recycling opportunities for pedestrians. In addition, the WDO is funding a "Roving Recyclers" campaign to promote the proper use of the City's OMG Media bins.

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