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### **MANAGEMENT OF ELECTRONICS COLLECTED IN YORK REGION RECYCLING PROGRAM**

**The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated March 28, 2012, from the Commissioner of Environmental Services.**

#### **1. RECOMMENDATIONS**

It is recommended that:

1. Council endorse an approach to manage electronics consisting of:
  - a. secure recycling of electronic materials and component parts that may contain private information at York Region public drop-off depots and events.
  - b. continued promotion through the Regional website and at depots, of reuse opportunities for suitable electronics.
2. The Commissioner of Environmental Services be authorized to execute up to two one year contract extensions for electronics collection and processing in accordance with terms in the competitive tender for electronics management.

#### **2. PURPOSE**

This report seeks Council endorsement for management of electronics, including secure recycling of materials collected in the York Region electronics recycling program at public drop-off depots and promotion of reuse opportunities through the Regional website and at depot locations. In addition, this report outlines requirements of the upcoming electronics recycling tender and contract which reinforce secure recycling.

#### **3. BACKGROUND**

##### **Energy recovery from residual waste requires an effective electronic material recycling program**

York Region operates six public drop-off depots where residents can take their electronics for recycling. Residents are permitted to bring the following electronic materials to depots for recycling:

- computers including modems, attachments, cables and software (e.g. disks, CDs, DVDs)
- monitors, printers, scanners, electronic games (e.g. Xbox)

- photocopiers, fax machines
- telephones, cell phones, pagers, PDAs, answering machines
- cameras
- VCRs, DVD players, radios, stereos, turntables
- video projectors
- automobile "computer" modules
- televisions
- amplifiers, receivers, tuners, audio speakers from stereos and automobiles
- electronic thermostats without mercury

**With growing reliance on energy from waste, York Region must be diligent in removing electronics from residual waste stream**

York Region has adopted a 4Rs approach to waste management (reduce, reuse, recycle and recover) with priority given to energy recovery over landfill disposal. Electronic materials are unsuitable for energy recovery from residual waste due to metals and hazardous materials in these products. Currently the Region holds a contract with Dongara for residual waste and the Durham York Energy Centre is scheduled to come online in 2014. As a result, York Region is endeavouring to minimize the amount of electronic materials in the residual waste stream to support these energy recovery initiatives.

**Contract with existing processor expires May 31, 2012**

Residents have an expectation that materials are managed and recycled in a secure and environmentally responsible manner. In an effort to address these concerns, York Region sends all electronic materials to a processor to be securely destroyed and one hundred percent of this material is recycled.

Electronic materials collected at public drop-off depots are currently processed through a contract with Greentec. The initial contract term was two years and an additional one year extension has been exercised. All available extensions have now been used and the contract expires on May 31, 2012. Under the current contract with Greentec, refurbishment of electronic materials from York Region public drop-off depots is not permitted.

#### **4. ANALYSIS AND OPTIONS**

##### **Third party contract with registered processor maximizes revenue for the Region**

Waste electronic and electrical equipment is a designated material under Ontario's Waste Diversion Act. Ontario Electronic Stewardship is the Industry Funding Organization designated by the province as responsible for ensuring environmentally responsible and ethical end-of-life management for electronic materials generated in Ontario.

Ontario Electronic Stewardship would pay \$150 per tonne for a portion of electronics collected at Region depots. Under the current contract, Greentec pays York Region \$242.51 per tonne for the same portion as they can pass on to the Region a portion of transportation and processing incentives they receive from Ontario Electronic Stewardship. Revenue generated from this program helps offset costs associated with operating York Region Household Hazardous Waste Depots and Community Environmental Centres, where electronics are currently collected. As a result, a tender has been issued for recycling services for electronics collected at York Region depots.

##### **Electronic materials collected at York Region depots sent for secure recycling to ensure public protection and reduce Region's potential risk**

York Region's current contractor, Greentec, is a registered collector and processor under the Ontario Electronic Stewardship program. As part of the approval process, Ontario Electronic Stewardship conducts robust audits of their processes and records on an annual basis to confirm they are fully compliant with program requirements. In addition to these audits Ontario Electronic Stewardship requires Certificates of Destruction before they will pay any processing incentives. Certificates of Destruction are an industry standard that requires Contractors to be accountable for ensuring materials are securely recycled. By performing these checks Ontario Electronic Stewardship ensures that all materials intended for their program are processed per the requirements of their program.

York Region has taken steps in addition to Ontario Electronic Stewardship's processing requirements to ensure safety of resident's data. York Region's current contract with Greentec includes a destruction clause that requires full destruction and recycling of all materials collected from public drop-off depots. These steps protect residents and limit liability of York Region regarding identity theft and ineffective data destruction. York Region staff have directly observed Greentec's disassembly process for all electronic equipment from York Region depots and found that it includes the following steps which follow industry best practices for electronic materials management:

- Electronics received are weighed
- Hazardous materials are safely removed for recycling
- Electronic materials are then dismantled and separated into individual components
- Cables and heavy pieces of steel which can affect the shredding process are removed

- Components, including hard drives, are shredded to 30 mm pieces to ensure all data is destroyed
- Materials which cannot be separated into individual material types are shredded to create even sized pieces and smelted by end markets to extract materials to be recycled

All materials collected in York Region's electronics recycling program are sent for processing in this manner to ensure compliance with Ontario Electronic Stewardship standards and full cost recovery. This process ensures personal information cannot be accessed and used for unintended purposes. Processing all electronic materials in this manner reduces privacy risks, increases revenue, and maximizes diversion rates.

### **Quality of municipally-collected electronics not suitable for reuse and refurbishment**

The quality of electronics collected municipally is not suitable for reuse or refurbishment. In terms of quality, Greentec audited electronics collected from York Region public drop off facilities and determined that less than one per cent of items were suitable for refurbishment. The low percentage of available electronics for refurbishment can be attributed to low quality electronics being dropped off. This represents a far lower proportion of refurbishable materials as compared to the corporate sector. The corporate sector refreshes and discards electronics on a more frequent basis than residents.

This approach on refurbishment is consistent with other GTA municipalities. Durham Region, Halton Region, Peel Region, and the City of Toronto do not provide electronics for refurbishment from their electronics recycling programs.

### **Additional options are available for residents to donate to charitable organizations directly**

Computer refurbishment is permitted under the Ontario Electronic Stewardship program. Registered refurbishers can be found on the Ontario Electronic Stewardship website [www.recycleyourelectronics.ca](http://www.recycleyourelectronics.ca). This program is open to any group with the ability to meet the standards defined by Ontario Electronic Stewardship and are audited by a third party compliance auditor on an annual basis. There are several Ontario Electronic Stewardship approved refurbishers in York Region currently listed on the [www.recycleyourelectronics.ca](http://www.recycleyourelectronics.ca) website where residents can bring computers for refurbishment.

Primarily, Ontario Electronic Stewardship approved refurbishers are for profit companies. York Region will commit to support charitable refurbishment organizations by providing residents that wish to donate materials with contact information for reputable charities on the Region website and information at the depots. This information will also connect residents in need of low-cost computer equipment with refurbishers.

Publication of this information focuses on reuse and allows residents to choose whether they want to donate their computers for refurbishment or if they would prefer for it to be securely recycled.

### **Tender for new processing contract being issued will allow for adaptation to future program and policy changes**

York Region's current contract with Greentec expires on May 31, 2012. A reverse tender is being advertised for transportation and secure recycling of all electronic materials collected at Region public drop-off depots. In a reverse tender, the contract is awarded to the bidder who is willing to pay the Region the highest price per tonne while meeting the requirements outlined in the tender. This tender will be for a one year term with two possible one year extensions. This will provide York Region with the option to terminate the contract within one year if required due to changes in Ontario Electronic Stewardship program incentives or other policy changes.

This tender will include additional provisions to ensure secure recycling practices are maintained throughout the duration of the contract. Bidders will be required to be Ontario Electronic Stewardship approved processors to ensure all materials are eligible and are processed through the Ontario Electronic Stewardship program. In addition, the successful bidder will be required to provide Certificates of Destruction for all York Region materials. The processing site will be inspected by York Region staff twice per year to verify that contractors are working in compliance with contract conditions.

### **Link to Key Council-approved Plans**

Electronic materials management practices outlined in this report supports the following 2011 to 2015 Strategic Plan goals:

- Continue to Deliver and Sustain Critical Infrastructure by increased diversion of solid waste from landfill
- Making Regional Services more User-Friendly

## **5. FINANCIAL IMPLICATIONS**

York Region's current contract with Greentec expires on May 31, 2012. As outlined above, a reverse tender has been issued for transportation and secure recycling of all electronic materials collected at Region depots. In a reverse tender, the contract is awarded to the bidder who is willing to pay the Region the highest price per tonne while meeting requirements outlined in the tender. Future revenue in June 2012 and beyond associated with the upcoming contract will be determined based on bids received. In 2011, under the current contract with Greentec, York Region received \$324,000 in

revenue. Revenue from this program is used to offset taxpayer costs for the Region's waste management programs.

## **6. LOCAL MUNICIPAL IMPACT**

If a transition between service providers occurs, Region staff will ensure a seamless transition to maintain service levels in partnership with our local municipalities. Over the past year, several local municipalities have been offering local electronic collection events and this upcoming contract will not preclude operation of these events with a processor of their choice. Local municipalities are also free to operate a reuse collection event in cooperation with a processor and refurbisher. York Region has also included a requirement in the tender for the winning bidder to operate an average of five electronics collection events per year throughout the Region.

If local municipalities operate a collection event they are encouraged to consider the vendor who is awarded the Regional tender to operate reuse or recycling events in their communities. York Region requests that tonnage data from local electronics collection events be provided to the Region to be included in diversion rates calculations. Although local municipalities are not precluded from operating collection events, the existing depot network provides convenient and consistent access to residents beyond a one day event. Additionally, revenue generated through collection of electronics helps offset the operating costs of York Region depot facilities.

### **Cross-promotion of Regional depots and local events will assist in increasing electronics capture rates and provide options for reuse**

Moving forward, York Region proposes that a partnership approach be used to cross-promote electronics management at local municipal collection events. Under this partnership, York Region would promote local municipal events and event staff would distribute brochures on Region depots to visitors. This approach would inform residents where electronics can be disposed of outside of event days and would be mutually beneficial for increasing electronic waste capture rates. Information distributed to residents will also include additional options for donation of suitable electronics to charitable organizations.

## **7. CONCLUSION**

### **Secure recycling is best approach for municipally managed electronics due to privacy concerns and quality of collected materials**

According to Greentec, "off-lease" computers from the corporate sector are better candidates for reuse or refurbishment and are typically managed outside of the municipally collected stream. In addition, residents entrust York Region to ensure their

personal data is managed in a secure manner. Based on limited quantities of refurbishable materials available and privacy concerns, a tender was released requesting full destruction of all electronic materials. In an effort to support the 4Rs hierarchy and provide residents reuse options, opportunities for reuse and refurbishment will be listed on the Regional website and information available at the depots. This will link residents who choose to donate their computers for refurbishment with reputable charities.

### **York Region's electronics processing contract expires May 31, 2012**

Based on the current York Region electronics program, partnering with a processor for electronics recycling represents the best value to the Region and its residents. As a result, a reverse tender has been released to obtain the highest revenue possible through a competitive process, for management of the current York Region electronics stream.

### **Under the upcoming electronics contract, local municipalities can operate collection events with a processor of their choice but are encouraged to consider the Region's processor**

Based on staff research, the approach outlined in this report represents the best option which is available for electronic materials management in York Region at this time. If significant changes are proposed to the Ontario Electronic Stewardship program in the future, Regional electronics management approaches can be reassessed as required.

For more information on this report, please contact Laura McDowell, Director of Environmental Promotion and Protection at 905-830-4444 Ext. 5077.

The Senior Management Group has reviewed this report.