

REPORT FOR ACTION**Implementation Plan and Framework for Integrating Circular Economy Approaches into City Procurement Processes to Support Waste Reduction and Diversion**

Date: May 23, 2018

To: Government Management Committee

From: General Manager, Solid Waste Management Services, and Treasurer

Wards: All

SUMMARY

In 2016, City Council approved the Long Term Waste Management Strategy and directed the City Manager to form a Cross-Divisional Circular Economy Working Group (the Working Group) to make the City of Toronto the first city in the province with a Circular Economy. Members of the Working Group include: Solid Waste Management Services (Chair), Purchasing and Materials Management Division, Parks, Forestry and Recreation, City Planning, Facilities Management, Economic Development and Culture, Transportation Services, and Toronto Water. Subsequently, Government Management Committee in November 2017 directed the City Manager to report back to Government Management Committee with a strategy for City procurement to drive waste diversion through the Circular Economy.

This report provides information on the Circular Economy Procurement Implementation Plan and Framework (the CE Framework) that can be applied within the City's purchasing process to drive waste reduction, economic growth, and social prosperity. The CE Framework is the result of collaboration and efforts of the Working Group and is supported by their respective Divisions.

The report summarizes work undertaken by the Working Group, stakeholder engagement activities, and timelines for interim and final project reporting. It also describes potential pilot projects that will be explored and includes a jurisdictional scan describing how other governments include elements of a Circular Economy within their procurement processes.

RECOMMENDATIONS

The General Manager of Solid Waste Management Services, and Treasurer recommends that:

1. The Government Management Committee receive this report for information.

FINANCIAL IMPACT

There are no immediate financial implications resulting from this report.

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

DECISION HISTORY

At its meeting of November 13, 2017, Government Management Committee considered item GM23.24, "Meeting the City's Environmental and Circular Economic Commitments Through Procurement," and directed the City Manager to report to Government Management Committee on June 15th, 2018 with a strategy for City procurement to drive waste diversion through the Circular Economy.

The Government Management Committee Decision document can be viewed at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.GM23.24>

At its meeting of November 14, 2016, Government Management Committee adopted item GM16.5, Purchasing and Materials Management Review: Strategy for Category Management and Strategic Sourcing (CMSS), a report outlining Purchasing and Materials Management Division's work to transform its business practices to play a more strategic role in the procurement of goods and services and to include CMSS as part of the 2017 budget request.

The Government Management Committee Decision document can be viewed at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.GM16.5>

At its meeting on July 12, 2016, City Council adopted item PW14.2, Final Long Term Waste Management Strategy, and requested the City Manager to form a cross-divisional Circular Economy Working Group, including Solid Waste Management Services, Environment and Energy, Toronto Water, Purchasing and Materials Management Division and Facilities Management, among others, to develop a strategy and policy framework to make the City of Toronto the first municipality in the province with a Circular Economy and to align with the Provincial goal as part of the new *Resource Recovery and Circular Economy Act, 2016*.

The Council Decision document can be viewed at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.PW14.2>

COMMENTS

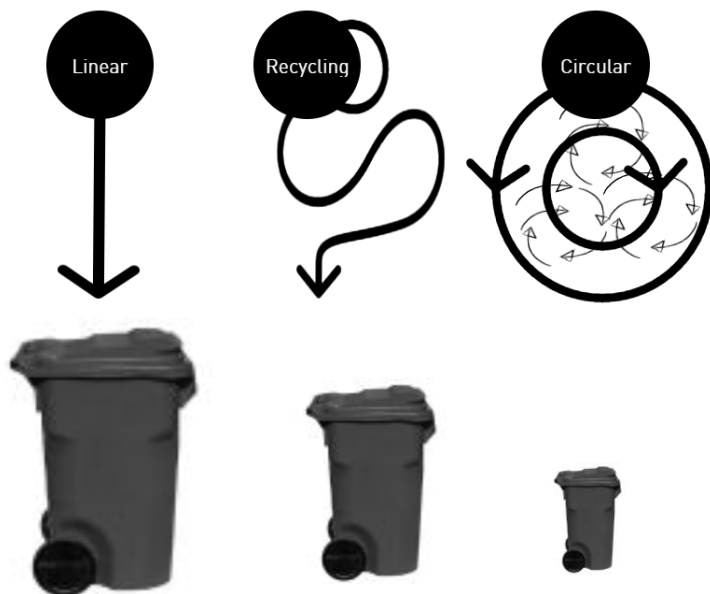
Overview of the Circular Economy

The Circular Economy is an approach that is restorative and regenerative by intention and design. The current linear 'take-make-dispose' pattern – in which resources are

extracted, made into products that are used for a short period of time, and then disposed – pays insufficient attention to the high social, environmental, and economic costs of waste.

In contrast to the current linear and recycling systems, a circular system closes the resource and material loop. It keeps resources in use for as long as possible and then regenerates them into something else (with value) at the end of their service life.

Figure 1 - A visual representation of the linear, recycling, and circular systems.



The Province of Ontario's *Resource Recovery and Circular Economy Act, 2016* defines a Circular Economy as one in which participants strive to:

- Minimize the use of raw materials;
- Maximize the useful life of materials and other resources through resource recovery; and,
- Minimize waste generated at the end-of-life of products and packaging.

For the closed-loop circular system to function properly, a Circular Economy requires a shift in the way people think about waste, how products and packaging are designed, and how waste is managed to maximize resource recovery. Based on the principles of product longevity, renewability, reuse, and repair, Circular Economy aims to "do more with less" by waste prevention through innovation and harnessing the full value of resources.

In addition to improved environmental outcomes, a growing body of research, pilot projects, and modelling by the Ellen MacArthur Foundation suggests that the transition to a Circular Economy presents a clear opportunity for enhancing economic performance, social outcomes, and profitability. Transitioning to a Circular Economy can also decrease the risk associated with the reliance on external sources of raw materials

and labour, improve economic outcomes, and improve the resiliency of city services and infrastructure.

Benefits of Integrating Circular Economy Principles into City Procurement

Integration of Circular Economy principles into the procurement process will foster sector leadership and leverage the City's purchasing power in a way that is consistent with several existing City strategic directions, including:

1. Implementation of the City's Long Term Waste Management Strategy (Waste Strategy)

The City's Waste Strategy makes a commitment to minimizing waste by targeting waste reduction and reuse, working towards an aspirational goal of zero waste, and establishing a Circular Economy/waste reduction advisory group to inform ongoing waste planning and implementation. In accordance with the Waste Strategy implementation plan, the CE Framework will be one of the first steps towards making the City of Toronto the first municipality in Ontario with a Circular Economy. Specifically, the Waste Strategy identifies a key performance metric as “the number of annual procurements that include waste reduction, reuse or recycling requirements such as mandating the use of recycled materials.”

2. Supply Chain Management Transformation Program

Purchasing and Materials Management Division, as part of its Supply Chain Management Transformation Program, is in the process of implementing its Strategy for Category Management and Strategic Sourcing (CMSS). CMSS will focus on key goods and services in order to drive lower total cost of ownership and other benefits. Circular Economy integration into procurement processes can also send a harmonized message up and down the supply chain concerning the value of resources, including incentives for using waste previously requiring disposal as material for new production cycles.

3. Support for Corporate-Wide Strategies

The CE Framework aligns with and supports several additional existing City-wide strategies that aim to enhance City social, economic, and environmental outcomes, including:

- *TransformTO*: which identifies the City's greenhouse gas emissions reduction targets (i.e. 80 per cent of 1990s levels by 2050) to improve health, grow our economy, and improve social equity;
- *City of Toronto Consolidated Green Fleet Plan 2014-2018*, which identifies a number of circular targets and actions, such as 4.1A, "Purchase, lease or otherwise obtain the most fuel-efficient vehicles where appropriate for the City operations, while considering lifecycle cost of the vehicle";
- *Toronto Strong Neighbourhood Strategy 2020*, which identifies Action #70, "Invest in green jobs and a green neighbourhood" under the broader strategic theme "Create a

cleaner, healthier environment"; and,

- *City of Toronto Strategic Actions 2012-2018*, which identify "Environmental Sustainability" and "Fiscal Sustainability" strategic themes.

Opportunities at the Local, Provincial, National, and International Levels

In the local, provincial, and international contexts, there are a number of potential areas for the City of Toronto to play a leading role in enabling the transition to a Circular Economy through its integration into City procurement.

- *Changing local natural resource consumption and reliance to reduce negative impacts.* Recent global figures from the United Nations Environment Program illustrate that cities account for 75 per cent of natural resource consumption, 50 per cent of global waste production, and 60-80 per cent of greenhouse gas emissions. The City of Toronto could positively impact change in this area by implementing circular economy procurement principles.
- *Alignment with new provincial policy direction, including support for the Resource Recovery and Circular Economy Act, 2016, the Food and Organic Waste Framework, and the Climate Change Mitigation and Low-carbon Economy Act.* Integration of principles into City procurement processes directly aligns with the *Strategy for a Waste Free Ontario: Building the Circular Economy*, which accompanies the *Resource Recovery and Circular Economy Act* and the associated *Waste Diversion Transition Act, 2016*. Action #14 of the Strategy calls for "the use of green procurement practices to build market demand for recovered materials." Additionally, the *Climate Change Mitigation and Low-carbon Economy Act* and accompanying *Climate Change Action Plan and Strategy* set out a plan to ensure greenhouse gas pollution is reduced while boosting low-carbon innovation.
- *Support for national and international-scale action plans* including the C40 cities climate change compact and the Organization for Economic Co-operation and Development guidance documents on resource efficiency and Extended Producer Responsibility (EPR). Additionally, the Canada-wide Action Plan for EPR and the Canada-wide Strategy for Sustainable Packaging both aim to enhance producer responsibility, by transforming existing product stewardship initiatives into full EPR programs.
- *An opportunity to increase the City of Toronto's resilience and control our responses to global events*, such as the international decline in traditional markets and profitability across the recycling industry. Circular Economy procurement integration can help the City to mitigate risks associated with end-of life management (due to changes in manufacturing and consumer behaviour, technical challenges, and decreasing demand for recycled material).

Circular Economy Procurement in Other Jurisdictions

In the development of the CE Framework, City staff surveyed a total of 111 jurisdictions to determine whether they had a Circular Economy policy or had embedded Circular

Economy language into their public procurement processes. The list of survey questions asked are located in Attachment 2 (Table 1) and the results of the survey are found in Attachment 2 (Tables 2 and 3).

Out of the 111 jurisdictions surveyed, 37 responded. Of the survey responses received, 33 jurisdictions reported having no formal Circular Economy policy in procurement. Four of the jurisdictions surveyed reported that while they had no formal Circular Economy policy, they did include elements of Circular Economy within their sustainable procurement processes. The four jurisdictions are: the City of Oslo, Norway; the City of Windsor, Ontario; the Province of British Columbia, and the City of Columbus, Ohio. Survey results suggest that the following three key elements may be useful implementation tools for the integration of circular economy approaches into procurement:

- Category management as an approach to risk management and working with the supply chain to deliver on current and future needs. The CE Framework aligns with the City's Supply Chain Management Transformation Program and leverages the updated spend analysis (analysis of what the City buys) in order to determine which procurements to select for Circular Economy procurement pilot testing (CE Pilots).
- Life-cycle analysis to assess products and service costs throughout the entire lifespan, from production to end-of-life. Category management at the City will leverage life-cycle analysis which will be a key component of CE Pilot selection.
- Promoting repair, reuse, remanufacturing, repurposing, and recycling so that products can be repaired to maximize length of useful life, reused or shared to maximize product utility, and disassembled and recycled to maintain maximum value of resources for products at the end of their useful life. These key circular principles will be considered in CE Pilot selection, in addition to internal capacity-building and the external communication of key circular principles through market engagement.

Circular Economy Procurement Implementation Plan and Framework

The City has a history of social, economic and environmental procurement policies including the City's Environmentally Responsible Procurement Policy (1999), Purchase of Garments and Other Apparel from Responsible Manufacturers (no-sweatshop) Policy (2008), and most recently, Social Procurement Program (2016).

Even though the City has not yet developed a Circular Economy procurement process, the City already has experience with innovative and closed-loop contract solicitations. For example, the City's original contract for curbside Blue Bins and garbage bins included:

- An extensive 10-year warranty which required the industry to provide a quality product that would last (reducing the need for more resources, inputs and less replacement costs); and,
- Repair options and service for wheels, lift bars, and lids that allow for bin redeployment and reuse as customers upsize and/or downsize bins according to

their needs (customers can choose the size of their Blue Bin and garbage bin ranging from small to extra-large).

Not only has the City benefited from having over 75 per cent of Blue Bins and garbage bins in service for longer than the originally specified 10 year warranty, but the structure of the contract has created 9 full time jobs in the Greater Toronto Area economy. Positions include four full time drivers, one office and logistics coordinator, three warehouse staff and one contract and account manager. Additionally, the industry marketplace appears to have embraced the new contract standard, as the introduction of these durability and repair/deployment specifications has not decreased the potential pool of bidders.

In order to drive incorporation of Circular Economy principles into the City's procurement process, staff have developed a Circular Economy Procurement Implementation Plan and Framework (CE Framework), found in Attachment 1, which supports the eventual development of an evidence-based Circular Economy procurement policy. Informed by global best practices and cross-divisional work, the CE Framework articulates the principles, goals, and objectives that will guide the City's approach to piloting circular procurement of goods and services and issuing contracts.

In addition to outlining clear principles, goals, and objectives related to Circular Economy procurement, the CE Framework presents a project plan and timelines for CE Pilots, metrics identification and reporting, and staff and stakeholder engagement.

Updates on the implementation of the CE Framework will be reported back in 2019, with a final recommendation on how to integrate Circular Economy principles into the City's existing procurement policy in 2021.

Purchasing and Materials Management Division's top priority over the next three years will continue to focus on the City's Supply Chain Management Transformation Program under which, the Division is working to modernize the procurement process to improve efficiency and to allow for more strategic and flexible approaches to procurement. As a result, the Division will make best efforts to work collaboratively with Solid Waste Management Services to integrate the principles of Circular Economy into the City's procurement process including Circular Economy pilot testing as Purchasing and Materials Management Division implements the City's Supply Chain Management Transformation Program.

Next Steps

In addition to the stakeholder engagement undertaken to date (Refer to Attachment 3), and in line with the CE Framework outlined in Attachment 1, the Working Group will implement divisional CE Pilots, align with the City's Supply Chain Management Transformation Program to leverage an updated spend analysis, and undertake consultation and market engagement with stakeholders on the CE Framework. The Solid Waste Management Services and Purchasing and Materials Management Division will jointly report back with an interim report on the progress of the Circular Economy Procurement Implementation Plan and Framework in 2019.

CONTACT

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SIGNATURE

Jim McKay
General Manager
Solid Waste Management Services

Mike St. Amant
Treasurer

ATTACHMENTS

Attachment 1: City of Toronto Circular Economy Procurement Implementation Plan and Framework (CE Framework)

Attachment 2: Survey of Circular Economy Procurement in Other Jurisdictions

Attachment 3: Summary of Stakeholder Engagement