



## STAFF REPORT ACTION REQUIRED

### Award of Request for Proposal No. 0401-14-3100 to Rehrig Pacific Company for the Next Generation Green Bin

|                          |  |
|--------------------------|--|
| <b>Date:</b>             | March 19, 2015   |
| <b>To:</b>               | Public Works & Infrastructure Committee  |
| <b>From:</b>             | General Manager, Solid Waste Management Services<br>Director, Purchasing and Materials Management Division |
| <b>Wards:</b>            | All  |
| <b>Reference Number:</b> | P:\2015\Cluster B\SWM\April\006PW (AFS#20275)  |

#### SUMMARY

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The purpose of this report is to advise on the results of the Request for Proposal No. 0401-14-3100 (the “RFP”) for the manufacturing, distribution and maintenance of the next generation green bin to household residences receiving curbside collection services of organic materials; and to request authority to enter into an agreement with the highest scoring proponent, Rehrig Pacific Company, in a form satisfactory to the City Solicitor.

The next generation bins will replace the existing 46.5 litre green bins that were introduced over four years from 2002 to 2005, and are reaching the end of their expected 10-year lifespan. The new bins have a capacity of approximately 100 litres in size, feature a rodent resistant locking lid and can be collected with automated collection vehicles. It is expected that the distribution of the new green bins will commence in late 2015 or early 2016.

#### RECOMMENDATIONS

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**The General Manager of Solid Waste Management Services and the Director of Purchasing and Materials Management Division recommend that:**

1. City Council authorize the General Manager, Solid Waste Management Services, to negotiate and enter into an agreement with Rehrig Pacific Company being the highest scoring proponent meeting the requirements for Request for Proposal No. 0401-14-3100 for the manufacturing, distribution and maintenance of the next

generation green bin to residents receiving curbside collection of organics for a period of 10 years, commencing on the first day bins are delivered, in accordance with terms and conditions as set out in the RFP and any other terms and conditions satisfactory to the General Manager, Solid Waste Management Services and in a form satisfactory to the City Solicitor, at a estimated total amount of \$31,054,155.00 (including 10% contingency) net of all applicable taxes or charges, or \$31,600,708.13 net of HST recoveries.

## Financial Impact

The total 10-year contract cost for the manufacturing, distribution and bin maintenance for the next generation green bin is \$31,054,155.00 (including 10% contingency) net of all applicable taxes and charges, or \$31,600,708.13 net of HST recoveries.

The total capital cost for the initial purchase and distribution of the next generation green bins and the collection of old bins is estimated at \$27,098,500.00 (including contingency) net of all applicable taxes and charges or \$27,575,433.60 net of HST recoveries. Funding in the amount of \$27,575,433.60 is included in the 2015 Approved Capital Budget and 2016 to 2024 Capital Plan for Solid Waste Management Services in the Capital Account CSW004-20-04 with an estimated cash flow of \$11,093,000.00 in 2015 \$16,482,400.00 in 2016 as shown in Table 1.

The total 10-year operating costs for the period 2017 to 2026, related to bin maintenance and additional bin deliveries to new residents is \$3,955,655.00 (including 10% contingency) net of all applicable taxes and charges or \$4,025,274.53 net of HST recoveries, funding of which will be included in 2016-2025 annual Operating Budget Submissions. The operating annual impact, starting in mid-2017, is estimated to be \$447,252.73 (excluding inflationary adjustments) as described in Table 1.

Table 1: Capital & Operating Budget Impact

| <b>Capital Budget Impact<br/>(in \$000s)</b> | 2015     | 2016     | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | <b>Total<br/>(10-Year)</b> |
|--|----------|----------|------|------|------|------|------|------|------|------|----------------------------|
| CSW004-20-04                                 | 11,093.0 | 16,482.4 |      |      |      |      |      |      |      |      | <b>27,575.4</b>            |

  

| <b>Operating Budget Impact<br/>(in \$000s)</b> | 2015 | 2016 | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  | <b>Total<br/>(10-Year)</b> |
|--|------|------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------|
| SW0008-2720                                    |      |      | 223.6 | 447.3 | 447.3 | 447.3 | 447.3 | 447.3 | 447.3 | 447.3 | <b>3,354.4</b>             |

Given the instability of plastic resin market prices (which is the major material cost for the bins) the 18 month production time required for the initial distribution and the 10-year contract, the City included a contingency utilizing a resin price adjustment formula in the RFP to mitigate risks involved with resin pricing. Resin price adjustments can raise or lower the price of the bins to the City and will commence when the initial deliveries start. The pricing will be reviewed and adjusted based on a resin price index according to the terms of the contract as set out in *Section 3.13.2 Resin Price Adjustment* of the RFP. The resin price is

based on a published index, either CDI or Plastic News. The resin formula states the price fluctuation per Bin, based on the resin price fluctuation per pound in US dollars.

The City also recognized in the RFP that the cost to deliver bins to new residents and maintain existing bins throughout the 10-year contract will increase due to the potential increases in fuel prices, labour costs, etc. To account for this inflation, upon completion of the initial distribution of green bins, the City will annually adjust the distribution bid price and maintenance price for future years by the Consumer Price Index (CPI) for Toronto from the preceding year, according to the terms of the contract as set out in *Section 3.9.2. of the RFP*

The recommended inflation factor is currently 2% per annum.

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information.

## **DECISION HISTORY**

### **Proposed Initiatives and Financing Model to Get to 70% Solid Waste Diversion by 2010**

At its meeting of June 19, 20 and 22, 2007, City Council adopted the recommendations in EX9.1 entitled “Proposed Initiatives and Financing Model to Get to 70% Solid Waste Diversion by 2010”, as amended.

City Council Decision document can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2007/cc/decisions/2007-06-19-cc10-dd.pdf>

### **2014 Solid Waste Rates**

At its meeting of December 16, 17 and 18, 2013, City Council adopted the recommendations in the Executive Committee Report EX36.18 “2014 Rate Supported Budgets - Solid Waste Management Services and Recommended 2014 Solid Waste Rates”. Recommendation No. 2 of the staff report authorized the phasing in of rates for Agencies, Boards, Corporations, Divisions and School Boards over four years to eventually harmonize with the Commercial rate.

The City Council Decision document can be viewed at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2013.EX36.18>

## **BACKGROUND**

The Green Bin Program began in the Etobicoke District in 2002, and was rolled out over four years to the remaining households receiving curbside collection throughout the City of Toronto. The original green bins were estimated to have a life expectancy of approximately 10 years. Approximately 500,000 green bins are currently being used by residents. These bins are reaching the end of their life expectancy and require replacement.

Although the current green bins have been effective in increasing diversion, the replacement of the current bins provides an opportunity to make improvements, including making adjustments to the bins so they are:

- easier to use for residents;
- rodent resistant, especially for racoons; and
- suitable for automated collection to align with garbage and recycling collection, which was automated in 2008.

The City of Toronto paved the way for green bin programs in Ontario in 2002 and the RFP developed at the time evolved collection containers that were available on the market. This innovation has continued with development of the RFP for the next generation green bins. A RFP was previously issued in 2013 for the next generation green bin; however the call was cancelled due to insufficient funding at the time. The Capital Budget was subsequently increased and approved by City Council on December 18, 2014. A new RFP was issued on May 12, 2014 and closed on June 23, 2014.

## **Research**

Due to the capital cost and the 10-year investment, Solid Waste Management Services felt it prudent to conduct an outreach with the public and bin manufacturers, to ascertain an understanding of any issues or concerns that may have been experienced when using the existing green bins during the contract term of 2002-2012. This was an opportunity for Solid Waste Management Services to take the issues raised into consideration when preparing for the issuance of the next generation green bin RFP.

## **Public Outreach**

A survey was conducted in the summer of 2012 by an independent research firm, Ipsos Reid, to conduct research amongst residents who currently use a green bin for organics collection. This survey was intended to collect feedback concerning the current green bin and investigate opinions and satisfaction regarding the size of the current bin, rodent resistant, durability and the ability to wheel the bin to the curb. New features such as a larger green bin, a more secure latch for rodent resistant and the ability for the bin to be collected with an automated vehicle were presented to the residents requesting their feedback.

In total, 501 on-line interviews were conducted of Toronto residents who were over 18 years old, who participate in the green bin program and are responsible for taking their material to the curb for collection. The following are the key survey findings:

- Respondents mentioned that rodent resistant is the most important feature of their green bin (67% percent indicated extremely important). However, residents are the least satisfied with these features on the current bin (only 15% indicated that they were extremely satisfied), four out of 10 residents indicate that their green

bin gets knocked over often (42%) by animals while another four out of ten (43%) mention that their green bin is rarely knocked over. Residents mention that this happens equally when:

- the green bin is stored (35%); and
- the green bin is placed at curbside (28%).

- Residents were provided pictures and dimensions describing an automated green bin. Two-thirds (64 %) of respondents preferred the proposed bin over the existing one, while one-third (36%) preferred the current bin.
- When asked if they would be willing to unlatch the green bin when placed at the curb, the preference for the proposed bin declined by 15% and residents were split in their preference for the proposed green bin (49%) or the current bin (51%).
- An almost equal proportion of respondents indicated that they take their green bin to the curb for collection on the morning of pick-up (47%) or the evening before (53%). Three-in-ten (28%) residents who put their green bin out in the morning would not be willing to leave the bin unlatched, while half (55%) would not be willing to unlatch the bin in the morning, if they take it to the curb in the evening.
- Respondents are by far most likely to support a new bin that has a more secure latch to prevent animals from entering the bin (72% “strongly support” and 19% “somewhat support”). About seven-in-ten respondents would support a green bin with larger wheels (69%) and a bin designed for automated collection (66%).
- Upon viewing images of the proposed green bin, six-in-ten (60%) respondents feel the bin is “just about the right size”; while 39% feel it is “too big”. Although about half (48%) of respondents agree that they would have storage issues with the proposed green bin, it is almost the identical proportion of respondents who have storage issues with the current bin (44%).

## **Bin Manufacturers**

In December 2012, Solid Waste Management Services staff invited bin manufacturers to discuss various issues surrounding the next generation green bin. Each of the manufacturers received a list of the same questions to which they were required to prepare responses and to discuss the size of the green bin, automated lifters function, racoon latch, and manufacturing time lines.

The manufacturers advised staff that the bin needed to meet minimum design specifications to ensure automated lifters function properly. The design standards are set by the American

National Standards Institute (ANSI). From this information, the bin manufacturers noted that the smallest bin that could be designed would be in the 100 litre size range.

## **Procurement Process**

### **Request for Proposal (RFP) No. 0401-13-3001**

A RFP 0401-13-3001 was issued in 2013 for the next generation green bin; however the call was subsequently cancelled due to lack of funding. The Capital Budget was subsequently increased and approved by City Council on December 18, 2014.

### **Request for Proposal (RFP) No. 0401-14-3100**

Following the approval of the Capital Budget, the Request for Proposal 0401-14-3100 for the next generation green bin was issued by Purchasing and Materials Management Division (PMMD), posted on the City's internet website and was made available for download on May 12, 2014 and closed on June 23, 2014. Proponents were required to submit a Technical Proposal and a Cost of Service submission in two separate envelopes. A total of six firms downloaded the document from the PMMD website or purchased a hard copy of the RFP document.

The RFP's scope of work was for the manufacturing, distribution and maintenance of the next generation green bin to household residences receiving curbside collection of organics for a 10-year contract term. The RFP specifications for the green bin design incorporated the dimensional requirements stated by the industry for automated collection and addressed the residents' needs obtained from the survey. Some of the key RFP specifications for the next generation green bin included:

- Must meet the ANSI design standards.
- Must be rodent resistant and contain a latch that will remain secured at the curb and open mechanically during the collection process.
- The upper rim of the bin body must contain a substantial ledge to prevent raccoons from prying the lid open to obtain the contents; the lid must seal tightly preventing the intrusion of flies and the emission of odours.
- The bin must be designed to be collected with both semi-automated and automated type lifting devices (bins will not be manually lifted by collection crews).
- The lid and latch must have an external handle that facilitates ease of use and allows the resident to open the lid single handed without touching the interior of the lid.
- Bins must be weather-proof including blocking the intrusion of rain and snow, resistant to extreme heat and cold and from being blown over by strong winds.

- Equipped with wheels with a sufficient diameter to allow for easy movement.
- The capacity of the bin shall be between 80-100 litres in size.
- Distribution will be completed to all households within 18 months from the time deliveries start.
- The bins and all parts have an unconditional non-pro-rated 10-year warranty from the date of delivery.

### **Evaluation of the Proposal Submissions**

A total of six proponents responded to the RFP as follows:

1. IPL Inc.
2. Orbis Canada Ltd.
3. Otto, Environmental Systems North America, Inc.
4. Rehrig Pacific Company
5. Scepter Canada Inc.
6. Toter (Wastequip LLC)

The evaluation process consisted of four distinct steps:

Step 1 – Mandatory Submission Requirements – Pass/Fail  
 Compliance with Mandatory Submission Requirements  
 Compliance with Mandatory Technical Requirements

Step 2 – Review Written Proposals – Total Score 100 points  
 (Proponents must score a minimum 75 points to continue to Step 3)

Step 3 – Review Functional Prototypes – Total Score 75 points  
 Scoring starts new, and does not carry forward from Step 2  
 (Proponents must score a minimum of 75% to continue to Step 4)

Step 4 – Opening of the Cost of Services Envelope for the remaining proposals and determining a price score for each proposal - Cost - Price/Cost: - Total Score 25 points [Formula: (lowest cost Proposal / Proponent's Proposal cost) x 25]

The evaluation team was comprised of 10 members, seven were from Solid Waste Management Services, two Senior Ergonomic Consultants from Occupational Health, Safety & Worker's Compensation and one Senior Financial Analyst\*, from Corporate Finance (\*only evaluated the financial stability of the proponents).

Five Proponents met the mandatory evaluation criteria to proceed to Step 2. The proposal from Otto, Environmental Systems North America, Inc., did not meet the mandatory evaluation criteria. The following firms proceeded to Step 2. (Review of Written Proposals):

1. IPL Inc.
2. Orbis Canada Ltd.
3. Rehrig Pacific Company
4. Scepter Canada Inc.
5. Toter (Wastequip LLC)

The technical review (Step 2) was completed by the evaluation team. The following three Proponents met the technical threshold of 75% and proceeded to Step 3:

1. Orbis Canada Inc.
2. Scepter Canada Inc.
3. Rehrig Pacific Company

Proponents that were successful in Step 2 of the evaluation process were required to submit five cast urethane prototype samples that met the specifications noted in the Mandatory Specification Requirements Form, Appendix C - Form 7.

The City conducted its own prototype sample evaluation to determine where the samples, in part or in whole, deviated from specifications. These were done by:

- (a) Assessing conformance of green bin dimensions to the American National Standards Institute (ANSI) design standards for automated collection,
- (b) Conducting equipment compatibility testing using the City's existing automated collection units, and
- (c) Evaluation of requirements as set out in Appendix C – Form 7.

As a result of the prototype sample evaluation, the City identified deviations that may impede the function of the green bin. In order to communicate to the proponents, Purchasing and Materials Management along with Solid Waste Management Services staff conducted "Commercial in Confidence Meetings" (CICM) with the three Proponents to identify and discuss deviations that were identified as a result of the prototype evaluation. As set out in the RFP, all three Proponents were given the opportunity to rectify the deviations of their existing design and provide a response on how they would rectify the deviations identified by the City and were provided the same amount of time to respond. In reviewing the responses provided by the proponents, it was determined that Scepter Canada Inc., was non-compliant and should not proceed to Step 3.



Two remaining companies continued through Step 3:

1. Orbis Canada Inc.
2. Rehrig Pacific Company

As part of entering into Step 3 of the evaluation, the scoring resets to zero and does not carry forward from Step 2. The technical review (Step 3) involved evaluating the actual function of the prototypes. A Solid Waste Collection Operator was also added to the evaluation team.

Step 3 of evaluation also included:

- Animal behavioural specialist assessment and field testing; and
- Public Consultation.

For this aspect of the evaluation, there were no identifying markings on the prototypes, other than the Purchasing and Materials Management pre-assigned arbitrary lettering to ensure correct prototype identification while maintaining confidentiality, for both the racoon resistant latch testing and public consultation. Additionally, the animal behavioural specialist and Ipsos Reid staff including focus group participants completed and submitted non-disclosure consent forms to ensure fairness and objectivity.

### **Animal Behavioural Specialist Assessment and Field Testing**

This component of the evaluation process incorporated an animal behavioural specialist who was retained by the City to conduct an independent review of the prototypes and provide their professional opinion and scoring of the prototypes with regards to the effectiveness of the racoon resistant latch and the lid to prevent raccoons from entering the bin.

An independently designed field test, created by the animal behavioural specialist over a period of one week was conducted, which simulated green bin storage outdoors with food items placed in the locked prototypes. This study was conducted to test the lock and latch on the prototypes to observe the effectiveness of each manufacturer's bin design.

### **Public Consultation**

The City also retained Ipsos Reid to conduct independent public consultation on the prototypes, which consisted of three sets of focus groups. Ipsos Reid was provided with the scoring criteria as per the Evaluation Table in the RFP and provided the City of Toronto with scores for each proponent. Participants were asked a series of questions based on the RFP criteria related to their overall opinion of the prototypes and which prototype style they preferred from a functionality standpoint.

The focus group consisted of 99 residents who were:

- geographically dispersed across the City of Toronto;
- an equal ratio of females and males;
- an equal portion of different age groups;
- various dwelling types;
- residing in a dwelling with curbside collection services;
- responsible for setting out their green bin on collection day; and
- attended three focus group sessions at the Ipsos Reid Facility.

Each session held 33 people.

The focus group consisted of a live demonstration of the prototypes. Residents were asked to simulate placing material (a bag of sand) into the bin with one hand and travelling across the room with the bin. The focus group participants then completed a series of questions related to their satisfaction with bin manoeuvrability, features designed for animal resistance, bin storage, the interior of the bin and ease of the latch function.

## Results

Upon completion of the evaluation process, Proponents who scored a minimum of 75% from Step 3 had their Cost of Services envelopes opened. Both Rehrig Pacific Company and Orbis Canada Inc., met the minimum 75% and their respective Cost of Services envelopes were opened. The proposal submitted by Rehrig Pacific Company was ranked first having the highest combined technical and cost of services score. The Selection Committee concluded that Rehrig Pacific Company was the highest scoring proponent and satisfied the requirements of the RFP. Staff recommends that the City enter into an Agreement with Rehrig Pacific Company to provide the next generation Green Bin to household residences receiving curbside collection services of organic materials.

The following Table compares the existing manually collected green bin to the proposed next generation green bin. The photographs that follow show the new green bin and also its size compared to the current one.

| Bin         | Dimensions<br>H x W x D (cm) | Volume (litres) | Weight (kg) |
|-------------|------------------------------|-----------------|-------------|
| Current Bin | 68 x 39 x 45                 | 46.5            | 3.8         |
| New Bin     | 97 x 48 x 61                 | 100             | 9.4         |

## Green Bin Photos



**New Bin**



**New & Current Bin**

The new bin has a number of features that are different than the existing bin including: larger wheels for easier mobility, a rodent resistant locking lid that remains locked during set out, and an external handle that allows residents to open the lid single handed.

The new bin is taller (29 cm), has an increased capacity of 53.5 litres and is slightly heavier than the older version (approximately 5.6 kg). As noted earlier, the ANSI specifications drive the design of the bin and the subsequent dimensions/weight. The new bin is approximately the same size as a medium garbage or recycling bin.

Proponent scores by criteria, price comparisons and a staff analysis of the evaluation results can be provided to Councillors in an in-camera presentation if requested by members of City Council.

The Fair Wage Office has reported that the successful Proponent has indicated that they have reviewed and understand the Fair Wage Policy and Labour Trades requirements, and that they will agree to comply fully.

### **Distribution**

Distribution will begin between 7-12 months after the contract is awarded and executed as the bin is currently in the prototype stage. Upon awarding of the contract, the City will proceed with requesting pre-production samples for validation of compliance to the City specifications. Approval of the pre-production sample will result in a Notice of Final Acceptance being issued by the City. The Contractor will then commence production of the

green bins and distribution is anticipated to commence in late 2015 or early 2016. It is estimated that it will take approximately 18 months to deliver all of the bins city-wide, once production commences.

The City's Strategic Communications Division will provide all distribution information in advance of delivery dates. The distribution plan for the initial roll out is to deliver the assembled green bin to each household within the City as specified.

### **Special Considerations**

Based on experience with the implementation of the garbage and recycling bins in 2008, it is acknowledged that some residents (less than 1%) may have bin storage/mobility related issues. Similar to the approach Solid Waste Management Services took in 2008, the Division will work with residents that may have issues with this next generation green bin on a case by case basis to resolve them.

### **CONTACT**

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### **SIGNATURE**

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Solid Waste Management Services

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