

Transport and Environment Committee

10am, Tuesday, 15 January 2013

Automated Recycling Points

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| Item number | 7.9 |
| Report number | |
| Wards | All |

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| Coalition pledges | P49 |
| | P50 |
| Council outcomes | CO18 |
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Executive summary

Summary

The report is in response to a motion from Councillor Mowat at the Transport, Infrastructure and Environment Committee of 18 June 2012 to investigate the use of automated recycling facilities linked to deposit schemes to encourage recycling. The report considers the use of automated recycling points in other European countries as well as their more limited use in the UK and notes Zero Waste Scotland's intention to pilot this technology in partnership with a number of retailers during 2013.

Recommendations

It is recommended that a further report on automated recycling points and deposit schemes is presented to this committee in the light of the findings from the Zero Waste Scotland pilots.

Measures of success

Achieve a citywide recycling rate of 50% by 2014.

Financial impact

There is no financial impact as a result of this report.

Equalities impact

The content of this report is not relevant to the public sector equality duty of the Equalities Act 2010.

Sustainability impact

Measures to encourage recycling will help to divert waste from landfill and support the achievement of Greenhouse Gas reduction targets, and reductions in local environmental impact. Potential impacts such as carbon emissions will be considered in light of the outcomes of the Zero Waste Pilots.

Consultation and engagement

There are no consultation and engagement implications as a result of this report.

Background reading / external references

The following companies offer equipment of the types discussed in this report:

www.tomra.com

www.reversevending.com

www.onthegorecycling.co.uk

Automated Recycling Points

1. Background

- 1.1 This report responds to the motion by Councillor Mowat to the Transport, Infrastructure and Environment Committee of 18 June 2012 (Item 5.7) :
- 1.2 “Committee agrees that increasing recycling is beneficial to the City of Edinburgh and to investigate:
- Automated recycling bins such as those found in Norway and other European countries in which bottles and cans can be deposited and a small payment is made to those depositing the recyclate, such machines to be installed in suitable locations with the cooperation of third parties and the possibility of extending machines to collect plastic bottles.”
- 1.3 Councillor Mowat has been consulted on the contents of this report.

2. Main report

Experience Elsewhere

- 2.1 Automated recycling machines are widely used in both Europe and North America, to collect a range of materials, particularly glass, cans and plastics and sometimes other materials such as paper and cardboard.
- 2.2 These machines are usually used by retailers such as supermarkets and used instead of the local authority provided packaging banks. In addition, smaller units can collect a more limited range of materials, e.g. plastic bottles and cans. These smaller units are normally sited in the street or in canteens or alongside vending machines to collect drinks containers such as plastic bottles or cans which would otherwise be deposited in a litter bin.
- 2.3 Users feed items in one by one, the machine scans and weighs the item and identifies what it is made of. It then shreds or crushes the item and deposits it in the appropriate internal bin. Machines can be set up to issue a reward, such as supermarket loyalty points or a redeemable voucher for a discount off new items. This is most often seen in countries where there are mandatory deposit schemes in place for items such as aluminium cans.

- 2.4 In some Northern European countries the provision of automated recycling points by retailers and the packaging industries is in response to EU 'Producer Responsibility' directives which require the producers of packaging to be responsible for recovering any material that they produce which can be recycled. The way this directive is applied varies across member states with some producing legislation which puts an onus on retailers and the packaging industry to collect materials direct from consumers including in some cases mandatory returnable deposit schemes.

The UK Situation

- 2.5 'Producer Responsibility' requirements are applied differently in the UK and there has been a limited use of automated recycling points and reward/payment schemes by retailers and the packaging industry. A limited number of suppliers operate in the UK, but the machines are usually sited in locations such as alongside drinks vending machines.
- 2.6 The only major UK user of automated recycling units, equivalent to the recycling facilities provided by local authorities, is Tesco, who operate automated recycling machines at selected car park locations (including stores in South Queensferry and Dalkeith). These replaced local authority recycling banks. Other retailers are thought to be looking to develop similar initiatives.
- 2.7 The machines were initially designed to accept a full range of materials including glass, paper, cardboard, cans and plastic bottles. However following arson attacks the machines were restricted to collecting glass bottles, cans and plastic. More recently the scheme has expanded to accept aerosols and foil.
- 2.8 Smaller machines for plastic bottles and cans only are also being piloted at smaller stores at a number of locations in South East England.
- 2.9 Initially Tesco awarded clubcard points for all materials deposited. Following issues with fraud (customers cutting up bottles to double the number of points received) the scheme was revised, and points are only awarded for aluminium cans and foil.
- 2.10 The machines used are visually attractive and as they also compact the recyclate, a wide range of materials can be collected in a relatively small unit. Traditional recycling points collect the materials without compacting them, and so take up more space on site.
- 2.11 The technology used in the automated recycling points does have some disadvantages. The scanning process requires items to be fed in one by one, and is very slow and misreading and rejection of items is not uncommon. This can be frustrating for customers.

Practical Considerations

- 2.12 There is limited information on the impact of these units on recycling levels. Zero Waste Scotland is developing a number of pilots in partnership with retailers, festivals, schools and other partners to examine their effectiveness. These are expected to operate from January until September 2013.
- 2.13 The initial cost of the large machines such as those used by Tesco is in excess of £100,000, while smaller ones cost around £20,000. Depending on the location, installation of this equipment may also require the provision of a power supply if there isn't one already on site. There are also additional ongoing servicing and electricity consumption costs. If the Council were to invest in automated recycling facilities then the emptying of these machines, especially the larger ones, may also require investment in specialist equipment such as fork-lift trucks
- 2.14 The experience of Tesco highlights the challenges in using automated equipment to collect the full range of materials already collected through the Council's existing recycling services, while providing a limited range may confuse or frustrate service users.
- 2.15 Tesco have already started to take direct control of the recycling services provided in their stores while Sainsburys intend to do so next year and other retailers may follow suit.

Conclusions

- 2.16 Automated recycling machines are used by retailers and the packaging industry in both Europe and North America where different legislative drivers incentivise their use.
- 2.17 There are practical limitations to their use by the Council, in particular the cost, servicing and necessary utilities.
- 2.18 More information on the impact of these units will be available following the Zero Waste Scotland pilots that are expected to operate from January until September 2013.

3. Recommendations

- 3.1 To note the contents of this report.
- 3.2 To provide a further report once the findings of the Zero Waste Scotland pilots become known.

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Links

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| Coalition pledges | P49 Continue to increase recycling levels across the City and reduce the proportion of waste going to landfill P50 Meet Greenhouse Gas targets, including the national target of 42% by 2020. |
| Council outcomes | CO18 Green - We reduce the local environmental impact of our consumption and production |
| Single Outcome Agreement | SO4 – Edinburgh’s communities are safer and have improved physical and social fabric. |
| Appendices | None |