Report

December 2015

Summary of
Responses to the Call
for Additional
Evidence for a
Deposit Return
Scheme for Scotland
2015





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1 Introduction

A feasibility study for improving recycling and reducing littering of drinks containers in Scotland via a Deposit Return System (DRS), "A Scottish Deposit Refund System" written by Eunomia Consulting, was published in May 2015. Following this publication, Zero Waste Scotland held a panel debate to discuss the findings of the report and launch a call for further evidence from interested stakeholders. The call for evidence posed three questions:

- 1. Are you aware of additional evidence that is relevant to any consideration of the suitability of a deposit return system in Scotland?
- 2. Do you have evidence that is relevant to any consideration of how a deposit return system could be designed and managed?
- 3. Do you have any evidence on the anticipated impacts of a deposit return system on your own organisation, or on the public more widely?

The purpose of this report is to collate and publish the evidence, to ensure that interested parties can see the range of views and published evidence offered by others in relation to the suitability of a deposit return scheme in Scotland. Zero Waste Scotland welcomes the submissions provided but has not commented on the quality or validity of the evidence provided.

2 Description of Who Responded to the Call for Evidence

The Call for Evidence elicited 63 responses. Sixty of the respondents agreed for their submissions to be made publicly available and their contributions have been included within this report. A list of organisations who submitted responses is provided in Appendix 1. Table 1 shows a breakdown of respondents by stakeholder group.

Stakeholder Group	Number of Responses
Environmental /Third Sector Group	13
Packaging Manufacturer	8
Packaging Trade Body	14
Food and Drinks Manufacturer	6
Food and Drinks Trade Body	7
Retailer	5
Retailer/Wholesaler Trade Body	3
Government Agency	1
Local Authority	2
Waste Management Trade Association	2
Reverse Vending Supplier/Manufacturer	2
Total	63

2.1 Evidence provided in response to Q1 (Are you aware of additional evidence that is relevant to any consideration of the suitability of a deposit return system in Scotland?)

The following key issues were identified:

- Impact of targeted items when these are littered
- Impact on recycling rates
- Impact on litter or environmental cleanliness
- Impact on current waste management structure
- Wider social, environmental or economic impacts
- Cost of DRS and best value compared to other options
- Alternative options to DRS

The range of views accompanying each key issue is described below, with some illustrative examples

2.1.1 Impact of targeted items when these are littered including marine litter

Responses to this question largely focused on two different points of view:

One point of view presented the argument that a DRS system has a measurable impact on the amount of litter, in both terrestrial and marine contexts. The material provided to support this position included:

- International experience in Germany, the Baltic, Australia, Spain and New York State, USA (Refs examples include State of Hawaii (2008), University of Maryland (2011), provided by Friends of the Earth (Scotland), Marine Conservation Society, Environmental Action Group, The Association for the Protection of Scotland, Seas At Risk, Surfers Against Sewage and Reloop).
- "Beachwatch" surveys by Marine Conservation Society over a 20 year programme concluded beverage container related litter were always in the top 20 items. Over the last five years the surveys conclude this equates to between 8% and 14% of beach litter in Scotland (MCS 2015).
- International experience suggesting beverage containers represent approximately 23% of the top ten packaging items found in marine litter (by unit) and by volume, they make up more than half (Reloop 2015).

The second viewpoint presented the argument that beverage containers make up a small fraction of the litter stream and that tackling these would have minimum effect on the total amount and impact of litter. The material provided to support the position included:

- A report by Keep Scotland Beautiful (KSB, 2014) which demonstrated that single use beverage containers make up 6.4% of the overall litter stream in Scotland when measured by the number of items.
- A study conducted by Environmental Resources Management Limited (ERM, 2008) that reviewed four international deposit schemes, concluded that 3 out of 4 of the deposit return schemes did not reduce littering, with the one exception being in Denmark.
- An unpublished report commissioned by Ball Packaging Europe (Perchard, 2011) which
 concluded that litter clean-up costs did not alter significantly post DRS implementation, only
 reducing by about 5%, on the basis that all other sources of litter remained and were collected
 as previously

2.1.2 Impact on recycling rates if a DRS was introduced

Similarly, two different viewpoints were presented in responses.

One position presented the argument that extremely high capture rates are being achieved in other DRS schemes and that this results in high quality recycling from the clean material streams. The material provided to support this position included:

• A pilot of deposit and return in Catalonia, where a 91% return rate was achieved by the end of a 3-month pilot in the town of Cadaqués in 2013 (Retorna 2013).

- Information on container return rates in European deposit systems, showing them to be generally very high and collection rates of containers can be up to 90-95% (ERM 2008).
- Information provided by the Environmental Action Group, based on their own experience of the
 deposit system in Germany, showing that the current collection rate of deposit-bearing beverage
 containers is 98.5 % compared with the collection rate of the German green dot system for one
 way PET bottles which amounted to between 40% and 60%.
- Environmental Action Group also made the case that the total recycling rate of one-way
 containers with a deposit was 97%, because the very clean material fractions collected meant
 nearly all containers could be recycled. In the German green dot system less than 40% of the
 collected plastic is recycled.
- Evidence provided by TOMRA supported that high quality recycling can best be achieved if
 waste streams are kept pure, i.e. through pre-sorting or by sorting technologies. TOMRA
 referred to their experience with return rates for beverage packaging subject to deposit schemes
 reaching between 70 and 95% on average depending on the level of financial incentive, and
 therefore ensure the best possible feedstock for recycling.
- PRGS highlighted evidence that return rates in Denmark's DRS are around 90% but that in Hawaii, DRS return rates were around 77% in 2012.

The other position presented the argument that there is no evidence of high return rates from deposit return systems that have operated in Scotland and that high returns would have a small overall impact on Scotland's overall recycling rate. The material to support this position included:

- Information from A G Barr, who has operated a deposit scheme on glass refillable bottles in Scotland for 150 years, and explained that since 1953 had seen the return rate decrease from 99% to the current rate of 54%.
- Evidence from a Zero Waste Scotland funded trial machine in Heriot Watt University achieved a 50% capture rate (ZWS 2015).
- Valpak modelled the total recycling rates for Scotland, based on an 80% recycling rate for beverage containers and has proposed that total recycling rates would increase from 57% to 59%.

2.1.3 Impact on littering behaviour, or environmental cleanliness if a DRS was introduced

Responses on this topic highlighted two studies that focused on the concept that placing a value on the item results in a higher recycling rate and, this in turn, provides positive reinforcement. The material provided on this issues included:

- A social experiment concluding the combination of financial and emotional satisfaction ensures broad participation (https://youtube/ BOdmcVW9eU 2014).
- A study concluding "Economic incentives such as the Deposit-Refund scheme for drink containers seem to be very effective in increasing collection rates of high-quality material to recycle and based on the results of short-term pilot projects, have a greater impact than those based on awareness and subsequent voluntary initiatives of the individual" (European Commission 2015).

A number of further observations were made in this section, for which accompanying material was not provided, relating to the impact of long term investment in litter campaigns, the role and limits of incentivisation for certain age groups; the importance of education and enforcement; and consistency of approach to items.

2.1.4 Impact on current waste management infrastructure and systems

The principal issues identified in responses were around the costs and savings for waste systems and the implications of running DRS in parallel with kerbside collection and bring systems.

 The Environmental Action Group proposed that deposit systems and green dot systems (European network of industry-funded recycling for consumers) can coexist well, based on information about their experience in Germany.

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- Government studies in Australia, found that overall kerbside is not negatively affected by a DRS and in fact its financial position is improved.
- Valpak has estimated that revenue that would otherwise go to local authorities through kerbside recycling would be £8.9 million a year, if the DRS achieved an 80% return rate.
- NB: The feasibility study and Valpak study used different methodologies. Valpak data suggested that DRS material could be 45k tonnes smaller than the feasibility study.

The challenges of accurately quantifying the material being placed onto the Scottish market and the percentage currently recycled was raised by a number of respondents.

The financial impact on Local Authorities and material reprocessors of DRS was also identified as an issue with queries raised about the accuracy of the figures in the feasibility study. Wider social, environmental or economic impacts.

A range of potential impacts, positive and negative, were highlighted. Material provided to demonstrate the impacts included:

- The Boomerang Alliance calculated that the donation of the deposit to a charity when people return their containers was valued at \$25 Aus million per year (equivalent to approximately £11.9 million) for the charitable sector in New South Wales.
- Environmental Action Group reported experience in Germany where higher quality materials collected through the deposit system lead to much higher revenue (£282-£303) than the revenue from materials from the kerbside collection system (£177-£204).
- The European Court of Justice explored the role of deposit systems compared to other collection systems in relation to trade (Case c-309/022).
- The Boomerang Alliance has calculated 1029 direct jobs and 687 indirect jobs for New South Wales and a predicted 3,000 additional jobs from a national DRS in Australia.
- A study undertaken by ERM, to examine the impact of a deposit return scheme in Scotland, reported the introduction of a deposit return scheme could lead to fewer jobs in Scottish local authorities or their contractors.
- The Scottish Retail Consortium (SRC) believe that a DRS will have a significant and deleterious impact on wider environmental concerns including increasing carbon emissions from increased retailer and consumer journeys.

A number of other issues were highlighted, without accompanying material, including an opportunity for DRS to create jobs and income in local communities; the importance of a more accurate valuation of litter reduction and improved material quality; the need to encourage packaging reduction and design for recyclability.

2.2 Evidence provided in response to Q2 (Do you have evidence that is relevant to any consideration of how a deposit return system could be designed and managed?)

Responses to this question focused on interaction with existing producer responsibility schemes and lead-in time for implementation. The material provided to illustrate the issues included:

- Suggestion that the ownership of the material should rest with the DRS, as this would provide best fit with the existing PRN system (SEPA).
- 'Have We Got the Bottle?' report (Eunomia), says "four to five years appears to be an appropriate time to allow for infrastructure development and communication with all stakeholders".
- A number of respondents highlighted a range of countries that have carried out impact assessments of DRS and rejected them – Czech Republic, France, Ireland, Poland, Spain, Switzerland and ROI.

A number of other impacts were highlighted, without material, but focusing on cross-border issues that would present challenges should a system be introduced in Scotland but not England.

2.3 Evidence provided in response to Q3 (Do you have any evidence on the anticipated impacts of a deposit return system on your own organisation, or on the public more widely?)

The key issues raised were:

- Impact on consumer costs
- Impact on consumer behaviour
- Impact on operational aspects of producers
- Impact on operational aspects of retailers
- Public acceptability

The range of views provided for each issue is described below.

2.3.1 Impact on consumers

The responses and material provided on the impact on consumers focused on the price of products and the cost of consumer time:

- Tennent Caledonian estimated the cost of products to the consumer would increase by circa 20% to 40%.
- An unpublished study conducted by ERM in 2013 concluded that the cost in consumer time (e.g. having to queue to redeem deposits) would be £68 million per year.
- The Scottish Retail Consortium (SRC) estimated around a 5% increase on the average basket of goods would result from the introduction of DRS and that this would disproportionately affect low-income or fixed income families.
- The Scottish Retail Consortium advised that online sales represent up to a fifth of total sales, and therefore DRS would require customers to make an additional journey.
- A study conducted in New South Wales showed that if a household does not redeem all its containers, costs increased by 1.6 cents per container.

A number of other potential impacts were highlighted, without supporting material. The positive impacts included the scope for DRS to generate positive behaviour change, through the redeeming of a deposit confirming the intrinsic value of containers more powerfully than placing a container in a recycling bin. The negative impacts included the potential changes to shopping habits, particularly the potential for increased footfall at larger stores diverting custom from smaller stores).

2.3.2 Operational impacts on producers

- The issues raised in this section included: Additional manufacturing costs could arise
 including increased number of Stock Keeping Units (SKUs), increased stocking and changing
 over of labels, keeping label stock secure at all stages to counter fraud and increased wastage
 at the end of filling lines.
- Further estimates were offered on the number of product lines potentially affected, based on work undertaken by Valpak.
- A report on "The Spirits Duty Stamps Scheme: Post Implementation Review including Consultation on the Compliance Costs to the Spirits Industry of Duty Stamps" as a comparison of potential costs to the spirit drinks sector.
- Some respondents suggested there was evidence of fraud in the USA through inter-state traffic between deposited and non-deposited states; while others suggested that many systems operated with no significant cases of fraud.

A number of other issues were raised on potential impacts, without supporting material, which included the specific issues around milk and milk producers; and cross-border issues

2.3.3 Operational impacts on retailers

The issues raised in this section included:

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- Additional costs for Reverse Vending Machine model including staff, infrastructure changes, store remodelling, cleaning and servicing, loss of car park areas, customer service areas and loss of trading space area, suggested as particularly problematic for smaller convenience format retailers.
- The Scottish Retail Consortium highlighted that a Scottish-specific label would place substantial
 costs on businesses given that 75 to 80% of brand products and nearly 100% of supermarket
 own brand products are sold UK wide.
- Asda and other grocery retailers noted that backhauling returned items using existing retailer logistics would be challenging and difficult to achieve in practice.
- The impact on convenience retailers and the hospitality sector including the storage of empty containers at the till, storage of bagged containers, hygiene concerns and staff time.
- Studies conducted in Germany and New South Wales showed that when retailers have an
 accessible return point for used containers and deposit redemption on their site they benefit
 from increased sales and consumer traffic.
- A DRS model would present significant set up and operating costs to the retail sector.

2.3.4 Public acceptability

The issues identified and material provided in this section included:

- In February 2015, Survation carried out a poll on behalf of The Association for the Protection of Rural Scotland. The poll showed that over 78.8% of those who expressed a view either strongly support or somewhat support the introduction of a DRS in Scotland, with only 8.5% opposing it (sample size 1011).
- Polls conducted by TOMRA throughout the world, in countries that do have DRS and do not have a DRS, show public attitudes are favourable towards container deposit legislation, including the UK where a poll conducted in 2010 showed 89% in favour of introducing deposit legislation (TOMRA, 2011).
- In 2014 a Com Res survey commissioned by PRGS, to better understand consumer attitudes to DRS showed that 50% of the consumers said they would support DRS in Scotland, with 33% opposed.

Appendix 1: Organisations who responded to the Call for Evidence

Please note that the list below excludes organisations who did not wish their response made public.

2 Minute Beach Clean Campaign

AG Barr

Alupro

Ardagh Group

ASDA

Ball Packaging Europe

Boomerang Alliance

British Glass

British Plastics Federation

Britvic

British Soft Drinks Association

City of Edinburgh Council

Chartered Institute of Wastes Management

Coca Cola Enterprises

Confederation of Paper Industries

Cooperative Group

Community Resources Network Scotland

Dairy UK

Diageo

DS Smith

Environmental Action Germany

Foodservice Packaging Association

Friends of the Earth Scotland

Industry Council for Packaging and the Environment

Keep Scotland Beautiful

Local Authority Recycling Advisory Committee

Lucozade Ribena Suntory

Marine Conservation Society

Marine Strategy Framework Directive Implementation Team

Metal Packaging Manufacturers Association

NFU Scotland

O-I

On-Pack Recycling Label Ltd

Ovec Systems Ltd

Packaging and Film Association

Pret a Manger

Packaging Recycling Group Scotland

Recoup

Reloop

Retourna

Reverse Vending Corporation

Rexam

Sainsbury

Scottish Beer and Pub Association

Scotch Whisky Association

Scottish Grocer's Federation and the Association of Convenience Stores

Scottish Wholesale Association and Federation of Wholesale Distributors

Seas At Risk

Scottish Environmental Protection Agency

Scottish Environmental Services Association

Scottish Food and Drink Federation/Food and Drink Federation

Scottish Retail Consortium

Surfers Against Sewage

Tennent Caledonian Breweries

The Alliance for Beverage Cartons and the Environment

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The Association for the Protection of Rural Scotland The Packaging Federation Tomra Valpak Wine and Spirits Trade Association

