

PRO EUROPE's position on a European refund system for one-way metal beverage cans

Summary

We understand that the European Commission has selected a contractor, Eunomia Research & Consulting, to carry out a study on the feasibility of a European refund system for metal beverage cans, following a request by the European Parliament. The objective of the study is to assess the environmental, economic and social impacts of establishing such a system.

PRO EUROPE members have a number of concerns over the possible introduction of refund systems for one-way packaging such, as metal beverage cans.

In countries where comprehensive and effective collection and recycling systems are already in place, refund systems for one-way packaging would:

- Lack environmental justification with regard to both carbon emission reduction and littering;
- Introduce unnecessary extra costs and administrative burden for business and local authorities which in the end will be paid by consumers;
- Damage the viability of existing proven and optimised systems of collection and recycling;
- Potentially introduce distortions to the internal market.

PRO EUROPE agrees and supports that policy defines targets and goals to decrease negative impacts of used packaging on the environment. Nevertheless, PRO EUROPE demands the free choice for industry on how to reach these targets.

PRO EUROPE therefore supports the setting of recycling and recovery targets for recyclable material in the context of producer responsibility instruments. We have worked extensively with both authorities and obligated companies to ensure that such targets are met in the most cost efficient and environmentally sound manner.

At present, the collection and recycling schemes established by PRO EUROPE members ensure a high level of recycling for various types of drink containers, as part of the management of the whole packaging waste stream without creating obstacles to trade within the European internal market.

As the number of Member States with existing refund systems is currently limited to five, there is little relevance in requesting a European wide refund system for metal beverage cans to remedy problems caused by laws implemented only in a minority of states.

About PRO EUROPE

PRO EUROPE s.p.r.l. (PACKAGING RECOVERY ORGANISATION EUROPE), founded in 1995, is the umbrella organisation for European packaging and packaging waste recovery and recycling schemes active in 32 European countries plus Canada which mainly use the "Green Dot" trademark as a financing symbol. In its primary role, PRO EUROPE is the general licensor of the "Green Dot" trademark. It also acts as the authoritative voice and common policy platform representing the interests of all packaging recovery and recycling organisations founded and run by or on behalf of obliged industry.

Key fact about PRO EUROPE

- Since its foundation PRO EUROPE has been organising the exchange of experience and know-how on the recovery and recycling of household packaging between 33 systems in 33 countries.
- About 170,000 companies are contributing licensees/members of PRO EUROPE member systems.
- About 400 million inhabitants have access to separate collection financed by PRO EUROPE member systems.
- About 32,000,000 tonnes of packaging have been recovered by PRO EUROPE member systems in 2009.
- About 2400 kt of metal packaging have been recovered by PRO EUROPE member systems in 2009.
- More than 25 million tonnes of CO2 equivalent has been saved by the work of PRO EUROPE member systems in 2009.
- About 460 billion packaging items are labeled yearly with the 'Green Dot', a registered trademark in more than 170 countries.

Introduction

It would appear that the implementation of a European refund system for non-reusable metal beverage cans is considered because it is assumed that it would bring a favourable outcome compared to existing collection and recycling schemes. However, analysing information from recycling schemes of 33 countries, where both refund and kerbside collection is provided, we found that a refund system for one-way metal beverage cans has the opposite effect in all of these areas:

Environment

- Refund systems do not lead to higher recycling rates
- Lack of incentive to reduce packaging
- Refund systems do not solve the problem of littering

Economy

- Cost impact on businesses and local authorities
- Distortion of internal market and cross border competition

Society

- Consumer attitudes and behaviours
- Cost-distribution

We will therefore examine each of these areas in greater detail, which is in line with the issues that the Commission study will examine.

2.0 Environmental Effects

2.1 Recycling rates and the wider ‘carbon agenda’

Where no selective household collection system exists for dry recyclable materials, the introduction of a refund system can increase recovery and recycling rates. However, the operation of a selective collection system tends to lead to higher recycling rates than the operation of a refund system alone. Comparing the recycling rates of EU-15 countries, i.e. the countries that started to implement the Packaging and Packaging Waste Directive as of 1994, it becomes apparent that countries with a refund system alone for household packaging, e.g. Denmark, reach lower rates for recycling than countries with a selective collection system for household packaging, e.g. Austria, Belgium, Ireland, Portugal, UK etc.¹

Furthermore, for the introduction of refund systems, new transport systems have to be set up, resulting in increased fuel consumption, traffic congestion and CO₂ emissions.²

2.2 Packaging minimisation

The existing recycling systems which were set up in most EU Member States under the Packaging Directive are funded by industry using producer responsibility mechanisms. The concept of producer responsibility places obligations on those producers, who have a degree of control over the quantities, composition and design of packaged products, for the collection and recycling of their products or packaging at the end of their life. It is the practical way through which the EU implements the “polluter pays” principle.

Through the “polluter pays” principle, producers are encouraged to optimize their packaging and lessen the environmental impacts of the products for which they carry some responsibility, which end up in the national waste stream. A prevention approach is intrinsically built into the financing principles, since producers generally pay on the basis of weight of packaging used. In this respect producer responsibility has proven successful in many Member States³.

In countries with mandatory refund systems for some of the one way beverage containers, e.g. Germany, the producer has no incentive to optimize these beverage containers that he places on the market, as the financing is based on the number of items rather than on weight.

2.3 Littering

Supporters of refund systems for one-way packaging often use the argument that metal beverage cans “are lying around in the landscape”. However, metal beverage cans actually represent a small component of total litter but due to their visibility are often misrepresented as a much greater proportion.

¹ Eurostat “Recycling and recovery rates for packaging waste, 2008”, please click [here](#).

² “Worlds largest PET Life Cycle Assessment – One way PET levels with refillable glass”, PETCORE 2004.

³ “Effective Packaging – Effective Prevention”, PRO EUROPE 2004/2005.

Numerous studies have shown that the average share of packaging waste in the overall litter stream is approximately 6%, with beverage packaging waste accounting for approximately 0.45% of total litter. The largest fraction of the overall litter stream consists of cigarette butts, organic waste and non-packaging litter.⁴

Much research has been done into potential policy initiatives which could effectively tackle the problem of litter. A recent study found as reasons for littering: “by mistake” or “inadvertently” (65%) followed by “lack of infrastructure” (38%) and imitation (35%), which does not suggest that refund fees on metal beverage cans would change this.⁵

In the UK the “Keep Britain Tidy” anti-littering organisation has been active in this field since 1954⁶ and has conducted much research into the quantities, composition and effective means of reducing litter in the UK. In broad summary, their research showed that the association of litter reduction with the introduction of mandatory refund systems is misleading. Litter can in fact be much more effectively addressed through consumer education campaigns, rigorous enforcement of anti-littering laws and the availability of litter receptacles in public places.

The activities of bin scavengers in public places can increase litter since they will frequently empty an entire bin whilst searching for refund cans or bottles. Furthermore, the refund system does not affect fundamental consumer behaviour, hence although metal beverage cans may disappear from the litter stream, littering remains similar to their previous levels but with a change of composition.

PRO EUROPE and its members already run educational programs against littering in general and are ready to co-operate with authorities and industry further.

3 Economic effects

3.1 Cost impact on business and local authorities

There are numerous financial consequences of refund systems on business stakeholders with both winners and losers depending on their position within the supply chain.

Suppliers of reverse vending equipment benefit substantially from refund systems, as these are the predominant method employed by most countries to collect the empty packaging. Waste management companies also benefit financially from the operation of new collection routes from the newly created can suppositories.

Manufacturers and fillers of beverage containers remain revenue neutral from refund fees but do face significant extra administration costs, as well as management time and effort in producing data submissions for the refund mechanisms to operate effectively. As can be seen in Annex (I), refund systems are minimum 2-3 times more expensive per tonne of material to administer than selective

⁴ Eco Emballages study + study of University of Vienna.

⁵ “Perception of littering”, survey carried out by EcoEmballages in France in June 2006 among 1000 persons over 15 years.

⁶ http://www.keepbritaintidy.org/ImgLibrary/people_who_litter%20litterseg2006_763.pdf

collection, a result which has been confirmed by the PERCHARDS Study on behalf of the European Commission⁷.

When examined as a whole, it is clear that the use of refund systems for the collection of beverage containers is considerably less efficient than collection in conjunction with an existing kerbside system. Contrary, the introduction of refund systems for metal beverage cans damage the viability of existing proven and optimised systems of collection and recycling by adding extra costs and administrative burdens.

3.2 Internal market and cross border competition

Effects experienced through the imposition of mandatory refund systems have shown a number of consequences on local markets:

- Consumers tend to try to avoid paying refunds by shifting to refund free products. This includes shopping in stores across borders where mandatory refunds are not applied. Consequently, retailers in the border region are faced with tremendous losses due to ‘customer migration’. In the case of a Europe wide metal beverage refund scheme this problem would be shifted to EU countries bordering non-EU countries.
- Damage has been sustained by non-refillable packaging markets, for example can producers. This is because retailers wish to minimise their collection costs and hence have chosen in some cases to neither stock nor collect cans.
- Large supermarkets tend to be better equipped to cope with refund systems compared to smaller retailers who usually have neither the space nor the finance to install reverse vending machines, which means that they have to take back and check bottles manually.

One of the main reasons for the current Commission study is the trade of alcoholic beverage cans at borders, e.g. between Germany and Denmark. However, it is important to bear in mind that the original problem of these conflicts lies in different levels of alcohol taxes rather than in different refund systems. For example, if the tax on alcohol was more or less equal in EU Member States, consumers would have less incentive to go to another country to buy cheaper alcohol.

4 Social effects

4.1 Consumer attitudes and behaviour

For the average consumer living in an area where a selective kerbside collection system exists i.e. almost all EU Member States, refund systems for non-reusable containers are not popular. There are numerous reasons why this is the case:

- i. Existing systems rely on consumers to separate their waste into numerous streams so that it can be separately collected for recycling. Although this can at times be onerous, it has become a

⁷ “PERCHARDS study on the progress of the implementation and impact of Directive 94/62/EC of the functioning of the internal market”, page 129, May 2005.

- part of the national culture for many mature recycling systems. If consumers are further required to separate another waste stream which must be dealt with in a special way and deposited away from home, this not only confuses consumers but also requires additional effort.
- ii. Many consumers perceive refund systems for one-way packaging as circuitous and misleading according to a study by the market research institute Innofact.⁸
 - iii. Operational and IT problems preventing the recovery of refunds, especially in the start up phases of systems which rely on reverse vending machines, frequently cause delays and frustration for the public.
 - iv. Collecting refunds on beverage containers is often an unpleasant experience. Most consumers will aim to return their beverage containers at a supermarket during their weekly shopping trip. Since most consumers also shop at similar times, this has led to long queues at reverse vending machines for example on Friday evenings and Saturday mornings.
 - v. Bin scavenging is common in countries operating refund systems for non-reusable beverage containers. This creates extra litter around public litter receptacles and consequently public annoyance.

4.2. Cost-distribution

- i. Even though refunds can be recovered by consumers there are other system costs associated with refund systems, which consumers cannot influence and which cause both beverage and other food item prices to increase, e.g. extra system administration costs.
- ii. Additional costs and space requirements also tend to encourage retailers to reduce shelf-space allocated to refund-bearing products which in turn reduces the variety that they are willing to stock, thereby reducing consumer choice.
- iii. Refund systems have a disproportionate impact on lower income families. For those purchasing cheaper economy brand beverages, the refund represents a comparatively higher percentage of the item cost. In addition, it is usually the less privileged consumers who have least access to transport making it additionally more difficult for them to recover their refund money.
- iv. Implementation of a refund system is extremely costly in time (administrative burdens discussed above). In order for consumers to have adequate access to reverse vending machines to recover their refunds a great deal of money must be spent on IT systems and reverse vending machines, which makes it difficult to revert to a non-refund situation as this would mean wastage of large amounts of effort and money.

‘Perfect’ implementation would require no IT or administration problems and a comprehensive network of reverse vending machines available as soon as the refund mechanism is applied at retail outlets. In addition, the extra burdens and costs to both public and private administration, as well as the detrimental environmental effects need to be eliminated in order to be comparable to producer responsibility systems.

5 Conclusions

Most Member States do not have refund systems for metal beverage cans because they already have well established recycling systems which are more efficient for this material, more effective and do not

⁸ Lebensmittelzeitung, 21.8.2009: „Pfand als Buch mit sieben Siegeln“

create barriers to trade. They use selective collection mechanisms operated through household collection, bring banks or using automated separation systems in material recovery facilities. These systems operate efficiently and effectively, achieving high recovery rates at the lowest possible cost to both producers and consumers.

Establishing additional refund systems would not only reduce the effectiveness of existing systems, it would also introduce significant additional and unnecessary financial burdens on producers and consumers and cause extra environmental damage.

Moreover, the claim that refund systems for metal beverage cans would solve the problem of littering has been found to be false because firstly metal beverage cans actually represent a small component of total litter (less than 0.45%) and secondly, studies have shown that the solution for littering lies in education of citizens and anti-littering enforcement, e.g. fines, rather than refund systems for metal beverage cans.

Annex (I): Effects on Consumer Costs

Comparing the costs that a filler has to pay for each one-way beverage container to the respective system and/or the retailers show discrepancies between the different solutions⁹: Moreover it has to be taken into account that the non-redeemed deposit is used in most of the deposit systems to co-finance the system.

	Denmark¹⁰	Norway¹¹	Austria^{12 13}	Belgium^{14 15}
	DEPOSIT	DEPOSIT	KERBSIDE Green Dot	KERBSIDE Green Dot
Can Alu 0,33	2,8	2	0,496	0,21
Can Steel 0,33	4,6	4	0,516	0.063

⁹ All figures are € Cents

¹⁰ Moreover fillers have to pay in Denmark the yearly registration fee per filler/importer of € 150,-.

¹¹ Moreover fillers have to pay in Norway a general registration fee of € 3.843,- as well as a registration fee per product of € 640,-;

¹² ARA – full cost system for the collection, sorting and recycling of all used packaging

¹³ Weight of aluminium-can: 13,40 g / Weight of steel-can: 25,80 g / Weight of PET-bottle: 30 g (incl. plastic label and plastic cap) / Weight

of glass-bottle: 382,7 g (incl. paper label and aluminium cap) / Fees per 1.1.2007

¹⁴ FOST Plus - full cost system for the collection, sorting and recycling of all used packaging

¹⁵ Fees per 01.01.2007