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From: [redacted]  
Sent: 12 November 2020 16:33  
To: wastecomments  
Cc: [redacted]  
Subject: 201112 CCMA Deposit & Refund Scheme submission  
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Please find attached CCMA's submission on the design of the Deposit & Refund Scheme Public Consultation.

Please can you confirm receipt of this.

Kind regards,

Eleanor

[redacted]  
CCMA Climate Action, Transport and Networks Committee  
CCMA Water, Waste Management, Environment and Emergency Planning Committee  
[redacted]  
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Cumann Lucht Bainistíochta Contae agus Cathrach  
County and City Management Association

Submission to the Department of  
Environment, Climate and Communications  
on

the design of the Deposit & Refund Scheme  
Public Consultation

Submitted on behalf of the CCMA Water, Waste  
Management, Environment and Emergency Planning  
Committee

12 November 2020

# Contents

- Introduction .....3**
- The Report recommends a centralised, operational model for Ireland. Do you agree with this recommendation? .....3**
- If not, do you favour: a) decentralised / financial DRS; or b) hybrid.....5**
- Are there other models you believe could work in an Irish context? ..... 6**
- What role should waste collectors play in the operation of a DRS? .....8**
- The DRS study proposes a deposit per container of €0.20. Do you think this is appropriate? If not should it be higher or lower or should different deposit rates apply depending on container size? .....8**
- Consumers need to know about a DRS long before it becomes operational – do you have any suggestions as to how best the introduction of a DRS can be communicated to the public? .....8**
- What enforcement measures should be considered in parallel with the introduction of a DRS? .....9**
- How should cross-border issues be treated to ensure producers are not at a competitive disadvantage relative to producers in Northern Ireland? .....9**

# Introduction

The CCMA welcomes the opportunity to make a submission on the consultation on the design of a Deposit and Refund Scheme (DRS) in Ireland. This submission has been prepared by the Regional Waste Management Planning Offices (RWMPO) on behalf of the sector.

## **The Report recommends a centralised, operational model for Ireland. Do you agree with this recommendation?**

The Regional Waste Management Plans currently do not have a specific policy regarding DRS. Policy E22a of the Regional Waste Management Plans states that in implementing the Waste Plan, the RWMPOs should *“support the primacy of kerbside source segregated collection of household and commercial waste as the best method to ensure the quality of waste presented.”*

While we see that there is a place for some form of DRS in the current waste collection system, we do not agree with the recommendation of a centralised, operational DRS model. Given that the current recycling collection rate for PET and Aluminium beverage containers in Ireland will need to be pushed to a level of 90% to comply with the Single Use Plastic (SUP) EU Directive, the RWMPOs perceive the rationale and usefulness of utilising some form of DRS.

DRS schemes offer some benefits, including that the recyclate gathered by DRSs is generally of high quality and low contamination.<sup>1</sup> There is also some suggestion that DRS schemes can help raise awareness about recycling and foster consumer responsibility.<sup>2</sup>

According to Coast Watch Ireland, plastic and aluminium drinks containers consistently comprise the bulk of marine litter found on Irish coasts, even as the overall volume of coastal litter is beginning to fall.<sup>3</sup> Zero Waste Scotland estimate that DRS reduces the cost of the clean-up of such litter, both land-based and coast/marine-based litter by 70 % to 95% and that indirect costs related to disamenity can also be significantly mitigated.<sup>4</sup>

DRS schemes are perhaps most useful in the segregation of valuable recyclate streams from

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<sup>1</sup> Zero Waste Scotland (2017) *Deposit Return Evidence Summary*, Zero Waste Scotland: Sterling

<sup>2</sup> Vincent Linderhof, Frans H. Oosterhuis, Pieter J.H. van Beukering, Heleen Bartelings, Effectiveness of deposit-refund systems for household waste in the Netherlands: Applying a partial equilibrium model, *Journal of Environmental Management*, Volume 232, 2019, Pages 842-850,

<sup>3</sup> Coastwatch Ireland (2020) *Coastwatch Autumn Survey 2019: All Ireland Marine Litter*, Coastwatch Ireland: Dublin

<sup>4</sup> Zero Waste Scotland (2017) *Deposit Return Evidence Summary*, Zero Waste Scotland: Sterling

settings where recycling rates of these items are low or where they are likely to be placed into the general stream, or worse, illegally dumped. In the case of beverage containers, such settings include wherever beverages are consumed 'on-the-go', so for example, street bins, schools, universities workplaces, hospitals and other institutions or commercial environments such as forecourts, fast food outlets, shopping centres and so on. From the collection rates given in figure 1 (pg. ii) of the Report<sup>5</sup>, it is clear that it is in these settings that require the most improvement in the Irish context.

Over the implementation period for the current Regional Waste Plans, continuous awareness raising and behavioural change campaigns, including The Recycling List and, more recently, the MyWaste.ie web site, have been undertaken to improve the capture of recyclate of all types. These efforts have resulted both in improvements in waste segregation in kerbside collections and in the reduction of contamination of recyclates.

The investment in terms of time, resources and partnership building between stakeholders such as waste industry actors have paid dividends in delivering a robust waste collection system with ongoing communication and co-operation between the collection service providers and the public sector. This is an important point, as in Ireland, unlike many other EU member states, the public sector does not have ownership over municipal and commercial waste collected and so it is vital that a good partnership of trust and collaboration exists between these two sectors so that continuous improvements and evolutions can be facilitated.

The kerbside collection is capturing a high proportion of beverage containers and, while the rates of capture of PET and Al beverage containers need to be optimised, we believe that improvements in these rates will continue as our awareness and education campaigns continue and that these could be complemented by an innovative form of DRS (see below for a further exploration of this). Furthermore, much of the available literature and data available that demonstrates the benefits, costs and other features of existing DRS systems are related to regions that do not have the same kerb-side collection system we have in Ireland. It is difficult to extrapolate the results of such studies directly to the Irish context. A recent study on attitudes to the proposed introduction of a DRS in a region in Spain which has an existing kerbside collection, concluded that diverting particular items to the DRS system would present a less convenient option to householders thus risking negative perceptions of the DRS.<sup>6</sup>

The RWMPOs do not agree with the recommendation of a national centralised, operational DRS

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<sup>5</sup> Eunomia (2019) Improving the capture rate of single-use beverage containers in Ireland, Eunomia: Bristol

<sup>6</sup> M. Roca i Puigvert et al. (2020) What factors determine attitudes towards the implementation of a packaging deposit and refund system? A qualitative study of the perception of Spanish consumers. Journal of Environmental Management 270 (2020) 110891

model. We believe that the national centralised, operational model proposed in the Report<sup>7</sup> is too blunt an instrument to work well in the Irish context and does not take fully into account the current waste management ecosystem. We would favour a form of DRS that works with the strengths of the current system whilst tackling the specific problem areas.

**If not, do you favour a:**

- a) decentralised / financial DRS; or,**
- b) hybrid.**

The RWMPOs favour a hybrid model DRS. By hybrid model, we are referring to the model described in this consultation document as a system where the scheme management would lie with the scheme operator, but the materials would be collected and processed by the waste operators.

Within the current DRS schemes in the EU, as well as the research conducted on the topic of DRS, there is great variation in the models utilised in different regions. DRS schemes tend to be designed to fit with an existing waste collection system. Successful DRS models, then, appear to be contextual and should complement, rather than compete with or undermine the existing system.<sup>8</sup> We believe that a hybrid model could be integrated into the current waste system and serve to enhance it.

In the considered opinion of the RWMPOs that the best option for Ireland would be a hybrid model that works in the following way. Either the beverage producers or an existing ERP would oversee the financial management of the DRS, while waste operators, i.e. collection service operators and MRF operators, would take charge of the collection and processing of the material.

The collection process could include reverse vending machines (RVMs) in some retail outlets, other public places such as shopping centres, train and bus stations, colleges, schools, workplaces, hospitals, concert venues, sports venues/training grounds and cinemas etc.

An issue that has arisen in some DRS examples where the producer or financial operator is also the collection operator, is that there was a reluctance on the part of the operator to maximise the collection of the material as this would also mean maximising the amount paid back in

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<sup>7</sup> Eunomia (2019) Improving the capture rate of single-use beverage containers in Ireland, Eunomia: Bristol

<sup>8</sup> T.A. Kurniawan, R. Avtar, D. Singhet al (2020), Reforming MSWM in Sukunan (Yogyakarta, Indonesia): A case-study of applying a zero-waste approach based on circular economy paradigm, Journal of Cleaner Production, in press <https://doi.org/10.1016/j.jclepro.2020.124775> -

returned deposits.<sup>9</sup> Financial mechanisms such as producers paying compensation to the DRS operators for loss of revenue (caused by a low collection volumes) have been used in, for instance, Norway, Sweden and the USA. While in Finland producers are taxed for the materials they place on the market and this tax is reduced on a sliding scale as more of the materials are collected.<sup>10</sup>

The education and awareness elements of the DRS should be carried out in conjunction with MyWaste.ie ensuring that the messaging is consistent, and avoids the confusion of mixed messaging as this could damage the initiative and would be likely to reduce its effectiveness and may also impact on the overall recycling rates even at kerbside.

### **Are there other models you believe could work in an Irish context?**

We believe that a variation of the hybrid model described could be implemented in an innovative way by utilising a Smart DRS. This would allow consumers to retrieve deposits, in the form of tokens or points, for PET and AI beverage containers recycled at the kerbside. This Smart DRS system would work by requiring all such beverage containers sold in the state to carry a barcode or QR code, which the consumer could scan using a mobile phone app, prior to placing the item in the recycling bin. This system is also the one favoured by the Irish Waste Management Association.

The current MyImpact app could be updated to include this feature. Points could be earned as soon as the scanned item is collected and verified. The points earned could then be retrieved as money or donated to charity, depending on how the system is set up. Blockchain technology could be used to ensure transparent tracing of all such beverage containers released onto the Irish market and subsequently recycled.<sup>11</sup> For those who may not have access to smartphones this system could be complimented by RVMs at targeted public locations. Civic Amenity Sites could also play a role in this regard.

This method would confer a number of benefits:

- It would help to integrate the DRS with the kerbside collection and at the same time, ensure that the kerbside collection is not undermined by the DRS.

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<sup>9</sup> Numata, D. (2010) On illegal activities in the California state beverage container deposit system. *J. Mater. Cycles Waste Manage.* 12 (4), 314–320.

<sup>10</sup> Numata, D. (2016) Policy mix in deposit-refund systems – From schemes in Finland and Norway. *Waste Management* 52 (2016), 1–2

<sup>11</sup> Harvard Business Review (2017), The truth about Blockchain, <https://hbr.org/2017/01/the-truth-about-blockchain>



- It would assist with closing the gap between the current rate of collection of PET and Al beverage containers at the kerbside and the required rate under the EU Directive on Single Use Plastics
- It would prevent situations where bins were 'raided' for PET and Al beverage containers by others to reclaim the deposits, leading to possible littering and illegal dumping
- The use of blockchain technology would protect against possible fraudulent activity
- The use of blockchain technology would allow each item to be traced back to the person who scanned it and so would assist in investigating littering and illegal dumping
- The use of mainstream technology would encourage more people to use the system, particularly those who are time-poor
- The Smart DRS can be easily adapted and modified to include new items or change the reward as needed
- This method would make collection at music festivals, events easier
- Using this method would reduce the overall RVM requirement and associated costs.

UK green-tech company CryptoCycle are currently trialling a DRS using unique scanable codes. This trial is happening in Whitehead, Antrim in Northern Ireland.<sup>12</sup> According to CryptoCycle, the benefits of this approach include fraud prevention, cost efficiencies and the ability to manage cross-border returns. The data will be analysed at the end of the trial by Wrap N.I with a team from Queen's University Belfast. At the moment, the trial is focusing on consumer behaviour, but there are plans to expand the trial scope to include quality of recycle, recycling at home and integration of this method with more traditional DRS methods such as RVMs and over the counter manual collection at designated retail points.<sup>13</sup>

In 2019 in London, the Canary Wharf Estate partnered with sustainability tech company, Helpful, to improve recycling in the area using a similar Smart DRS, which was favourably received by those who lived and worked in the area<sup>14</sup>

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<sup>12</sup> BBC N.I Report

<https://www.facebook.com/197313523633877/posts/3584739094891286/?sfnsn=scwspwa>

<sup>13</sup> Information from private correspondence with CryptoCycle

<sup>14</sup> See <https://www.helpful.world/businesses> and <https://www.letsrecycle.com/news/latest-news/app-seeks-to-boost-canary-wharf-on-the-go-recycling/>

The RWMPOs believe that such a model could work well for Ireland and are keeping a watching brief on the Whitehead trail.

### **What role should waste collectors play in the operation of a DRS?**

The waste collectors should be central to the operation of a DRS. In our preferred model, waste collectors/MRF operators should collect and process the used PET on AI beverage containers. This will ensure that there is not a leakage of high quality recyclable materials from the current waste collection system. There is a risk that such a leakage may result in adverse impacts for the waste collection industry, and could impact on household waste collection service fees, potentially having knock-on effects for waste management planning and the implementation of current and future Waste Plans.

### **The DRS study proposes a deposit per container of €0.20. Do you think this is appropriate? If not should it be higher or lower or should different deposit rates apply depending on container size?**

The RWMPOs believe that this rate is appropriate, and we note from our review in preparation for this submission that it is broadly in line with deposit for DRS models in other European countries. We would advise a general €0.20 rate for all container sizes.

### **Consumers need to know about a DRS long before it becomes operational – do you have any suggestions as to how best the introduction of a DRS can be communicated to the public?**

It is important to conduct some market research to ascertain the opinions and concerns of the public in order to craft messaging in a way that will address and disrupt any adverse reactions, while capitalising on factors and motivations that are likely to encourage use of the system. Zero waste Scotland analysed comments from a media-based public forum and found that the public held a range of varied and nuanced opinions about a proposed DRS.<sup>15</sup> We would propose that a mixture of market research methods should be used and that this, along with data

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<sup>15</sup> Oke, A. et al (2020) Rethinking and optimising post-consumer packaging waste: A sentiment analysis of consumers' perceptions towards the introduction of a deposit refund scheme in Scotland. *Waste Management* 118 (2020) 463–470

gleaned from this public consultation process be used as an evidence informed basis for a targeted communications programme.

As mentioned previously, the communications programme could involve the different actors involved in the DRS, but should also involve MyWaste.ie team and should adhere to the current messaging on MyWaste web site.

### **What enforcement measures should be considered in parallel with the introduction of a DRS?**

The policy-mixes associated with DRS, as described in the research literature and reports we examined, were generally financial incentives to encourage the operators of these schemes to act with integrity, so that the intended impact of the DRS can be achieved. We did not find any examples of enforcement measures described that were formulated, especially to solve specific issues with DRSs. That is not to say that such enforcement measures do not exist, but just that we did not come across them.

However, issues that we consider may require specific enforcement measures such as fines and/or custodial sentencing include the following:

- Producers failing to take part in the scheme or otherwise failing comply with the DRS
- Fraud with respect to the deposit account
- Illegal dumping or disposal of material following the deposit retrieval.

### **How should cross-border issues be treated to ensure producers are not at a competitive disadvantage relative to producers in Northern Ireland?**

As a DRS is planned for the UK, including Northern Ireland, to be implemented by 2023, this may not be an issue in the medium term<sup>16</sup>. In any event the level of activity in this regard would not be expected to adversely impact.

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<sup>16</sup> <https://www.gov.uk/government/consultations/introducing-a-deposit-return-scheme-drs-for-drinks-containers-bottles-and-cans/outcome/introducing-a-deposit-return-scheme-drs-in-england-wales-and-northern-ireland-executive-summary-and-next-steps>