British Glass

Proposals for improving glass recycling in Scotland

October 2019

Recycling glass

- The UK glass industry pioneered the bottle bank collection system from 1977 and remains committed to increasing the amount of glass available for closed loop recycling.
- Recycling glass saves 580kgCO_2/tonne[1] of post-consumer glass (cullet) collected through reduction in melting energy and replacing raw materials which release CO_2 when melted.
- The UK Producer Responsibility system is working, delivering a glass recycling rate of 67.6%[2] in line with targets. An increase in targets has been shown to deliver an increase in glass recycling.

Glass manufacturing in Scotland

- Two glass container companies manufacture 600,000 tonnes glass per year (25% UK total)[3].
- The majority of the production is clear glass mainly for the spirits sector (supplemented by UK production) and 85% of this glass is then exported outside the UK.
- The remaining coloured glass production is already operating with high rates of recycled glass, up to 90%.
- The recycling rate for clear glass is much lower and the industry needs more clear cullet!

British Glass proposals to improve glass recycling in Scotland

The glass container supply chain recommends an alternative collection scheme for glass which is:

- More convenient for consumers, so encourages a higher consumer participation and higher glass collection rate.
- More cost effective for industry and the entire supply chain.
- Captures all glass for recycling in one stream.

This scheme would be a consistent system across Scotland, including:

- Continuing with 'bring sites' (bottle banks), in rural areas (eg Highlands) with improved communication and support to increase participation rates.
- Evolution of the glass collections in urban areas and for city tenements (eg Central Belt) based on kerbside collection, for all non-DRS container packaging (HDPE, aerosols, food cans, glass bottles and jars), and more collection points in parks and gardens, popular areas of consumption outside of the home.
- A campaign to educate the public about the benefits of glass recycling and requirements of glass collections (eg do you have to rinse it, remove caps etc).
- As glass is already at a recycling rate of 64%[4] in Scotland, glass recycling rates can be increased rapidly, and well within the ramp up period of the proposed DRS scheme.

[1] FEVE EUROPEAN GLASS CONTAINER INDUSTRY STEADILY PROGRESSING ON DECARBONIZATION
[2] Defra UK Statistics on Waste March 2019
[3] Glass Global https://www.glassglobal.com/
[4] ZWS, DRS – The case for Glass September 2018

The scheme would require:

- A mandatory recycling target for Scotland and implementation of the Scottish Waste Charter.
- Investment in a new sorting facility would be required in Scotland to take this new flow, but the sorting would be relatively easy and yield high quality material.
- The funding of this scheme would be via a producer pays scheme.
- There will also be an educational campaign – these have been shown to have excellent uplift effects on glass collection rates.

Impact on recycling rates and carbon emissions:

- With this model, we predict that lagging Local Authorities will be able to catch up to the average performance of the best 10 Local Authorities for household collections.
- EPR would aid a 10% increase in commercial collection rates.
- Glass return rates improve across all products and therefore the system provides the clear glass that the Scottish industry needs to reduce domestic carbon emissions.
- **We have not applied an uplift for an educational campaign** although our research[5] suggests this could be:
  - Up to 34% increase from better education on glass recycling process (all colours).
  - Up to 7% increase education on rinsing jars etc (mainly clear glass).

Comparison of projected outcomes

	Overall glass recycling rate	Extra tonnes glass recycled per year		Extra tonnes of CO_2 saved per year	
		Flint	Total	Scotland	Globally
DRS: ZWS best case: 90% DRS return rate and 64% non-DRS return rate	**84%**	16,094	46,098	9,335	26,737
DRS: BG best case: 75% DRS return rate and 58% non-DRS return rate	**71%**	3,953	16,497	2,293	9,568
DRS: BG worst case: 60% DRS return rate and 58% non-DRS return rate	**60%**	-5,332	-10,098	-3,092	-5,857
British Glass (EPR) alternative model	**84%**	28,871	45,632	16,745	26,466

90%: ZWS return rate for DRS glass (though 85% is stipulated as minimum in the draft regulations[6])
75%: Rate of return suggested by Toluna customer research survey
60%: Rate of return in the NT Australian DRS (top end of range)
58%: Represents a 10% drop from the current non-DRS recycling rate caused by consumer confusion, and non-viability of current collection system when DRS is introduced. We believe this to be very optimistic.

Conclusion

- Including glass in the Scottish recycling DRS is not going to improve recycling rates significantly.
- Glass recycling rates could even fall following the introduction the proposed recycling DRS.
- The alternative British Glass (EPR) model would deliver similar amounts to the unrealistic best-case scenario presented by ZWS
- The alternative British Glass (EPR) model would deliver double the amount of clear glass than including glass in the Scottish recycling DRS. This means double the carbon emissions that can be saved by Scottish closed loop recycling in the alternative (EPR) model.
- EPR will be introduced in 2023 and until then PRN process continues to apply so consumers will pay twice for the same recycling and carbon reduction outcomes.

[5] Toluna Scotland - total respondents: 946 (June 2019)
[6] Schedule 3, dii Proposed Regulations September 2019