

An improved, consistent kerbside scheme is better for the environment than a deposit return scheme, delivering at least 11% more carbon savings (over 2 million tonnes of CO₂ by 2035) as well as achieving a higher glass collection rate of close to 90%.

A new, independent report from the consulting team at Reconomy Group company, Valpak for British Glass has shown in no uncertain terms why glass packaging **must be collected and recycled through an improved, consistent kerbside scheme** as proposed within DEFRA's recent extended producer responsibility (EPR) and consistency of collection consultations, and not through a deposit return scheme (DRS). The report is based on data from the Welsh Government blueprint model for glass collection, which has been proven to successfully deliver a glass collection rate of close to 90%.

The report found that recycling **all glass packaging through improved, consistent kerbside collections (as outlined in DEFRA's current proposals for a well-designed scheme of EPR and funded via the principal of 'producer pays')** is the most effective and efficient recycling solution for glass, both in terms of environmental impact and convenience for households.

"Analysis of the data reported by nine local authorities in Wales, who are using the Welsh Government blueprint model for glass collection, suggests a collection rate of close to 90% of glass packaging placed on the market across both drinks containers and all other types of glass packaging".

- Reconomy Group company, Valpak, November 2021

Headline findings

A good kerbside recycling model for glass packaging will deliver 11% more carbon savings than including glass in a DRS – that's over 2 million tonnes of CO₂ by 2035.

An Improved, Consistent Kerbside Scheme would lead to a collection rate of close to 90% of all glass packaging (compared with DRS which anticipates a collection rate of just 85% but is limited to drinks containers only).

Government data suggests that a DRS is likely to reduce the collection rate for non-beverage glass packaging, such as jam jars and condiment bottles, that make up nearly a third of all glass containers but are excluded from DRS schemes.

Why will a DRS have a negative impact on glass packaging?

It **puts at risk the collection and recycling of glass food packaging** which is not included in the scheme – c.30% of all glass packaging.

Including glass bottles in a DRS **would increase the sector's carbon footprint** when compared to EPR.

A DRS puts at risk closed-loop glass recycling – with the report showing a **likely increase in more glass ending up as aggregate**, rather than being recycled back into packaging.

DRS is a system for collecting bottles and cans, but it is not a recycling system, and **contains no targets for recycling back into new packaging**, unlike EPR.

Why the improved, consistent kerbside scheme is the right solution for glass.

The improved, consistent kerbside scheme would lead to a **glass collection rate of circa 90% (currently 76%)**.

The Scheme is based on data from the Welsh Government Blueprint model for glass collection – unlike a theoretical DRS, **it is already proven to work!**

It would increase closed-loop glass recycling, creating a truly circular economy, with more collected glass being recycled back into packaging.

It would **reduce the carbon emissions** of the glass industry 11% more than via a DRS.

It would keep all glass packaging **in a single waste stream, making it easier for consumers to recycle.**

The Welsh Blueprint

The Valpak report evaluates the environmental impact of two different scenarios against the current baseline system of local authority controlled kerbside collections and commercial collections from businesses. The two scenarios are:

- 1) A DRS system for glass as described by the Government consultations published in 2020 – which projects a 85% collection rate for drinks bottles.
- 2) An Improved Consistent Kerbside Scheme, based on the Welsh Government Blueprint model – which projects a c.90% collection rate for all glass packaging.

The collection and recycling rates from the second scenario were calculated by considering the total glass collected in nine Welsh councils for which the Government Blueprint is established (pictured right). **This produced an overall collection rate of 91.62% in the nine councils combined.**

Carbon savings

The glass industry has committed to reduce its carbon footprint to reach net zero by 2050. In glass manufacturing, making new glass packaging from recycled glass reduces CO₂ emissions and energy use, with 580kg of carbon dioxide emissions saved for every tonne of glass remelted.

Due to the likelihood that glass will be intentionally broken in a DRS, to save space - resulting in small glass particles - more glass will be unsuitable for remelt and will be used for aggregate. Valpak’s impact assessment shows **11% more carbon savings will be delivered by keeping glass at the kerbside in comparison to a DRS, with cumulative total savings of over 2 million tonnes of CO₂ by 2035 through the model.**

Remelt targets

A glass remelt target is an essential tool in helping the glass sector to decarbonise. Remelt targets are vital for guaranteeing closed-loop recycling for remelt back into new glass bottles and jars. Without a remelt target, there is a risk that the quality and quantity of glass available for closed-loop recycling will be significantly impacted and lead to material being ‘down-recycled’ as aggregate, leaving circulation forever. The glass industry supports an 80% obligated remelt target by 2030.

Valpak Consulting’s impact assessment estimates:

- The carbon benefit when using recycled glass instead of virgin material to make new glass bottles and jars is **579.58kg CO₂e per 1 tonne** of product.
- This carbon benefit drops to **4.56kg CO₂e per 1 tonne** when using recycled glass instead of virgin material for use in aggregate products, which is therefore less sustainable.

If glass is included in a DRS, there will be no regulation to ensure that the current remelt target is maintained and exceeded in future years to protect closed loop recycling. By contrast – Valpak’s assessment assumes that a **high proportion (92.98%) of the glass collected from households under an improved, consistent kerbside Scheme would be suitable for remelt.**

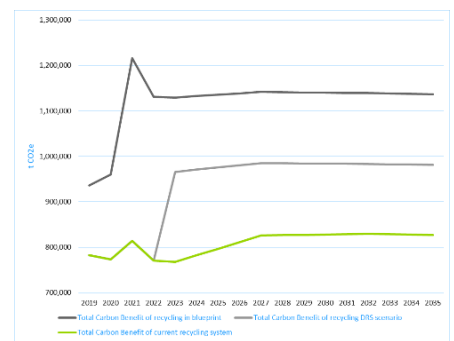
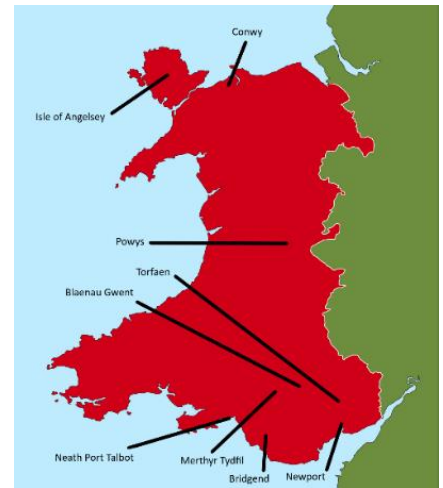
‘Producer pays’ principle to address cost of litter collection

The report also acknowledges the need for obligated businesses under EPR to cover the cost of collecting litter. However, it is reasonable to assume that by achieving a c.90% glass collection rate, less glass will become litter.

Better environmental outcomes for glass

It is critical that Government acknowledges the environmental benefit of remelt and implements a system that promotes glass remelt in line with the waste hierarchy and circular economy principles.

This would be best served by **maintaining an obligated remelt target for scheme operators within the regulations, promoting a system that protects material for use in remelt.**



The glass sector is committed to achieving a collection rate of 90% but collections alone will not deliver the best environmental outcomes for glass recycling. A remelt target is vital, and the scheme must drive forward greater glass to glass recycling. We are the only industry asking for more obligated targets, not fewer, because we firmly believe that to create the best recycling system for glass packaging, one that is best for the environment, glass must remain as part of EPR, not a DRS.