

Written evidence submitted by Viridor (PW0049)

Introduction

Viridor welcomes the EFRA Committee's inquiry into plastic waste and supports the Committee's work to ensure government shows the highest level of ambition when it comes to reducing the environmental impact of the resources we use.

Key points

- Viridor supports the government's ambition to drastically reduce the amount of plastic waste and believes the reforms introduced in the Resources and Waste Strategy have the potential to significantly increase the proportion of plastic that is recycled.
- The best way to tackle the environmental impact of plastics is to increase the UK's recycling infrastructure capacity. This will also ensure we are capable of recycling as much plastic waste as possible domestically. Currently, there is no framework to support the required long-term capital investment in recycling infrastructure.
- In the recycling sector, contracts are short-term and subject to volatile commodity prices. This means lower-quality and higher-cost projects in comparison to sectors where long-term contracts with stable revenues attract infrastructure investors, driving down the cost of capital.
- It is essential the extended producer responsibility scheme (EPR) allows for the creation of long-term contracts for recyclable material, without which the quality, scale and capacity of UK recycling infrastructure will remain low.
- To further drive demand for recycled materials and support investment in recycling and reprocessing infrastructure, the government should implement both a recycled content and tax rate escalator as part of the Plastic Packaging Tax.
- Policy on single use plastics should encourage producers and consumers to consider whether single use items are necessary at all. It should also seek to avoid incentivising switching to alternative materials from plastics when doing so could have an even greater impact on the environment.

About Viridor

Every day Viridor takes what British homes and businesses throw away and transforms it into essential quality materials, resources, and energy. Viridor is focussing its recycling and reprocessing efforts on plastic – a highly versatile material but one that needs to be carefully managed to prevent it becoming a harmful pollutant. As a founding signatory to the UK Plastics Pact, Viridor is focused on supporting manufacturers and brands to reduce their reliance on virgin plastic and operates some of the most sophisticated plastic recycling and reprocessing plants in the country.

Call for Evidence

1. What measures should the UK Government take to reduce the production and disposal of single-use plastics in England? Are the measures announced so far, including a ban on certain single-use plastics and a plastic packaging tax, sufficient?

Plastic plays a vital role in packaging, and in many instances, alternatives have a higher environmental impact. The government's reforms included in the Resources and Waste Strategy set out clear targets for plastic recycling. A critical element of new policy is 'modulated fees' which should drive will drive out unnecessary plastic packaging.

Single use charges

The use of charges for all single use plastic items, as currently applied to plastic bags, risks the creation of more unrecyclable waste. Legitimate concerns over plastic waste have already driven a shift from single use plastic cutlery, stirrers, straws etc., to single use alternatives made from paper, wood, or compostable material. The global market for paper straws, for instance, is growing by 13.8% a year.¹ As these materials cannot be reused or recycled and must be disposed of through incineration or landfill, they drive a less sustainable, less circular economy. In Japan, a number of brands now offer drinks packaged in aluminium cans instead of plastic bottles as a measure in the fight against marine plastic pollution. However, aluminium has the highest carbon footprint per kg when compared to other UK packaging types (based on lifecycle analysis and 2019 levels of recycling).²

In addressing the environmental impact of single use plastics, the government must make sure it avoids incentivising the use of materials that have an even greater detrimental effect on the environment. While there is a need to focus on plastics, the main objective should be reducing the overall environmental footprint of the resources we use.

Policy should therefore drive producers and consumers to consider whether single use items are necessary at all, as in many instances reusable options are readily available. Where using single use items can't be avoided, the best solution is to make sure consumers have both the ability and motivation to recycle any materials, including plastics, they use.

Plastic packaging tax

The plastic packaging tax in its current form will help drive recycled content of plastic packaging. However, as it is set at a fixed cost and percentage it risks creating a ceiling for ambition on recycled content. An escalator which incrementally increases the required recycled content over time would provide a long-term signal to the full supply chain to drive investment in recycling and reprocessing infrastructure. An escalator could unlock significant private sector investment in recycling infrastructure and technology by continually increasing the demand for recycled plastics.

An initial two to three percentage point per year plastic content escalator would align the tax with the 60% recycled target in the Resources and Waste Strategy and send a powerful investment signal. During the recent pandemic, the recycled content fell to about 30% having

¹ Transparency Market Research, 2019, Paper straws market: global industry analysis 2013-2018 and forecast 2019-2027

² Fixing the system: Why a circular economy for all materials is the only way to solve the plastic problem, Green Alliance, 2020.

previously been greater. This demonstrates that a percentage content escalation would be achievable over the coming years.

Viridor's analysis of the UK's plastics market suggests there will be enough material available for UK manufacturers to reach 50% recycled content by 2030, if it occurs alongside an increase in domestic reprocessing capacity and the UK Government meeting its recycling targets through the successful deployment of the plastic packaging tax, EPR, deposit return, restricting exports, and consistent collections.

Expanding recycling capacity

Much of the environmental harm caused by single use plastics could be addressed by ensuring the UK has sufficient recycling infrastructure to sort and process plastic materials alongside collection of that recycling. However, there is currently no framework to support the capital investment in the required infrastructure. A recent report by Recoup has shown that UK plastic reprocessing capacity needs to double to process all recyclable material placed on the market.³

The UK needs more investment in recycling infrastructure. Infrastructure investors typically have longer investment horizons, which allow them to finance large scale capital expenditure at a lower cost of capital by spreading returns over an extended period. This, together with the expertise and experience of the private sector, helps to deliver high-quality infrastructure projects at the best value for money, meaning lower costs for the end consumer.

In the waste sector, long-term contracts have driven significant investment in Energy Recovery Facilities, and in the renewables sector, Contracts for Difference (CfD) have given investors the certainty to allocate large amounts of capital into renewables infrastructure. In contrast, in the recycling sector contracts are short-term and subject to volatile commodity prices. This means project development is higher risk 'merchant development', which increases both capital and operating costs and results in lower-quality assets.

To tackle the amount of plastic waste we produce in the UK we need to ensure as much of it as possible is collected and reprocessed, and that requires large-scale investment in recycling infrastructure. To achieve this, it is essential the government ensures the Resources and Waste Strategy drives infrastructure investment through creating a framework for long-term contracts and stable revenues. This would allow recycling assets to become an infrastructure grade investment class, much as CfDs have done for renewables assets.

The Packaging Recovery Note (PRN) system, while flawed, supported recycling and reprocessing revenues in an environment where infrastructure investment was already challenging. Under the scheme, packaging producers met their recycling obligations by buying PRNs from accredited reprocessors, however the PRN was highly volatile – supporting revenues but not creating the conditions for infrastructure-like contracts. It is vital the extended producer responsibility (EPR) scheme allows for the creation of long-term contracts for recyclable material. In the absence of long-term contracts, the quality, scale and capacity of recycling and reprocessing infrastructure in the UK will remain low.

³ UK Household Plastic Packaging Sorting and Reprocessing Infrastructure, Recoup, 2020

2. How should alternatives to plastic consumption be identified and supported, without resorting to more environmentally damaging options?

To help achieve the government's circular economy ambitions, the environmental impact of alternatives to plastic must be considered. Rather than focusing exclusively on reducing the use of plastic, policy should ensure all resources are used sustainably, and that environmental harm is minimised. To achieve this, the whole lifecycle impacts of all materials should be assessed.

Non-recyclable plastic should be urgently phased out. The modulated fees of EPR, which focus on recyclability as a key factor in the fee calculation, should help producers switch to more recyclable materials e.g., moving from multi-layer carton packaging to simple PET plastic bottles, ensuring recyclability by design.

We support the view of others within the sector that the UK government should ban on single use plastics to include a ban on drinks containers made from expanded polystyrene (EPS) and products made from oxo-degradable plastic.

For items that need to be made from plastics, or where alternative materials have a greater environmental impact, we must ensure the UK has sufficient recycling and reprocessing infrastructure to deal with them. This will be the most effective way to make sure resources are used in the least environmentally damaging way possible.

Impact of alternatives

While there are instances where plastics can be substituted by alternative materials, this should only happen when it reduces the environmental footprint of the packaging. Often, alternatives to plastics have a greater environmental impact than recyclable plastic and switching to other materials is, counterintuitively, worse for the planet.

For example, recent estimates show that switching all current consumption of plastic packaging (1.6Mt) to the other materials currently used for packaging in the UK could almost triple associated carbon emissions from 1.7 billion tonnes CO₂e, to 4.8 billion tonnes CO₂e. For example, to produce an equivalent 500ml drinks container out of glass produces approximately 0.27kgCO₂e, and Aluminium creates 0.08kgCO₂e. Plastic produces only 0.02kg CO₂e⁴.

3. Is the UK Government's target of eliminating avoidable plastic waste by 2042 ambitious enough?

The Government's objective of eliminating avoidable plastic waste and improving recycling rates is welcome but could be more ambitious. With the correct mix of policies, including clarity on ownership of materials under EPR and progress on creating the right conditions for investment, all avoidable plastic waste could be prevented within a decade.

⁴ Fixing the system: Why a circular economy for all materials is the only way to solve the plastic problem, Green Alliance, 2020.

In recent years, plastic packaging consumption has reduced from 2,361KT in 2017 to 2,290 KT in 2019, with a forecast of 2,092 KT in 2020⁵. Further reductions to eliminate all avoidable plastic waste will be dependent on:

- Effective implementation of EPR:
 - Should allow for the phasing out of non-recyclable plastics through modulated fees, which will drive packaging redesign and reduce the use of non-recyclable plastic packaging.
 - Increase recyclability through clear labelling of recyclable plastics.
- Plastic Packaging Tax with percentage escalator:
 - Percentage content and tax rate escalator for recycled material will increase demand for recycled polymer and drive recycling rates.
- Consistent collections:
 - Will establish single/dual stream plastics collections which will reduce contamination, allowing more plastic to be recycled.

4. Will the UK Government be able to achieve its shorter-term ambition of working towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025?

With EPR and modulated fees not being introduced until 2024, the government has set itself a very ambitious timeframe to achieve its target. Clarity on fee modulation and associated costs in 2022 will be key to driving the shift toward all plastic packaging on the market being recyclable, reusable or compostable by 2025. However, despite this step forward, there will not be sufficient capacity to recycle and reprocess all of this material within the UK.

There are also areas where the government needs to go further if it wants to make sure as much plastic as possible is recycled. Plastic films accounted for 22% of all UK consumer plastic packaging placed on the market in 2019⁶. Despite this, the recent EPR consultation proposed the collection of films from businesses will commence in 2024 but collections from households could be delayed to 2026/27. This means that there would not be an easy to access recycling service for film before the end of the timescale of the government's target.

Furthermore, the government's plans for films and flexibles could be undermined due to the amount and different types of multi-material laminated items on the market, while sustainable alternatives not widely available. Without the required recycling capacity in the UK, films will still need to be disposed of via EfW as the most sustainable way to deal with them

The use of reusable and refillable applications where appropriate will reduce the use of single use materials, however the recyclability of these products must be ensured so they are not destined for disposal at end-of-life. The adoption of reuse and refill models should be based on a full life cycle analysis to ensure they meet recyclability criteria.

Unfortunately, in some cases, even though the intention of a product is to be reused many times, people use these product as if they are single-use. For example, 'bags for life' may

⁵ Valpak PackFlow Covid-19 Phase II, 2020 <https://wrap.org.uk/resources/report/packflow-covid-19-reports>

⁶ Valpak PackFlow Covid-19 Plastic Phase I, 2020 <https://wrap.org.uk/resources/report/packflow-covid-19-reports>

only be used a few times which means it is even more important to educate consumers on the environmental impacts of various formats including reusables.

5. Does the UK Government need to do more to ensure that plastic waste is not exported and then managed unsustainably? If so, what steps should it take?

Viridor will significantly reduce the UK's reliance on plastic export following the opening of its £65 million Avonmouth 80,000t plastic reprocessing facility later this year, which was part supported under the outgoing PRN system. This increase in domestic capacity will reduce the UK's reliance on export of plastic waste, producing 60,000t of recycled polymer each year, equivalent to 3bn drinks containers.

Export markets have played a central role in allowing the UK to reach its plastics recycling targets for many years. This is because the UK lacks sufficient recycling and reprocessing infrastructure, meaning it cannot meet the government's targets using domestic capacity alone. Instead, the UK relies on exporting recyclate, with 61% of the UK's waste plastic packaging exported for recycling in 2019.⁷

Export of plastic waste has been actively encouraged through the additional value assigned to the export packaging recovery note (PERN) over the domestic PRN, with is typically 80% of the PERN value. The effective 20% uplift in subsidy for exporting plastic for reprocessing has undermined UK based reprocessing efforts.

Stories highlighting the mismanagement of UK derived plastic waste exported to Turkey have made clear the need for the UK to take responsibility for its own waste⁸ To make sure plastic waste is dealt with safely and sustainably, the government must do more to ensure we are able to manage all of our plastic waste at home.

What can be done

The most effective approach to prevent issues such as those recently observed in Turkey (export of the UK's plastic waste to Turkey was banned and then reversed),⁷ is to ensure the UK can manage its plastic waste domestically. By expanding our domestic reprocessing capacity, waste would be managed where standards are universal and auditable, creating a level playing field across domestic and export reprocessing.

Our own modelling shows that the loss of the PRN and PERN in 2023 will mean the payback period for a typical 60KT reprocessing plant more than doubles making the investment unviable.

Under EPR, the new payment mechanism will extend from producer to recycling (sorting) but there are no proposals to support reprocessors. The EPR scheme is expected to cost £2.75 bn a year⁸ and will increase the volumes of materials that need to be recycled. It is therefore

⁷ Turkey reverses ban on plastics imports for recycling <https://www.edie.net/news/5/Turkey-reverses-ban-on-plastics-imports-for-recycling/>

⁸ Reforming the UK packaging producer responsibility system, Defra Extended Producer Responsibility Impact Assessment - https://consult.defra.gov.uk/extended-producer-responsibility/extended-producer-responsibility-for-packaging/supporting_documents/Extended%20Producer%20Responsibility%20Impact%20Assessment.pdf

critical the Government ensures EPR creates the right conditions to drive investment in recycling and reprocessing infrastructure in the UK.

Key to overcoming the barriers to investment, is allowing reprocessors to secure long-term supply contracts that provide stable revenue streams over a 10–15-year period. The EPR scheme should provide a framework for the development of long-term contracts to manage price risk, and generate revenues to enable high-quality capital investment. This will mean recyclers and reprocessors can be paid a stable reprocessing fee (rather than relying on the market pricing outside of their control) and will help establish recycling as an infrastructure grade investment class asset.

Viridor is actively considering ways to address these issues and we are engaging with key stakeholders to develop initial considerations for how policy can transform recycling and reprocessing investment in the UK into an infrastructure asset class.

Driving investment in recycling infrastructure will have the following wider benefits:

- **Putting the UK on track to meet recycling targets.** A rapid influx of capital into recycling and reprocessing within from and outside the sector.
- **Unlocking greater value from private investment** by reducing investment risk, which will feed through to lower cost per tonne of processing for customers (mainly local authorities).
- **Create 1000s of new green jobs**, supporting the levelling up agenda.
- **Improving the quality of recycling**, as investment in better technology can be spread over the long-term, enhancing performance and quality.
- **Promoting investment in automation:** long-term contracts enable increased up front technology investment, which can remove people's involvement in the most dangerous tasks improving sector health and safety.
- **Accelerating investment in infrastructure by at least two years**, if long-term contracts are available at the start of EPR, investments can be approved and announced upon signing contracts rather than companies waiting for the EPR to 'bed in' – a process that will take at least two years.

Whilst the UK has insufficient domestic reprocessing capacity, export of 'green list' plastics, which are in line with the Basel Convention are a key element of a sustainable and circular plastics recycling system. Better enforcement of the waste shipment legislation to ensure only materials that can be recycled are exported will prevent export of contaminated or illegitimate wastes. To ensure a level playing field with domestic reprocessors, all exports must be conducted under high standards with the appropriate due diligence around end markets and intermediary brokers.

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