

Department for Environment, Food and Rural Affairs

Proposal to ban the supply of plastic drinking straws to the end user in England

RPC rating: **fit for purpose**

The RPC provided an opinion on this proposal on 22nd November 2019 to the Department. The Impact Assessment (IA) and the opinion were subsequently published in March 2020. Since then the Department has decided to defer the implementation of the policy until October this year. In doing so, this has allowed it to revise the IA providing details of additional impacts relating to the increase in landfill tax which affect businesses and local authorities. As this revision affects the EANDCB the Department has provided the RPC with a revised IA for assessment. The Department is to be commended for doing this.

Description of proposal

The Department proposes to ban the supply of plastic drinking straws to the end user in England, to promote the use and production of straws manufactured from environmentally-friendly materials that will decompose quicker, and to create consumer awareness of the environmental harms that plastic drinking straws can cause when not disposed of correctly. Exemptions under this proposal are outlined as follows:

- **Plastic straws that are used as medical devices.** These include those that have pre-dosed granular medicines.
- **Plastic straws that are defined as packaging** under EU Directive 93/42/EEC.
- **Single use plastic straws supplied in registered pharmacies** (online and in store) to anyone that wants them. There would be no need to prove, or state, disability or accessibility requirement. Where straws are supplied in store, they would be kept behind the counter rather than displayed on the shop floor.
- **Single use plastic straws supplied in catering establishments;** these establishments would be divided into two categories. In all cases these establishments are not *required* to stock straws by this proposal.

- i. **For commercial use.** Plastic straws would be given out on demand only to anyone that requests them and stored behind the counter.
- ii. **For use in a care, educational or health setting.** Plastic straws would be given out at the discretion of the staff and according to need.

Impacts of proposal

The proposed ban intends to reduce the number of plastic straws used in England from 4.7 billion to 264 million, and therefore reduce the number of plastic straws that end up as litter and polluting the environment. Although plastic straws will be banned, they will still be available at pharmacies for purchase and, upon request, in hospitality sector venues. The IA does not provide specific details of who will be exempt and for what reasons, or how compliance with the new requirements will be monitored.

The 10-year Net Present Value (NPV) estimate is -£47.1 million, with the majority of the cost arising from the increased costs associated with providing paper straws as opposed to plastic straws.

The Department estimates that alternatives, such as paper straws, will result in less litter in the environment, and that the proposed ban will reduce coastal clean-up costs by £230,000. Clean beaches are highly valued by the public, thus a reduction in plastic straw litter is estimated to give a £3.51 million benefit in well-being. This benefit arises from paper straws decomposing faster than plastic straws, which would mean a reduced amount of clean-up and is based only on the estimated number of straws that end up on beaches. Changing to paper straws would also generate environmental incineration emission savings of around £121,461, as plastic emits more kilograms of carbon dioxide than paper when incinerated. All of these discounted benefits are calculated over the 10-year appraisal period.

The Department has monetised costs in a variety of areas that they believe will be incurred through the introduction of a ban. The largest cost is expected to be the purchasing of paper straws, as an alternative to plastic straws. The central estimate for this cost to business is £70 million. Paper straws are more expensive on average than plastic straws, and the IA states that consumers are expected to absorb 60% of these additional costs via higher prices on other product purchases resulting in a £25.84 million cost to consumers. This figure has been reached via sensitivity analysis.

As well as the cost of switching from plastic to paper straws, other costs include the familiarisation of the new proposals which has been estimated to cost businesses £6.7

million. The familiarisation costs will be incurred via continual training of staff to ensure they are aware of the regulations, particularly the exemptions and the requirement to keep any plastic straws behind the counter. These costs are all calculated over the 10-year appraisal period.

The Department has now added an explanation of waste management costs (pages 29 -30). The IA states that paper straws weigh more than plastic straws (large paper straws weigh 1.18g in comparison to 0.55g for plastic, and carton paper straws weigh 1.07g in comparison to 0.5g for plastic). This will increase the waste management costs as landfill tax and landfill/incineration site gate fees are calculated by weight. Both Local authorities and businesses are expected to share the additional waste management cost burden. The Department assumes that the majority of straws are disposed of in commercial establishments, with some in public bins or households. Proportionately, it is expected that businesses will bear most of the burden of the additional gate fee and landfill tax. Only a small proportion of that cost will be to local authorities. The Department expects businesses and local authorities to bear 80% and 20% respectively of the additional costs¹. The Department assumes that 71% of straws will be taken to incineration and 29% taken to landfill resulting in, if all straws are paper, 1584 tonnes going to landfill and 3895 tonnes going to incineration respectively. The Department provides central estimates of a landfill gate fee of £23 per tonne, the incineration gate fee of £100 per tonne² and the landfill tax is £94.15 per tonne³. This results in an estimated total additional waste management cost of £307,025 per year. Taking the assumption that 80% will fall to business and 20% will fall to local authorities, the resulting estimate provides an annual cost of £245,620 to business and £61,405 to local authorities over the appraisal period. When these costs are then put in 2017 prices, discounted, and multiplied by the profile to use, which compares the ban and the no ban scenario, the resulting present value is £161,339 of additional waste management costs to business and £40,335 of additional waste management costs to local authorities over the 10 year appraisal period.

¹ Defra's estimate based on the Resource Futures report

² <https://www.letsrecycle.com/prices/efw-landfill-rdf-2/efw-landfill-rdf-2020-gate-fees/>

³ <https://www.gov.uk/government/publications/rates-and-allowances-landfill-tax/landfill-tax-rates-from-1-april-2013>

The IA also provides an explanation of the additional landfill tax revenue resulting from the additional weight due to the market switching to paper straws. In doing so the Department reflects this impact within the net present value, removing the landfill tax effect from the overall societal costs. The additional landfill tax revenue has an estimated present value of £47,607 over the 10 year appraisal period.

Quality of submission

To maintain transparency of the RPC comments on the IA, the following section reiterates the commentary from the opinion of 22nd November 2019.

The Department have addressed the issues that the RPC had with the IA when first submitted. The Department previously received an Initial Review Notice and then a red rating.

When the IA was initially submitted for RPC scrutiny, it was not considered fit for purpose for the following reasons:

- 1. Costs associated with alternatives** – The Department lacked evidence to support claims of businesses being encouraged to switch to paper straws and used the differences in production costs of the two products to calculate the added costs of a ban on plastic straws. However, the IA did not include profit margins added by straw manufacturers, which may differ. The Department has since provided further costs of the associated alternatives, to support the claims of businesses being encouraged to switch.
- 2. Fuel costs** – The IA provided no estimates of increased costs of fuel due to the increase in weight and different packaging needs, from the transportation and delivery of paper straws. The RPC notes that, after an IRN was issued, the Department provided in depth evidence and analysis of the associated fuel costs.
- 3. Equivalent annual net direct cost to business (EANDCB)** – The Department's calculation of the EANDCB relied on several assumptions and claims that were not supported sufficiently with evidence or analysis. These unsupported assumptions were mainly around the exemptions under the proposal. The RPC believes that the exemptions have now been supported sufficiently to calculate the EANDCB robustly, due to the additional research and evidence with stronger analysis provided.
- 4. Insufficient evidence** – The RPC believed that the IA relied too heavily on Resources Future, without using other sources or providing testing to support this source. The Department have since provided further background to support the use of Resources Future, as well as finding

other sources to support the assumptions underpinning their proposal. Whilst we are pleased to see improvements in this area, the RPC would have expected, at this stage, to see more robust evidence for key assumptions, such as the use of 0.1% relating to straws ending up in the ocean on page 24.

- 5. Small and micro business assessment (SaMBA)** – The IA lacked clear evidence and analysis on the impacts that the proposed regulation would have on small and micro businesses (SMBs), particularly around the stocking of both types of straws. The RPC noted previously that the IA did not discuss the impacts of the proposal on micro businesses. The SaMBA section of the IA now discusses possible impacts on small and medium-sized enterprises and micro businesses. The Department has now provided detailed evidence and analysis on the impacts that the proposal may have on small and micro businesses. This information is well presented in the tables provided, which break down the impacted market, and include a good level of detail in the different sections on each possible cost – particularly the costs associated with exemptions to the ban. The RPC also welcomes the inclusion of the SaMBA exemption/mitigation section, which is detailed and well explained, providing reasons for not including either an exemption or mitigation.

The Department has also improved on the points identified by the RPC as Areas for Improvement:

- 1. Exemptions** – Whilst the Department has clarified to the RPC that the effects of the exemption are not direct and therefore do not have an impact on the EANDCB, the Department could do more to demonstrate this in the IA. The Department now assumes that a ban on plastic straws will result in the reduction of plastic straws from 4.7 billion to 264 million in England, rather than 44 million. However, whilst the Department has provided evidence to support the new assumption of individuals using 6 straws per day based on NHS guidance, the Department has not provided any evidence that 6 plastic straws per day will be used by over 65s and those with dexterity issues/disabilities. The IA would benefit from seeking evidence and analysis to support this assumption.
- 2. Litter** – Many of the statistics and costs in the IA are based on the unsupported assumption that litter rates will stay the same and therefore the use of paper straws will reduce the cost associated with litter and beach clean-ups. Regardless of the material of litter, there would be an expectation that the litter

will still be picked up by litter pickers, voluntary or local authority funded. Despite the common belief that all paper straws are biodegradable some paper straws are non-recyclable, thus the Department should also consider the possibility of increased litter and provide sensitivity analysis in this area.

3. **Carton straws** - The RPC would expect the Department to provide further information on the plastic straws that are used on drinks cartons and the possible exemptions that may apply. Also, the IA should discuss the cost and environmental impact of businesses having to use alternatives to plastic straws, such as re-designing their cartons to include a plastic cap or replacing them with a plastic bottle and therefore using more plastic and increasing the carbon footprint.

While the Department has amended most of the points identified as areas for improvement, the IA would be strengthened by further development in the following areas:

1. **Monetisation of benefits** – The Department should consider that the ban is only preventing the sale and supply of plastic straws and not the littering of them or the paper alternatives. Given the assumption that plastic from around the world can be washed up on any beach, the IA would also benefit from a consideration that a ban on plastic straws in the UK would not necessarily mean zero plastic straws in the UK beach environment. The IA also does not discuss the possibility of plastic straws being stockpiled by members of the public and what the impact of this behaviour could be on the benefits. The Department should explore this possibility, perhaps drawing on evidence from similar bans such as the ban on filament light bulbs.
2. **Rationale** – The RPC noted previously that the IA would benefit from further evidence to support and strengthen the rationale, in particular concerning the following points:
 - a. The IA states that the current trend is that plastic straws are being used less through voluntary action by businesses and their use will reach “very low” levels by 2025/26. The IA however, states that there is a rationale for government to intervene to ban these items ahead of this time to address the negative environmental effects these items have on the environment. The RPC believes this statement needs to be backed up with further evidence and analysis to support the rationale for government intervention and regulation, given the apparent success of businesses’ voluntary actions to date reducing use of plastic straws. In doing so, the RPC suggests such a statement would benefit from

including reference to the objective of obtaining the maximum reduction in pollution for the minimum cost to business and society.

- b. The IA is focussed on plastic straws which are thought to make up 1.9% of the plastic pollution in the marine environment. The IA must provide a stronger rationale for why plastic straws are being targeted and not the 98.1% of other plastic pollution in the marine environment. The IA should also provide evidence to demonstrate that the use of alternatives is better than the use of plastic straws, particularly as paper straws that are currently being sold are not recyclable with current recycling technology, although they are made from mixed recyclable materials, leading to these also being incinerated.
 - c. The IA would have also benefitted from an explanation of the previously considered options, which have now been disregarded, for completeness.
- 3. Research and development** – The RPC believe that the IA would have benefitted from engaging with stakeholders on the potential impacts the ban may have on the innovation and development of recyclable paper straws and other biodegradable options. This is an area that the RPC suggests the Department considers in their Post Implementation Review (PIR).

Departmental assessment

Classification	Qualifying regulatory provision (IN)
Equivalent annual net direct cost to business (EANDCB)	£8.6 million (initial estimate) £7.5 million (November estimate) £5.5 million (final estimate)
Business net present value	–£47.0 million
Overall net present value	–£44.7 million

RPC assessment

Classification	Under the framework rules for the 2017-19 parliament: Qualifying regulatory provision To be determined – when the framework rules for the current parliament are set.
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Small and micro business assessment	Sufficient
RPC rating of initial submission	Not fit for purpose
RPC rating	Fit for purpose

Regulatory Policy Committee