



Department
for Environment
Food & Rural Affairs

Post Implementation Review (PIR) of The Single Use Carrier Bags Charges (England) Order 2015

April 2023

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Response to RPC Initial Opinion

Defra acknowledges the RPC red rating of the PIR. A key reason for the red rating was due to Defra amending regulations to double the single use carrier bag (SUCB) charge to 10p and extend it to all retailers, prior to the PIR being submitted for scrutiny as a result of Covid-19 delays. While Defra cannot change this sequencing, we have addressed the remaining comments from the RPC in the following ways:

- Explaining the reasoning behind the original exclusion of micro, small and medium sized businesses.
- Including the rationale and impact of the amended legislation (doubling the SUCB charge to 10p and extending it to cover all retailers). Additionally, an Impact Assessment has already been published, which presents these impacts in more detail.
- Committing to producing a further PIR on the amended legislation by October 2026 when more data on the impact of recent changes will be available.
- Including reference to consultation with key stakeholders, such as the Federation of Independent Retailers.
- Including a description of the accuracy of assumptions in our original analysis, where proportionate to do so.
- Addressing unanticipated consequences, such as those of the Covid-19 pandemic.

Introduction and Background

This Post implementation Review (PIR) assesses the effect of the introduction of a mandatory 5p charge for single-use plastic carrier bags (SUCBs) paid by consumers in large retailers in England. Large retailers are those employing 250 or more full-time equivalent employees (in total and not just in retail roles) in a year. The policy implementing the charge came into effect in October 2015 and this PIR solely focused on the 5-year period that followed.

Prior to the introduction of the charge, SUCBs were given away free at the point of sale, with the cost of bags hidden in the price of goods. Aside from a few voluntary schemes, this meant consumers were not meaningfully incentivised to limit their consumption to a socially desirable level. In 2014 (before the charge) the main supermarkets in England gave out 7.64 billion SUCB, or 140 per person.

The societal costs associated with SUCB to third parties (such as the costs of littered bags, emissions of greenhouse gases (GHG), and non-renewable resources used in their production), provided a rationale for government intervention to reduce SUCB consumption to a more socially desirable level.

Experience in other countries, such as Wales, showed that introducing a 5p charge for each SUCB, paid by consumers at point of sale in large retailers, had a dramatic impact on the level of SUCB consumption, reducing it by around 80% in supermarkets. A similar reduction in SUCB use was anticipated in England. Reduced SUCB consumption was expected to have benefits through a reduction in the quantity of waste generated and the associated cost of treatment. Environmental benefits in terms of avoided GHG emissions and resource savings were expected since fewer bags would need to be produced. Benefits were also anticipated from reductions in plastic litter and its associated costs of clean-up and disposal. These were expected to bring financial savings mainly to local authorities and non-monetised benefits to communities from fewer littered bags. The impact assessment carried out before introducing the 5p charge calculated that there would be a net cost to consumers as the fall in the cost of SUCB hidden in shopping bills passed on by retailers (due to fewer bags being used) would be outweighed by the extra costs from the charge (including the 5p charge paid for the remaining SUCB that are used and the cost of additional 'bags for life' and bin liners).

There were expected costs to government from the implementation and enforcement costs associated with the charge but no net cost to business as, while retailers would incur administrative, monitoring, and reporting costs from introducing a charge, they would be able to retain a portion of the proceeds of the charge to cover these. Therefore, the payments from consumers would offset the costs to business. Large retailers would experience a direct benefit from the reduced cost of providing bags, which they were expected to pass through to consumers.

Large retailers were expected to voluntarily donate the proceeds of the charge, less their reasonable administrative costs, to good causes (as happened in Wales).

There was also anticipated to be a change in VAT revenue for the exchequer, as although VAT is paid on the charge, this is offset by changes in VAT arising from changes in the number of bags sold, especially the expected fall in VAT due to fewer SUCBs used. Changes in VAT are transfers between groups, with no overall impact on society, so they would cancel each other out in the calculation of the net present value figure.

Overall, the monetised benefits were expected to be greater than the monetised costs from introducing a charge.

This PIR presents evidence to show the changes due to introducing the 5p charge for SUCBs in large retailers in England and briefly outlines the impacts of amending the policy to include all businesses and increase the charge to a minimum of 10p per item.

Changes in SUCB sales, Impact on GHG emissions and resource use

Changes in SUCBs sold

The figures in Table 1 show a decrease in SUCBs sold each year since 2016/17 (data from 2015/16 is not directly comparable). WRAP have previously reported that the main retailers in England issued 7.6 billion SUCBs in the calendar year 2014, before the carrier bag charge was introduced. Our data indicates that, based on the 2019/20 return, there has been a decrease of more than 95% in the number of bags sold by the main retailers (over 7.4 billion fewer bags) compared to 2014.

Table 1: Number of single use bags reported sold in England¹ (millions)*

	2016 to 2017	2017 to 2018	2018 to 2019	2019 to 2020
Total number of single use plastic bags reported**	2,116	1,754	1,110	564
Number of single use plastic bags reported by the main retailers***	1,327	1,039	549	226

* Data for 2015/16 covered 6 months (5 October 2015 to 6 April 2016) and is not directly comparable. The results from 2015/16 are: 1.1 billion single use bags were sold, 0.6 billion single use bags were sold by the main retailers

** A small number of retailers reported data on a voluntary basis (i.e. those with fewer than 250 employees). These retailers account for less than 1% of all reported bags.

*** The main retailers are Asda, Marks and Spencer, Sainsbury's, Tesco, The Co-operative Group, Waitrose and Morrisons.

Due to Covid-19, a small number of retailers notified us that they were unable to provide data due to staff being furloughed. In addition, from 21 March 2020 retailers in England did not need to charge for bags used in online grocery deliveries. Non-essential retailers also closed on 23 March 2020. These changes affect the last two weeks of the 2019 to 2020

¹ <https://www.gov.uk/government/publications/carrier-bag-charge-summary-of-data-in-england/single-use-plastic-carrier-bags-charge-data-for-england-2020-to-2021>

reporting period and we would expect Covid-19 to have a more significant impact on carrier bag usage in next year's reporting.

As the number of SUCB sales fell across large retailers, the majority of SUCBs are now supplied by medium-, small- and micro-sized enterprises (MSMEs). In 2018, MSME retailers, alongside airport retailers and civic and voluntary organisations' retail outlets, circulated over 80% of SUCBs (or 3.2 billion items); this averages to approximately 74 SUCBs per person in England.²

Defra analysis estimates that doubling the SUCB charge to 10p and extending it to cover all retailers could lead sales of new SUCBs to fall to less than 1.2 billion items by 2025, a reduction of 71% respective to 2019 levels.³ The number of SUCBs circulated through MSMEs is projected to fall to an average of 20 items per person in England by 2030.⁴

GHG Emissions

Table 2: GHG Emissions

	Lifecycle GHG emissions change in SUCB consumption (tonnes CO ₂ e)
2016-17	- 220,024
2017-18	- 229,916
2018-19	- 245,294
2019-20	- 258,838

The GHG impact from SUCB consumption stems from production, transport, and end-of-life management. The 5p charge has reduced the number of bags consumed and therefore the total lifecycle emissions from SUCBs in England. The figures above were calculated using the difference in the number of bags consumed⁵ and the predicted

² Extending the Single Use Carrier Bag charge to all retailers and reviewing the current 5p charge to 10p, Final Stage Impact Assessment (2021) <https://www.legislation.gov.uk/ukia/2021/4>

³ Extending the Single Use Carrier Bag charge to all retailers and reviewing the current 5p charge to 10p, Final Stage Impact Assessment (2021) <https://www.legislation.gov.uk/ukia/2021/4>

⁴ *ibid*

⁵ <https://www.gov.uk/government/publications/carrier-bag-charge-summary-of-data-in-england/single-use-plastic-carrier-bags-charge-data-in-england-for-2019-to-2020>

baseline in the 2015 impact assessment⁶ - that gave the estimated reduction in single use carrier bag consumption caused by the charge. This reduction in bags was then multiplied by an estimate for the lifecycle GHG emissions per carrier bag⁷ to give the estimated GHG emissions reduction caused by the 5p charge. These calculations do not include the estimated substitution effects of expected increased use in bags for life and bin liners as set out in the impact assessments.

⁶ 2015 SUCB IA page 11 table 1 https://www.legislation.gov.uk/ukia/2015/7/pdfs/ukia_20150007_en.pdf

⁷https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291023/scho0711buan-e-e.pdf

Impact on consumers

Research carried out by WRAP in December 2020 examined public attitudes towards the 5p SUCB charge and assessed the extent to which the policy has had an impact on consumer behaviour.⁸ The survey interviewed a representative sample of adults in England (aged 18+). This showed that there is a high awareness of the 5p charge and that it continues to enjoy broad support among the public. The charge also had a positive impact on consumers' attitudes and behaviours towards decreasing use of SUCBs.

In 2016, Cardiff University used a mix of a longitudinal survey, diary and interview study and observational data to assess the impact of the SUCB charge on consumer behaviour and attitudes prior to the charge being enforced and 6 months later.⁹ The study found that public support for the charge increased over time, from 52% before it was implemented to 62% 6 months after introduction.¹⁰ In 2020, WRAP reported that 73% of people in England were in favour of the charge, with support being driven by the perceived associated environmental benefits.¹¹

Similarly, 80% of respondents saw the charge as a highly effective way to decrease SUCB use when asked six months after implementation, compared with 76% having this opinion before.¹²

5 years later, the public were overwhelmingly in support of our plan to double the SUCB charge to 10p and extended it to all retailers. 74% of consumers supported the move to increase the charge to 10p; the remainder who did not support the increase to 10p generally felt it should be set even higher. The proposal to extend the charge to small businesses attracted even greater support, among 82% of consumers.¹³

The charge has led to a fall in the number of SUCBs used. An observational study of consumers leaving four large supermarkets both before and after the 5p charge was introduced reported over 57% of shoppers were seen carrying SUCBs from supermarkets before the charge, compared to just 21% nine months after introduction of the charge.¹⁴ However, surveying consumers in December 2020, WRAP found that one in four people (26%) continue to purchase thin plastic carrier bags from the till when doing food shops.¹⁵ Although this represents a significant decrease in comparison to before the charge was

⁸ WRAP (2021) Plastic carrier bag consumer research

⁹ Poortinga, W. Sautkina, E. Thomas, G.O, and Wolstenholme, E. (2016). The English plastic bag charge: Changes in attitudes and behaviour. Cardiff : Welsh School of Architecture/School of Psychology, Cardiff University.

¹⁰ Ibid

¹¹ WRAP (2021) Plastic carrier bag consumer research

¹² Poortinga, W. Sautkina, E. Thomas, G.O, and Wolstenholme, E. (2016). The English plastic bag charge: Changes in attitudes and behaviour. Cardiff : Welsh School of Architecture/School of Psychology, Cardiff University.

¹³ Single-use carrier bags: Consultation on the proposal to extend the single-use carrier bag charge to all retailers and to increase the minimum charge to 10p, Summary of consultation responses and the UK government's response, August 2020

¹⁴ Ibid

¹⁵ WRAP (2021) Plastic carrier bag consumer research

introduced (57%), purchasing a SUCB from the till is a regular behaviour among 11% of respondents in 2020.¹⁶

There was no evidence of a change in consumers' shopping behaviour after the charge was introduced.

An increase in use of 'bags for life' was observed, with 29% of shoppers seen using them six months before the charge and 58% six months after the charge.¹⁷ 'Bags for life' included heavier plastic carrier bags, canvas or cloth carrier bags and synthetic woven carrier bags. In the observational study it was not possible to distinguish between 'bags for life' that the shoppers had brought with them from home, and 'bags for life' that they had bought on that particular shopping trip.¹⁸ No increase in shoppers leaving the supermarket using other types of their own bags (e.g. rucksacks) or carrying shopping loose with no bag was seen, so it appeared that shoppers were replacing SUCBs with bags for life.¹⁹

Survey participants reported having more bags for life in their homes after the charge was introduced. In England, the number of bags for life participants estimated having at home increased from a mean average of 6.7 before the charge to 8.3 six months after the charge was introduced.²⁰ In 2020, WRAP estimate that the average number of bags for life owned in England is nine, per person.²¹

The diary and interview study found that introducing the charge made the habit of using SUCBs weaker and less automatic for consumers and that they used Bags for Life instead, in a much more planned and conscious way. People reported both financial and environmental reasons for changing their behaviour. They said they saw less need for supermarkets to provide SUCBs or Bags for Life since the charge was introduced and most participants stopped using SUCBs as bin liners.²² Responding to WRAP's survey in 2020, one in three (31%) people in England reported that they have bags for life at home which are rarely used.²³

The charge appeared to have an impact on peoples' broader environmental attitudes for example increasing awareness of the environmental impact of plastic waste from households and increasing support for hypothetical charges to discourage waste.

¹⁶ Ibid

¹⁷ Poortinga, W. Sautkina, E. Thomas, G.O, and Wolstenholme, E. (2016). The English plastic bag charge: Changes in attitudes and behaviour. Cardiff : Welsh School of Architecture/School of Psychology, Cardiff University.

¹⁸ Ibid

¹⁹ Ibid

²⁰ Ibid

²¹ WRAP (2021) Plastic carrier bag consumer research

²² Poortinga, W. Sautkina, E. Thomas, G.O, and Wolstenholme, E. (2016). The English plastic bag charge: Changes in attitudes and behaviour. Cardiff : Welsh School of Architecture/School of Psychology, Cardiff University.

²³ [WRAP \(2021\) Plastic carrier bag consumer research](#)

Financial impacts on consumers were also estimated. The Environment Agency calculated that 82.14 SUCBs or 60.68 PE Bag for Life (BFL)²⁴ are required to carry one month's shopping (483 items) from the supermarket to the home. This means, after the introduction of the charge, carrying this shopping in SUCBs (at 5p each) is calculated to have cost £4.11, whereas using PE BFL (at an average price of 8.5p) would have cost £5.16 if none were re-used, or £1.03 if each is re-used 5 times as surveys suggest.

However, it is likely that prior to a charge, the cost of the SUCBs was passed on to consumers through slightly higher price of products. Due to the competitive nature of the retail market, it is likely that the savings that this charge made for businesses through reduced stocking and transportation of SUCBs were passed on to the consumer in the form of slightly lower priced products.

²⁴ Environment Agency Lifecycle assessment of supermarket carrier bags available in 2006 – page 18, table 3.1
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291023/scho0711buan-e-e.pdf

Impact on litter

Litter has significant negative effects. It costs the taxpayer money to clean up and imposes other costs on society including visual pollution and environmental harm. Littered plastic bags also pose a risk to wildlife, and if they enter the water system and/or marine environment they can easily be ingested by, or become entangled with, marine life, or washed up as litter on beaches. It is estimated that there are over 150 million tonnes of plastic in the world's oceans and every year one million birds and over 100,000 sea mammals die from entanglement in marine litter in the North Pacific alone; a rate that appears to be increasing.^{25,26} Every plastic bag, if not properly disposed of, can contribute towards these problems over a long period of time.

Keep Britain Tidy conducts surveys of local environmental quality in areas across England and these surveys include assessments of litter. Before the introduction of the 5p charge, plastic bags used to regularly feature as one of the ten most commonly found types of litter, in the Local Environmental Quality Surveys of England. For example, in the 2014/15 survey²⁷, plastic carrier bags were found in 10% of sites surveyed, compared with 12% of sites in 2006, just under 8% of sites in 2012 and 10% of sites in 2013. The 2014/15 survey reported a significant increase in three types of litter, including plastic bags. In contrast, in the 2017/18 survey report,²⁸ after the introduction of the 5p charge, plastic carrier bags were not mentioned at all.

The ten types of litter found most frequently remained the same in 2017/18 as in previous surveys except that the 'top ten' *no longer included* plastic bags but included clothing instead. This was against a background of increases in litter more generally over the same period found in the 2017/18 survey. The Keep Britain Tidy survey results for assessments of litter had worsened between 2014/15 when 10% of sites surveyed did not reach an 'acceptable standard' for litter, and 2017/18 when 14% of sites did not reach this standard.

The Litter Composition Analysis report published in 2020 by Keep Britain Tidy found SUCBs were not included in the top 15 littered items either by count or by volume.²⁹

²⁵ Thompson, R.C., et al., Plastics, the environment and human health: current consensus and future trends. Philosophical

Transactions of the Royal Society B: Biological Sciences, 2009.

²⁶ Mouat, J., R.L. Lozano, and H. Bateson, Economic Impacts of Marine Litter, 2010.

²⁷ Keep Britain Tidy (2015) Litter in England, the Local Environmental Quality Survey of England 2014/15

https://www.keepbritaintidy.org/sites/default/files/resources/KBT_How_Clean_Is_England_LEQSE_Report_2015.pdf

²⁸ Keep Britain Tidy (2019) Litter in England, the Local Environmental Quality Survey of England 2017/18

<https://www.keepbritaintidy.org/sites/default/files/resources/National%20Litter%20Survey%20201718.pdf>

²⁹ Keep Britain Tidy (2020) Litter Composition Analysis, summary report.

<https://www.keepbritaintidy.org/sites/default/files/resources/20200330%20KBT%20Litter%20Composition%20Report%20-%20FINAL.pdf>

Similarly, litter collections on Britain's beaches showed fewer plastic bags after the introduction of the 5p charge. The Marine Conservation Society for the UK conducts annual beach cleans covering around 100 miles of coastline. In their 2019 'Great British Beach Clean'³⁰ results they recorded nearly 50% fewer bags on beaches since the introduction of the England 5p carrier bag charge.

Defra analysis estimates that doubling the SUCB charge to 10p per item and extending it to all retailers would reduce the number of SUCBs littered from 198 million items in 2020 to 55 million in 2030.³¹

A recent report of repeated marine litter surveys carried out between 1992 and 2017 by trawling the seabed around the UK coast,³² similarly showed a significant decrease in plastic bag litter. Over the 25 years reported, plastic items accounted for between 65% and 94% of all litter items, the most frequently found plastic litter items being bags, plastic sheeting and derelict fishing gear. There was no overall decrease in plastic litter on the seabed and there were significant upward trends in items of plastic sheeting and derelict fishing gear from 2010 onwards so the downward trend in plastic bags between 2010 and 2017 is even more notable in this context. The report authors concluded that this downward trend echoed the reduction in plastic bag use in the UK during that period as a result of the introduction of charges for SUCB. They concluded that this showed behavioural and legislative changes could significantly reduce marine litter.

Impact on businesses

Perceptions of retailers

Research has not been carried out in England to assess retailers' perceptions of the 5p charge but a survey of 504 retailers in Wales, following the introduction of charging there, found mainly neutral or positive reactions. For example, of retailers who took part in the survey, issuing SUCB to consumers in Wales, 65% said the impact on their business was neutral, 22% said it was positive and 13% said it was negative. When asked about perceived advantages and disadvantages of the charge, 59% of retailers reported no disadvantages and 46% reported no benefits. Some benefits to retailers were reported, with the most commonly cited ones being that it saved them money on bag purchases (by 22% of retailers in the survey), it was good for the environment (by 16%), it generated money for charity

³⁰ Marine conservation Society Great British Beach Clean 2019

³¹ [Extending the Single Use Carrier Bag charge to all retailers and reviewing the current 5p charge to 10p, Final Stage Impact Assessment \(2021\)](#)

<https://www.legislation.gov.uk/ukia/2021/4>

³² T. Maes et al. / Science of the Total Environment 630 (2018) 790–798 Below the surface: Twenty-five years of seafloor litter monitoring in coastal seas of North West Europe (1992–2017)

(13%), less waste (11%) and less litter (5%), Some retailers who took part in the survey reported disadvantages from the charge. The most commonly reported issue, cited by 27% of retailers, was customers being unhappy or complaining about the charge. Some retailers reported being embarrassed asking customers to pay for SUCB (7%), finding it inconvenient (6%), having customers refusing to pay (6%) and losing customers or sales (5%).

Retailers were asked directly in the survey about five issues: shoplifting, customer satisfaction, the cost of supplying bags, litter and costs to the retailer of clearing up litter around their business. The most frequent response to all these issues was that there was no impact and 42% said the cost of supplying bags had decreased. While these findings are from Wales rather than England, there is no reason to suppose that retailers in England would not have similarly mainly neutral or positive perceptions of the charge.

At the public consultation on the proposal to extend the SUCB charge to all retailers and increase the minimum charge to 10p, The Federation of Independent Retailers supported extending the charge as it would create a level playing field across businesses and, therefore, address concerns that customers may choose to shop at retailers that do not apply the SUCB charge.³³

Costs and benefits to business

The policy was designed such that there would be no net costs to business. Businesses could retain a portion of the revenue from the charge to cover administrative, monitoring and reporting costs, with the rest of the revenue going to charitable good causes. Businesses will have also benefitted from not having to transport and store as many SUCBs. Furthermore, it is estimated that businesses would see an increase in revenue from bags for life as the charge causes an increase in their consumption. The 2015 impact analysis estimated there would be an annual net direct benefit to business of £154.2m (2009 prices and 2010 base year).³⁴ Although we have no data for reported costs/benefits to business, the size of the charitable contributions from the revenue of the charge suggests there is no net cost to business, as expected in the impact analysis.

³³ Single-use carrier bags: Consultation on the proposal to extend the single-use carrier bag charge to all retailers and to increase the minimum charge to 10p, Summary of consultation responses and the UK government's response, August 2020

³⁴ https://www.legislation.gov.uk/ukia/2015/186/pdfs/ukia_20150186_en.pdf

Impact on government and local authorities

As described in the “impact on litter” section, SUCBs have historically been one of the most commonly littered items. This charge has caused sales of SUCBs to drop by 95% in the main supermarkets since 2015, which appears to have had a significant impact on the number of SUCBs littered, as previously reported from litter surveys. While small reductions in litter do not necessarily reduce litter collection costs, this is likely to have reduced litter collection costs to local authorities as there is significantly less litter to be picked up. Furthermore, the reduction in carrier bag consumption means that there will be some reduced waste management costs from the transport and disposal of SUCB waste.

On the other hand, there will have been some enforcement costs as the burden of enforcement fell to the Trading Standards Authority. This was estimated to be £0.5m per year in the 2015 impact analysis which was based on a scaled-up version of the enforcement costs that Welsh authorities experienced when they implemented a charge. In general, it is likely that the charge was beneficial to local authorities as it is estimated that the cost of enforcement is outweighed by the reduced litter collection and waste management costs.

Impact on donations to good causes

Data on donations is voluntary information. Retailers can choose to provide information on donations they make to good causes. The headline figures on donations are not directly comparable year to year due to changes in the retailers providing this information. Table 4 shows the amount of money donated in each year since the charge, by those retailers who provided information each year.

Around 40% of the retailers reported additional information on how they chose to donate proceeds from the carrier bag charge in 2019/20.³⁵ These retailers donated £9.2 million to good causes relating to charity or voluntary organisations, environment, health, local causes chosen by customers or staff, education, arts and heritage.

The decrease seen in donations over time is as expected as a decrease in single-use plastic bags sold leads to a decrease in proceeds from the charge available for donation.

Table 4: Amount of money donated to good causesⁱ

	2016 to 2017	2017 to 2018	2018 to 2019	2019 to 2020
Percentage of retailers supplying information about donations to good causes	64%	61%	55%	40%
Total amount donated to good causesⁱⁱ	£65.4 million	£51.6 million	£22.9 million	£9.2 million

i Data for 2015/16 covered 6 months (5 October 2015 to 6 April 2016) and is not directly comparable. The results from 2015/16 are that 68% of those retailers that reported supplied information on donations, they donated £29.2 million to good causes.

ii The headline figures on donations are not directly year to year due to changes in the retailers providing this information. At the time of reporting, some retailers did not have final figures for donations.

Defra estimates suggest that extending the charge to 10p and applying it to all retailers would increase donations to good cases by £110.2 million in 2021 and £583 million in the first ten years of the policy.

³⁵ Information on donations can be found in the latest stats notice <https://www.gov.uk/government/publications/carrier-bag-charge-summary-of-data-in-england/single-use-plastic-carrier-bags-charge-data-in-england-for-2019-to-2020>

Unintended consequences

There were no unintended consequences identified as part of this review. It was anticipated that as SUCB use reduced, there would inevitably be some substitution with other types of bag, including increased use of other plastic bags, for example, as bin liners and use of 'bags for life', the more heavy-duty plastic bags sold in supermarkets. Such substitution was an expected consequence of the policy. Although we do not have robust data on the number of bags for life, bin liners and other bags (as it is voluntary for retailers to provide this information and only a very small number of retailers have done so), analysis carried out for the Impact Assessment for extending charging to smaller retailers and increasing the charge to 10p per bag³⁶, indicates that overall plastic usage would fall despite these substitution effects.

It should be noted that a temporary change to the policy arose during the beginning of the Covid-19 pandemic, prior to the regulations being amended. Between March and September 2020, the SUCB charge was suspended for online grocery deliveries in order to speed up service and reduce the risk of contamination.³⁷ The impact of this change has since been noted in official statistics, rendering the data not directly comparable to previous years.³⁸

³⁶ Defra Impact Assessment Extending charge, consultation stage https://consult.defra.gov.uk/environmental-quality/extending-the-single-use-bags-charge/supporting_documents/carrierbagsconsultia.pdf

³⁷ see e.g. <https://commonslibrary.parliament.uk/research-briefings/cbp-7241/>

³⁸ <https://www.gov.uk/government/publications/carrier-bag-charge-summary-of-data-in-england/single-use-plastic-carrier-bags-charge-data-for-england-2020-to-2021>

Summary of overall impact

The main impact of this policy has been to significantly reduce the number of SUCBs sold to consumers in England. This has been done without incurring additional costs to business and it has led to over £178 million in donations to good causes, from the proceeds of charges.

Research strongly suggests the reduction in SUCB has been reflected in a reduction in plastic bag litter both inland and in coastal areas, against the trend in a context where overall litter has increased (as reported by Keep Britain Tidy).³⁹ This will likely have reduced the clean-up costs and disamenity impacts associated with litter. It is also likely to have led to a reduction in harm to wildlife caused by ingestion of or entanglement in discarded plastic bags or remnants of them. Emissions of greenhouse gases are estimated to have reduced by nearly 259,000 tonnes CO₂e due to reduced SUCB use and this will have had a positive impact on the environment. Most large retailers have now stopped offering SUCBs and consumers report adapting to the changes by taking their own bags with them for shopping.

³⁹ Keep Britain Tidy (2020) Litter Composition Analysis, summary report.
<https://www.keepbritaintidy.org/sites/default/files/resources/20200330%20KBT%20Litter%20Composition%20Report%20-%20FINAL.pdf>

Conclusions

The introduction of the 5p charge on SUCBs in large retailers has been successful in reducing sales of the bags and providing donations to good causes. The reduction in sales of SUCBs has led to the positive impacts described above, especially the reduction in littering of SUCBs. However, smaller businesses (those employing fewer than 250 people), have not been included in the 5p charge and have not reduced sales of SUCBs to the same extent.

To encourage further behaviour change, continued decrease in SUCB sales and resulting benefits, government agreed to increase the charge to 10p and extend it to all retailers from 21st May 2021. The latest published analysis on this is the final Impact Assessment which has been published online.⁴⁰

⁴⁰ <https://www.legislation.gov.uk/ukdsi/2021/9780348219760>

<p>Title: Plastic Carrier Bags Charge</p> <p>PIR No: RPC-DEFRA-5066(1)</p> <p>Original IA/RPC No: DEFRA 1809</p> <p>Lead department or agency: Department for Environment, Food, and Rural Affairs</p> <p>Other departments or agencies:</p> <p>Contact for enquiries: plastics.consultation@defra.gov.uk</p>	Post Implementation Review
	Date: 19/04/2023
	Type of regulation: Domestic
	Type of review: Statutory
	Date measure came into force: 05/10/2015
	Recommendation: Keep
RPC Opinion: Red	

1. What were the policy objectives of the measure? (Maximum 5 lines)

The policy objective was to reduce the number of single-use plastic carrier bags (SUCBs) used and disposed of in England, through the introduction of a mandatory 5p charge paid by consumers at point of sale in large retailers (employing 250 or more full-time equivalent employees in total in a year).

Even after accounting for substitution effects (e.g. anticipated increased bin liner use), reduced SUCB consumption was expected to reduce greenhouse gas (GHG) emissions, resource use and plastic litter.

There were expected to be no net costs to large businesses from the policy as retailers would be able to retain a portion of the proceeds of the charge to cover their costs. The remainder of the proceeds was expected to be donated to fund good causes.

The policy did not include smaller and medium sized enterprises as it was considered that the reporting requirements would place a disproportionate burden on such businesses and they were responsible for a very small proportion of SUCB sales. However, since the 5p charge has been introduced and has resulted in large reductions in sales of SUCBs from

large businesses, smaller retailers are now responsible for a much larger proportion of the remaining SUCB sales – over 80% in 2018.⁴¹

The charge was extended to 10p in May 2021 and now includes all businesses, regardless of size. To reduce the burden on micro, small and medium sized enterprises we did not extend the reporting requirements to them. However, we are exploring options to place reporting requirements on producers of all bag types in order to obtain data on the number of bags being placed on the market.

2. What evidence has informed the PIR? (Maximum 5 lines)

Large retailers in England are required by law to report annually to Defra information on:

- the number of SUCBs sold under the charge;
- gross proceeds from the sale of SUCBs;
- any costs incurred;
- the use of the net proceeds.

Information on donations to good causes is provided on a voluntary basis.

The most recent statistics covering 2019/2020⁴² can be found here: <https://www.gov.uk/government/publications/carrier-bag-charge-summary-of-data-in-england/single-use-plastic-carrier-bags-charge-data-in-england-for-2019-to-2020>.

The total number of SUCBs sold by all retailers who reported in 2019 to 2020 was 564 million, a 49% decrease on the figures reported by all retailers in 2018 to 2019.

Research evidence:

Litter Surveys by Keep Britain Tidy and Marine Conservation have shown reductions in littered plastic bags. Marine research has shown reductions in plastic bag litter on the seabed in UK coastal waters.

Evidence on consumer behaviour and attitudes to SUCBs is based on WRAP research carried out in December 2020 comparing SUCB use before and after introducing the charge. Additional research in England following introduction of SUCB charges, and evidence on retailer views from research in Wales which is highly applicable to those in England, has also been cited.

3. To what extent have the policy objectives been achieved? (Maximum 5 lines)

⁴¹ Extending the Single Use Carrier Bag charge to all retailers and reviewing the current 5p charge to 10p, Final Stage Impact Assessment (2021) <https://www.legislation.gov.uk/ukia/2021/4>

⁴² Data have also been published for 2020/21 but, due to unique circumstances related to the COVID-19 pandemic, these are not directly comparable to previous years.

The number of SUCBs sold by the main retailers in England has reduced from approximately 7.6 billion in 2014 to 226 million in 2019/20, a reduction of more than 95%.

Litter surveys have shown a reduction in plastic bag litter which is expected to reduce disamenity costs. The reduction in SUCBs is estimated to have reduced lifecycle greenhouse gas emissions by nearly 259,000 tonnes of CO2 equivalent.

Resource use has reduced significantly with year-on-year reductions in the weight of materials (plastic) used to produce SUCB sold each year between 2016 and 2020. As fewer bags have been sold, there has been less plastic waste from them to be processed. Even when estimated expected increases in sales of bags for life and bin liners are taken into account, there remains a reduction in resource use and in plastic waste.

Retailers were able to retain enough of the proceeds of the charge to cover their costs.

Donations to good causes amounted to at least £178 million, donated from the remainder of the SUCB sales proceeds between 2015/16 and 2019/20.

4. What were the original assumptions (Maximum 5 lines)

See the Annex for the list of assumptions in the original IA.

5. Were there any unintended consequences? (Maximum 5 lines)

There were no unintended consequences identified.

It was predicted that the policy would reduce the use of SUCBs. There were also expectations of some substitution impacts with other types of bags, including increased use of other plastic bags as bin liners and use of 'bags for life', the more heavy-duty plastic bags sold in supermarkets. Such impacts were factored into the original policy and subsequent analysis has still shown a net reduction in the amount of plastic being used.⁴³

⁴³ Defra Impact Assessment Extending charge https://consult.defra.gov.uk/environmental-quality/extending-the-single-use-bags-charge/supporting_documents/carrierbagsconsultia.pdf

6. Has the evidence identified any opportunities for reducing the burden on business? (Maximum 5 lines)

The policy ensured businesses could use the charge for bags to cover any additional costs, so compensation for any additional burden was already included in the policy appraisal. No other opportunities for reducing the burden on business were identified.

Medium, small and micro businesses were originally exempt on the basis that reporting requirements would impose a disproportionate burden, however some small retailers chose to introduce a 5p charge for SUCBs voluntarily.

This has been reviewed as part of the now amended regulations to the carrier bag charge that has led to the charge being doubled to 10p and extended to all retailers, regardless of size. The extension to all businesses mitigated any additional burdens⁴⁴ associated with reporting requirements by requiring information to be submitted by the businesses who place SUCBs on the market rather than retailers. Given carrier bags form part of existing packaging reporting requirements, this additional information was assessed to be possible to provide at no additional cost.

The significant reduction in bag usage also reduced business costs from stocking, storage and transport of bags.

7. For EU measures, how does the UK's implementation compare with that in other EU member states in terms of costs to business? (Maximum 5 lines)

This was implemented under domestic legislation.

I have read the PIR and I am satisfied that it represents a fair and proportionate assessment of the impact of the measure.

Signed: Chris Preston (Deputy Director – Resources and Waste) and Rebecca Pow MP
Date: **12/04/2023**

⁴⁴ Extending the Single Use Carrier Bag charge to all retailers and reviewing the current 5p charge to 10p, Final Stage Impact Assessment (2021) <https://www.legislation.gov.uk/ukia/2021/4>

Annex

Original IA assumptions:

Assumption	Central estimate	Rationale (see text for full explanation)	Low estimate (effect on NPV in option 1; effect on NPV in option 2; main affected group)	High estimate (effect on NPV in option 1; effect on NPV in option 2; main affected group)
% increase in supermarket SUCB use (without charge and after its introduction)	2%	Based on trends in supermarket SUCB use and supermarket sales growth	0% (-£141m; -£142m; consumers)	4% (+£165m; +£165m : consumers)
Number of bags on high street in UK	3,499m (85% SUCB, 10% paper, 5% BFL)	Based on WRAP data from 2008 and Retail Week data	3000m (-£28m; -£16m; consumers)	4000m (+£28m; +£16m consumers)
Number of bags given out by SMEs in England	3,526m	Based on SME share of total turnover in retail sector (27%), assumes same bag intensity (bag per £ turnover)	3000m (-£50m; +£1m; consumers)	4000m (+£46m; -£1m consumers)
Recycled content of SUCB	0%	Assumption made by EA in life-cycle analysis		50%

				(-£10m; -£8m; GHG impact) ⁴⁵
Retailer pass through to consumers of cost of SUCB	100% for all retailers	Based on competitive nature of retail sector	75% for SMEs (-£86m; no change; consumers)	
Cost of SUCB to retailers	1.9p for all retailers	AEA 2005 report and IAs for Scotland and Wales	1.5p for large retailers, 1.9p for SMEs (-£237m; -£237m; consumers)	1.9p for large retailers, 2.3 for SMEs (+£67m; no change; consumers)
% of LA street cleaning costs associated with litter	70%	Based on list of activities covered in 'street cleaning' and an estimate of share of litter	50% (-£20m; -£15m; litter)	90% (+£20m; +£15m; litter)
Level at which PE BFL use settles after charge introduced	100% higher than pre-charge level for supermarkets (and SMEs in option 1), 70% for high street	Based on initial observed increase in Welsh supermarkets and judgement that this will fall after an initial spike	60% higher for supermarkets (and SMEs in option 1), 40% for high street (+£92m; +£85m; consumers)	141% higher for supermarkets (and SMEs in option 1), i.e. flat after initial spike. 100% for high street (-£94m; -£86m; consumers)

⁴⁵ Assuming that SUCB made from 50% recycled materials produce half the GHG emissions, i.e. the GHG emissions per SUCB is half the figure in the main analysis.

Increase in paper bag use (high street; and SMEs in option 1)	10% (for high street and SMEs in option 1; just high street in option 2)	Based on anecdotal evidence from Ireland that there was some switch to paper; and judgement that only a small switch is likely due to the extra cost of paper bags	0% (+£63m; +£56m; consumers)	20% for high street and SMEs in option 1; just high street in option 2 (-£63m; -£56m; consumers)
Retailer costs	£66m in option 1; £26m in option 2 (PV) over 10 years	Based on average of per bag and per retail outlet estimates of monitoring/reporting costs; and estimate of transition costs	£50m in option 1; £20m in option 2 (i.e. 25% lower) (+16m; +£7m; charities) N.B. still no net cost to business	£85m in option 1; £33m in option 2 (i.e. 25% higher) (-£16m; -£7m; charities) N.B. still no net cost to business
Fall in SME SUCB use	80% in option 1; 0% in option 2	No evidence – assumed to be same as in supermarkets in option 1	70% in option 1; 0% in option 2 (-£49m; no change; consumers)	90% in option 1; 0% in option 2 (+£49m; no change; consumers)
Fall in supermarket SUCB use	80%	Reliable data from UK supermarkets in Wales (via WRAP)	75% (-£56m; -£56m; consumers)	85% (+£56m; +£56m; consumers)
Fall in high street SUCB use	70%	Welsh government data for some kinds of high street store	60% (-£35m; -£35m; consumers)	80% (+£35m; +£35m; consumers)

Donation to charity by retailers	100% of net proceeds of charge	Based on supermarket behaviour in Wales	75% of net proceeds of charge (£0m; £0m; charities/ retailers)	
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