Title: Evidence base to support amendments to the Producer Responsibility Regime IA No: Defra (PT) 484 Lead department or agency: Defra Other departments or agencies: N/A Date: 06/09/2015 Stage: Final Source of intervention: Domestic Type of measure: Secondary legislation Contact for enquiries: Clive Woods

Summary: Intervention and Options

Cost of Preferred (or more likely) Option						
Total Net Present Value Business Net Present Value Net cost to business per year (EANCB on 2014 prices) In scope of One-In, Measure qualifies Two-Out?						
£26m	£23m	£-2.6m	Yes	OUT		

RPC Opinion: Validation after laying

What is the problem under consideration? Why is government intervention necessary?

The management and disposal of packaging waste and batteries produces environmental externalities such as greenhouse gas emissions and disamenity impacts from landfill, the full social cost of which is not taken into account in production or consumption decisions. Without intervention, there would be insufficient levels of recycling. By making packaging handlers and producers, as well as battery producers, pay some of the costs of recycling, these costs are partially internalised and lead to reduced environmental impacts and a more efficient outcome. However, the current regime imposes costs on businesses that could be reduced without affecting its overall success.

What are the policy objectives and the intended effects?

The policy objectives are to make amendments to the market-based system that the UK uses to meet the EU targets. The amendments are being made as a result of the Red Tape Challenge in order to reduce the administrative burdens on firms. The intention is to reduce costs for firms engaging in the regime.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

The preferred option is to adopt all of the following changes, as outlined in the Red Tape Challenge:

- Remove the requirement for operational plans for both regimes, and the requirement for annual approval of plans for batteries producers.
- Transfer responsibility for approving new compliance schemes from the Government to the environment agencies, for both regimes.
- Enable packaging and batteries producers to delegate the signing of reporting and monitoring requirements to the most appropriate person in agreement with the relevant environment agency.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: October/2017						
Does implementation go beyond minimum EU requirements? No						
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Small No	Med i Yes	ium	Large Yes		
exempted set out reason in Evidence Base. No No What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)				1	Non-ti O	raded:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister:	Rory Stewart	4th December 2015
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Summary: Analysis & Evidence

Description: Amend produce responsibility regime to remove admin burdens

FULL ECONOMIC ASSESSMENT

Price Base	PV Base	Time Period	ue (PV)) (£m)		
Year 2014	Year 2015	Years 10	Low : 6	High: 45	Best Estimate: 26

COSTS (£m)	Total Tra (Constant Price)	ansition Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0		0	0
High	0		0	0
Best Estimate	0		0	0

Description and scale of key monetised costs by 'main affected groups'

We do not expect any costs from removing the administrative burdens.

Other key non-monetised costs by 'main affected groups'

We do not believe there are any non-monetised costs.

BENEFITS (£m)	Total Tra (Constant Price)	ansition Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0		0.7	6
High	0		5	45
Best Estimate	0		3	26

Description and scale of key monetised benefits by 'main affected groups'

We expect cost savings to firms, i.e. benefits, as a result of removing several requirements: operational plans; senior sign-off for certain compliance activities i.e. amending to allow delegated sign-off and independent audits for battery treatment operators and exporters.

Other key non-monetised benefits by 'main affected groups'

We do not believe there are any non-monetised benefits.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

The most sensitive assumption is the high estimate for the no. of junior hours saved by packaging firms in allowing delegation of sign-off. The low estimate is 0 hours, the high estimate is 16. The average, 8 hours, is then applied across 6,800 packaging firms. If instead we assume the average is 4, then the NPV falls from £25m to £20m. This sensitivity is reflected in the very wide range of savings estimates for this measure.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: 0	Benefits: 2.6 Net: 2.6		Yes	OUT

Executive summary

This evidence base covers regulatory changes to two of the UK's producer responsibility regimes, packaging and batteries.

These regimes require producers of packaging or batteries to finance the recycling and recovery of packaging/batteries when they become waste. By doing so the regimes internalise some of the cost of environmental externalities such as those associated with use of virgin materials (including for batteries toxic substances such as cadmium and mercury), greenhouse gas emissions and dis-amenity impacts from litter.

In both cases the regime sets minimum recycling and recovery targets for UK producers. Producers then demonstrate that a minimum level of recovery and recycling will be met by purchasing evidence that the waste has been accepted for recycling and recovery (or exported with a view to reprocessing). Within the packaging regime these evidence notes are known as Packaging recovery (Export) Notes or PRNs/PERNs.

If recycling rates are not high enough, the recycling evidence is scarce and the cost of purchasing it rises. This money can then be used by the reprocessing and exporting industries to support further collection and treatment of recyclates.

Changes are intended to streamline the operation of both regimes.

For the packaging regime the changes are:

- Remove the requirement for operational plans, with a saving of around £5 million (present value over 10 years)
- Transfer responsibility for approving new compliance schemes from the Government to the environment agencies. As this is a small transfer between Government bodies, its impact has not been monetised.
- Enable producers and compliance schemes to delegate the sign off of reporting and monitoring requirements to the most appropriate person in agreement with the relevant environment agency. This is expected to save industry time that may be worth £0-£30 million (present value) over 10 years, and is very dependent on how many hours it saves each firm in compliance procedures.

For the batteries regime they are:

- Remove the requirement for operational plans and the requirement for annual approval of these plans, saving a total of around **£0.3 million** over 10 years (present value).
- Remove the requirement for batteries treatment operators and exporters to undertake an independent audit of their compliance activities. Expected to save around **4.4 million** over 10 years (present value).
- Enable producers to delegate the sign off of reporting and monitoring requirements to the most appropriate person in agreement with the relevant environment agency. Expected to save around £0.9 million over 10 years (present value).

The primary impact of these changes is to reduce the amount of administrative time that obligated businesses and compliance schemes spend on these two producer responsibility regimes, particularly in developing and updating operational plans.

They will remove the involvement of government in the day to day of the packaging regime, and change the focus of the environment agencies in ensuring compliance. In total this package of changes is estimated to deliver a net benefit of £26 million over 10 years (present value). Varying a number of the less certain assumptions we have used to calculate this figure delivers a range around our central estimate: £6 million - £45 million. No

matter how assumptions are varied, the changes are expected to deliver a net benefit to business. Using the Government's preferred methodology, these savings to business are expected to be worth around £2.6 million per year (Equivalent Annual Net Cost to Business in 2014 prices, discounted to 2015).

The rest of the evidence base sets out these impacts in more detail, quantifying the changes for each of the changes we are taking forward. A number of other changes were considered alongside those above, and either rejected or deferred. In each case, the reason for a decision is presented in this document.

Introduction/problem under consideration

The UK is required by the EU to meet recycling and recovery targets for both portable batteries and packaging. These requirements are set out in full in the Packaging Directive¹ and the Batteries Directive² respectively. These Directives were implemented through regulations:

- Producer Responsibility Obligations (Packaging Waste) Regulations 2007³
- Producer Responsibility Obligations (Packaging Waste) Regulations (Northern Ireland)
 2007⁴
- The Waste Batteries and Accumulators Regulations 2009⁵

The packaging and batteries regulations set out in detail how producers and compliance schemes must demonstrate that they have complied with their recycling obligations. The regulatory regimes are well established. The packaging regulations were first introduced in 1997 so there is seventeen years of experience to draw on. Batteries producers have been obligated under the batteries regulations since 2010 so there is four years of experience. That experience has highlighted the following administrative problems with the regimes:

- Undertaking an independent audit of the batteries sent for reprocessing or export does not provide the environment agencies with a valuable compliance tool;
- The environment agencies have the experience needed to determine whether or not a compliance scheme is able to fulfil its legal duties. This is not core business for government departments but is currently their responsibility;
- The development and agreement process for an operational plan sets unnecessary time constraints for producers, compliance schemes and environment agencies to think about the action that needs taking in order to comply. Recycling opportunities and threats arise over the course of the entire year, but the schemes/operators are obliged to follow their operational plan, agreeing any changes with the Environment Agency. This encourages vagueness and leads to a lack of flexibility in operation.
- The annual confirmation of approval for batteries compliance schemes is linked to agreeing the operational plan, and serves no other useful purpose.
- Securing time to get the signature of a director in order to sign off reporting requirements for either regime is time consuming, and does not provide a better degree of certainty that obligations will be met.

2 2006/66/EC

¹ 94/62/EC

³ SI 2007/871

⁴ S.R. 2007 No.198

⁵ SI 2009/890

Rationale for intervention

The UK has had a statutory producer responsibility scheme for packaging recycling since 1997; it implements the EU Packaging Directive. This scheme internalises some of the externalities of dealing with packaging at the end of its life, in a way that is better for the environment and natural resources than landfill. It does so by setting minimum recycling and recovery targets on UK businesses in the packaging supply chain. This rationale underpins the continued need for the producer responsibility regulations.

The problems identified in the section above form part of the regulatory regimes for packaging and batteries. They were identified as part of the Red Tape Challenge commitment to consider how the administrative burden of the packaging and batteries regimes could be reduced.

Policy objectives and solutions

The Government's intention is to reduce the administrative processes within the batteries and packaging regimes, where these are not necessary to ensure compliance with the underpinning recycling and recovery obligations, or necessary to ensure that there is an effective market in recycling evidence. Changes must be made by regulation, because the underpinning regime is set out in the Batteries and Packaging regulations respectively.

Description of options considered

The producer responsibility regimes were reviewed as a whole in 2013 in order to identify ways of reducing the burden on business and making the regimes as a whole more coherent. The results of that review were published in September 2013⁶.

Following the review the Government has reprioritised the waste programme: for the batteries regime the priority is to take forward those elements of the review that have the biggest impact on business. For the packaging regime priorities, the Government is mindful that the UK is currently negotiating a new Packaging Directive, including targets for 2020 onwards. Therefore for the packaging regime our priorities are to take forward the changes that have the biggest impact on business and put the UK in a good position to implement changes to the Directive. This section therefore sets out what we are doing with each of the options considered within the Government's discussion paper. We start first with the options that the Government intends to take forward. For the packaging regime they are to:

- Remove the requirement for operational plans, subsuming the most important elements within conditions of approval.
- Transfer responsibility for approving new compliance schemes from the Government to the environment agencies.
- Enable producers to delegate the signing of reporting and monitoring requirements to the most appropriate person in agreement with the relevant environment agency.

For the batteries regime they are to:

Remove the requirement for operational plans and the requirement for annual approval of these plans.

- Enable producers to delegate the signing of reporting and monitoring requirements to the most appropriate person in agreement with the relevant environment agency.

⁶ Summary of stakeholder responses and Government response to 'Review of Producer Responsibility Regimes: Discussion paper on coherence across producer responsibility regimes' September 2013

Changes included within evidence base

The following changes were initially raised during the producer responsibility review and are now being taken forward.

Batteries Operational Plans

When a compliance scheme is first approved it is required, to develop an operational covering the next three years setting out how it will comply with its legal obligations. The plan is prescribed in detail within the regulations. Battery compliance schemes must use the plan to set out details of:

- 1. available financial resources and technical expertise;
- 2. how the scheme will discharge its obligations to finance collection treatment and recycling of batteries and other duties under Part 3 of the regulations.
- 3. the collection of waste portable batteries from distributors and facilities offered to economic operators and waste collection
- 4. the scheme information campaign.

They must then agree the plan with the appropriate agency, and follow it. Their performance against the plan is monitored by the appropriate agency. If they want to make changes to the plan they must notify the agency and get them agreed. The agency annually considers an updated operational plan in order to decide whether or not to allow the scheme's approval to continue.

The Government plans to remove the requirement for compliance schemes to develop, agree, follow, and update an operational plan. In addition, the environment agency would no longer annually confirm the compliance scheme's approval following receipt of an updated operational plan.

Independent Audit Reports (Batteries)

An approved battery treatment operator or approved battery exporter must provide regular reports on the batteries processed or exported. These reports must be audited by an independent auditor. The original intention was that the reports would help ensure that the quality of recycling was upheld. However, these reports are not used by the Environment Agencies for compliance purposes.

The Government plans to remove the requirement for Independent Audit Reports from the Battery Regulations.

Sign-off (Batteries)

When the batteries regulations require information on portable batteries to be provided by battery producers, or compliance scheme operators, that information must be signed by an "appropriate person". These times include information provided by a producer: to a scheme operator (or directly to an environment agency where the producer is not currently a member of a compliance scheme) where this is needed to demonstrate compliance; and to the environment agencies on the weight of portable batteries placed on the market. They also include information provided by the scheme operators to the environment agencies to: register scheme members; or about the weight of portable batteries placed on the market; the weight of waste portable batteries that the operator has been responsible for collecting and delivering for treatment and recycling; and the declaration of compliance.

So the businesses must arrange for a senior member of staff such as a director or the secretary of a company to be available, brief them and then get them to sign off the information. Typically the appropriate person will not be the person who has put together the data and understands the position. This situation often leads to delays when the appropriate person is not available. The Government plans to amend the Batteries Regulations so that the appropriate person can delegate their responsibilities for signing off reports to another company representative. The provision requires approval from the appropriate agency.

Removal of the operational plan (Packaging)

Compliance schemes and directly registering producers with an obligation above 500 tonnes are required to develop an annual operational plan that sets out how they will comply with their legal obligations. The plan is prescribed in detail within the regulations. The producer or compliance scheme must demonstrate through the plan:

- (a) that the scheme (or producer) has sufficient financial resources and technical expertise to meet their obligations
- (b) that the arrangements for recovery and recycling take account of national waste policy statements.
- (c) considerable detail about how the recovery and recycling obligations will be met.
- (d) that the scheme (or producer) will ensure that data provided is as accurate as reasonably possible.

The plan must be agreed by the appropriate agency as part of registration, and performance against the plan is monitored by the appropriate agency. Changes to the plan must be notified and agreed and the agency may cancel registration for any scheme or registrant that does not comply with its operational plan.

The Government plans to remove the requirement for compliance schemes and larger producers to develop, agree, and follow an operational plan. For producers the remaining conditions of registration provide sufficient assurance that the recycling and recovery obligation will be met. However, the core business of compliance schemes is to manage compliance with the packaging regulations on behalf of producers. Failure to achieve their obligations would place UK compliance with the Packaging Directive at risk. Therefore the Government plans to incorporate the most important elements of the operational plan within new conditions of approval. The opportunity has also been taken to simplify and improve the regulations by incorporating the scheme registration conditions within the new conditions of approval. The new conditions of approval require the compliance scheme to carry out its recycling obligations whilst: maintaining the financial resources and technical expertise to do so; monitor the information submitted by its members — ensuring it is as accurate as possible; not hinder other schemes in complying; provide such information to the agency as is reasonable; and notify the agency of relevant changes.

Change of approving body (Packaging)

New compliance schemes must seek approval from the Government of the nation in which they have their registered office. The Government plans to transfer responsibility for the approvals process to the relevant environment agency. Compliance schemes which have already been approved need take no action.

Sign-off Arrangements (Packaging)

There are a number of times where an "approved person" must sign off information provided to a compliance scheme or environment agency. These are: an application for producer or scheme registration; information provided to a scheme by a producer and the certificate of compliance. As with the batteries regime the term "approved person" normally means a person

in control of the enterprise such as a director or the secretary of a company, rather than the person who has put together the data and understands the position. So the businesses must arrange for a senior member of staff such as a director or the secretary of a company to be available, brief them and then get them to sign off the information. This situation often leads to delays when the approved person is not available.

The Government plans to amend the Packaging Regulations so the approved person can delegate their responsibilities for signing off reports to another company representative. The provision requires approval from the appropriate agency.

Proposals which have been rejected

The following proposals were initially considered during the Producer Responsibility review but following subsequent analysis have now been rejected. They are changes to the level of de minimis for packaging and batteries and a move to retrospective data for batteries.

Changes to De Minimis

The proposal was to move to a position where Packaging, Batteries and WEEE all have deminimis arrangements, which broadly exclude similar sized smaller business from the need to become a registered producer.

Packaging

Increasing the packaging de-minimis level from £2m to £3m would remove just over 200 producers from the regime, transferring the compliance costs to remaining producers. Whilst this would generate administrative savings of between £200-£300k per year, removing producers from the regime would increase the burden on those producers remaining at a time when targets are increasing. It would also remove the financial incentive for the smaller producers to reduce their packaging, with the risk that in future this means larger producers could find they need to recycle even more to ensure the UK hits its overall recycling target. In comparison with other EU Member States the UK already has a high de minimis level for packaging. For example whilst the UK's de minimis level is set at 2 tonnes, in Belgium it is 300 kg and some other countries have no de minimis at all. The Government has therefore concluded that this is not the right time to increase the de minimis level.

Batteries

Under the Batteries Directive, all producers are required to register with the relevant agency and report on the amount of batteries they place on the market. However, Member States may exempt producers which place very small quantities of batteries on the national market, from the requirements to finance the collection, treatment and recycling of batteries.

The UK has taken advantage of this provision. The batteries regulations provide a partial de minimis for those producers who place less than 1 tonne of portable batteries on the market.

Increasing the de minimis to either 2 or 3 tonnes would exclude between 62 and 181 producers from the financial requirement. The business targets for remaining businesses would need to rise in compensation so there would be a transfer of between £167k-£219k per year compliance costs from these producers to those remaining in the system. Around one half to two thirds of the producers removed from the system are believed to be SMEs.

A reduction in the number of obligated businesses fees would mean the fees paid for monitoring and enforcement by remaining businesses would need to rise. The net impact would be a small saving to business of between £80k and 107k per year, because the main monitoring and compliance costs are focused on ensuring that compliance schemes are working effectively.

The Government has therefore concluded that this is not the right time to increase the de minimis level.

Retrospective data (batteries)

The proposal was to require all producers to report, at the time of registering, data on the amount of product supplied or placed on the market in the previous calendar year (or years). Schemes and producers would be provided with a target for compliance prior to or early in the compliance period and would therefore have a confirmed position as to their compliance obligation.

The Batteries Directive requires Member States to report on the weight of batteries sold during each calendar year and the preceding two calendar years. So we are obliged to calculate the recycling rates using the current year's data and two preceding years. This means that we must either:

- Calculate the batteries target with a buffer which allows for growth in the flow rate over the current year, or
- Require businesses to base their obligation on the up to date information.

Each of these would impose costs on businesses, either by requiring them to recycle more or by requiring them to report more often. We believe government is likely to have less accurate information on business operations than the businesses themselves, so both options are expected to involve higher costs to business than the current situation.

The Government has therefore decided not to take forward this option.

Excluding exported product (Batteries)

Batteries producers acquire a financial obligation to recycle batteries when they are first placed on the market within the UK. Batteries that are directly exported are not included within the obligation. However, where batteries have been included within goods that are subsequently exported, these are not currently subtracted from the obligation. The Batteries Directive is intended to require Member States to recycle products which become waste within the Member State which means that exports need not be included within obligations.

The Government explored proposals to narrow the definition of "placed on the market" to exclude any portable batteries so placed which to the producer's reasonable knowledge were exported from the United Kingdom. This proposal was rejected because it would reduce the environmental ambition of the regulations.

Proposals which have been deprioritised and will not be taken forward at the current time

The following proposals have been deprioritised. Whilst they may offer some savings to business in terms of the time and complexity of regulations, this may be outweighed by the complexity of changing the systems when they are likely to be changed again following negotiations on a new EC Packaging Directive. In view of limited resources a decision has therefore been taken not to take them forward at the current time.

Approvals process

It was proposed that application charge across all 3 regimes is standardised.

Conditions of approval

The proposal was to have a common set of conditions of approval across the three regimes.

Registration

It was proposed that the registration processes have a common procedure for the provision of; business information, data and any relevant charges.

Group registration

The proposal was to adopt within the WEEE and Batteries Regulations the option contained within the Packaging Regulations for a holding company to make a single group registration on behalf of all its subsidiary producers.

Charging

The proposal was to review the charges and move to a consolidated position on the producer registration charge across all the regimes.

Late registration

If the proposal on using retrospective data were adopted across all regimes, and calculations of recovery obligations are based on this data (Issue 2), then it was proposed that all regimes have a charge for late submissions or re-submissions included in them.

Incapacity

It was proposed that when a producer (the legal entity) ceases to exist, any remaining obligations would also cease to exist.

Compliance scheme subsistence charge

The proposal was to move towards a model that places an annual subsistence charge on the compliance schemes, which is further supported by a per member charge.

The subsistence charge would have been reflective of the variable and fixed charges incurred by the agencies in monitoring the compliance schemes.

Improving the application process for reprocessors/treatment operators and exporters

Options considered were to:

Option 1 - streamline the application process for both domestic reprocessors and exporters. Option 2 - remove the application process entirely for domestic reprocessors and instead rely on the application information being provided by the waste permitting/registered exemption process; the process for accreditation of exporters would remain the same.

Conditions for issuing evidence

The proposal was to consolidate the existing conditions of accreditation/approval for operators who are issuing evidence. The consolidation process would capitalise on those conditions which work well and clearly assist in ensuring the system works and would seek to remove / revise those that do not deliver clear benefits.

Operator competence

The proposal was to introduce a common competency test across all three regimes. An operator, who in the view of the relevant agency does not meet this fit and proper person test, would have been refused accreditation for the purposes of the Regulations.

Evidence of Broadly Equivalent

The proposal was for the Agencies to have a greater level of discretion in regard to the type of evidence an exporter can use to prove that the material they are exporting will be reprocessed under broadly equivalent conditions. This would mirror the current situation in relation to metal packaging exports allowing alternative forms of evidence to be used across all regimes and all materials.

Standardisation of terminology

It was proposed that the terminology used across the regulations be standardised.

Quantified baseline

The costs and benefits of the changes we are taking forward will be assessed in comparison to "business as usual". This section describes how the world is likely to look over the 10 years from 2015 to 2024 if we make none of the changes described above.

Batteries baseline

The changes described above are expected to affect the amount of time spent complying with the waste batteries regulations.

This evidence base includes changes to reduce the burden on batteries treatment operators and compliance schemes as well as producers. The number of treatment operators and compliance schemes we expect to be operating is therefore also relevant to the baseline, and we assume that future years will look the same as in 2013. In 2013, there were 5 batteries compliance schemes and 29 treatment operators/exporters.

Table 1 below records estimates of how much time and money is spent by firms on independent audits, delegation of specific duties and the production of operational plans.

Table 1: Time and cost associated with undertaking various compliance activities in the batteries regime

Activity	Relevant type of firm	Time	Cost per firm*
Independent audit	Treatment operator or exporter	n/a	£5,000 - £30,000 (provided by a battery company - includes cost of staff time)
Explaining and obtaining sign- off from "appropriate" persons i.e. director grade	Producers and Compliance Schemes	10 hours for director grade (provided)	£0-609 (calculated)
Updating operational plans	Compliance schemes	12-36 hours (provided)	£200-600 (calculated)

^{*} If cost was provided to us, it is indicated by "(provided)"; if we have calculated it based on the time taken it is indicated by "(calculated)"

Data in Table 1 has been gathered from industry and official sources. We revised the data as new information came to light through the consultation. One respondent stated that it could take up to 36 hours to update plans so we increased the range of our estimates for this variable. Some respondents noted there would be no financial savings from delegation or removing plans, as they currently took up a relatively small amount of staff time. Whilst we recognise the saving per firm will be relatively small, the reduction in opportunity cost multiplied over many firms will lead to savings in the £ millions at a national level.

To the data on time and the approximate pay grade involved in the work, we have applied wage rates from the Office of National Statistics. Management grades are assumed to cost $£17^7$ per hour and directors $£21^8$ per hour.

We assume constant real wages for employees of producers, treatment operators and compliance schemes and no change to the regulatory burden from each activity listed in Table 1.

Packaging baseline

This section describes relevant information about what we expect to happen in the packaging regime in the absence of any regulatory changes.

Changes involve administrative savings to producers, compliance schemes and reprocessors which are incurred on a per-firm basis. Relevant information therefore involves only the number of firms and compliance costs.

Table 2 shows the number of obligated producers, reprocessors and compliance schemes involved in the packaging regime. From 2010-11 there was a drop in the number of obligated producers and reprocessors/exporters, but since then there is no obvious trend. In future years, we assume there are the same number of all types of firm as there were in 2013.

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⁷ Table 14.5a Median Hourly Pay - Gross 2013 from the ONS annual survey of hours and earnings - Waste disposal and environmental services managers.

⁸ Ibid – figure used is for corporate managers and directors.

Table 2: Number of obligated packaging producers, compliance schemes and reprocessors/exporters involved in the packaging regime in the UK

	2010	2011	2012	2013
Obligated producers	7626	6942	6953	6906
of which, direct registrants	606	574	559	544
Compliance Schemes	43	44	44	46
Reprocessors and exporters	435	364	319	341
of paper	63	55	43	39
of glass	69	64	68	81
of aluminium	65	52	36	38
of steel	74	57	42	46
of plastic	107	91	91	100
of wood	32	24	21	18
for recovery (EfW)	25	21	18	19

The cost of compliance is also important to understand as we are planning changes that should reduce compliance cost. In the packaging regime, compliance cost is primarily made up of the price of a Packaging Recovery Note rather than the costs of collection and treatment that feature in the batteries regime. However compliance costs also include the administrative burden of drawing up operational plans and registering and providing information on weight placed on the market if you are a producer.

Another source of compliance cost arises because packaging producers are required to register with the Environment Agency and provide them with information about the quantity of each type of packaging placed on the market. Currently, each of these activities requires the sign-off of a "relevant person" (usually a company director), adding to the time taken to comply. Feedback from industry before and during the consultation suggests obtaining company director sign off, after explaining the detail to them, can involve between 0 to 17 hours of staff time in total (1 hour of director time and up to 16 hours of junior time), for all the different items that need to be signed-off each year. This range represents different estimates for different companies that responded to Defra's data request and consultation. It was also necessary to infer from industry responses the relative breakdown between junior and senior person's time spent on this activity.

Compliance schemes and direct registrants (producers who chose not to join a compliance scheme) are currently required to submit an operational plan each year to the relevant environment agency, which outlines the actions they intend to take to comply with the packaging regime. There are up-front costs associated with writing an operational plan for the first time, but in subsequent years they are updated at relatively low cost.

Table 3 sets out Defra's assumptions about the time and costs associated with preparing and obtaining sign-off from relevant persons as well as updating operational plans.

Table 3: Time and cost associated with undertaking various compliance activities in the packaging regime

Activity	Relevant type of firm	Time	Cost*
Explaining and obtaining sign- off from "relevant" persons i.e. director grade	Producers and Compliance Schemes	0-1 hours director time 0-16 hours junior staff (provided)	£0 - £500 (calculated)
Updating operational plans	Compliance scheme and direct registrants	8-36 hours (provided)	£130 - £860 (calculated)

^{*} If cost was provided to us, it is indicated by "(provided)"; if we have calculated it based on the time taken it is indicated by "(calculated)"

We revised these data as new information came to light through the consultation. One respondent stated that it took up to 36 hours to update plans so we increased the range of our estimates for this variable. Some respondents noted there would be no financial savings from delegation or removing plans, as they currently took up a relatively small amount of staff time. Whilst we recognise the saving per firm will be relatively small, the reduction in opportunity cost (freeing up staff time) multiplied over many firms will lead to savings in the $\mathfrak L$ millions at a national level.

Where we have data on time and the approximate pay grade involved in the work, we have applied wage rates from the Office of National Statistics and firms. From ONS data, management grades are assumed to cost £179 per hour and directors £2110 per hour, whilst rates from a firm that responded on this point were higher at £24 and £120 respectively. We used both sets of data to generate a range.

We assume that in the baseline, these costs would continue to apply for all producers each year.

Costs and benefits

The costs and benefits of each proposal are explored in this section, relative to the baseline described above.

Batteries

Independent audit reports

The Government plans to remove the requirement for Independent Audit Reports from the Battery Regulations. According to the Environment Agency, there are 29 firms that are currently required to submit audits. Based on the data presented in the baseline section, audits are estimated to cost £5,000 to £30,000 per year, which includes the cost in staff time estimated to

⁹ Table 14.5a Median Hourly Pay - Gross 2013 from the ONS annual survey of hours and earnings - Waste disposal and environmental services managers.

¹⁰ Ibid – figure used is for Corporate managers and directors.

be at least as much as the audit cost. Therefore we estimate removing the requirement will benefit the industry approximately £145,000 to £870,000 per year, in total. There are no other costs or benefits associated with this change.

Following government guidance¹¹ on policy appraisal, these annual benefits should be added up over a 10 year time horizon with future costs and benefits "discounted" at 3.5% per year. The annual costs saving associated with removal of independent audits therefore translates into a total net present value of £1.2m - £7.5m, with a central estimate of £4.4m.

Removal of the operational plan

Removing the requirement to produce an operational plan is expected to save compliance schemes time and money. They may still chose to generate some of the information for internal reporting purposes, so the saving could be quite small. The environment agencies on the other hand will be able to stop working on operational plans altogether, generating a more significant saving.

Based on the data presented in the baseline section, currently approximately 12-36 hours are spent updating a plan each year, at an assumed pay rate of £17 per hour. Battery compliance schemes, of which there are 5, are currently required to submit plans to the environment agencies each year. Therefore if this requirement is removed, we estimate a saving for industry of about £1,000-£3,000 per year in total and £30,000 for enforcement agencies. This translates into a total net present value of £0.3m (over 10 years).

Sign-off arrangements

Allowing batteries producers and compliance schemes to delegate the sign-off of various compliance documents will save these businesses time, and is expected to have no impact on the quality of the information provided to the environment agencies.

Based on the data presented in the baseline section, currently 0 to 16 hours (depending on the nature of each firm) are spent explaining reports and obtaining sign-off from a director, at a pay rate of £17 to £24 per hour for technical-level managers. Therefore if delegation is allowed, we estimate a saving for industry of about £100 000 per year in total, or £1m present value over 10 years.

Packaging

Removal of the operational plan

As in the batteries regime, removing the operational plan is expected to save producers and compliances schemes a small amount of time but, because businesses will generate some of this information for their own internal purposes, it will save the environment agencies considerably more.

Based on the data presented in the baseline section, currently about 8 to 36 hours are spent updating a plan each year. Compliance schemes, of which there are 49, are currently required to submit plans to the environment agencies each year. Therefore if this requirement is removed, we estimate a saving for industry of about £80,000 to £500,000 per year in total and £300,000 for enforcement agencies.

¹¹ HMT Green Book and BIS Impact Assessment Guidance, available here: https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent

There are no costs associated with this change, so the net benefit is simply the sum of cost savings to business and government. Appraised over a 10 year period, the net benefit is expected to be in the range of £3.3m - £7m (present value, with a central estimate of £5m).

Change of approving body

This change involves the environment agencies reviewing and approving applications for new compliance schemes, instead of Defra doing the work. It is not expected to be more or less burdensome, but given Defra currently seeks advice from the agencies when it receives an application, it could speed up the process.

We have not attempted to quantify how much time Defra would save and the environment agencies would need to set aside for this work.

Sign-off arrangements

Allowing packaging producers and compliance schemes to delegate the sign-off of various compliance documents will save these businesses time, and is expected to have no impact on the quality of the information provided to the environment agencies.

Based on the data presented in Table the baseline section, currently 0 to 16 hours (depending on the nature of each firm) are spent explaining reports and obtaining sign-off from a director, at a pay rate of roughly £17 to 24 per hour for technical-level managers. Therefore if delegation is allowed, we estimate a saving for industry of about £0m to £3.4m per year in total, or a net present value over 10 years of £0- £30m (with a central estimate of £15m).

Summary of changes

The net present value of all the changes together is estimated to lie in a range from **£6m** to **£45m**, with a central estimate of **£26m**. £23m of this is attributed to savings to businesses, through reducing regulatory burdens, whilst the remainder are environment agencies' savings.

The equivalent annual net cost to business (EANCB) is estimated to be -£2m (i.e. a net benefit), in 2009 prices (for consistency with government guidance, equivalent annual net costs to business is always presented in 2009 prices).

There are considerable uncertainties in these numbers, since they rely on estimates of time savings that colleagues in the industry have made at Defra's request, and these may not be representative of their competitors. However, we are confident that these changes will save businesses and the environment agencies money, and simplify the regulatory regimes around batteries and packaging producer responsibility.

Risks and sensitivities

The most sensitive assumption is the high estimate for the number of junior hours saved by packaging firms in allowing delegation of sign-off. The low estimate is 0 hours, the high estimate is 16. The average, 8 hours, is then applied across 6,800 packaging firms. If instead we assume the average is 4, then the NPV falls from £25m to £20m. This sensitivity is reflected in the very wide range of savings estimates for this measure.

Conclusion

Defra is confident that this package of changes will save businesses and the environment agencies time and money, and we have improved upon the analysis in this document through consultation.