

Title: Defra Guidance & Data Reforms IA No: Defra1869 Lead department or agency: Department for Environment, Food and Rural Affairs Other departments or agencies:	Impact Assessment (IA)		
	Date: 24/10/2014		
	Stage: Consultation		
	Source of intervention: Domestic		
	Type of measure: Other		
Contact for enquiries: Rebecca Hand			

Summary: Intervention and Options	RPC Opinion: GREEN
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Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Two-Out?	Measure qualifies as
£1096m	£929m	-£90m	No	NA

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

Over time, the accumulation of guidance documents and information requirements by Defra and its agencies has made it difficult for businesses, particularly small businesses, to understand and comply with the relevant regulations or to use the relevant services. This diverts business resources, leading to inefficiency and can ultimately lead to impeding business growth. As part of the Red Tape Challenge, Defra committed itself to a fundamental overhaul of its guidance and information requests to make them simpler, quicker and clearer to use. This initiative is to correct a policy implementation failure rather than the original market failure which the original regulatory interventions were designed to correct.

What are the policy objectives and the intended effects?

The policy objectives are two-fold. First, to reform all Defra and its agencies' guidance to design it around what users need and to write it to consistent style and standards to make it simpler, quicker and clearer to use. The intended effects are to save time and resources, to remove barriers to entry into markets, and create an even playing field, with no business having a competitive advantage over another. Second, to ensure Defra and its agencies only collect the information they need; to collect it as simply as possible and to avoid collecting the same information twice. The intended effect is to reduce burdens on business and government and to release the highest value of the information collected.


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

Option 0: Do nothing;

Option 1: "All Defra policy areas" . This option aligns the guidance & data reporting approach for the Defra network. Defra is already implementing this option and so it is the only credible option.

Will the policy be reviewed? It will/will not be reviewed. If applicable, set review date: Month/Year					
Does implementation go beyond minimum EU requirements?				N/A	
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.		Micro Yes	< 20 Yes	Small Yes	Medium Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)				Traded:	
				Non-traded:	

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:  **Date:** 25 March 2015

Summary: Analysis & Evidence

Policy Option 1

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2013	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 1000	High: 3812	Best Estimate: 1096

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional		
High	Optional		
Best Estimate		1.3	11.9

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

Cost to government of 1) administering guidance reforms £1.4m PV. 2) administering data reforms £0.8m PV 3) writing user based guidance £4.4m PV, 4) reviewing user-based guidance £0.5m PV, 5) capital cost to reform IT £4.8m PV.

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

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		122	1012
High		468	3824
Best Estimate		134	over 1107

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

Benefit to government of 1) reduction in IT, data & data administration costs £14m PV, 2) not producing old-style guidance £101m PV, 3) responding to fewer queries on guidance £22m PV. Benefit to business of reduction in 1) business costs of finding out about & understanding guidance over £697m PV, 2) external advice costs over £41m PV, 3) business costs to report information £233m PV.

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

Government cost saving from reduced customer calls on information requests. Business benefits include 1) reduction in costs of contributing to guidance development, 2) greater confidence amongst businesses that they are compliant, 3) reduced barriers to entry for new entrants & existing businesses into new markets, and 4) more even playing field.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5%

Risks: 1) failing to fully implement the reforms 2) failing to put adequate business as usual arrangements in place 3) transitional uncertainty

Sensitivities: 1) business population affected 2) time saving from improved guidance 3) reduction in use of external help

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: 0.0	Benefits: 90	Net: 90	No	NA

Evidence Base (for summary sheets)

Contents

1. Background and problem under consideration
2. Rationale for intervention
3. Policy objectives and the intended effects
4. Description of reforms and options considered
5. Assessment of the reforms (option 1)
6. Risk, assumptions and sensitivities
7. Impact on businesses
8. Small and Micro Business Assessment
9. Summary and implementation plan including Post Implementation Review

1. Background and problem under consideration

This **consultation stage** Impact Assessment (IA) covers Defra and its agencies' guidance and data reforms ("smarter guidance" and "smarter data") which are public commitments following the first phase of the Smarter Environmental Regulation Review (SERR). SERR was a commitment arising out of the Cabinet Office's Red Tape Challenge (RTC). During the RTC, stakeholders including members of the public were asked to provide their views on; which regulations are working and which are not, what should be scrapped and what should be simplified, as well as what can be done differently.

Evidence from the RTC's review of Defra's environmental regulations suggested that environmental regulation had evolved in an *ad hoc* manner and '*can appear fragmented, overlapping, inconsistent and complex*' and '*may act as an effective barrier to compliance ...and growth*.'¹ Two specific areas of concern were highlighted 1) guidance documents issued by Defra and its agencies², and 2) data reporting requirements imposed by Defra and its agencies on businesses. These are discussed in turn below.

This is a consultation stage IA for a non-legislative regulatory reform initiative. Given the non-legislative nature of the measure, formal Regulatory Policy Committee (RPC) scrutiny, as set out in the Better Regulation Framework Manual, is not required.³ However, given the scale of the estimated business savings and the likely scrutiny that the estimates may be subject to, Defra has made a request to the RPC to informally review the IA; the RPC has agreed to this request. The IA contains some early estimates which are therefore presented within relatively large ranges. These will be refined through further evidence gathering and consultation and re-submitted to the RPC.

¹ Defra, Smarter Environmental Regulation Review: Phase 1 Report – guidance and information obligations, May 2013. (hereafter "SERR Phase 1 Report") <https://www.gov.uk/government/publications/smarter-environmental-regulation-review-phase-1-report-guidance-and-information-obligations>

² This refers to the core Defra department and its agencies and arms length bodies.

³ BIS and BRDO, Better regulation framework manual, 10 July 2013 <https://www.gov.uk/government/publications/better-regulation-framework-manual>

1.1 Guidance

Scope

The scope of the guidance reforms is any external written content that explains to users what to do or how to do it or, more widely, expects action from businesses, other organisations and members of the public.⁴

This impact assessment covers reform of all guidance produced by Defra, Environment Agency, Natural England, the Animal and Plant Health Agency (APHA), the Rural Payments Agency (RPA), Marine Management Organisation (MMO), the Centre for Environment, Fisheries and Aquaculture Science (CEFAS), the Veterinary Medicines Directorate (VMD) and the Forestry Commission.⁵ Defra is in the early planning stages with the other relevant bodies (such as the Joint Nature Conservation Committee and the Drinking Water Inspectorate) so these are not included in this Impact Assessment.

Problem

Defra and its agencies' guidance has developed over many years in an *ad hoc* way in response to the introduction of regulations, evolving regulatory processes, funding and other schemes and the desire to promote best practice.

The SERR Phase 1 report, the guidance mapping exercise undertaken as part of it⁶ and subsequent evidence gathering (including online questionnaires and further guidance mapping)⁷ found that:

- there was no common approach or co-ordination to how guidance is produced, with individual teams across Defra and its agencies making their own decisions about when or how guidance is produced;
- there were over 7,000 guidance documents produced by Defra and its agencies running to over 120,000 pages⁸ (over 6,000 documents and 100,000 pages for environmental guidance);
- guidance was rarely designed around users, instead being presented as an analysis of the law or explanations of how systems operate;
- there were often multiple versions of the content on the same subjects or activities (for example, 32 government guidance documents and 340 pages on batteries waste), making it harder for users to work what applies to them and whether they have identified and read the right content;
- the reading age required to read Defra guidance was on average 18-21 years using the Fleisch reading ease scale, compared to an average UK reading age of nine years old;⁹

⁴ The term "business" is used as a shorthand in this IA for all organisations affected by these reforms as result of using guidance or being required to report information.

⁵ It also includes guidance produced by other government departments and agencies where there are joint responsibilities, for example Environment Agency is the regulator for batteries and electrical waste for which the Department for Business, Innovation and Skills (BIS) is the responsible department.

⁶ GHK, Defra Mapping Study – Final report, February 2014. (hereafter "GHK Mapping Study")

http://randd.defra.gov.uk/Document.aspx?Document=12231_DefraMappingStudy-FinalReport.pdf

⁷ These were internal analyses and the results have not been published.

⁸ See GHK Mapping Report.

- content on the same subject was sometimes inconsistent or conflicting;
- documents were written in different styles and formats and sometimes extremely long and detailed; and
- documents were of varying quality and were sometimes inaccurate or either out-of-date or undated (31% were undated).¹⁰

The potential impacts of this situation include a number of unnecessary impacts compared to the proposed reform. Specifically:

- increased time and costs for businesses and others to find, read and understand what to do, or in unnecessarily seeking professional advice;
- increased uncertainty for businesses and others as to whether they are compliant;
- increased perception of the burden and complexity of compliance as a deterrence to starting or expanding businesses;
- disproportionate costs, uncertainty and barriers to entry for smaller companies;
- inefficient use of government and business resources to develop and maintain guidance;
- reduced awareness of and compliance with regulations and other schemes; and
- an uneven playing field. That is, since the compliance requirements are unclear from the guidance documents, some businesses may under-comply. This reduces their costs and gives them an unfair competitive advantage over other businesses. Conversely, some businesses may over-comply, and face a competitive disadvantage.

1.2 Data

Scope

The scope of the smarter data reforms encompasses all information requests on businesses and others to provide information to Defra and its agencies. Information requests include: permitting or registering activities; monitoring or reporting on compliance or performance; and making other applications for any other government schemes. Information that businesses are required to hold but not submit is not included.

The organisations covered by the reforms include Defra, the Environment Agency, Natural England, APHA, MMO, RPA, VMD, the Forestry Commission and local authorities (on Defra's behalf). It also includes information requests on carbon emissions to the Department for Energy and Climate Change (DECC).

Problem

Similar to guidance, Defra and its agencies have introduced information requests in an *ad hoc* way over a long period of time in response to evolving regulatory requirements and funding and other schemes.

⁹ SERR Phase 1 Report.

¹⁰ GHK further guidance mapping, unpublished. Note that this is a lower proportion than the 40% cited in the SERR Phase 1 Report. The latter refers to environmental guidance only and is superseded by the GHK further guidance mapping, which was done afterwards and covers all of Defra's policy areas.

The SERR Phase 1 Report and evidence gathering undertaken as part of implementation found that:

- there was no common or co-ordinated approach to information requests either across Defra and its agencies or sometimes even within each organisation with individual teams making their own decisions about whether, how and when to collect information;
- there was no consistent approach to collecting information, with a mix of online forms, email submission, paper submission by post, indirectly via compliance schemes and portal submission;
- there are over 1,000 separate information requests across the Defra and its agencies;
- these are managed on a complex web of expensive legacy IT systems;
- IT collection systems have rarely taken full account of user experience or how requests align with businesses' own collection systems;
- there is a high degree of duplication in reporting basic identification information with less duplication in the required environmental information;
- there is limited interoperability between data IT systems and limited data sharing across and sometimes within organisations; and
- it is not always clear to businesses why information is collected and what is done with it.

The potential impacts of this situation, compared to the reform, include:

- increased time for businesses and others to gather/collect and report information, which affects smaller companies disproportionately;
- increased costs for government in collecting the information; and
- limited ability for regulators to use the information to better target regulatory resources at risks;
- limited ability to make information transparent to the public.

2. Rationale for intervention

Over time, the accumulation of unduly complex guidance and data requirements has made it difficult for businesses, particularly small businesses, to understand and comply with the relevant regulations. This diverts business resources away from more productive environmental management or other business activities and impedes growth.

Rationalising guidance and reducing business data reporting requirements are designed to correct a policy implementation failure rather than address the original market failure. The original market failure would have been considered when the original guidance documents were issued or when initial data requests were made. The intervention will also make government intervention more effective in the future.

3. Policy objectives and the intended effects

The aim of the policy is twofold.

First, to reform all guidance so it is designed around what users need to do and know. The intended effect is to make it simpler, quicker and clearer for users to meet the requirements of regulations and apply for government schemes, thereby releasing time and resource to boost growth. It will also help achieve the underlying purpose of policies more effectively and reduce barriers to entry into markets.

Second, to minimise business data reporting so that only data required to meet the aims of regulation are requested, and that any data is reported once and shared by Defra and its agencies. The intended effect is to reduce burdens on business and to help release the highest value of the information collected.

4. Description of reforms and options considered

4.1 Guidance reforms

The reforms involve redesigning all guidance so that:

- all content is designed around what people need to do based on web statistics (searches, page views, page use information and web feedback) and other available user insight and research;
- there is a single version of what people need to do on GOV.UK, rather than multiple versions on different websites with no clear interlink between which is the definitive version and/or how the different versions link together;
- content focuses on what people need to know from government, clearly articulating what is required to meet the law or basic requirements of schemes and what is provided to help people comply. Good practice content on the methods that can be used to meet requirements is not provided;
- all content is written using GOV.UK's style guide and design standards which are developed to maximise readability and search engine optimisation;
- the overall volume of content (number of words) is reduced by at least 80%¹¹.

To illustrate: guidance for batteries waste which is the first of 122 workstreams to be completed

¹¹ This target, based on pilot work, was set to signal the scale of change that reform will entail.

Before	After
<p>32 government guidance documents (issued by Environment Agency, Defra, BIS, Vehicle Certification Agency, National Measurement Office and Business Link).</p> <p>A total of 340 pages</p>	<p>5 government guides: one explaining succinctly what is required for each of those:</p> <ul style="list-style-type: none"> • manufacturing batteries • distributing batteries • retailing batteries • using batteries • treating and exporting batteries <p>A total of 21 pages, i.e. around 4 pages each</p>

The reforms are being managed by a central guidance team in Defra working alongside:

- central guidance teams or individuals within each of the agencies
- a central team of professional content designers with some content designers embedded within the Environment Agency and the Rural Payments Agency.

The central guidance teams work to prepare guidance reform plans for each of the 122 workstreams. These reform plans identify what future content is needed and include an audit of existing documents to be archived. The new content is then written by the content designers. A member of the central Defra team is assigned as a “product manager” to each workstream to oversee the reform process. Much of the work is being done in tandem as organisational websites are moved onto the GOV.UK platform. A completion plan is then produced to identify all the actions required thereafter by March 2015.

The guidance reforms will be underpinned by business as usual governance arrangements to secure the benefits on an ongoing basis and embed continuous improvement.

4.2 Data reforms

Unlike guidance, it is not feasible in the shorter term to replace all the current data collection arrangements with the optimal approach of businesses reporting once and the data being shared across organisations. This is because the complex web of existing IT systems cannot be immediately replaced due to contractual and other business continuity reasons and since much of the information that is reported is required by either EU or domestic law. The reforms instead involve implementing measures that either 1) stop collecting information that is not needed to achieve the core policy objectives or 2) simplify the way the Defra and its agencies collect information.

Work started with an independent “zero-based” review of data reporting requirements to make sure Defra and its agencies only collect information that is:

- essential to meeting minimum EU obligations; or
- essential to making a decision/approval; or
- required to verify compliance with regulation.

and that:

- no alternative and better means to achieve these are available;
- only the minimum amount of information required to achieve the outcome is requested;
- the information collection is undertaken in the most streamlined manner available.

The government has already agreed measures and an implementation plan¹² to reduce and simplify environmental, carbon and marine reporting by businesses through action to:

- stop collecting information Defra and its agencies no longer need or use (e.g. the Resource Efficiency Pollution Index which is no longer used for its intended purpose);
- stop collecting information Defra and its agencies already have from other sources (e.g. revoking the requirement to register premises for hazardous waste because the information is available from the consignment note that accompanies each waste arising);
- find a more effective way to achieve the policy outcome (e.g. by switching to reporting plans to find responsible solutions to dispose of polychlorinated biphenyls (PCBs), rather than simply reporting holdings);
- make automatic renewals easier (e.g. for waste exemptions);
- replace bespoke licence applications with standard permits (e.g. for species licensing and environmental permitting);
- focus environmental assessments on required information (this will involve further investigation to develop and implement a consistent approach across assessment types);
- standardise reporting (e.g. for environmental permit reports).

Defra and its agencies have also committed to implement a programme during 2014-2017 to transform all environmental transactional services (the IT systems) to achieve the longer-term vision whereby:

- services are designed in line with the digital by default service standards¹³ which aim to ensure they are so good people prefer to use them;
- information is submitted by or collected from businesses in the most efficient way taking account of both business and government costs over short, medium and long terms;
- businesses can access services in one place on the web;
- businesses do not have to submit the same information more than once, and information is available to those who need it irrespective of organisational boundaries;
- information is linked and systems interoperable across Defra and its agencies and the underlying data standards and architecture support this; and
- data conforms to consistent standards and is more meaningful to the public.

These plans have the potential to reduce the time businesses spend supplying information to Defra and its agencies by 20% and save government agencies over £10m p.a. The

¹² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/302343/pb14152-smarter-data.pdf

¹³ <https://www.gov.uk/service-manual/digital-by-default>

implementation plan, which includes a break-down of the time savings, has been published.¹⁴

Defra is now seeking feedback on reform recommendations for farming, animal health and all other requirements which aim to achieve similar levels of time savings for business users.

4.3 Options considered

Two options were considered, including:

Option 0: Do nothing

Under this option, there is no change to current policy.

Defra and its agencies' guidance would remain largely as they are with the problems outlined above. Current guidance will migrate to GOV.UK. New guidance would continue to be created and existing guidance would be revised. The key aspect under this option is the *ad hoc* nature of the guidance produced; making it difficult for businesses to understand their compliance requirements.

For data reporting, do nothing means that Defra and its agencies' approach to information requests would remain piecemeal, collecting more information than is required to meet the underlying policy objectives and without co-ordination. The problems outlined above would persist.

Option 1: "All Defra policy areas"

This is the preferred option which was agreed by Defra Ministers and the Cabinet Office through the Red Tape Challenge. Option 1's coverage of guidance and data reforms includes all Defra policy areas and all the agencies referenced in the section above.

Options considered in the analysis

Option 1 is assessed against option 0. This is the only option assessed as it has been agreed and is being implemented.

5. Assessment of the reforms (option 1)

This section monetises the impacts of option 1 compared to option 0, before estimating the net present value of option 1 against option 0, and discussing the non-monetised impacts. A summary table of the costs and benefits and their ranges is in the table below.

¹⁴ 1. WSP Environment proposals, 2. WSP, Zero Based Review: Information Request Reform (Marine Proposals), February 2014, 3. WSP, Zero Based Review: Information Request Reform (Carbon Proposals), February 2014 All three reports can be downloaded from <http://guidanceanddata.defra.gov.uk/smarter-data-2/>

Table 1: Summary of monetised costs and benefits

Impacts		Costs (-) & benefits (+), £m p.a.*		PV, £m (10 yrs)
		Transitional	Annual	
Change in government costs to produce, maintain and improve guidance	Costs to administer reforms		-0.7	-1.4
		Annual	n/a	
	Reduced costs to write, review and maintain old style guidance	Transitional	n/a	62.2
		Annual	9.7	21.8
	Change in costs to write, review and maintain new user-based guidance	Transitional	-0.7	-4.4
		Annual	-0.5	
Change in government costs to manage and improve data collection and management	Reduced costs of responding to queries	Transitional	n/a	n/a
		Annual	0.0	0.0
	Costs to administer reforms	Transitional	-0.3 p.a. (2013- 2014); -0.1 p.a. (2015-2016)	-0.8
		Annual	n/a	n/a
	Capital costs of transforming IT systems	Transitional	-0.2 (2013), -0.6 (2014); -1.5m p.a.(2015-2017)	-4.8
		Annual	n/a	
Change in business/user costs for guidance	Reduced recurring costs of IT, data and administration costs	Transitional	n/a	14.3
		Annual	2.6	
	Reduced costs to work out what applies and understand guidance	Transitional	n/a	
		Annual	Over 108.7 (range is 108.7 - 539.2)	696.6
		Transitional	n/a	
		Annual		3455.9
Change in business/user costs for data reporting	Reduced costs to collect and report information	Transitional	n/a	
		Annual	9.9 (2014); 19.1 (2015); 30.1 (2016); 32.9 p.a. (2017-2022)	212.5
		Annual	11.8 (2014); 22.7 (2015); 35.8 (2016); 39.1 p.a. (2017-2022)	252.6
Change in external advice costs	Reduced costs for advice to understand requirements and report data	Annual	Over 6.4 (range is 6.4 - 48.3)	41.3
Total NPV				1000

* Figures presented here are based on low and high ranges where estimated. For some impacts only a best estimate has been estimated.

** Unless otherwise stated transitional costs apply to 2013 and 2014 only; and annual impacts apply from 2015 for guidance and 2016 for data respectively. Note that for the first year of the annual impacts a 75% proportion has been taken to account for the impact being realised from 1 April 2015 for guidance and 1 April 2016 for data.

Method

The costs and benefits have been estimated using a variety of sources including cost data from Defra's network, programme implementation plans, published studies and expert judgement. Where assumptions are required on the basis of judgement they have been provided by those in the best position to do so.

The detailed method for estimating each impact is described below. Where there is significant uncertainty, estimates are provided within appropriate ranges. Further investigation of each impact will be carried out during the consultation phase and through *ex post* evaluation.

The general assumptions made in this Impact Assessment include:

- **The start date for the guidance reforms is 2013.** Using 2013, although in the past, allows the costs of implementing the reform to be captured. The guidance reforms are due to be implemented on 1 April 2015. This is the target date for completing the reforms and the date from which users of guidance and government agencies should start experiencing the impacts.
- **The start date for the data reforms is 2013.** Similarly, for data reforms the impacts are estimated over ten years starting at 2013 to allow capture of the full implementation costs. Reforms are implemented by three main dates: (1 January 2014, 1 April 2015 and 1 April 2016). This is when users and government agencies will start feeling the impacts.
- **Users will not need to re-read reformed guidance.** This is because the reforms do not change the underlying regulations and schemes and so users will only need to consult the guidance when regulations and schemes change or when they do not already know the requirements.

Cost to government to administer guidance reforms

During the implementation phase of the reforms (2013 and 2014), additional resources from Defra agencies' are required to administer the reforms. These costs have been included despite occurring in the past to show the full impact of the reforms.

The central Defra team and the agencies have provided the actual additional staff cost which is £0.7m in each of 2013 and 2014, including non-wage labour costs.

Cost to government to administer data reforms

Additional staff across Defra organisations is required during 2013 and 2014 to help identify the data reforms. Based on actual costs including non-labour costs, these are £0.3m in 2013 and 2014 respectively.

Once the reforms have been identified, there are additional costs centrally to Defra and to embedded staff across the Defra organisations of implementing the data reforms. Based on the Defra central team's workplans these additional costs are estimated (including non-labour wage costs) as £0.1m for each year 2015 and 2016.

Cost savings to government in not having to write, review and maintain old style guidance

The reforms involve a radical change to the way that Defra and its agencies produces guidance. Under the baseline, each subject team across Defra and its agencies makes its own decisions about when and how guidance is produced. This led to over 1,000 guidance documents being produced per year with varying arrangements for review and stakeholder input. This approach will be entirely replaced by a user-based approach to guidance writing so the costs to government associated with the old approach will no longer be incurred.

Guidance development

First, the savings from no longer writing old style guidance are estimated. Guidance writing was generally part of the jobs of policy staff and subject matter experts in agencies rather than a full time job¹ so it is not possible to observe the exact number of staff involved. Instead these cost savings are estimated on the basis of the average time taken to write guidance. This is a product of:

- The average number of guidance documents produced each year under option 0. On average, it is estimated that **1,061 guidance documents are produced each year.**^{2,3}
- The average length of one guidance document. The GHK Mapping study,⁴ found that on average **each guidance document is 17 pages long.**
- A study by eftec of the Environment Agency's guidance, found that it takes an average of **between 669 and 1,170 minutes per page to scope, write, review and approve, design and publish one guidance document** (table 2).⁵ These estimates were based on detailed investigation of a sample of four documents which were chosen to represent the range of the Environment Agency's guidance documents. The range below reflects the variation between the documents

¹ Although there was also a total of 8 members of staff in the Environment Agency and Rural Payments Agency dedicated to writing guidance at an estimated cost of £360k p.a. This is treated as included in the estimates presented here to avoid double counting.

² This is estimated by taking an average of the number of documents produced each year over the three year period 2010 to 2013 and scaling up by 31% to account for undated guidance documents.

³ It is difficult to predict whether levels of guidance from the recent past would continue into the future under option 0 (the counterfactual). Declining resources in government and tighter control on general publishing as part of the move to GOV.UK suggest that levels of guidance publication might have reduced. Despite these two effects, however, the numbers of requests made to the guidance control mechanism set up as part of the smarter guidance initiative were at similar levels to those seen in the years preceding the reforms. In the absence of better information the past is therefore used as the best proxy for the future.

⁴ ICF-GHK Defra mapping study, 2014

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=18392&FromSearch=Y&Publisher=1&SearchText=ghk&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>. (hereafter "GHK mapping study")

⁵ Eftec, Evaluating the cost savings to business from revised EA guidance – Method paper. Report for the Environment Agency for England and Wales, June 2013, forthcoming. (hereafter "eftec report")

Table 2: Unit time taken of developing guidance (nearest minute)

Step	Low time taken	High time taken
Variable elements (minutes per page)		
Scope	35	58
Write	294	387
Approval and review	310	542
Design	29	180
Publish	1	2
Total	669	1,170

Source: eftec, 'Evaluating the cost savings to business from revised EA guidance – Method paper. For the Environment Agency (EA) for England and Wales. Note that figures may not sum due to rounding.

The Defra guidance team advise that on average the main guidance writing job (scope, write, design and publish) was done by Higher Executive Officers (HEOs) and approving and reviewing content was done on average by Senior Executive Officers (SEOs).

The annual salary for an **HEO and SEO adjusted by the average number of productive minutes** is estimated as **£0.56 and £0.69 per minute respectively**. This is based on an annual salaries of £41,203 and £50,739 respectively including non-wage labour costs, divided by the number of productive minutes per year. For details on how this wage rate was estimated see Annex A.

Thus the **low estimate of the saving from no longer writing old style guidance is £7.5m and the high estimate is £13.1m per year**. The best estimate is the mid-point and is £10.3m per year.

Guidance publishing

Second, there is a saving from no longer publishing old style guidance. In the baseline, old style guidance was published as a pdf document or on a web page; each publication mode has a different cost per document.

Of the 1,061 guidance documents produced per year, from the GHK further mapping exercise it is known that **83% of guidance documents are published as pdf documents, whilst 17% are published on the web**.⁶ The different publication formats have different costs. However, only web savings would be realised from no longer publishing old style guidance.

Table 3 shows that to publish a pdf, it takes between 80 and 160 minutes, of HEO staff time at £0.56 per minute (see Annex A), to publish guidance document as a pdf. Thus it costs between **£0.04m and £0.08m per year to publish pdfs**.

⁶ The raw GHK Mapping data found 80% of guidance documents were pdf, 17% were published on the web, and three per cent were in the 'other' category. The 'other' category includes documents that were published as jpegs, word documents etc. These have been added to the pdf category, to give an estimated 83% of guidance documents are published as pdfs.

Table 3: Time taken to publish one pdf guidance document

Step	Low time taken	High time taken
Set up project team	No estimate provided	No estimate provided
Log on Document Management System	20	40
Set up web pages (upload a new pdf)	60	120*
Log on Publications	No estimate provided	No estimate provided
Total (fixed time – uploading a new pdf)	80	160

Note 1) Estimates are based on the average time for the Environment Agency to produce four guidance documents; and 2) in order to produce a low/high range where not otherwise available, 25 per cent was subtracted/added to the estimated amount of time taken. Source: eftec, 'Evaluating the cost savings to business from revised EA guidance – Method paper. For the Environment Agency (EA) for England and Wales.

** Figures changed from original eftec estimates because these seemed too high to be feasible e.g. low estimate of creating a new pdf was 10,580 minutes. After discussion with experts at the Environment Agency revised estimates based on their experience were used.*

Guidance revision and maintenance

Third, there is a further cost saving from not having to revise the old style guidance. The GHK Mapping Report found that there were **7,095 guidance documents in total** produced by Defra and its agencies (Table 4). The eftec report estimates that approximately one third of these guidance documents are substantially revised every year, based on the Environment Agency's current review rate.

Table 4: Number of Guidance documents by issuing body

Issuing body	Number of documents
Natural England	2,364
Environment Agency	2,126
Defra*	855
Animal Plant Health Agency (APHA)**	783
Forestry Commission	422
Rural Payments Agency (RPA)	373
Marine Management Organisation (MMO)	212
The Centre for Environment, fisheries and Aquaculture Science (CEFAS)	127
Veterinary Medicines Directorate (VMD)	59
Others	192
Total number of unique documents	7,095⁷

* The Defra total includes guidance documents issued by the Food Standards Agency on food labelling and food composition policy which was transferred to defra on July 2010.

** The APHA total includes documents issued by the Food and Environment research Agency (FERA) and the Animal Health and Veterinary Laboratories (AHVLA).

Source: GHK Mapping Study.

In the eftec report, it was assumed that it takes between 75% and 100% of the time to do a substantial revision as it takes to write new guidance. The reasoning in the eftec report for this is that there may be significant changes to the law, or changes in types of users, or there may be a significant amount of information missing from the un-revised guidance document that requires a similar process as developing new guidance. Views provided by both the Environment Agency and Defra guidance teams suggest that the average time to do substantive revisions is likely, taking account of the various types of guidance to be much lower and estimate that it will be **in the range 10% to 40% with a best estimate of 25%**. On this basis it took between 92minutes per page and 368 minutes, on average per page⁸ to revise guidance. The total cost saving from not revising old style guidance is between £2.2m and £8.7m per year.

In summary, the **total benefit to government from not producing old style guidance is between £9.7m and £21.8m per year**, and the **best estimate** is the mid-point of **£15.8m per year** (Table 5).

⁷ The total number of unique documents is less than the total for the organisations because some documents are shared between organisations.

⁸ For clarity, this is estimated by applying 10% and 40% respectively to the average time to develop guidance per page i.e. 919 minutes per page based on a low estimate of 669 and high estimate of 1,169 per page, as set out in Table 2 above.

Table 5: Benefit to government per year of not producing old style guidance

Saving from no longer:	Annual saving, £m/year		
	Low	High	Best
writing old style guidance	7.5	13.1	10.3
publishing old style guidance pdf	0.04	0.1	0.1
revising old style guidance	2.2	8.7	5.4
Total	9.7	21.8	15.8

* Note that figures may not sum correctly due to rounding.

Costs to government to write and maintain user-based guidance

The reforms introduce a standard method for writing content. It is based on user insight to determine what content is needed.

First the existing guidance has to be reformed. A team of content designers are reforming existing guidance during 2013 and 2014, after this business as usual arrangements will be in place. Based on Defra team knowledge and budgets, it has been estimated that an additional staff cost including non-wage labour costs of £0.7m in each of 2013 and 2014 is required.

Once the stock of existing guidance has been reformed, there will be a dramatically reduced need for new guidance.

There will generally be two types of work:

- 1) New or amended content to reflect changing requirements or processes and, less frequently, entirely new requirements or schemes. In some cases there will also be a need to provide further information or explanation to clarify new schemes; and
- 2) Maintaining or improving content in response to user feedback.

During 2013 and 2014 Defra has had controls in place on writing new guidance. New or revised content has only been produced where needed to explain changes or where vital additional explanation is needed. This provides a sense of the potential level of need for new guidance.

The team of content designers who are reforming all the existing guidance estimate that once business as usual arrangements are in place from 2015, a team of ten content designers across Defra and its agencies will be sufficient both to write any new content and to maintain existing content.

It is estimated that the additional annual cost is £0.5m per year (Table 6) and the present value is £4.4m. There were already some content designers working on improving pre-reform guidance in option 0 so the actual additional resource required is much smaller – around £0.1m per year.

Table 6: Additional Cost to government of writing user based-guidance

Staff grade	Option 1	
	Full time equivalent	Cost, £'000s
G7	0.7	44
SEO	3.3	167
HEO	6.0	247
Additional cost of option 1 versus option 0		459

Note 1) staff grades and times estimated by Defra's guidance writing team and includes publishing time, and 2) the estimated costs include non-wage labour costs.

Costs to government to review user-based guidance

Under the new approach to guidance, policy officials and subject matter experts within agencies have a role in explaining the subject matter to the content designers and then in reviewing the new content. This is done both during the reforms and once the reforms are done.

The central Defra team and team of content designers have estimated, based on the plans and their experience that:

- during the reforms there are likely to be around 850 content items rewritten which will add to around 17,000 pages of content (to replace all the existing guidance)
- in Business as Usual, there are likely to be around 50 new content items per year, with around 1,000 pages of new or substantially revised content⁹. The view is informed by monitoring where requests for new content have been justified and agreed under the guidance controls introduced as part of the reforms during 2012 to 2014. The mode number of pages will be smaller but there will be some longer documents for example scheme handbooks when new funding schemes are launched;
- one subject matter expert is typically required to explain the subject area to the content designer and answer questions. This is on average at SEO level and will take on average 4 hours;
- all content will then be reviewed on average by four people: one within the content team, a policy official, a subject matter expert and a lawyer. The lawyer will typically be at Grade 7 and the other three at SEO level.
- the content takes about four minutes to review per page.

The costs associated with this during the reforms are £0.2m in 2013 and 2014 respectively as illustrated in the table below.

⁹ New guidance will often replace existing guidance, for example for a new round of funding under the Common Agricultural Policy. However, occasionally there may be entirely additional guidance, for example for regulating new activities like fracking.

Table 7: Additional costs to review user-based guidance in 2013-2014

	Additional cost of Option 1	
	Description	£'000s
Cost of subject matter expert (SEO) briefing the content designer*	240 minutes on each of 850 content items	141
Cost of SEO reviewers*	3 reviewers, each spending 4 minutes reviewing each page re-written. 17,000 pages re-written	141
Cost of G7 lawyer reviewers*	1 reviewer, spending 4 minutes reviewing each page re-written. 17,000 pages re-written	63
Total cost in 2013 and 2014	345	
Annual cost in each of 2013 and 2014**	172	

* See Annex A for productive hours assumptions and breakdown of salaries at various grades.

Note 1) that all salary costs include non-wage labour costs, 2) estimates based on content team's experience.

** Assuming the writing is split evenly between the two years.

The business as usual costs are a product of:

- the number of content items (50) multiplied by 240 minutes multiplied by the SEO wage rate;
- three reviewers and one lawyer each spending 4 minutes on each of 1000 pages multiplied by the SEO and G7 wage rate respectively.

The total annual cost will therefore be £0.02m per year from 2015 onwards.

The present value is £0.5m.

Reduced costs to government from responding to fewer telephone queries because guidance is clearer

The lack of clarity of old style guidance documents means that some businesses will call agencies' call centres to help them understand what they need to do. After the reforms, under option 1, businesses may have fewer queries since reformed guidance will be designed to help people complete the tasks they come to Defra and its agencies to do.

Data provided by the Environment Agency's call centre and used in the eftec report, show that it receives between 178k and 223k calls per year that are "guidance-relevant"^{10,11}. The number of calls was cross-checked against data that Defra holds centrally on Environment Agency customer calls and was found not to be significantly different.

Data on customer call volumes was also available centrally in Defra for the other organisations with central call centres: RPA, MMO, VMD, Natural England and the core

¹⁰ "Guidance-relevant" means the number of calls that are about finding out or understanding what to do and which may be reduced through improved guidance.

¹¹ This is estimated by the Environment Agency assuming, based on its experience, that between 40% and 50% of its total calls are on guidance related issues.

Defra department, for which there were an estimated 523k calls. Call volumes were not available for Cefas, APHA and Forestry Commission. No reliable method was available to scale up to include these organisations including on the basis of numbers of guidance documents but available data shows that customer calls and guidance documents tend not to be correlated. These organisations have therefore been excluded at this stage. While the EA’s experience is that 40-50% of calls relate to working out what people need to do, a wider range of 30-60% was applied for Defra, RPA, MMO, VMD and Natural England given the variety of activities across those organisations. The estimates are shown in table 8.

Table 8: Estimated annual number of calls across Defra agencies

	Low	High
Number of “guidance-relevant” calls (1000s) to the EA’s call centre	178	223
Percentage that are “guidance-relevant”	30	60
Number of “guidance-relevant” calls (1000s) to Defra, RPA, MMO, VMD and Natural England	157	314
Estimated total number of calls (1000s) (excluding Cefas, APHA and Forestry Commission)	335	537

Of these guidance-relevant calls, the vast majority (**82%**) are **simple calls**, whilst the remainder (**18%**) are **complex calls**, based on the Environment Agency’s experience. **Simple calls** can be dealt with by call centre staff and take on average **6.6 minutes**; whilst **complex calls need to be referred to experts and each take an additional 4 hours** on average to resolve. Call centre staff are of AO grade costing £0.35 per minute, whilst the complex calls which are dealt by individuals outside the call centre are dealt with by HEO grade staff costing £0.56 per minute.¹² The Defra central guidance team considered that the Environment Agency assumptions can reasonably be applied to the other Defra organisations for guidance-relevant calls. Thus the baseline cost of responding to calls is estimated between £8.6m and £13.8m per year.

Under option 1, it is assumed that there is a 0 to 50%¹³ reduction in the number of calls. Thus, the **saving to government from reduced calls in between £0.0m and £6.9m per year**, with the best estimate being the mid-point £3.4m per year. The present value is between £0.0m and £44.2m, with a best estimate of £22.1m.

Note that not all organisations within Defra and its agencies have call centres. Only Defra, the Environment Agency, Natural England, MMO, VMD, Forestry Commission and APHA have call centres. Other organisations rely on using their switchboards to direct calls. These organisations may be science based e.g. Cefas and face more technical queries which have to be dealt with by specialists, possibly at a higher cost. This suggests that, all things being equal, the range of savings may be higher.

¹² See Annex A for methodology and assumptions for estimating staff costs.

¹³ The 25% reduction in calls is based on the assumption in the etfec report. The most reliable before and after data was for reforming the waste carriers registration service to digital by default standards. This reduced customer calls from 120 calls per 100 transactions to 14. This reduction is unlikely to be replicated across all areas of guidance. However for the time being a large range of 0 to 50% is chosen. This is being monitored and will be evaluated.

Capital costs of transforming data collection systems

Based on the actual costs of the Environment Agency for transforming data collection systems for waste carriers in 2013 and 2014; the costs are £0.2m and £0.6m respectively. These are based on costs in financial years converted into calendar years.

Initial estimates taking account of business cases in 2014 and 2015 are that these will be around £1.5m each year in 2015, 2016 and 2017. The present value is £4.8m.

Reduced recurring costs to government of IT, data and administration costs from data reforms

Collecting less information and simplifying systems will reduce the recurring government costs for managing information – including:

- maintenance and updating of IT systems;
- taking receipt of data;
- processing and cleaning data;
- data analysis and reporting internally and externally; and
- reduced costs of customer calls.

Defra announced a target to reduce these (and the customer call costs below) by over £10m p.a. This was based on initial estimates that the potential savings from reduced customer calls, reduced IT expenditure and stopping collecting unnecessary information with the Environment Agency alone could exceed £6m per year. So far, £2.6m of annual savings have been written up into detailed business cases for simplifying EA's IT systems. This is expected to accrue from 2016. This is therefore the estimate used in the IA at this stage. Further work will be done during the consultation phase to estimate the government savings associated with other measures. All the savings will then be monitored as part of the smarter data implementation plan.

Reduced business costs to work out what applies and understand guidance

Reformed content is expected to be radically simpler, quicker and clearer to find, read and understand. Businesses will therefore save time in finding out and deciding what they need to do to comply with legal requirements or use services within Defra and its agencies' ambit. This covers the full range of circumstances when people need to find out about requirements or services including when requirements are introduced or changed, when setting up a new business or activity, when personnel within organisations change and improving or refreshing understanding of requirements.

Method

Three methods were considered to estimate the business savings from reformed guidance:

- 1) **Policy by policy:** This method assesses the time requirements for each regulation or scheme. This is the approach that was taken in the PWC admin burden measurement.¹⁴ It was also the approach taken to Defra's regulatory stock assessment which synthesised data from all historical Defra Impact Assessments.¹⁵
- 2) **Web statistics:** This method uses web data on the number of page views for each document and other supporting information such as bounce rates, page view duration and unique users. These are then applied to assumptions from qualitative work such as the eftec report analysis of the time taken to absorb guidance.
- 3) **Stated business time:** This method is to use survey information on the time businesses state they spend finding out about their requirements and extrapolate up to the total business population.

None of these methods provides a complete answer: none has complete data and each has weaknesses.

The policy by policy approach tends to be on the basis of *ex-ante* estimates of the initial familiarisation time when individual regulations or amendments to them are introduced, whereas the evidence from GOV.UK suggests that most users refer to guidance when they are doing a specific task and that multiple rules may apply in those circumstances. It also does not systematically include estimates for re-familiarisation and staff turnover.

While complete data is now available on web statistics, there is no robust way to validate any assumptions made about the correlation between page views and numbers of users actually reading or referring to documents or about how long people spend reading documents.

The stated business time method provides a more holistic and realistic view of the total time businesses spend working out what they need to do. Its potential weaknesses are in reliably extrapolating up from the business population surveyed and in making any adjustments to reflect the scope of the reforms.

The stated business time method was chosen as the most reliable method for the estimates¹⁶.

Cost savings estimates

Using the stated business time method, the cost savings are a function of:

- time spent reading and understanding guidance per business;
- the relevant business population;

¹⁴ Defra, Administrative Burdens Measurement Exercise, Final report, July 2006

<http://archive.defra.gov.uk/corporate/policy/regulat/documents/abme-report0612.pdf> (hereafter "PWC report")

¹⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69226/pb13623-costs-benefits-defra-regulatory-stock110816.pdf

¹⁶ Specifically, stated business time overcomes the problem of the policy by policy approach in that it uses stated business behaviour rather than using initial familiarisation time which is not reflective of business behaviour. Stated business behaviour also implicitly accounts for re-familiarisation time and any additional time due to staff turnover. The stated business time is also superior to the web statistics method, since assumptions regarding how long people spend reading documents do not have to be made. For example, these assumptions may include average reading rates which are likely to differ for prose and technical texts, and assumptions on the average proportion of prose and technical content of a guidance document – the latter, if applied, would be a pure assumption with no evidential basis. Thus, applying the stated business time method would negate the need to make these further assumptions and introduce more uncertainty into the estimates.

- the wage rate; and
- the reduction in time required.

Time spent reading and understanding guidance

There are three main sources of information surveying businesses on the time spent understanding environmental and other Defra guidance:

- 1) GHK study on micro businesses and environmental regulation¹⁷;
- 2) Jigsaw business perceptions survey 2014;¹⁸ and
- 3) Information from interviews and online questionnaires done by Defra as part of SERR and implementation of the Smarter Guidance project through a dedicated web portal.

The first two are most reliable as they involved formal surveys with robust methods. The third did not but provides a good range of business views to cross-check estimates based on the first surveys.

As a starting point, findings from the Jigsaw study which surveyed a representative UK sample of businesses of all sizes excluding sole traders on environmental law issues were used.¹⁹ The results of the study are accurate to within +/- 7.1 percentage points at the 95% confidence level.

The Jigsaw study found that on average businesses spend 6.7 days per month on environmental law compliance issues, meaning that businesses spend **80.4 days per year on environmental law compliance issues**. This was applied to small, medium and large businesses.

Of this time, not all is spent on finding out about and understanding guidance; the study identifies the main burdens as information and keeping up to date (i.e. guidance related), supplying information and contact with Defra and its agencies. The PWC report found that 16% of time spent administering Defra measures was on familiarisation. While this provides a useful indication, it is out of date (from 2005 estimates) and familiarisation is likely to under-estimate the true costs associated with guidance (as discussed above). **A range is therefore applied to the Jigsaw study results of between 10% and 25%.**

For micro businesses there is separate data, from the GHK Micro Business study which shows that on average micro businesses spend less than five hours per week finding out about and understanding their compliance requirements. A range of one to three hours per month has been used.²⁰ Scaling this up across a year gives an estimated **12-36 hours per year spent by micro businesses**.

¹⁷ GHK, Micro Business and Environmental Regulation Final report for Defra – BR0102, June 2011
<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17701&FromSearch=Y&Publisher=1&SearchText=BR01&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description> (hereafter “GHK Micro Business study”)

¹⁸ Jigsaw research, Business perceptions Survey 2014, Report for NAO and BIS, 28 May 2014
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/314378/14-p145-business-survey-2014.pdf (hereafter “Jigsaw study”)

²⁰ For clarity, the findings from the GHK Micro Business Study quoted here are from GHK’s in-depth telephone interviews with 58 businesses; this was not a representative sample and was part of their qualitative analysis, rather than the more robust statistical analysis. Thus, whilst 37 of the 58 micro businesses interviewed suggested that they spent fewer and five hours per week on activities relating to environmental regulations, this may not be representative of all micro businesses. Given this uncertainty, a range was applied to the analysis rather than applying a point estimate.

Relevant business population

These estimates are then applied to the relevant population of business readers rather than the entire business population in Defra and its agencies' sectors, since studies (see below) show that not all businesses use government web sites as a source of information when finding out about and understanding their compliance requirements. Generally, business population estimates are derived from the national statistics produced by the Department for Business, Innovation and Skills (BIS)²¹. However, given that the BIS data did not provide a breakdown of the sectors to a granular level required for our analysis, data from the Office of National Statistics (ONS) was used instead. The ONS data estimates the number of businesses based on the number of businesses registered for Value Added Tax (VAT) and/or Pay As You Earn (PAYE). Thus, it underestimates the business population since it excludes those businesses that do not cross the VAT registration threshold.²²

The Defra central guidance team used reviewed the statistical business sectors and sub-sectors²³ to identify those affected by Defra and its agencies guidance: see Annex B. This shows that there are 688k businesses affected by Defra policies, comprising 116k businesses that are classed as small, medium and large businesses, and 572k micro businesses. The widest coverage is for environmental guidance which cuts across many business sectors, whereas the other Defra topics affect more specific sectors such as agriculture, food manufacturing and vets. This analysis was cross-checked with previous cross-cutting IAs²⁴ and was reviewed by the future regulation team in the Environment Agency.

Not all the businesses identified will use government as a source of information to find out about and understand their compliance requirements; thus the 688k businesses can be thought of as potential readers of guidance. The Jigsaw study found that **51% of businesses use government web sites** as a source of information on compliance with environmental law. Thus it is estimated that **59k small, medium and large businesses** and an estimated **292k micro businesses**, use government web sites.

Wage rate

A range is used for wage rates between £29 and £36 per hour. Annex A explains the basis for this range.

Reduction in time required

Section 4.1 describes the reforms and is the starting point to understanding the likely time saving. While the total volume of guidance content will reduce by 80%, both the volume that businesses have to read and time savings are expected to exceed 80%. This is because 1) content is designed specifically around the tasks that businesses are seeking to complete, based on evidence further constraining the volume of content any single user needs to read 2) content is specifically designed to be read and understood quickly and without ambiguity, based on a consistent style and standards that have been developed through a body of user research 3) content and guides are structured and designed for "search engine optimisation" which means that it should be easy to find the right content quickly.

²¹ BIS, Business population estimates, <https://www.gov.uk/government/collections/business-population-estimates>

²² See <http://www.hmrc.gov.uk/vat/start/register/when-to-register.htm> for further details on VAT registration.

²³ While these are predominantly businesses, they also include some public sector and other organisations also affected by environmental guidance.

²⁴ These were the Environmental Liability Directive IA and the environmental civil sanctions IA.

To illustrate with the batteries waste example referenced in section 4.1, before the reforms someone wanting to find out about the rules for batteries waste would return 32 government documents on a google search and would need to take time investigating which documents are relevant, which text within the documents is relevant and then seek to read and understand what they need to do by reference to explanations of the relevant laws. Once the reforms are implemented, users will get succinct instructions designed specifically around what they are doing.

There is currently some uncertainty about what the time reductions will be across all types of business and Defra regulations so **a relatively wide range of 60-90% time saving is used.**

Thus the **range of cost savings is between £109m and £539m per year** as shown in table 9 below. See table 15 for time profiles and the present value.

Table 9: Reduced business costs to read and understand guidance

	Low	High
1. Time spent by small, medium and large companies on environmental law compliance issues (average hours per year)	80.4 multiplied by 5.7 productive hours per day = 458	
2. Proportion of time spent on reading and understanding guidance (%)	10	25
3. Time spent by micro-businesses on reading and understanding environmental guidance (average hours per year)	12	36
4. Proportion of businesses using government websites (%)	51	
5. Business population (small, medium and large)	116k	
6. Business population (micro-business)	572k	
7. Wage rate	29	36
8. Time saving (%)	60	90
Workings:	Total option 0 business hours: $(1 \times 2 \times 5) + (3 \times 6)$ Multiplied by the wage rate (7) Divided by option 1 time saving: (8)	
Total annual cost savings per annum (£m)	109	539

Discussion of the range

The main issues determining the level of the confidence that the true cost savings will be within the range are:

- **Whether the survey results are representative and have been extrapolated to the right business population.**

Factors that could increase the estimate:

- The scope of the Jigsaw study does not exactly match Defra's responsibilities as it does not include non-environmental food and farming guidance. Including these are likely to slightly increase the estimates for the agricultural and food manufacturing sectors which are already included in the business population. This would increase the estimates overall.

Factors that could reduce the estimate:

- The Jigsaw study questions were framed in terms of environmental law. While environmental law is commonly understood not to include health and safety law, it is possible that some respondents may have included some aspects of health and safety law that are not covered by these reforms.
- The Jigsaw study included more large and medium companies than is proportionate to the total business population which could skew the estimates upwards. However, they also found a relatively small difference on average in time taken per month between small, medium and large companies. The likely explanation for this is that for many companies finding out what requirements apply and how is a fixed cost irrespective of scale of operations. Defra has not extrapolated up on more tiered categories of business size because the data gets less robust the more they are disaggregated. Nevertheless cross-checks of the total results with a more tiered extrapolation using information provided by businesses to help inform the guidance reforms were done. This led to increased estimates. The likely explanation for this is some level of bias in the responses if respondents considered declaring higher burdens would lead to greater or swifter reform action.

Neutral factors:

- The Jigsaw study included micro businesses responses but the extrapolation was done on the basis of a more specialist micro business survey. This is likely to be more robust given the GHK findings that micro businesses respond in distinctly different ways to companies with more capacity.

- **Whether the assumption about government guidance usage is fair**

Factors that could increase the estimate:

- Providing high quality user focussed guidance could in time make GOV.UK the definitive source for environmental and other Defra-related guidance and a better source for those currently using other sources of information. This is likely to take time and require marketing which would be an additional intervention.

Factors that could reduce the estimate

- The GHK micros study found that 31% of micro businesses surveyed used the Environment Agency as a source of information on environmental obligations and how to comply with them, whilst 24% used Business Link (which was a government web site) as a source, and 14% use Defra as a source. It was not clear from the presentation of results whether this could be consistent with the 51% - i.e. depending on whether it was largely the same people using the three sources or not. This was also before all these websites moved onto GOV.UK so the figures are less relevant than the 51% from the Jigsaw study.

- **Whether the time savings proportions are realistic**

Factors that could increase the estimate:

- The actual reduction in content that needs to be read should be significantly higher than the total volume reduction for any specific area because the content is designed around users' activities, and the relevant content should be identifiable immediately. In addition the content itself should be much quicker to read and understand.
- To test the potential time saving a "mystery shopping" exercise was done; asking an environmental consultant from GHK Ltd to find out the environmental requirements for a dry cleaner and landscape gardener under option 0 and option 1. In both cases the time taken reduced by over 90%.

While there are some factors that suggest individual parameters could be higher or lower than those used as inputs to the analysis, Defra's assessment is that it is highly unlikely that the true savings will be outside the range. None of them in isolation will push the true savings outside the range and it's unlikely that they'll do so in combination because the factors do not systematically tend in one direction. Nevertheless, Defra is not confident in determining the most likely figure within the range. **The best estimate at this stage will therefore be presented as "over £108.7m"** per year, giving a best estimate of present value of £696.6m

Further information and views will be sought through consultation before finalising the IA. In parallel Defra is commissioning scoping work to establish how these cost savings can be evaluated as part of the post implementation review.

Reduction in business cost to collect and report information

There will be less information to report, less frequently and it will be easier to submit. The WSP Ltd reports on environment, marine, carbon, farming and animal health and welfare²⁵ provides estimates of the time savings for business on the basis of detailed assessment of each reform measure. For each measure, this is a product of the number of returns (i.e. each time a business provides information via a form or online submission etc.), the estimated baseline time taken per return and the estimated time saving from the measure. For number of returns actual data from regulators was used. For the time estimates, WSP used actual information where recorded and where not they asked businesses during interviews to develop the reform measures, regulators and their own consultants to derive their best estimate. The total product of these estimates is that 1.6 million hours are likely to be saved if the all the simplification proposals are implemented (Table 10).

²⁵ *Op. cit.* footnote 14.

Table 10: Total hours saved per year from data simplification

Regime	Estimated time saved (1000s hours)
Environment	830
Marine and carbon	51
Farming, and Animal health and welfare	344
Total	1,226

Source: WSP reports to Defra on Environmental, Marine and Carbon, <http://guidanceanddata.defra.gov.uk/smarter-data-2/> WSP report on Farming, and Animal health and welfare is forthcoming.

From Defra's Smarter Data Plans²⁶ we know that for the environment and marine proposals that there is a specific time line for realising the time savings (Table 11).

Table 11 also shows that implementation of 12% of the environment and marine savings requires successfully influencing changes at EU level. Given the uncertainties over whether this is achievable or the timescales over which it could be achieved, these potential savings are not included in the monetised estimates in table 12.

Table 11: Proportion of total time savings for environment and marine realised

	Proportion of total savings realised each year	Cumulative savings realised
Completed by 2014	40%	40%
Completed by 2015	37%	77%
Completed by 2016	11%	88%
Completion contingent on securing EU agreement	12%	
Total	100%	

Note that proportions have been re-estimated on the basis of calendar year; the Defra Smarter Data Plans were estimated on financial year basis.

For the carbon theme its assumed that the savings are first realised from 1 April 2016, and for farming and animal health and welfare its assumed that the savings are first realised from 1 April 2016 onwards. Table 12 shows the hours saved under option 2 by theme.

²⁶ Defra, "Smarter Data": Plans to simplify information requests by Defra and the Defra network. Phase 1: Environmental, marine and carbon and energy efficiency requests, April 2014 (hereafter "Defra Smarter Data Plans").

Table 12: Time profile of time savings by theme (1000s hours)

	Environment	Marine	Carbon	Farming and animal health and welfare	Total
2014	333	7			340
2015	639	13			652
2016	731	15	26	258	1,029
2017 onwards	731	15	34	344	1,124

Applying the low and high business wage rates of £29 and £35 per hour²⁷ respectively, gives the following savings per year:

Table 13: Savings per year to business from data reporting simplification, £m

Year	Low	High	Best
2014	9.9	11.8	10.9
2015	19.1	22.7	20.9
2016	30.1	35.8	32.9
2017	32.9	39.1	36.0
2018	32.9	39.1	36.0
2019	32.9	39.1	36.0

Reduction in businesses external advice costs

Simplifying guidance is expected to increase business and others' confidence in finding out and understanding their requirements with no or less external help than under option 0. It is also possible that some businesses switch to doing information reporting in-house rather than using external support as it gets easier to do. The latter is considered in the non-monetised impacts section rather than in this section.

The first step is to identify the number of businesses who use external advisers. From analysis of the ONS data (Annex B), the relevant business population is 687,592 businesses in England. The Jigsaw study found that 43% of businesses use an external adviser to help them comply with environmental law; with each business spending on average £4,358 per year on all types of external advisers. Thus, the total amount spent by businesses on all

²⁷ This assumes that the reporting is done in-house. In some cases this activity could be contracted out. In this case the hourly cost could be higher.

types of external advisers is £1.3 billion per year. This was cross-checked against the ENDS report.²⁸

The ENDS report does not provide a break-down of the proportion of expenditure on identifying and explaining requirements. Therefore views were provided by an expert at a leading environmental consultancy that around 10% is for this type of advice. Given the uncertainty a wider range of 5-15% is used. Therefore, the business spend on consultants to help them find out and understand their requirements is estimated at £64-193m per year under option 0.

It has been estimated by a large trade body in the engineering industry that if the guidance reform aims were met the amount businesses have to spend on external consultants could reduce by around 15-20%. Given the uncertainty and the range of businesses involved a wider range of 10-25% is used. The savings to business from reduced spend on consultants is therefore likely to be in the range **£6.4m to £48.3m per year**. This estimate could understate the true value as it only covers environmental law and not the other Defra policy areas covered by the reforms.

However, it is not currently clear where within this range the true value is likely to be so for now the estimate is recorded as over £6.4m. Defra will seek views on the assumptions used during the consultation to refine the range.

Loss of income to consultants

The section above implies that as businesses reduce spend on external consultants there is a corresponding loss in consultancy revenue. The environmental consultancy sector recognises that there is likely to be a reduction in demand for advice on helping businesses understand their compliance requirements and is already seeking ways to compensate for this loss by seeking out new opportunities or expanding existing areas. For example, the 'sustainability policy and strategy' practice area was the only segment of environmental consulting to grow significantly (15%) during 2010.²⁹ This growth may be driven by an increased corporate social responsibility by businesses.

The ENDS report has highlighted that environmental consultants are proactively seeking out new opportunities overseas too; as evidenced by an 11.3% growth in international revenue in 2011.

Thus, it is likely that overall negligible loss to consultant's income.

Non-monetised impacts

This section contains the impacts or potential impacts that are not, or not yet, possible to monetise. This is normally because insufficient data currently exists.

- **Reduction in business costs of contributing to guidance development.** The reformed approach to developing guidance involves getting targeted user feedback to supplement user analytics rather than a general approach of involving stakeholders in guidance development for example through steering groups and web consultations. The new approach should therefore save time and resource. Some initial work has been

²⁸ The ENDS report (ENDS, Consultancy Market Guide 2012, August 2012) found that the total revenue of the environmental consultancy sector is £1.2 billion a year.

²⁹ <http://ehsjournal.org/http://ehsjournal.org/michael-bittner/analysis-of-the-uk-environmental-consulting-market/2011/>

done to estimate the potential savings (outlined in Annex C) but there is too much uncertainty about the likely number of consultations done each year. Views have so far been provided by Natural England but further information is needed from the other Defra organisations to be confident about using estimates that are representative across the Defra organisations. Therefore the estimates in Annex C are not included in the net present value.

- **Greater confidence amongst businesses that they are compliant.** This is because the legal requirements and the accompanying process and standards will be clearer.
- **Reduced need to seek external support for information reporting.** It is possible that fewer businesses will use external support as information reporting gets easier. No information has been identified so far either about the current expenditure on external support for these purposes or predictions of the potential reduction. Further information will be sought during consultation.
- **Reduced costs to government of customer calls from simpler information reporting.** The first transactional system to be reformed (waste carriers within the Environment Agency) reduced customer calls from 120 calls per 100 transactions to 14 calls. This transactional service had its own dedicated call centre and they or the Environment Agency's National Customer Call Centre were unable to provide a view about the potential change from reforming other transactional systems. Furthermore no data is collated about the levels of existing calls for transactional services. Further work will be done to assess this during consultation.
- **Change in business IT costs.** There could be some IT costs to adjust to simplified reporting requirements. These should be minimal as Defra and its agencies are aiming to minimise any interruption as part of implementation. In the medium to longer term, simpler information reporting should in time reduce the costs of businesses IT systems.
- **Reduced barrier to entry.** Evidence suggests businesses find environmental regulations complex³⁰ and that it may be a barrier to setting up or expanding businesses. Making guidance simpler, quicker and clearer could therefore give businesses greater confidence that they can start up or expand activities that are covered by environmental and other Defra regulations. This could lead to increased economic activity and growth.
- **More even playing field.** To the extent that these reforms help correct undercompliance, any competitive advantages due to differing levels of compliance could be reduced and businesses will be able to compete on a more even playing field.
- **Better use of data by businesses and Defra and its agencies.** Consistent data standards will be used where possible in transforming IT systems which makes it easier to link data across services. This leads to more coherent datasets which will provide a better basis for Defra and its agencies to understand business regulatory performance and to make better data available externally.
- **Effects associated with no longer providing good practice advice.** This aims to make it much clearer what is required by law and to provide greater room for innovation

³⁰ SERR Phase 1 report, GHK micro businesses study and Jigsaw study on business perceptions and online surveys done during implementation.

in meeting the requirements. There are already many organisations such as professional bodies, trade associations and wildlife and other NGOs and consultancies who provide good practice advice but there are some areas where there is a demand for advice where less is currently available. In these cases organisations may either re-purpose existing government guidance from the archives or develop their own. The post implementation review will assess these effects.

Further work will be done to consider how these effects can be assessed during the consultation phase and as part of preparing for the post implementation review.

5. Risks

Programme governance arrangements include risk management to ensure the programme is implemented in a way that takes account of any risks. The significant residual risks that will require ongoing attention include:

- **Failing to fully implement the reforms.** The risk on guidance is relatively low as the current detailed plans show that the reforms will be complete during the first half of 2015 but this depends on retaining resources and input from across the relevant organisations. The risk on data is higher as a high proportion of the reforms are to be implemented in 2015 and 2016. Capital funding for IT reforms is agreed year to year so while there is funding in 2014/15, it cannot be guaranteed beyond that. Other central funding required is in business plans. In addition to foregoing the benefits this would cause reputational damage.
- **Failing to put adequate business as usual arrangements in place.** This is relevant to both guidance and data reforms. It would arise if we cannot agree appropriate internal governance arrangements and controls. The consequence would be that guidance and data arrangements are not managed appropriately to ensure they respond to users' needs and are updated and that, at worst, guidance and data requirements start to proliferate again. Under these circumstances the benefits and savings identified would be reduced. This would also cause reputational damage.
- **Transitional uncertainty and impacts on those requiring guidance.** Priority is being given to maintaining customer service during the reforms so people can continue to find what they are looking for. This includes by ensuring any links to old content is redirected to the most relevant new content. All old content is also available through searching on the national archive but will not show up in general web searches. To the extent that some businesses are not able to find alternative sources of good practice advice easily or find it harder to access on the national archive, there could be some transitional uncertainty until other organisations adapt to provide what's needed.
- **Missed opportunity if other areas of government guidance are not reformed or reform in different ways.** Some areas of government policy have started similar reforms: such as for the highest transaction content on GOV.UK, development planning guidance, health and safety guidance and some elements of taxation guidance. The potential benefits of these reforms could increase if users were confident of getting the consistent standards and experience across all the services they use. This could unlock greater benefits, for example increased confidence in setting up businesses. This is less

about risks of achieving the immediate impacts assessed in this IA than risking missing an opportunity.

6. Impact on businesses

7.1 OITO classification

As discussed above, the preferred option, despite being of a de-regulatory nature, is for a non-legislative measure which does not require the formal submission to the RPC. This means that the savings to business are not counted formally towards Defra's One In, Two Out (OITO) score, and will not require an OITO classification. Nevertheless, if it were in scope, the reforms would be classified as an OUT since the measure reduces burdens on business.

7.2 Costs and benefits to business

Despite the fact that the preferred option will not have an OITO classification, here the direct costs and benefits to business have been assessed, given the large savings to business estimated.

The majority of the business impacts estimated are direct impacts; only the reduction in business external advice costs is classified as an indirect impact. According to paragraph 1.9.31 only direct impacts can be scored for OITO. Further, any impacts resulting from behavioural change are classified as indirect impacts.

A behavioural change is defined as a reform which changes the landscape so that individuals may choose to alter their behaviour. The impacts of this behavioural change on business should be considered indirect as it results from the actions of the individuals and not directly from the reform. This implies that since some businesses choose³¹ not to continue using external advisers as a result of the proposed reforms the saving is classed as an indirect impact and not included in the estimate of the Equivalent Annual Cost to Business (EANCB). The monetised direct benefits of the reforms are 1) the reduction in business costs to work out what applies and understand the guidance, and 2) reduction in business cost to collect and report information. There are no direct costs to business. The indirect impact of loss of consultant's revenue is not included and is estimated to be negligible.

The direct benefits are estimated to be £90m p.a.; and the EANCB is -£90m p.a. in 2009 pounds and 2010 base year. In practice, this is likely to be the minimum given that the lower bound estimate was taken for the cost savings from reduced time spent reading guidance and the reduction in business costs of contributing to guidance development³² was excluded.

7. Small and Micro Business Assessment

The Coalition Government aims to reduce costs placed on small and micro businesses as a result of the regulations introduced under this session of parliament, and has introduced various policies to ensure such a cost reduction. One such policy is the Small and Micro Business Assessment (SaMBA).

³¹ That is, it is a business choice not to use consultants and is not an automatic result of the reform requiring no behavioural change.

³² This is a direct impact because the estimated saving is driven by a reduction in the volume of guidance rather than a business behavioural change.

The SaMBA is described in section 1.6 of the Better Regulation Framework Manual and applies to regulatory measures. It states that the default position is to exempt all small and micro businesses from any burdensome costs imposed by the new regulation. If this is not possible then 1) an argument must be put forward for why it is not proportionate to exempt small and micro businesses or 2) proposals for mitigating any costs on small and micro businesses must be put forward.

In the case of the preferred option (i.e. option 1), the smarter guidance and data reforms are de-regulatory in nature and are estimated to result in large savings to business (with a business NPV of £929m.). A high proportion of these savings are for small and micro-businesses and they will benefit particularly given the resource constraints under which they typically operate. Thus, exempting these businesses from the reforms would be contrary to the Coalition Government's policy of reducing costs to business. Note that for the guidance reforms the proposed reforms do not result in any changes in the underlying regulations. Thus, businesses that are already using the guidance will not need to re-read the revised guidance and incur familiarisation costs re-ready existing guidance that has been revised.

It has been estimated that 667k small and micro businesses may be affected by the preferred option (see Table 14). This is 97% of the potential business population. Of these, just over a half, are estimated to use government web sites as a source of information to find out about and understand their compliance requirements. Thus, exempting small and micro businesses from these reforms would not be compatible with achieving a large part of the intended benefits of the measure.

Table 14: Number of Small and Micro businesses

Sector	Potential small and micro business readers (1000s)	Estimated small and micro business users of Government web sites (1000s)
Agriculture fish and forestry	98	50
Mining	1	1
Manufacturing	99	50
Energy Supply	2	1
Water	2	1
Waste	7	3
Construction	208	106
Retail	43	22
Transport	40	20
Housing & Leisure services	146	75
Other services	4	2
Public services	17	8
Total	667	340

Note 1) number of potential business readers taken from ONS data (see Annex B for details), and 2) Jigsaw study finding that 51% of businesses use government web sites to find out and understand their compliance requirements used to estimate third column.

We are seeking any additional information via consultation on this issue.

8. Summary and implementation plan including Post Implementation Review

Option 1 is the only option considered in this IA as it is currently being implemented in line with public commitments made. Table 14 provides a summary of the annual impacts of option 1 compared against option 0 and includes present values and the net present value. It shows that the best estimate of the net present value of option 1 is £1095m, indicating that the benefits outweigh the costs, where monetised. The low and the high estimates of the net present value are £1,013 and £3,824m respectively.

This is a consultation stage Impact Assessment and Defra will seek the views of interested stakeholders on the analysis, so that the estimates can be refined....

Defra will undertake a post implementation review of whether the smarter guidance and data reforms achieve (or looks set to achieve) their expected impacts. The exact methodology for the review will be determined after a scoping phase exploring the options for conducting a proportionate evaluation, by focussing on key evidence gaps, and testing the key assumptions in the IA, where possible. This is likely to include analysis of relevant

monitoring data, development and refinement of a logic model, and (if necessary) bespoke pieces of research, e.g. with users and stakeholders, to fill gaps in our understanding of the outcomes and impacts. The design of the review will be informed by relevant sources of guidance such as the HMT's Magenta Book. Quality assurance will be provided through Defra's analytical quality assurance process.

Table 15: Annual impacts of option 1 compared to option 0, £m

Impact	Year									Present value	
	0*	1	2	3	4	5	6	7	8		9
Cost to government to administer guidance reform											
Best	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Low	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
High	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cost to government to administer data reform											
Best	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Low	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
High	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cost to government of writing user-based guidance											
Best	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	4.4
Low	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
High	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Cost to government of reviewing user based guidance

Best	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.5
Low	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
High	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Cost to government of capital cost to reform IT											
Best	0.2	0.6	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	4.8
Low	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
High	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Benefit to government of change in IT, data and administration costs from data reforms											
Best	0.0	0.0	2.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6	14.3
Low	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
High	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Benefit to government from not producing old-style guidance											
Best	0.0	0.0	11.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	101.1
Low	0.0	0.0	7.3	9.7	9.7	9.7	9.7	9.7	9.7	9.7	62.2
High	0.0	0.0	16.4	21.8	21.8	21.8	21.8	21.8	21.8	21.8	140.0
Benefit to government from responding to fewer queries on guidance											
Best	0.0	0.0	2.6	3.4	3.4	3.4	3.4	3.4	3.4	3.4	22.1
Low	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	7.2	9.6	9.6	9.6	9.6	9.6	9.6	9.6	44.2
Benefit to business of reduction in business costs of finding out what applies and understanding the guidance											
Best	0.0	0.0	81.6	108.7	108.7	108.7	108.7	108.7	108.7	108.7	696.6
Low	0.0	0.0	81.6	108.7	108.7	108.7	108.7	108.7	108.7	108.7	696.6
High	0.0	0.0	404.8	539.2	539.2	539.2	539.2	539.2	539.2	539.2	3,455.9

Benefit to business from reduction in external advice costs											
Best	0.0	0.0	4.8	6.4	6.4	6.4	6.4	6.4	6.4	6.4	41.3
Low	0.0	0.0	4.8	6.4	6.4	6.4	6.4	6.4	6.4	6.4	41.3
High	0.0	0.0	36.3	48.3	48.3	48.3	48.3	48.3	48.3	48.3	309.7
Benefit to business from reduction in business costs to report information											
Best	0.0	10.9	20.9	32.9	36.0	36.0	36.0	36.0	36.0	36.0	232.6
Low	0.0	9.9	19.1	30.1	32.9	32.9	32.9	32.9	32.9	32.9	212.5
High	0.0	11.8	22.7	35.8	39.1	39.1	39.1	39.1	39.1	39.1	252.6

Annex A: Wage rates

Applicable basic salary rate

Defra and its agencies' guidance and information obligations will affect a wide variety of different types of businesses, professions and roles. This range typically includes, but is not limited to, owners of micro-businesses including farmers, general managers in small businesses and technical professionals working in larger businesses. Given this variety it is not currently feasible to model this accurately. The vast majority of personnel will fall into the following four categories in the Office of National Statistics' Annual Survey of Hours and Earnings (ONS's ASHE):

- Managers, directors and senior officials. This includes managers in a range of sectors. Median salary for group: £36,570.
- Professional occupations. This includes conservation and environment professionals. Median salary for group: £33,152
- Associate professional and technical occupation. This includes engineering technicians. Median salary for group: £28,500.
- Skilled trade occupations. This includes farmers. Median salary for group: £23,500.

Reviewing the spread of sectors and sizes of business (summarised in annex B), types of roles likely to be involved and estimated time input for different sizes of businesses, in particular that input will be lower for micro-businesses, it seems most likely that the true median salary will be within the range £28,500 and £33,152 before adjustment for non-wage labour costs and productive hours (see below). While it may not always be the same person within an organisation reading guidance and doing information requirements, this conclusion is likely to hold across both.

Productive vs non-productive hours

Throughout this Impact Assessment, whenever a wage rate of government or business employees are presented it is done on the basis of a productive hours. This is particularly relevant when converting time estimates given in hours are converted to days or larger units. Adjusting for the number of productive hours is necessary since workers do not spend all their time working. Lost (or unproductive) time may be spent on activities such as lunch breaks, toilet breaks, making tea or coffee or chatting with colleagues on non-work related issues etc. Further, during the year, employees have annual leave, leave due to bank holidays and absence due to illness. All these factors must be accounted for when adjusting for the hours that an employee is productive.

Here the underlying assumptions for estimating the business productive wage rate and that of government employees is discussed.

Business wage rate

The most appropriate job categories within the Office of National Statistics' Annual Survey of Hours and Earnings (ONS's ASHE) for the low estimate was the associate professional and technical occupation and the high estimate was the professional occupation.

From the ONS's ASHE data Defra derived an hourly wage rate based on productive hours. The business productive wage rate, for the low estimate, is estimated by taking the:

- Annual median salary of £28,500 for the associate professional and technical occupation from the ONS' ASHE,¹ and uplifting by 30% to account for non-wage labour costs as per the Standard Cost Model,² to give an annual cost of £37,050;
- On average from the ONS' ASHE that those in the conservation and environment professionals category work 37.4 hours per week or 7.5 hours per day, assuming a five day working week. Defra knows from a report by management consultants Knox D'Arcy,³ based on observational analysis of managers in the manufacturing sector that on average a manager in the manufacturing sector works 76% of the time. Defra was unable to find other studies based on observational analysis or any other evidence, to estimate the proportion of productive hours for other sectors. In the absence of this information, it has been assumed that the proportion of time spent productively applies to all business sectors, including government. Thus, it is estimated that 5.7 hours per working day are actually spent working;
- Next, the number of days per year, on average, a manager spends working was estimated as 222.9 days (see above for methodology). By taking the total number of weeks in a year (i.e. 52 weeks) less four weeks annual leave,⁴ less 1.6 weeks of bank holidays, less around two weeks absence due to illness, based on the average UK worker absence due to sickness. This gives 44.6 productive weeks per year, or equivalently (assuming a five day working week) 222.9 days. For each day worked, only 5.7 hours is productively spent. Thus the hourly productive **low business wage rate** is around **£29 per hour**.

Using the above methodology, the **high business wage rate** was estimated as **£35 per hour**. All the figures are the same, apart from the salary which is £33,152 and the hours worked per week is 36.6 from the ASHE.

Government wage rate

The wage rate of government employees is estimated using the same methodology as described for businesses wage rate section above. However, there are a few key differences:

- Actual salary data has been used which is inclusive of non-wage labour costs;
- The time that government employees are contracted to work is 37 hours per week excluding lunch breaks⁵ or 7.4 hours per day; this is the same as businesses. The annual

¹ The median (or middle) salary was used rather than the average (or mean) because the distribution of the salary data is skewed positively, with the bulk of the managers in this category earning less than the average. Thus, the average salary provides an overestimate of the salary earned by the majority of managers in this category. Further, the use of the median rather than the mean is in line with the ONS's recommendations regarding how to use ASHE in its Frequently Asked Questions document : <http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/annual-survey-of-hours-and-earnings/annual-survey-of-hours-and-earnings/index.html>

² Better Regulation Executive, Measuring Administrative Cost: UK Standard Cost Model Manual, 29 September 2005. <http://webarchive.nationalarchives.gov.uk/20090609003228/http://www.berr.gov.uk/files/file44503.pdf>

³ A report by management consultants Knox D'Arcy based on observational analysis where employees were observed minute by minute and their actions analysed, found that on average a manager in the manufacturing sector is not productive for 24% of the time (s)he is employed. It should be noted that whilst the Knox D'Arcy report focuses on local government, it does make comparisons to other sectors such as manufacturing. The figures cited for these comparator sectors are based on observational analysis conducted by Knox D'Arcy and published in its other reports. Source: Knox D'Arcy, The Local Government Challenge – Productivity and the "cuts versus" dilemma, undated <http://www.knoxdarcy.com/file/knox-darcy-management-report-pdf>

⁵ This is based on new employees contracted hours.

leave of government employees is five weeks.⁶ Applying the same methodology as described in the business wage rate section above, gives 43.6 productive weeks per year, or equivalently (assuming a five day working week) 217.9 days. The productive days per year is then converted to productive hours by multiplying by the number of hours spent working (i.e. 5.6 hours), to give 1,225 hours worked per year.

The table below applies this methodology to give the productive wage rate of different grades of government employees.

Table A.1: Government employee productive wage rate

Grade	Productive wage rate (£/minute)
G7	£0.93
SEO	£0.69
HEO	£0.56
AO	£0.35

⁶ This is based on the current entitlement of new employees to 25 days leave, which rises to 30 days after five years' service. It has been conservatively assumed that government employees get 25 days leave per year.

Annex B

Table B.1: Total number of businesses in Defra sectors, in England

Sector	Sub-sectors included	Business Size			
		Micro	Small	Medium	Large
Agriculture, forestry & fishing	01 Crop & animal production, hunting and related service activities; 02 Forestry & logging; 03 Fishing & aquaculture	95,200	3,240	305	35
Mining	05 Mining of coal lignite; 06 Extraction of crude petroleum & natural gas; 07 Mining of metal ores; 08 other Mining & quarrying	850	285	55	10
Manufacturing	10 Manufacture of food products; 11 Manufacture of beverages; 13 Manufacture of textiles; 14 Manufacture of wearing apparel; 15 Manufacture of leather and related products; 16 Manufacture of wood & of products of wood & cork, expect furniture, manufacture of articles of straw and plating materials; 17 Manufacture of paper & paper products; 18 Printing & reproduction of recorded media; 19 Manufacture of coke & refined petroleum products; 20 Manufacture of chemicals & chemical products; 21 Manufacture of basic pharmaceutical & pharmaceutical preparations; 22 Manufacture of rubber & plastic products; 23 Manufacture of other non-metallic mineral products; 24 Manufacture of basic metals; 25 Manufacture of fabricated metal products, except machinery & equipment; 26 Manufacture of computer, electronic & optical products; 27 Manufacture of electrical equipment; 28 Manufacture of machinery & equipment n.e.c.; 29 Manufacture of motor vehicles, trailers & semi-trailers; 30 Manufacture of other transport-equipment; 31 Manufacture of furniture; 32 Other manufacturing.	77,570	21,515	6,010	1,065

Energy supply	35 Electricity, gas, steam & air conditioning	1,650	345	190	90
Water	36 Water collection, treatment & supply; 37 sewerage	1,200	500	120	20
Waste	38 Waste collection, treatment and disposable activities – materials recovery; 39 Remediation activities & other waste management services	5,005	1,590	420	25
Construction	41 Construction of buildings; 43 Specialised construction activities	195,050	12,975	1,810	135
Retail	471 Retail sale in non-specialised stores; 472 Retail sale of food beverages, tobacco in specialised stores; 473 Retail sale of automotive fuel in specialised stores; 474 Retail sale of information & communication in specialise stores*	39,062	4,104	403	113
Transport	49 Land transport and transport via transport via pipelines; 50 Water transport; 51 Air Transport	34,720	5,335	1,360	330
Housing & Leisure	56 Food & beverage activities; 93 Sporting activities & recreation activities	107,965	38,225	3,630	220
Other services	75 Vets	2,920	1,355	65	0
Public services	84 Public administration & defence; compulsory social security	10,780	5,740	2,955	1,045
Total	n/a	571,972	95,209	17,323	3,088
Total	n/a	687,592			

Data estimated using ONS data based on VAT registration and PAYE registration.

Annex C: Initial estimate of the reduction in business costs of contributing to guidance development

This annex contains some initial work on the estimated reduction in business costs of contributing to guidance development. The impact estimates have not been included in the estimated net present value, as they are based on the experience of Natural England and cannot be applied to others in Defra and its agencies. In particular, in practice, across the network we expect that the consultation type to be far more complex than set out below and not easy to generalise.

The reformed approach to developing guidance involves getting targeted user feedback to supplement user analytics rather than a general approach of involving stakeholders in development. In option 0 when guidance is being drafted businesses may be asked to contribute by giving their opinions on draft guidance. This may be via a web consultation or workshops requiring businesses attendance.

From the GHK Mapping report it is estimated that 1,061 guidance documents produced each year. Table C1 shows that Natural England (NE) have estimated that 40% of the guidance documents that NE produce are consulted on using web consultations, 10% are consulted on using workshop consultations and the 50% do not involve external stakeholders; these are consulted on internally and feedback is requested from NE employees and/or those across Defra and its agencies. It is assumed that these percentages apply to the rest of the network.

Table C1: Proportion of guidance documents consulted on by consultation type

Consultation type	Proportion*	Guidance documents
Web consultation	40%	424
Workshop consultation	10%	106
Other internal consultation	50%	530
Total	100%	1,061

** Figures based on the experience of Natural England.*

Thus for workshop consultations, based on the above it is assumed that 106 guidance documents are consulted on using workshops per year. The Defra central guidance team's estimate is that the average number of business representatives attending workshops was between 10 and 20. This was cross-checked with three staff across Defra with experience in developing guidance. In some cases there are more. For example 31 businesses people attended the Environmental Permitting guidance workshops. An average is taken of 15.

A large trade body in the engineering sector has estimated that **each business person will spend on average between 1.5 and 14 hours** travelling, preparing for the workshop and any additional time post-workshop responding (Table C2). The estimates seem reasonable. Travel time ranges between 0.25 hours and seven hours; the lower range could account for workshops in London which are attended by businesses with London head offices, whilst the upper estimate could account for those travelling across the country to attend. The preparation for a workshop could include at the reading the draft guidance briefly (one hour), whilst at the upper end it could reading the draft guidance more than once and making preparatory notes (five hours). The additional time post-workshop includes drafting a quick email (0.25 hours) to 2 hours if a more involved response is required.

Table C2: Time spent by each business person contributing to a workshop on guidance development, hours

Activity	Low	High
Travel time	0.25	7.00
Preparing for workshop	1.00	5.00
Additional time post-workshop to respond	0.25	2.00
Total	1.50	14.00

Source: Times estimated by a large trade body in the engineering sector.

Thus, it is assumed that the cost of business involvement in a workshop is charged at the business wage rates in the range of £29 and £35 per hour (see Annex A). Thus, the total estimated **cost of a business taking part in a workshop is between £0.07m and £0.8m.**

For web consultations, it is estimated that 424 documents are consulted on using this method (see Table C2 above). Based on Defra officials' experience, it is assumed that there is generally one web consultation on the draft guidance per guidance document. At the start of a web consultation an email is sent out to stakeholders including businesses and trade bodies representing groups of businesses. The email will contain a brief description of the guidance consultation and have further links to web pages which describe the consultation in more detail, including a link to the draft consultation document.

Based on Defra officials' experience emails are sent to a mailing list of around 100-150 businesses and other organisations (hereafter: "businesses"). A mid-point of 125 was taken. Those that do not respond would still generally need to take time to review the email and potentially the papers to decide not to respond. It is conservatively assumed that this takes around five minutes. It is assumed that cost to business is between £29 and £35 per hour. Thus, the **cost to business of not responding to a web consultation is estimated at between £0.1m and £0.2m per year.**

Defra officials' experience is that 10-20 people respond to web consultations on guidance. A mid-point of 15 is taken. It is estimated, by a large trade body in the engineering sector that each business takes between 2.85 hours and 11.2 hours to respond to a web consultation.¹ Thus the cost to **business of responding to a web consultation is between £0.5m and £2.5m per year.**

Therefore the **total cost to business of contributing to guidance** is the sum of the cost of taking part in a workshop, cost of not responding to a web consultation and the cost of responding to a web consultation; it **ranges between £0.7m and £2.7m per year.**

The new approach to guidance development does not require any formal stakeholder involvement as explained above. In addition there will be radically smaller flow of new guidance content given that new guidance will only be required when there are substantive new policies or processes. In other circumstances the single version of user-based content would be amended. It is estimated in this IA that this flow is reduced by around 90-95%. On

¹ The high scenario is based on an estimated response of a couple of days. In this analysis it has been assumed this is two days and 5.6 productive hours per day.

this basis, it is estimated that the costs of consultation is reduced by around 95%. Thus the total saving to business from is between **£0.7m and £3.3m per year**.

In practice, the savings to business may be higher if businesses inputting their views into trade associations are accounted for.

The analysis has assumed that there are two types of consultation involving businesses – workshop and web consultations; this may not be representative of the experience across the network.