

Summary: Analysis & Evidence

Policy Option 1

Description: Obtain more information of imports in order to better target inspections to protect the UK's woodland.

FULL ECONOMIC ASSESSMENT

Price Base Year 2014	PV Base Year 2015	Time Period Years 10	Net Benefit (Present Value (PV))		
			Low: -£30,544	High: -£48,907	Best Estimate: -£39,726

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	£3,000	£3,200	£30,544
High	£3,000	£5,333	£48,907
Best Estimate	£3,000	£4,267	£39,726

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

Costs to business: Familiarisation (transition cost): £3,000; this is the time businesses need to take to learn about the process and their duties within this notification scheme.

Notification (average annual): £2,667; this is the time cost for businesses to notify the FC.

Verification (average annual, for new suppliers): £800. Cost of verifying country of origin and treatment.

Cooperating with inspections: £800 (average annual); estimated cost to business at a 10% inspection rate.

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

Cost to business: the impact of possible higher prices on import quantities.

Cost to government: Administration cost of the notification scheme, and the cost of carrying out visits to importers to verify that they are using the notification scheme and to inspect risky material identified through notifications.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate	N/A	N/A	N/A

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

Benefits are not normally quantified under fast track measures unlike full impact assessments (for larger impacts) where the full range of costs and benefits of a number of options are considered. A high level overview of the benefits can be found under 'Benefits' on page 8.

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

This measure will aid the protection of the benefits provided by the UK's woodlands. These benefits are substantial and cover a wide range, from market goods such as timber to non-market benefits such as landscape and recreation. The increased information from this scheme would enable more targeted inspection and monitoring. This in turn could avert future pest and disease outbreaks and help to safeguard the UK's woodlands.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

That there are 25 importers, who import 400 consignments annually.

Each importer will take 3 hours to familiarise themselves with this notification scheme.

It will take 10 minutes to notify each consignment to the FC. At £40 per hour staff cost to business.

10% of consignments annually involve country of origin/treatment type verification, at 30 minutes each.

10% of consignments inspected annually, at 30 minutes time to businesses per inspection.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: -£3,523	Benefits: N/A	Net: -£3,523	Yes	IN

Evidence Base (for summary sheets)

Problem:

Supply of solid fuel wood is met from a variety of sources and traditionally the cost of transport has meant that households have favoured local suppliers of material. As the value of the commodity has increased the relative cost of transport has declined to the point at which it is now financially viable to import solid fuel wood, particularly from other European countries. The trend in increased solid fuel wood imports from the EU is likely to continue meaning the UK could be exposed to greater plant health risks. There is currently no system in place to record the details or level of consignments of non-controlled solid fuel wood imports arriving in the UK meaning there is a lack of information about the nature of such imports. This extends as to the origin of the wood, especially whether EU solid fuel wood imports are originating from outside the EU. Therefore, we have no means of knowing whether high risk material is being imported into the UK and whether it represents a risk of introducing a number of major tree pests and diseases. This makes it more difficult to target inspections as well any subsequent plant health control of the outbreak.

Policy Background:

Wood is a recognised pathway for the introduction and movement of harmful plant pests. Fungal and bacterial organisms can be moved on wood and wood products and insect pests can remain undetected beneath the surface of bark. EU import requirements are in place to mitigate such risks, which apply to specific species or products known to represent a threat. Such products must be subject to prescribed treatments to eliminate any harmful organisms which might be present, before being allowed to be imported into the EU.

Solid fuel wood is regulated in the same way as other forms of wood, with some species covered by specific requirements and others which are not subject to any control. Solid fuel wood is susceptible to the same harmful pests as other types of wood; however additional risks apply, due to the unprocessed nature of the material that is likely to contain bark. The nature of the industry which often involves small companies or individuals can also make regulation and dissemination of information difficult.

Another risk is that a pest or disease may be present in solid fuel wood that has been imported from the EU but originated outside the EU. A particular concern is that untreated ash material may be coming from Russia via EU member states (i.e. imported from a 3rd country) which could pose a threat of emerald ash borer (EAB) being introduced. Pests or diseases may be present in the solid fuel wood or its bark and could spread within the UK between the point of entry and the point of use. There are a number of potential pests and diseases that could cause extensive damage to UK woodlands if introduced, some of which are already present in the EU.

Solid fuel wood has been implicated in the introduction and spread of EAB in North America. The pest has killed tens of millions of ash trees over the last 10 years and the movement of infested solid fuel wood has been implicated as a major reason for its dispersal over long distances. A serious outbreak of EAB has been spreading west from Moscow into western regions of Russia since it was first detected in 2007. There are no measures in place in Russia to control the spread of the pest and Forestry Commission personnel have reported that it is well established at least 200 km to the south and west of the city and there are unconfirmed reports that EAB has spread a lot further and is already close to the border with Ukraine. Internal Defra analysis has estimated that a large EAB outbreak in England could incur costs in the region of £600m. This analysis was based on an expert elicitation process whereby experts were asked to present their judgements of the most likely outcome of a number of plant health outbreaks. Other pests of particular concern are bronze birch borer and Asian longhorn beetle which pose risks to a number of tree species. All three pests rank highly on the UK Plant Health Risk Register¹ indicating they could have significant impacts on woodlands.

Policy objective:

It is proposed that a statutory notification scheme (SNS) for imports of solid fuel wood is introduced, requiring all importers of non-controlled solid fuel wood to notify the Forestry Commission Plant Health Service of any imports of solid fuel wood and the details of the consignment (quantity, country of origin, species, method of treatment and destination). In order to be a success, importers themselves may need

¹ <https://secure.fera.defra.gov.uk/phiw/riskRegister/>

to obtain additional information on the country of origin (i.e. 3rd country) and the type of treatment that the material has undergone. Introducing this SNS will require an amendment to the Plant Health Order (Forestry) 2005.

The primary objective of the proposal is to provide information on the volume and origins of trade, and also to raise awareness of the issue. In turn, this information can help target monitoring and surveillance and help decide if further measures may be warranted (i.e. if new risks are identified). Similar schemes have previously been introduced successfully by the Animal and Plant Health Agency (APHA) for oak, ash, sweet chestnut, plane, pine and elm planting material. The increased information given by the SNS will help protect the UK's woodlands against pests and diseases.

Rationale for Intervention:

The rationale for Government intervention is to address the negative externalities associated with importing risky material. Those who import the material would not pay the full costs of any impacts associated with a pest or disease outbreak and may not be aware what risks are involved. Co-ordinated intervention is necessary to ascertain and reduce the risks to society and to protect the trees and woodlands which provide us with a wide range of benefits. To meet this, the Government has the capacity and the tools to ensure such a co-ordinated approach. It is also widely accepted that stopping incursions of pest and disease into the UK is more cost-effective than responding to them once they have become established. This is stated in Protecting Plant Health: A Plant Health Biosecurity Strategy for Britain (Defra, 2014).

The solid fuel wood industry

The solid fuel wood import industry is small at present but it is anticipated that the current trend in increasing solid fuel wood imports from the EU will continue and therefore the number of businesses importing solid fuel wood is anticipated to increase as well. A FC Plant Health survey found that an estimated 11,200 tonnes of solid fuel wood were imported in 2013. 25 companies (mainly based in England with a small number in Scotland) were found to import solid fuel wood of which 13 responded to provide data. As a number of larger importers did not respond and there could be other smaller importers not captured by this survey, it is possible that up to around 24,000 tonnes of solid fuel wood could actually be imported to the UK annually. The estimates calculated for the purposes of this validation IA are based on this survey and assume that the industry size remains constant. Though, there are some indications that increasing levels of solid fuel wood imports seen recently may continue. This is explored further in annex 1, where sensitivity analysis has been applied to give an indication of what the costs could be under different growth scenarios.

The 25 importers mentioned above include a mixture of larger as well as smaller solid fuel wood importers. Larger solid fuel wood importers are believed to import around 3,000 tonnes annually, whilst smaller traders may only import around 250 tonnes annually. There are a number of other businesses with a small solid fuel wood import section connected to a larger organisation. Both these types of businesses are expected to have established administrative teams and not expected to be overburdened by the SNS. Smaller organisations will also be affected but will have fewer consignments and it is not anticipated that it will impose any unreasonable burden on any organisation.

Options considered:

The following options have been considered for this issue:

0. Maintain the status quo – continue the present situation whereby importers are not required to notify the FC of any non-controlled imports of solid fuel wood. It is believed that such imports could be a critical pathway into the UK of various pests and diseases, such as EAB. Hence, the status quo may result in putting UK forests at risk.

1. Introduce the SNS - Regulation to introduce a new SNS for imports of solid fuel wood. This will entail importers issuing an import notification every time they import a consignment(s) of solid fuel wood. This will be used to gather information on the scale of imports of non-controlled solid fuel wood and where it is occurring. The FC may then decide to use this information to target inspections of solid fuel wood

imports in order to increase the protection of the plant health of UK forests. **This is the preferred option.**

2. Introduce a voluntary notification scheme – Importers were asked to consider this option and their response to this request leads us to believe that a voluntary scheme would result in a low rate of return of information. In contrast to other sectors, such as the tree nursery sector, the solid fuel wood sector is largely unregulated and there is no official channel for the flow of information between the FC and solid fuel wood merchants.

Costs

Costs to business

It is difficult to estimate with certainty what the overall annual costs to business of introducing the SNS would be as data on the number of consignments entering the country each year is sparse. However, **initial best estimates would suggest that a total annual cost to the industry across England and Scotland is around £4,300.** This is based on i. information supplied by the industry from an FC Plant Health survey of total annual volume imported per business and ii. best judgement on the likely number of consignments required to import those reported volumes. If projected forwards over ten years, and expressed as the 'Equivalent Annual Net Cost to Business' (EANCB), as defined in the latest BIS Impact Assessment calculator, **the EANCB is around £3,500.** This assumes a constant import quantity and industry size for the appraisal period, please see annex 1 for comparisons with a 5% and a 10% import and industry growth rate.

Businesses will be required to notify the FC whenever they import a consignment of solid fuel wood from EU or non-EU countries. They will incur costs associated with the staff time required to adhere to the SNS. We have estimated the costs to business following the same methods as previous additions to the statutory notification scheme under the Plant Health Order (England) amendment for importing pine, plane, oak, sweet chestnut, ash and elm planting material. These have estimated a time cost of 5-10 minutes per consignment imported, and use the top decile hourly wage. In this case a further 30 minutes for imports involving a new supplier has been expertly estimated to take into account the time involved in businesses finding out the country of origin of the import. More details can be found in the calculating costs section directly below.

In addition to annual costs, businesses may incur some initial time costs in order to familiarise themselves with the SNS and the information requirements. This could involve reading documentation and perhaps also communicating with the FC in order to clarify details of the scheme. This is not expected to be burdensome and a number of businesses may already be familiar with such schemes through other business activities (e.g. if they import controlled timber). Further, even at 3 hours per business this would only have an initial impact of around £3,000 to the solid fuel wood import industry, or £120 per business, based on the same methods of estimating the time value of the annual costs. 3 hours is likely to be more time than is required for the vast majority of businesses.

Several points were raised by the RPC during the RTA stage; these have all been considered carefully in conjunction with the consultation that was undertaken in relation to introducing the SNS. The following outlines the points raised by the RPC as well as the actions taken to address them:

1. The costs to businesses of ascertaining the country of origin and treatment type of imports.
2. The costs to businesses of co-operating with inspectors.

There was no response, or challenge, to our assumptions during the consultation phase, which may suggest that our assumptions are broadly reasonable and that businesses do not expect these regulations to be burdensome. Hence, a 30 minute assumption has been applied to ascertain the country of origin and treatment type of imports. This is only applied to imports from new suppliers, which is assumed to affect 10% of consignments on an annual basis (i.e. 40 consignments). The reasoning for this is that businesses are typically expected to import from the same supplier and the fact that the importer base is small leads us to believe that the exporter base is also limited. A 30 minute cost to business is also applied for co-operating with inspectors, this represents time for businesses to arrange and facilitate an inspection. It is also assumed that 10% of consignments will be inspected. This is based on expert judgement and experience with similar inspections undertaken elsewhere (i.e. controlled timber import inspections).

3. The size of the industry (in relation to very small importers).

Regarding very small importers (e.g. by the lorry-load) expert judgement and analysis has indicated that this is expected to be non-existent or minimal. This is due to the bulk nature of solid fuel wood and limited profitability indicating that the cost-effective range of lorry-load imports would be small. It is estimated that a lorry load of solid fuel wood (seasoned hardwood delivered to door) may generate revenue of around £2,800, based on a 20 tonne container. On the cost side, a cost of importing from Northern France and Belgium is calculated at around £1,500. This cost is calculated by using the Freight Transport Association fuel calculator² (including non-fuel transport costs) and adding on a transport cost for crossing the English Channel. Even at this limited geographic range profitability would almost require a 100% profit margin. As, this is not thought to be likely we assume that no such lorry-loads of solid fuel wood imports take place.

Calculating the additional costs to business

Costs to business have been calculated by making an assumption on the level of consignments imported annually, estimating the time cost associated with familiarising, verifying and notifying the FC about a consignment, as well as co-operating with inspectors. The method is explained below.

- Number of consignments per year

At 20 tonnes per container there would be 1,200 consignments per year (24,000/20) if importers only imported one container at a time. Alternatively, there may only be 150 consignments per year taking into account the number of different companies, species and country of origin identified in the survey. These figures are unlikely but indicate the absolute maximum and minimum for the level of annual consignments estimated.

With larger importers likely to import at least several containers at a time and very few single container consignments expected the number of annual solid fuel wood consignments is more likely to be closer to the minimum than the maximum – likely within the range of 300 – 500 per year. **The best estimate uses 400 consignments per year for the purposes of this validation IA.** With a lower estimate of 300 and an upper estimate of 500 consignments per year also presented.

- Time cost to businesses

We have assumed a time cost of £40 per hour to businesses (in 2014 prices), based on the top decile of earnings for full time workers (around £30 per hour) taken from the Office for National Statistics ASHE 2014³ provisional results, with a 33% uplift to reflect non-labour costs to the organisation. However, the hourly cost to organisations is unlikely to be this high. This figure serves to provide an upper bound and also to make an allowance where it may be the manager of a company sending the notification. This is particularly more likely to be the case in any small or micro organisations. This approach is in line with previous SNS amendment analyses.

- Cost to businesses of familiarisation with the SNS (transition cost)

The initial familiarisation costs to businesses are based on businesses taking 3 hours to familiarise themselves at an hourly cost of £40:

Number of businesses (25) * hours per business (3) * labour cost of familiarisation (£40 per hour)

This indicates a best estimate of £3,000 as one-off additional costs of implementing the SNS on businesses. This figure is also used for the lower and upper estimates.

- Cost to business of notifying the FC (annual cost)

At a time cost of up to 10 minutes per notification, the total time required is estimated to range between 50 hours and 80 hours per year for all businesses. Our best estimate is that the time required is around 65 hours per year to issue the notification to the FC.

² http://www.fta.co.uk/microsites/fuel/how_fta_can_help/fuel_calculator.html

³ <http://ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/2014-provisional-results/index.html>

The final, best estimate, calculation is therefore:

Number of consignments (400) * 10 minutes per consignment (10/60) * Labour cost of notifying (£40)

Therefore, the additional cost to business of notifying the FC through the SNS is estimated between £2,000 and £3,300 per year to the solid fuel wood import industry. **The best estimate of the additional cost to businesses of notifying the FC is around £2,700 per year.**

- *Cost to business of verifying country of origin and treatment type (annual cost)*

At a time cost to businesses of up to 30 minutes per country of origin and treatment type verification for 10% of consignments, gives a range of 15 and 25 hours. Our best estimate is that the time required for verification is around 20 hours.

The final, best estimate, calculation is therefore:

Number of “new” consignments (40) * 30 minutes per consignment (30/60) * Labour cost of verifying (£40)

This indicates a cost to business in the range of £600 and £1,000 per year. **The best estimate of the additional cost to business of verification is £800 per year.**

- *Cost to businesses of co-operating with inspectors (annual cost)*

Where inspections occur there will also be a cost to businesses. Assuming an inspection rate of 10%, this would imply that between 30 and 50 consignments were inspected per year. Our best estimate is that 40 consignments will be inspected per year. Based on other similar inspections, 30 minutes of a business’s time would be required – in order to facilitate the inspection.

The costs of co-operating with inspectors are calculated as:

Number of consignments (400) * 10% inspection rate * 30 minutes per consignment (30/60) * labour cost of co-operating (£40)

The burden to business of co-operating with inspectors is therefore estimated in the range of £600 to £1,000. **With £800 per year being the best estimate of the additional cost to business of co-operating with inspectors.**

Other data sources:

We also considered other sources of data, such as HMRC data⁴. However, on examination this is assumed to be inaccurate, due to both miscoding and volumes of solid fuel wood typically being traded at low levels insufficient to require companies to provide HMRC with data. Therefore, the import quantities used for the purposes of this analysis rely upon the Plant Health survey conducted in 2013.

However, the HMRC data showed that in 2012 annual imports of solid fuel wood stood at 8,400 tonnes and rising to around 25,000 tonnes in 2014. Whilst, the import level is likely to be inaccurate the general upwards trend may be accurate (though unlikely at the kind of rate shown by the HMRC data). Annex 1 explores a 5% and a 10% growth trend in solid fuel wood imports in part due to this. However, the main calculations detailed earlier in this validation IA assume that the industry does not grow over the 10 year period being investigated. This is due to a lack of definitive evidence amid policy and economic uncertainty as to the growth rate of the industry.

Costs to government

On top of to the additional costs to industry there will also be additional costs to Government in the region of £10,000 per year. These are not directly included in the calculations presented in this analysis as they do not represent direct costs to businesses of introducing this legislation. The costs to government are partly composed of providing the administration of the scheme. This is a back office cost

⁴ Source: UK Trade Info www.uktradeinfo.com

to the FC of staff time to provide the administration of the notifications, of around £2,500 per year. The remainder, of £7,500, is to cover the cost of inspectors and FC staff of undertaking inspections of solid fuel wood imports to ensure that they meet the required standards.

Moratorium on Micro Businesses

The new measures will apply to all businesses, including micro-businesses, importing solid fuel wood. The reasoning for this is that the risk of introducing harmful organisms is not mitigated by the size of the business importing material, nor of the quantity of material imported.

Benefits:

These are not monetised as part of this validation IA. Though, the notification system proposed here is expected to increase the overall protection of the UK's woodlands. The non-market benefits generated by the UK's woodlands have been estimated at £1.8bn (in 2013 prices) by Willis et al (2003). The method for calculating the social and environmental values are set out in Willis et al. 2003 in a report to the Forestry Commission entitled 'The Social and Environmental Benefits of Forests in GB'. In summary, the values are estimated based on the 'stated preference' technique, whereby respondents are asked to place a value on various environmental attributes associated with trees. The exception to this is for carbon sequestration values, which have been estimated using National Forestry Inventory data and the Woodland Carbon Code lookup tables for the amount of carbon sequestration by particular species, which has then been valued based on the latest DECC guidance. The market benefits (GVA) are estimated at around £0.4bn for forestry and logging (in 2013 prices) by the ONS. The non-market and market benefits provided by the overall UK woodland give an indication of the potential loss in value if they were lost to pests or disease. Further, there would be substantial avoided treatment costs if further pests and disease are intercepted or kept out of the UK. For instance, EAB is a key threat that this regulation is aimed at, and Defra analysis has indicated that a large outbreak in England could incur costs of around £600m. Also, the Asian longhorn beetle outbreak in Kent in 2012 cost around £0.5m to treat indicating the potential for large avoided costs to the Government if pest and disease outbreaks are prevented.

Annex 1:

Sensitivity analysis:

This section outlines two different growth scenarios to give an indication of what the costs to business could be if the solid fuel wood industry grew annually by a) 5%, or b) 10%. The industry has grown in recent years and some expert opinion indicates that it may continue to do so in the coming years. Though, substantial uncertainty and lack of definitive evidence exists for this case. Hence, the figures presented here are for illustrative purposes only. Apart from the different growth rates, these calculations follow the methods as detailed above.

a) 5% annual growth scenario

Under this scenario the EANCB would reach: £6,675. This is based on a 5% yearly increase in the number of importers, thereby incurring an increased familiarisation cost for each new importer every year. And a 5% increase in consignments yearly, which increases the cost to businesses of notifying, verifying origin and treatment, and cost of co-operating with inspectors. The best estimate for the average annual cost (excluding transition costs) is £8,050. After 10 years this would result in a solid fuel wood industry of 39 importers and 930 consignments annually (central estimate).

b) 10% annual growth scenario

Under this scenario the EANCB would reach: £8,430. This is based on a 10% yearly increase in the number of importers, thereby incurring an increased familiarisation cost for each new importer every year. And a 10% increase in consignments yearly, which increases the cost to businesses of notifying, verifying origin and treatment, and cost of co-operating with inspectors. The best estimate for the average annual cost (excluding transition costs) is £10,200. After 10 years this would result in a solid fuel wood industry of 59 importers and 1,415 consignments annually (central estimate).