



Department
of Energy &
Climate Change

Risk Based Regional Assessment: A Checklist Approach

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1. Introduction

The *Risk-Based Regional Assessment: a Checklist Approach* helps woodfuel buyers and suppliers provide Timber Standard Category B evidence for compliance with the woodfuel land criteria as set out in the Timber Standard without the use of certification. It also serves as a guide for auditors and verifiers in assessing whether generators and suppliers have complied with these criteria.

- 1.1. This document is based on requirements of the UK Timber Standard for Heat and Electricity¹ (“the Timber Standard”) which adopts a “**risk-based regional approach**”, and is informed by the UK Timber Procurement Policy’s (UK-TPP) Framework for Evaluating Category B Evidence² for legality and sustainability in the forest. The approach requires that **credible evidence showing low-risk of non-compliance with the woodfuel land criteria can be provided on a regional level**.
- 1.2. Generators, installations and suppliers of energy from wood or wood derived biomass under the Renewables Obligation (RO)³, Renewable Heat Incentive (RHI)⁴ and Contracts for Difference (CfD) must comply with the woodfuel land criteria defined in the Timber Standard as set out in the [Woodfuel Advice Note](#) document. Compliance with these criteria can be shown through either Timber Standard Category A evidence or Timber Standard Category B bespoke evidence. Timber Standard Category A evidence can be provided by using woodfuel that is certified by a voluntary third party certification scheme that has been approved by the UK Government. Timber Standard Category B is all forms of credible evidence other than certification schemes that indicate compliance with the woodfuel land criteria.
- 1.3. The Checklist in section 2 of this document offers guidance to generators and suppliers on how to provide Timber Standard Category B evidence and apply the risk-based regional approach without the use of certification. It proposes possible types of evidence that could be used to show low-risk of non-compliance with the woodfuel land criteria on

¹ Timber Standard for Heat & Electricity: Woodfuel used under the Renewable Heat Incentive and Renewables Obligation

² <https://www.gov.uk/government/publications/framework-for-evaluating-category-b-evidence>

³ DECC (2013) Government Response to the sustainability requirements for solid biomass feedstocks used for electricity under the Renewables Obligation (RO):
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/231102/RO_Biomass_Sustainability_consultation_-_Government_Response_22_August_2013.pdf

⁴ DECC (2012) Government Response to non-domestic Renewable Heat Incentive consultation
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/128679/Gov_response_to_non_domestic_July_2012_consultation_-_26_02_2013.pdf

a regional basis. Generators and suppliers may choose not to use this Checklist but instead use their own framework. This is acceptable so long as they can credibly demonstrate low risk of non-compliance against all woodfuel land criteria on a regional basis.

The risk-based regional approach

- 1.4. The risk-based regional approach is based on the Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) Controlled Wood and Controlled Sources regional risk assessment and draws from the work of other voluntary schemes.
- 1.5. The risk-based regional approach requires generators and suppliers to provide sufficient credible evidence of low risk for non-compliance with all woodfuel land criteria for a defined region, from where they source their woodfuel (see section 1.10 for a definition of region). If operators and suppliers can trace their material back to an area smaller than a region, for example a specific Forest Management Unit (FMU), they can provide evidence for low-risk of non-compliance with the criteria for this smaller area rather than on a regional basis. Credible evidence could for example be relevant legislation and an assessment of its proper implementation and enforcement in this defined region. If credible evidence of low-risk cannot be provided for this defined region and the region has to be considered of risk for non-compliance, generators and suppliers would need to implement risk mitigation activities. This might include implementing sourcing only from approved contractors; undertaking periodic forest/site visits and audits; using vertically integrated forest management operations; reducing the area from which material is harvested from to demonstrate low risk of non-compliance on a local or even forest management unit level. Alternatively, they could change their sourcing practices by avoiding sourcing from an area where low risk of non-compliance cannot be shown.
- 1.6. Third party verifiers/auditors working in accordance with ISAE 3000 (or an equivalent standard) will assess evidence provided by generators under the RO, CfD and RHI participants reporting directly to Ofgem. They will determine whether the evidence is sufficient and credible to show low-risk of non-compliance or whether site visits are required. For biomass suppliers on the Biomass Suppliers List (BSL), it is the List Manager who will determine whether evidence provided is sufficient and credible to show low-risk of non-compliance or whether site visits are required.
- 1.7. During the course of the year, generators and participants must collect **sufficient and credible** evidence to demonstrate they comply with the Timber Standard. At the end of the year, third party verifiers/auditors working in accordance with ISAE 3000 (or an equivalent standard) will assess evidence provided by generators under the RO, CfD and RHI participants reporting directly to Ofgem. Auditors/Verifiers will determine whether this evidence is either '**adequate**' or '**not adequate**'. For biomass suppliers on the Biomass Suppliers List (BSL), it is the List Manager who will determine whether evidence provided is '**adequate**' or '**not adequate**'. It is for the auditor/verifier or for the List Manager to determine how they conduct their audit and whether site visits are required.
- 1.8. The risk-based regional approach is allowed by the Timber Standard because quality timber suitable for construction and solid furniture making commands a significant premium which can cover the cost of certification. However, the low quality wood residues suitable for electricity generation are typically procured at a low cost per tonne. Similarly, much of the woodfuel used by domestic and community heat customers is

likely to be sourced from local forests, including small woodlands that would find voluntary certification costly and complex. Therefore, it is permitted to provide evidence of low-risk for non-compliance with the woodfuel land criteria at a regional level rather than at an individual forest level (or land unit).

- 1.9. The checklist includes the mandatory woodfuel land criteria specified in the Timber Standard, as well as an optional UK-TPP Category B requirement for supply chain management that requires traceability of woodfuel back to a Forest Management Unit (FMU). The Timber Standard does not require woodfuel to be traced back to a specific FMU but to a supply base only (see “What is a Supply Base”). However, if woodfuel is being supplied to a central government department, executive agency, executive non-departmental public body, or non-ministerial government department in England, then it does have to comply with the UK-TPP Category A or Category B requirements. The Timber Standard states that the “the long term goal is to align with the full UK TPP assessment processes as well as its principles which already align with international standards”.
- 1.10. Timber traceable to a forest with a valid felling license and a fully implemented Forest Management Plan in line with the UK Forestry Standard (UKFS) Requirements and Guidelines meets the woodfuel land criteria. In this instance a risk based regional approach (or checklist) would not be required.

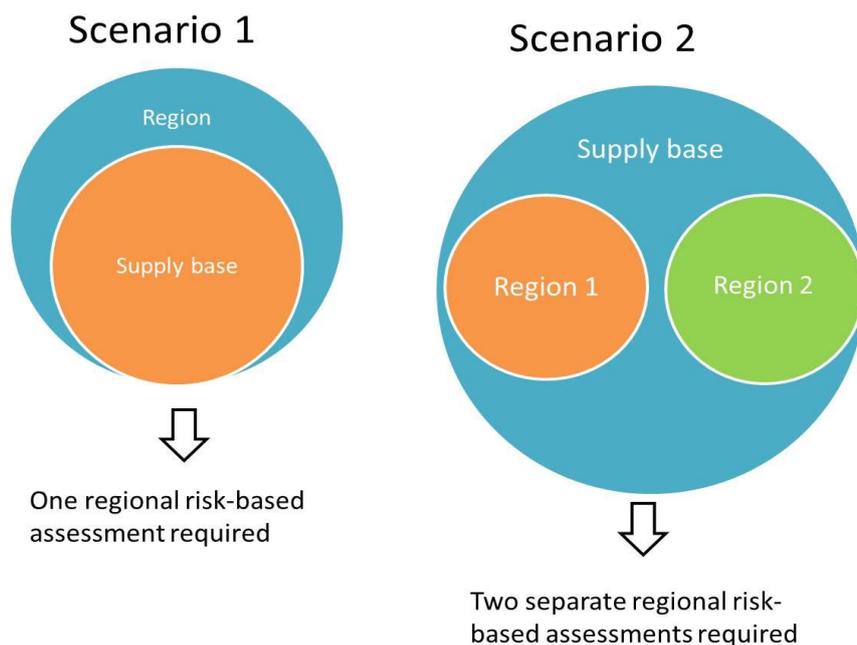
What is a region?

- 1.11. A region can be defined as the *largest area in which reliable and independent information is available at which conditions are sufficiently homogenous to evaluate the risk of non-compliance with the woodfuel land criteria as set out in the Timber Standard.* In a single 'region' we would expect that the following characteristics should be the same:
 - a) legislation covering land ownership, use and harvesting rights
 - b) legislation covering biodiversity, water, air and soil protection
 - c) legislation covering basic labour rights and health and safety of forest workers
 - d) legislation covering waste handling and disease control
 - e) legislation covering tree felling licensing and replanting/regeneration requirements.
- 1.12. Within a region the risk of non-compliance with each woodfuel land criteria will need to be evaluated (see [Woodfuel Advice Note](#) for details of the criteria). For RO and CfD this evaluation is the responsibility of the generator and for the RHI of a supplier on the Biomass Suppliers List, unless they are self-reporting (when it is the RHI participant's responsibility). Only woodfuel determined to be low risk at the regional level for all criteria shall be supplied as 'legal and sustainable'. All virgin wood, or feedstocks made from wood, must⁵ comply with EU Timber Regulation No 995/2010 (EUTR) requirements. Woodfuel cannot be considered 'legal and sustainable' if it is not also legal.

⁵ Legally Harvested is as defined in Article 2 of the EU Timber Regulation No 995/2010 (EUTR)

What is a supply base?

- 1.13. A supply base is the area from which the woodfuel originates. The supply base will vary in location and size depending on the characteristics of the woodfuel used. The supply base needs to be clearly defined, for example on the basis of administrative boundaries. Where there is uncertainty about the location of trees from which the woodfuel was sourced from, for example if co-products from sawmills are included in the woodfuel, then the supply base must be sufficiently expanded to ensure that it covers the area from which the co-products originated i.e. the location of the tree stumps from which the co-product originated. The supply base might also be expanded to ensure that it incorporates not just current inputs but also anticipated future or ad hoc inputs.
- 1.14. All woodfuel used must be **traceable back to a supply base** but the Timber Standard does not require woodfuel to be traceable back to a specific forest management unit.
- 1.15. A supply base can be smaller (see scenario 1 in below diagram) or bigger (see scenario 2 in below diagram) than a region selected for evaluation. If it comprises several regions where wood is sourced from areas with different legislation, generators and suppliers have to complete a risk-based regional assessment for each region contained in the supply base.



- 1.16. Once the supply base is defined the risk of non-compliance with the woodfuel land criteria across the entire supply base must be assessed.

Examples:

- A small chipping operation in SW England sources round timber from local forest owners with which it has long term supply agreements. The chipping operation defines its supply base as the counties of Devon and Cornwall as this covers the origin of all

the round timber that the operation will use in the foreseeable future. The operation defines England as a region and will assess the risk of non-compliance with woodfuel land criteria for England as forestry-related legislation is homogenous across the whole of England.

- A large woodfuel supplier in Northern England sources a variety of inputs including co-products from sawmilling and round timber from a wide range of suppliers within an approximate 150 mile radius. The supplier defines its supply base as the mainland of Great Britain as none of the material it uses, including the harvesting location of the logs feeding the sawmill, is of imported origin. The supplier also defines Great Britain as a region when assessing the risk of non-compliance with woodfuel land criteria.
- A generator sources material which originates from tree stumps located in Latvia, Portugal and the US state of Georgia and defines its supply base as “Latvia, Portugal and the US state of Georgia.” The generator will have to carry out separate risk assessments for these supply bases given that they will be composed of a number of different regions with different regulatory requirements (i.e. Latvia or specific regions of Latvia, Portugal or specific regions of Portugal etc.).

What evidence can I use to demonstrate compliance?

- 1.17. The evidence used to demonstrate low risk of non-compliance with the woodfuel land criteria on a regional basis can vary greatly but must include evaluation against all criteria.
- 1.18. Examples of credible evidence may include:
 - national legislation and credible evidence of implementation and enforcement of this legislation such as a low Corruption Perception Index, or an absence of credible NGO or third party reports showing lack of implementation or enforcement
 - records of best management practices
 - Forest Department statistics and reports, officially approved forest management plans and felling licenses where there is credible evidence of their validity
 - control systems implemented by companies in the supply chain, such as approved supplier lists or supplier audits
 - vertical integration of forest management operations with woodfuel processing operations where processors retain direct control over forest management activities.
- 1.19. In some regions, woodfuel land criteria related to safeguarding the basic labour rights and health and safety of forest workers such as “the effective abolition of child labour” can be effectively demonstrated at the national level by reference to existing legislation and credible evidence of effective implementation of this legislation. In other regions the implementation of legislation may not be effective and other evidence would need to be provided, such as woodfuel suppliers only sourcing from approved contractors and undertaking periodic audits of those contractors and their employment practices and records.

- 1.20. Where there is a break in the chain of custody for Timber Standard Category A evidence (i.e. where a legal owner in the supply chain is not certified) and consequently material cannot carry a Timber Standard Category A claim, Timber Standard Category B evidence must be provided and a regional risk-based approach may be used to demonstrate evidence of compliance with the woodfuel land criteria. The upstream certified parts of the supply chain (supported by Timber Standard Category A evidence) may be used to complement this evidence.
- 1.21. Example:
- A woodfuel user receives chips from a chipping operation without a certification claim. The woodfuel user has credible evidence that the chipping operation takes in logs which are certified under the FSC scheme. The woodfuel user may use this evidence as part of its evidence that the chips are from a 'legal and sustainable' source but would also need to credibly demonstrate how any uncertified logs received by the chipping operation, and which may be contained in the chips received, meet the woodfuel land criteria (or how uncertified logs are excluded from the chips received).
- 1.22. Assessment for partial compliance: Ofgem will be benchmarking voluntary third party-certification schemes against their compliance with the land criteria as defined in the RO, CfD and RHI. If the assessment exercise identifies certification schemes that meet some, but not all of the criteria, Ofgem will publish the list of partially compliant schemes with details of the scheme and the requirements that the scheme does comply with. A generator or supplier sourcing woodfuel certified against these partially compliant schemes will only have to provide sufficient and credible evidence for low-risk of non-compliance with the woodfuel land criteria for the remaining requirements.

How to implement a risk-based regional approach in practice

- 1.23. There are three fundamental steps in completing the risk-based regional approach and in demonstrating that woodfuel meets the woodfuel land criteria:
1. Defining the supply base: It must include all the areas from which woodfuel originates.
 2. Defining the region(s): Conditions must be sufficiently homogenous to evaluate the risk of non-compliance with the woodfuel land criteria.
 3. Determining the risk that woodfuel does not comply with these criteria across this entire supply base and region(s).
 - If the supply base is composed of several regions (e.g see third example in section 1.15), the risk of non-compliance with these criteria must be made separately for each region contained in the supply base.
- 1.24. Credible and sufficient evidence must be provided to demonstrate low risk of non-compliance for all woodfuel land criteria for the woodfuel to be considered 'legal and sustainable'. At least 70% of the mix of consignments must be 'legal and sustainable' in line with the 70/30 threshold (see [Woodfuel Advice Note](#) for further information about the threshold).

Example:

- Company X, an electricity generator, refers to biodiversity legislation and its implementation status in country Z to show low risk of non-compliance with

sustainability criteria S5b covering protection of soil, water and biodiversity for a specific woodfuel consignment. However, several NGOs and scientists have separately published papers and reports recently showing a credible lack of implementation and enforcement of this biodiversity legislation on a national scale in country Z. Company X's provision of evidence and conclusion of low-risk will therefore most likely be judged as non-adequate by the third-party verifier/auditor. Following this, Ofgem will need to consider whether the support that has been awarded under the relevant scheme is still valid. Company X would need to change sourcing practices or implement mitigation measures.

- 1.25. If there is a risk of non-compliance for some of the woodfuel land criteria across the entire supply base then the woodfuel user must:
- redefine the supply base and change sourcing practices to avoid sourcing from a region where there is a risk of non-compliance; An example of this might be exclusion of material from particularly environmentally sensitive areas; and/or
 - implement mitigation measures to reduce the risk of non-compliance with the woodfuel land criteria to low risk; and/or
- 1.26. Mitigation measures will be specific to individual circumstances but may include
- running vertically integrated operations through a combination of directly managed and contracted forest operations; And/or
 - implementing management systems including internal audit and training activities; And/or
 - using approved supplier lists including screening suppliers against woodfuel land criteria and including these criteria in commercial contracts; And/or
 - requiring suppliers to implement best management practices and monitor and audit them accordingly; provide them with training and support to implement woodfuel land criteria.
 - require suppliers to follow a step-wise program towards certification including monitoring of their progress

2. The checklist approach

How do I use the checklist?

- 2.1. The checklist provides a framework for presenting Timber Standard Category B evidence against each of the woodfuel land criteria. Suppliers are expected to use a thorough risk-based regional approach such as the one presented in the following checklist approach or, alternatively, to use their own framework if they can demonstrate low risk of non-compliance for all woodfuel land criteria.
- 2.2. The checklist approach suggests types of evidence that could be used to demonstrate low-risk of non-compliance for each woodfuel land criteria. The following section outlines how the checklist approach is applied to case studies, including two UK case studies, two US case studies, and a case study from a high risk country.
- 2.3. The left hand column of the checklist identifies the source of the requirement such as the Timber Standard or the UK-TPP. The middle column sets out examples of evidence that might be provided to demonstrate low risk of non-compliance with the requirements. Note that appropriate credible evidence will vary depending on the different contexts and the complexity of supply chains. The guidance column details the intent of the requirement and further explanation as to why and how evidence should be provided.
- 2.4. Generators and suppliers sourcing woodfuel from the same region are likely to share similar risks in relation to compliance with the woodfuel land criteria and may be able to use or reference the same risk assessment. However, they must take into account any variations in the scale and complexity of sourcing activities of different entities and are individually responsible for providing sufficient and credible evidence for compliance with the woodfuel land criteria. Ultimately, third party verifiers/auditors for generators or the BSL List Manager for suppliers will assess if evidence provided is adequate or non-adequate.

The case studies

- 2.5. The remaining chapters apply the checklist approach to the following case studies:
 - UK electricity supply chain 1: This UK based biomass producer supplies material to a UK electricity generator using a variety of raw materials which are 100% sourced from the UK, predominantly mainland GB including Scotland, England and Wales but occasionally with material originating from Northern Ireland. The regional risk assessment for the UK case study is based on the current regulatory framework with reference to effective implementation of this framework.
 - UK RHI supply chain 2: This small UK based woodchip producer is on the BSL and supplies the majority of his production to a heat boiler installed at a nearby school and hospital in Kent, England. He sources on average 40% of its woodfuel from arboricultural residues and 60% of thinnings and co-products from clearfell from local woodlands, all within 20 miles of the producer's facility. He defines his supply base as the county of Kent and the region as England. Similarly to UK case study 1, the regional

risk assessment for England is based on the current regulatory framework with reference to effective implementation of this framework.

- US supply chain 1: Company A is a pellet producer located in region A who supplies a UK Power Station. Its supply base extends for an approximate radius of 70 miles and is only composed of pine, with the majority of it being purchased through two main suppliers. In both US case studies, the regional risk assessment is based on a combination of the regulatory framework with reference to its implementation as well as on management systems implemented by the woodfuel producers themselves, such as monitoring performance of their suppliers.
- US supply chain 2: Company B is a pellet manufacturer situated in region B who supplies a UK power station. Its supply base extends for an approximate radius of 75 miles with the majority of it being sourced from forests which are predominantly made up of loblolly-shortleaf and gum-oak-cypress species. Procurement is focussed on hardwood species that are purchased through a range of different suppliers.
- Supply chain in a high risk country: This woodfuel supplier sources from State X in country Y that is characterised by a high corruption perception index and poor implementation and enforcement of legislation and regulation as highlighted in numerous scientific papers and NGO reports. Consequently, the supplier cannot conclude that there is low risk of non-compliance with the woodfuel land criteria in his supply base and takes a more proactive role to ensure compliance. The supplier operates a vertically integrated operation and implements comprehensive management systems to mitigate the risk.
- Note that these case studies do **not represent a definitive statement of acceptable evidence nor can they be considered minimum requirements**. Contexts and conditions change frequently and specific local conditions may need to be taken into account when providing evidence. Ultimately, it will be up to third party verifiers/auditors for generators or the List Manager for suppliers to assess whether evidence provided is adequate or non-adequate.

2.7 The checklist

The checklist has the following structure:

- i. Credibility requirements (Timber Standard requirements S1 – S4)
- ii. Definition of the Supply Base (Timber Standard requirement)
- iii. Sustainability requirements (Timber Standard requirements S5 – S10)
- iv. Supply Chain Management applicable at the forest level (optional UK-TPP Category B requirement 1.1-1.4)

i. Credibility requirements

Timber Standard Requirement	Examples of possible Evidence	Guidance
<p>S1. The definition must be consistent with a widely accepted set of international principles and criteria defining sustainable or responsible forest management at the forest management unit level.</p> <p>S2. The definition must be performance-based, meaning that measurable outputs must be included and cover all of the issues set out in S5 to S10.</p> <p>S3. The process of defining sustainable must seek to ensure balanced representation and input from the economic, environmental and social interest categories.</p> <p>S4. The process of defining sustainable must seek to ensure:</p> <p>a. no single interest can dominate the process for setting or changing the policy;</p> <p>and</p> <p>b. no decision on the contents of the policy can be made in the absence of agreement from the majority of an interest category.</p>	<ul style="list-style-type: none"> • proactive engagement with stakeholders. • appropriate responsiveness to stakeholder comments. • transparency in results and evidence gathering approach. • evidence is objective and performance based. • maintenance of records of stakeholder comments and complaints. 	<p>This requirement relates to the process by which the other legality and sustainability requirements can be demonstrated to have been complied with. This requirement relates to both the evidence used and the process for gathering the evidence.</p>

ii. Definition of the Supply Base

Timber Standard Requirement	Examples of possible evidence	Guidance
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<p>1.1. Woodfuel meets the Timber Standard for Heat & Electricity if it originates from an independently verifiable legal and sustainable source and appropriate documentation is provided to prove it.</p>	<p>The Supply Base is defined and mapped.</p> <ul style="list-style-type: none"> • the scope is defined and justified • maps to the appropriate scale are available • key personnel demonstrate an understanding of the Supply Base 	<p>The description of the Supply Base and accompanying maps should be appropriate to its size and any variation within it.</p>
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iv. Sustainability requirements

Timber Standard Requirement	Examples of possible Evidence	Guidance
<p>S5. Management of the forest must ensure that harm to ecosystems is minimised. In order to do this the policy must include requirements for:</p> <p>a. appropriate assessment of impacts and planning to minimise impacts</p>	<p>Appropriate assessment of impacts, and planning, implementation and monitoring to minimise them.</p> <ul style="list-style-type: none"> • regional Best Management Practices • supply contracts • assessment of potential impacts at operational level • assessment of measures to minimise impacts • monitoring results • publicly available information on protecting the values identified • level of enforcement • regional, publicly available data from a credible third party • the existence of a strong legal framework in the region. 	<p>Potential impacts of woodfuel harvesting on ecosystems and biodiversity should be identified, with mitigation measures implemented in the field as necessary. Impacts should be monitored and there should be a mechanism to feed monitoring results back into operational practice.</p> <p>Impacts include those originating in the area of operation but impacting outside the area of operation, such as downstream.</p> <p>Suppliers may require suppliers and forest owners to adopt specific Best Management Practices and to be certified for certain tasks. These should be specified in purchasing or procurement policies.</p>

Timber Standard Requirement	Examples of possible Evidence	Guidance
b. protection of soil, water and biodiversity	<ul style="list-style-type: none"> • regional Best Management Practices • supply contracts • records of Supplier’s field inspections • assessment at an operational level of measures designed to minimise impacts on the values identified • monitoring records • interviews with staff • publicly available information on the protection of soil, water and biodiversity • level of enforcement • regional, publicly available data from a credible third party • the existence of a strong legal framework in the region. 	<p>Potential impacts of woodfuel harvesting on soil, water and biodiversity should be identified, with mitigation measures implemented in the field as necessary. Impacts should be monitored and there should be a mechanism to feed monitoring results back into operational practice.</p> <p>Suppliers may require suppliers and forest owners to adopt specific Best Management Practices and to be certified for certain tasks. These should be specified in purchasing or procurement policies.</p>
c. controlled and appropriate use of chemicals and use of Integrated Pest Management wherever possible	<ul style="list-style-type: none"> • existing legislation • level of enforcement • regional Best Management Practices • supply contracts • records of Supplier’s field inspections • operational assessment of measures designed to minimise impacts on the values identified • monitoring records • interviews with staff • regional, publicly available data from a 	<p>The requirement relates to current and ongoing use rather than historic use.</p> <p>If chemicals are used, proper equipment and training should be provided to minimise health and environmental risks.</p> <p>Chemical use should be justified, and there should be evidence that non-chemical alternatives have been considered.</p> <p>There should be evidence that the options for implementing IPM have been considered and where appropriate, IPM is being implemented.</p> <p>Suppliers may require suppliers and forest owners to adopt specific Best Management Practices and to be certified for certain tasks. These should be specified in purchasing or procurement policies.</p>

Timber Standard Requirement	Examples of possible Evidence	Guidance
	credible third party <ul style="list-style-type: none"> • the existence of a strong legal framework in the region. 	
d. proper disposal of wastes to minimise any negative impacts	<ul style="list-style-type: none"> • regional Best Management Practices • supply contracts • operational Assessment of potential impacts and of measures to minimise impact • monitoring results. 	Waste is defined as any substance or object that the holder discards or intends to discard, or is required to discard. Ref: 2008 Waste Framework Directive (Directive 2008/98/EC)
S6. Management of the forest must ensure that productivity of the forest is maintained. In order to achieve this, the policy must include requirements for:		
a. management planning and implementation of management activities to avoid significant negative impacts on forest productivity	Harvest levels are justified by inventory and growth data. <ul style="list-style-type: none"> ▪ harvesting records, inventory and growth data and yield calculations demonstrate that woodfuel harvesting rates are not having significant negative impacts on forest productivity and long-term economic viability ▪ documentation of Operational Practice. 	Evaluation should cover the entire Supply Base and, where appropriate, should be based on regional markers, such as growth/drain, inventory, mortality, and age class distribution.
b. monitoring which is adequate to check compliance with all requirements, together with review and	Monitoring records and planning documents providing evidence of adequate management and monitoring	Compliance should be determined by: <ul style="list-style-type: none"> ▪ the existence of a monitoring plan ▪ the implementation of a monitoring programme

Timber Standard Requirement	Examples of possible Evidence	Guidance
feedback into planning		<ul style="list-style-type: none"> ▪ adequate resourcing of monitoring functions ▪ feedback of monitoring results into management planning.
c. operations and operational procedures which minimise impacts on the range of forest resources and services	<ul style="list-style-type: none"> • existing legislation • level of enforcement • supply contracts • records of Supplier's field inspections • monitoring records • interviews with staff. 	<p>Forest services, not specifically covered elsewhere in this standard indicate forest health and vitality. These include functions that the forests provide for people and/or the environment, such as:</p> <ul style="list-style-type: none"> a) erosion control b) flood control c) access for recreation, where possible. <p>There should be ongoing maintenance and improvement for other forest services provided, such as access for recreation.</p>
d. adequate training of all personnel, both employees and contractors	<ul style="list-style-type: none"> • existing legislation • level of enforcement ▪ supply contracts • records of Supplier's field inspections • monitoring records • interviews with staff • training plans, training records, and records of qualifications. 	<p>Adequate training provision should include assessment of training needs, and the delivery of training programmes.</p>
e. harvest levels that do not exceed the long-term production capacity of the forest based on adequate inventory and growth and yield data	<ul style="list-style-type: none"> • harvesting records, inventory and growth data and yield calculations demonstrate that woodfuel harvesting rates are not having significant negative impacts on forest productivity and long-term economic viability • documentation of Operational Practice. 	<p>Calculations show that woodfuel harvesting does not exceed the long-term production capacity of the forest, avoids significant negative impacts on forest productivity and ensures long-term economic viability. Harvest levels are justified by inventory and growth data.</p> <p>Evaluation must cover the entire Supply Base and, where appropriate, should be based on regional markers, such as growth/drain, inventory, mortality, and age class distribution.</p>

Timber Standard Requirement	Examples of possible Evidence	Guidance
<p>S7. Management of the forest must ensure that ecosystem health and vitality is maintained. In order to achieve this, the definition of sustainable must include requirements for:</p>		
<p>a. management planning which aims to maintain or increase the health and vitality of ecosystems</p>	<ul style="list-style-type: none"> • overall evaluation of potential impacts of operations on forest ecosystem health and vitality • assessment of potential impacts at operational level and of measures to minimise impacts • regional Best Management Practices • supply contracts • monitoring results. 	<p>Health and vitality of the forest ecosystem relate to the resilience of the ecosystem to withstand change. Indicators of health and vitality may include the level of disturbance observed, changes in biodiversity, and the presence or absence of keystone 'indicator' species.</p> <p>Relevant ecological functions and values may include:</p> <ul style="list-style-type: none"> a) forest regeneration and succession b) genetic, species and ecosystem diversity c) natural cycles affecting productivity of the forest ecosystem
<p>b. management of natural processes, fires, pests and diseases</p>	<ul style="list-style-type: none"> • regional Best Management Practices • supply contracts • assessment of potential impacts at operational level and of measures to minimise impacts • monitoring results • regional, publicly available data from a credible third party • the existence of a strong legal framework in the region. 	<p>Appropriate management of such situations will depend upon the forest type, management objectives and local best practice and guidance.</p> <p>Fire, for example, may be an appropriate and necessary natural process in some forest types and seasons, and inappropriate in others. Where they are natural and necessary, the characteristics of any fire control interventions will be different to those taking place in forests where fire is not naturally part of their ecology.</p> <p>Pests and diseases also need to be managed appropriately, and this will vary according to management objectives. In conservation areas, for example, it may not always be appropriate to attempt eradication of certain pests and diseases.</p> <p>Where pesticides and other chemicals are used to address pests and diseases,</p>

Timber Standard Requirement	Examples of possible Evidence	Guidance
		<p>regional and other best management practices must be adhered to.</p> <p>Control systems and procedures should, define appropriate management practice for the particular forest type and region.</p>
<p>c. Adequate protection of the forest from unauthorised activities such as illegal logging, mining and encroachment.</p>	<ul style="list-style-type: none"> • maps • records of Supplier’s field inspections • monitoring records • interviews with staff • publicly available information 	<p>Where the forest owner or management organisation is not legally able to protect the forest fully, there must be a system for working with appropriate regulatory bodies to identify, report, control and discourage unauthorised activity within the forest.</p> <p>Where illegal/ unauthorised activities are detected, appropriate action should be taken.</p> <p>Control systems and procedures must firstly stipulate the adequate protection measures for the particular forest type and region, and secondly, verify that these are being implemented.</p>
<p>S8. Management of the forest must [seek to] ensure that biodiversity is maintained. In order to achieve this, there must be:</p>		
<p>a. implementation of safeguards to protect rare, threatened and endangered species</p>	<ul style="list-style-type: none"> • internet research • maps • interviews • regional, publicly available data from a credible third party • the existence of a strong legal framework in the region 	<p>Sources of information include:</p> <p>The High Conservation Value Network: http://www.hcvnetwork.org/</p> <p>Sustainable Forestry Initiative (SFI): Section 6: Guidance to SFI 2015-2019 Standard, January 6. 2014</p> <p>Forests with Exceptional Conversation Value: http://www.sfiprogram.org/files/pdf/draft-sfi-2015-2019-standard-section-6/</p> <p>NatureServe: http://www.natureserve.org/</p> <p>The Global Forestry Risk Register: http://www.globalforestregistry.org/</p>

Timber Standard Requirement	Examples of possible Evidence	Guidance
b. the conservation/set-aside of key ecosystems or habitats in their natural state	<ul style="list-style-type: none"> maps, Standard Operating Procedures, Codes of Practice and monitoring records indicate that appropriate safeguards are implemented 	<p>Key ecosystems or habitats include areas with statutory designations or high conservation value. Such conservation of set aside areas need to be of sufficient size or suitably connected with other similar areas to ensure their long-term viability.</p> <p>Potential reference sources include:</p> <p>RSB Conservation Impact Assessment Guidelines RSB-GUI-01-007-01.</p>
c. the protection of features and species of outstanding or exceptional value	<ul style="list-style-type: none"> maps guidance provided by Suppliers to suppliers/forest operators, regarding threats to the identified forests and areas of high conservation values, and verification of conformance through field inspections regional Best Management Practices Standard Operating Procedures codes of practice records of Supplier's field inspections monitoring records interviews with staff publicly available information on the protection of the values identified 	<p>The potential impacts of management activities on forests and other areas with high conservation values and biodiversity should be evaluated, and Suppliers should have systems in place to verify that mitigation measures are implemented in the field.</p> <p>There is communication with suppliers/forest operators, and they are provided with records of meetings, talks, workshops, etc.</p> <p>Impacts include those originating in the area of operation but impacting outside the area of operation, such as downstream.</p> <p>Sources of information include:</p> <p>The High Conservation Value Network: http://www.hcvnetwork.org/</p> <p>Sustainable Forestry Initiative (SFI): Section 6: Guidance to SFI 2015-2019 Standard, January 6. 2014</p> <p>Forests with Exceptional Conversation Value http://www.sfiprogram.org/files/pdf/draft-sfi-2015-2019-standard-section-6/</p> <p>NatureServe: http://www.natureserve.org/</p> <p>The Global Forestry Risk Register: http://www.globalforestregistry.org/</p>
S9. The forest management organisation and any		

Timber Standard Requirement	Examples of possible Evidence	Guidance
contractors must comply with local and national legal requirements relevant to:		
a. labour and welfare	<ul style="list-style-type: none"> • existing legislation • level of enforcement • supply contracts • records of Supplier's field inspections • monitoring records • interviews with staff • payroll records <p>Company policies indicating that the requirements are met.</p>	
b. health and safety	<ul style="list-style-type: none"> • existing legislation • level of enforcement • supply contracts • records of Supplier's field inspections • monitoring records • interviews with staff 	Appropriate safeguards include the requirement to identify risks, to provide appropriate training courses, and to provide appropriate Personal Protective Equipment (PPE).
S10. Management of the forest must have full regard for:		
a. identification, documentation and respect of legal, customary and traditional tenure and use rights related to the forest	<ul style="list-style-type: none"> • existing legislation • level of enforcement • documentation showing legal ownership patterns in the region, level of enforcement, records of disputes over land tenure, etc. In situations where customary rights govern use and access, these rights are clearly identifiable and 	<p>The requirement includes ILO convention 169, which relates to the rights of indigenous and tribal peoples.</p> <p>Indigenous peoples and local communities should be allowed to control and protect their rights and resources, unless they have chosen to delegate control with free and informed consent.</p> <p>Indigenous peoples and local communities should be fully compensated for appropriation of traditional community knowledge or intellectual property.</p>

Timber Standard Requirement	Examples of possible Evidence	Guidance
	<p>agreements exist regarding these rights.</p> <ul style="list-style-type: none"> • long term unchallenged use • Interviews with indigenous peoples, local communities and other stakeholders, indicate that their rights are being respected. • Appropriate mechanisms exist to resolve disputes. 	<p>Appropriate mechanisms should be in place to resolve disputes over tenure claims and use rights.</p> <p>Substantial disputes involving multiple interests will normally prevent this Indicator from being considered Low Risk.</p> <p>Factors affecting the risks of compliance will include the effectiveness of the land tenure system in place in the Supply Base.</p> <p>Where there are, or have been, disputes, evidence should be available that fair compensation has been made to previous owners and occupants, and that this has been accepted with Free, Prior and Informed Consent (FPIC).</p>
<p>b. mechanisms for resolving grievances and disputes including those relating to tenure and use rights, to forest (or land) management practices and to work conditions</p>	<ul style="list-style-type: none"> • existing legislation • level of enforcement • regional Best Management Practices • supply contracts • records of Supplier's field inspections • monitoring records • interviews with staff 	<p>Mechanisms for resolving complaints and grievances at the workplace level may be incorporated into existing legislation. Grievances related to tenure and use rights may require additional mechanisms where appropriate.</p> <p>Potential reference sources include:</p> <p>RSB-GUI-01-005-01: <i>Social Impact Assessment Guidelines</i></p> <p>RSB-GUI-01-012-01: <i>Land Rights Guidelines</i></p>
<p>c. safeguarding the basic labour rights and health and safety of forest workers</p>	<ul style="list-style-type: none"> • existing legislation • level of enforcement • supply contracts • records of Supplier's field inspections • monitoring records • interviews with staff • payroll records • Company policies indicating that the requirements are met. 	<p>Basic labour rights include</p> <ul style="list-style-type: none"> • freedom of association and the effective recognition of the right to collective bargaining • the elimination of all forms of compulsory or forced labour • the effective abolition of child labour • the elimination of discrimination in respect of employment and occupation. <p>The Indicator must be met in countries where ILO conventions have not been ratified.</p> <p>The following ILO conventions have not</p>

Timber Standard Requirement	Examples of possible Evidence	Guidance
		<p>been ratified in all countries.</p> <ul style="list-style-type: none"> • ILO Declaration on Fundamental Principles and Rights at Work (1998) based on the eight ILO Core Labour Conventions • ILO Convention 98 (Right to Collective Bargaining) • ILO Convention 87 (Freedom of Association) • ILO Convention 135 (Workers Representatives Convention). <p>‘Compulsory labour’ is defined as “All work or service that a person has not offered to do voluntarily and is made to do under the threat of punishment or retaliation, or is demanded as a means of repayment of debt”.</p> <p>See ILO Conventions 29 and 105 (Forced & Bonded Labour).</p> <p>Child labour is defined as any work performed by a child younger than the age stipulated below, except as provided for by ILO Recommendation 146.</p> <p>Definition of a child: any person less than 15 years of age, unless the minimum age for work or mandatory schooling is stipulated as being higher by local law, in which case the stipulated higher age applies in that locality.</p> <p>See ILO Convention 138 & Recommendation 146 (Minimum Age and Recommendation).</p> <p>ILO Conventions 100 (Equal remuneration for male and female workers for work of equal value) and 111 (Discrimination)</p> <p>Appropriate safeguards include</p> <ul style="list-style-type: none"> • the requirement to identify risks,

Timber Standard Requirement	Examples of possible Evidence	Guidance
		<ul style="list-style-type: none"> • to provide appropriate training courses, and • to provide appropriate Personal Protective Equipment (PPE).

v. Optional UK-TPP Category B requirement - Supply Chain Management applicable at the forest level

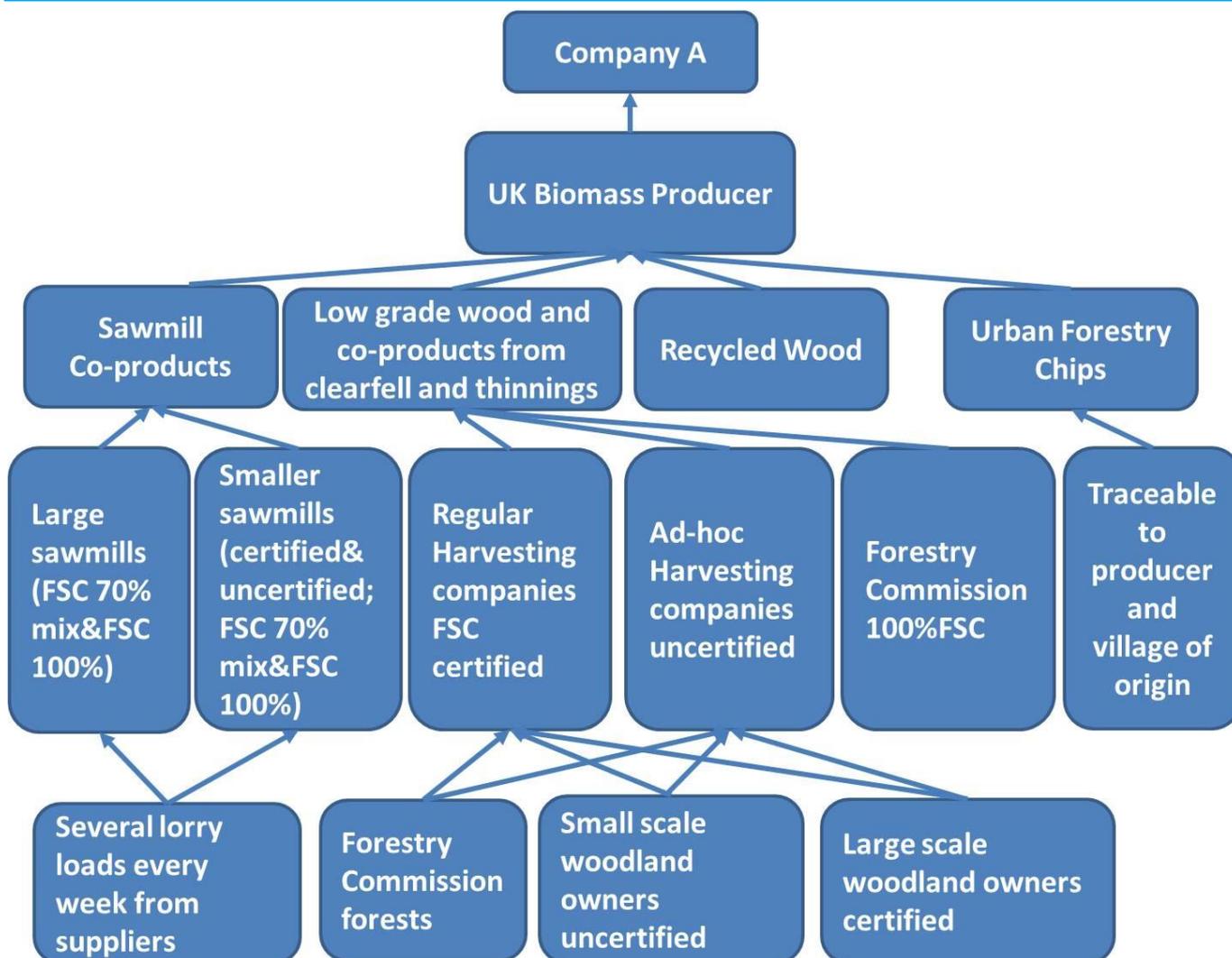
UK-TPP Requirement (optional)	Examples of possible Evidence	Guidance
<p>Woodfuel can be traced back to the defined Supply Base.</p> <p>1.1 Is the supply chain clearly described and complete from point of supply back to the forest source(s)?</p> <p>1.2 Has an adequate mechanism for preventing uncontrolled mixing or substitution been described for each stage in the supply chain?</p> <p>1.3 Has information been provided on how the mechanisms in 1.2 are checked/verified and is the approach used adequate to confirm the mechanisms described are in place and functional?</p> <p>1.4 Is the evidence provided, or available, adequate to confirm the information provided is accurate?</p>	<ul style="list-style-type: none"> • transport documentation • woodfuel input records • existing legislation • level of enforcement • implementation of procedures to avoid mixing • woodfuel inputs, including species and volumes, are consistent with the defined Supply Base • transport documentation and goods-in records are compatible. 	<p>Woodfuel claimed to have originated from the Supply Base can be traced back to that Supply Base.</p> <p>Reference</p> <p>CPET Practical Guides: Category B evidence, supply chain information.</p>

3. Checklist approach: UK case study 1 – electricity biomass supplier

- 3.1. The following risk-based regional assessment case study is for a UK based biomass producer who supplies to a UK power station. The company uses a variety of raw materials which are entirely sourced from the UK, predominantly mainland Great Britain including Scotland, England and Wales but occasionally with material originating from Northern Ireland.
- 3.2. The company asserts that there is low-risk of non-compliance with the woodfuel land criteria in the UK as a region. In addition, it uses the checklist to identify additional measures taken to ensure that the biomass it uses is in compliance, which includes sample audits of suppliers and sample audits of felling licences. The company operates on a risk-based approach, with increased checks on supplies which are received from new suppliers for example.
- 3.3. The rationale for the determination of low risk at the UK regional level is as follows:
 - All commercial timber in the UK must be felled with a felling license.
 - [http://www.forestry.gov.uk/pdf/trefellingaugust.pdf/\\$FILE/trefellingaugust.pdf](http://www.forestry.gov.uk/pdf/trefellingaugust.pdf/$FILE/trefellingaugust.pdf)
 - The Forestry Commission estimates that significantly less than 1% of UK timber on the market is illegal.
 - 44% of the total woodland area in the UK is FSC/PEFC certified. The 56% of uncertified woodland contains a very large area of 'unmanaged' woodland. The Company is aware that more timber is grown within the scope of an FSC or PEFC forest management certificate in the UK than is sold with a corresponding FSC or PEFC claim.
 - The Company estimates that of the remaining timber from uncertified woodlands that is traded 2/3 is supplied under the scope of a UK Forest Standard approved management plan, which has been approved by the regulatory authorities, including the Forestry Commission for England and Scotland, Natural Resource Wales (NRW) for Wales and the Forest Service for Northern Ireland.
 - The Company considers that of the remaining uncertified timber traded 1/3 is covered by a felling licence. Although the incidence of illegally harvested timber is low it undertakes a program of spot checks on 10% of all contracts which are not FSC/PEFC certified to ensure that they are covered by a corresponding valid felling licence. Where timber is offered outside of long term contracts or not from regular suppliers then the Company requires the supplier to provide a felling licence covering the incoming material.
 - From when the RO and RHI 2015 orders will come into effect, the UK Government will provide exception for arboricultural residues which do not require a felling license but are considered to come from a sustainable source.

- Timber removed for infrastructure projects must comply with planning legislation which includes statutory and public consultation processes.
- The felling license process includes a 28 day period of statutory and public consultation, with all applications being placed on a public register - <http://www.forestry.gov.uk/publicregisters>.
- Felling licenses are only granted where the Forestry Commission for England and Scotland, NRW and the Forest Service for Northern Ireland are satisfied that the social and environmental criteria in the UKFS are met.
- The determination of sustainability is therefore an open, transparent and consultative process throughout UK, and all stakeholders have the opportunity to comment on any application.
- The risk of non-compliance with these requirements in the UK can be considered to be low risk.
- Additional guidance is provided in the document [CPET Guidance for the Growers of Timber in the UK](#)
- See <http://www.forestry.gov.uk/ukfs>

UK biomass producer supply chain map



Disclaimer: Please note that this supply chain map is only for illustrative purposes and is not intended to give any guidance about how to define consignment or to use the carbon calculator.

i. Credibility requirements

Timber Standard Requirement	Evidence provided
<p>S1. The definition must be consistent with a widely accepted set of international principles and criteria defining sustainable or responsible forest management at the forest management unit level.</p> <p>S2. The definition must be performance-based, meaning that measurable outputs must be included and cover all of the</p>	<p>All commercial timber in the UK must be felled with a felling license.</p> <p>http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/\$FILE/treefellingaugust.pdf</p> <p>Timber removed for infrastructure projects must comply with planning legislation which includes statutory and public consultation processes.</p>

<p>issues set out in S5 to S10.</p> <p>S3. The process of defining sustainable must seek to ensure balanced representation and input from the economic, environmental and social interest categories.</p> <p>S4. The process of defining sustainable must seek to ensure:</p> <p>a. no single interest can dominate the process for setting or changing the policy; and</p> <p>b. no decision on the contents of the policy can be made in the absence of agreement from the majority of an interest category.</p>	<p>The felling license process includes a 28 day period of statutory and public consultation, with all application being place on a public register http://www.forestry.gov.uk/publicregisters</p> <p>Felling licenses are only granted where the Forestry Commission for England and Scotland, NRW for Wales and the Forest Service for Northern Ireland are satisfied that the social and environmental criteria in the UKFS are met.</p> <p>The determination of sustainability is therefore an open, transparent and consultative process through the UK, and all stakeholders have the opportunity to comment on any application.</p> <p>The risk of non-compliance with these requirements in the GB can be considered to be low.</p> <p>See http://www.forestry.gov.uk/ukfs</p>
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ii. Definition of the Supply Base

Timber Standard Requirement	Evidence provided
<p>1.1. Woodfuel meets the TS for Heat & Electricity if it originates from an independently verifiable legal and sustainable source and appropriate documentation is provided to prove it.</p>	<p>The Company sources a variety of raw materials solely from UK predominantly mainland GB, including Scotland, England and Wales and occasionally from material originating from Northern Ireland.</p> <p>The company defines its supply base as the United Kingdom of Great Britain, including Scotland, England and Wales and Northern Ireland.</p>

iv. Sustainability requirements

Timber Standard Requirement	Evidence provided
<p>S5. Management of the forest must ensure that harm to ecosystems is minimised. In order to do this the policy must include requirements</p>	<p>44% of the total woodland area in the UK is independently certified. The remaining 56% of uncertified woodland contains a very large area of 'unmanaged' woodland.</p>

Timber Standard Requirement	Evidence provided
<p>for:</p> <p>a. appropriate assessment of impacts and planning to minimise impacts</p>	<p>The uncertified timber that the company receives is either from woodlands managed under an approved UKFS management plan and covered by a valid UKFS Felling licence which includes statutory and public consultation and approval by the regulatory authority or is at least covered by a valid UKFS Felling licence.</p> <p>This item is adequately covered under the PEFC/FSC certification process and also in woodlands managed under a UKFS approved management plan.</p> <p>For timber harvested under a UKFS felling licence the felling licence must be approved by the regulatory authority and may be inspected.</p> <p>All woodlands must be managed in compliance with the statutory legislation which is actively enforced in the UK.</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/inf-d-8bveh4</p>
<p>b. protection of soil, water and biodiversity</p>	<p>As 5a above.</p> <p>See http://www.forestry.gov.uk/ukfs</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/inf-d-8bveh4</p> <p>UKFS and Water http://www.forestry.gov.uk/forestry/inf-d-8bvqx9</p> <p>UKFS and Soil http://www.forestry.gov.uk/forestry/inf-d-8bvqk</p>
<p>c. controlled and appropriate use of chemicals and use of Integrated Pest Management wherever possible</p>	<p>As 5a above.</p> <p>There is a UK pesticide policy to regulate and minimise the use of pesticides in UK Forestry http://www.forestry.gov.uk/forestry/INFD-76LGM7</p> <p>Extensive guidance and resource is available to support integrated pest management http://www.forestry.gov.uk/forestry/INFD-76LGSN</p>
<p>d. proper disposal of wastes to minimise any negative impacts</p>	<p>As 5a above.</p> <p>Waste management is tightly regulated in UK forests http://www.sepa.org.uk/planning/forestry.aspx</p>
<p>S6. Management of the forest must ensure that productivity of the forest</p>	

Timber Standard Requirement	Evidence provided
is maintained. In order to achieve this, the policy must include requirements for:	
a. management planning and implementation of management activities to avoid significant negative impacts on forest productivity	As 5a above.
b. monitoring which is adequate to check compliance with all requirements, together with review and feedback into planning	As 5a above.
c. operations and operational procedures which minimise impacts on the range of forest resources and services	As 5a above.
d. adequate training of all personnel, both employees and contractors	As 5a above.
e. harvest levels that do not exceed the long-term production capacity of the forest based on adequate inventory and growth and yield data	As 5a above.
S7. Management of the forest must ensure that ecosystem health and vitality is maintained. In order to achieve this, the definition of sustainable must include requirements for:	
a. management planning which aims to maintain or increase the health and vitality of ecosystems	As 5a above.
b. management of natural processes, fires, pests and diseases	As 5a above. Additionally the regulatory authority has active polices for control of pests and diseases including the imposition of plant health restrictions, timber movement restrictions and enforced felling.
c. Adequate protection of the forest from unauthorised activities such as illegal logging, mining and encroachment	As 5a above.

Timber Standard Requirement	Evidence provided
S8. Management of the forest must [seek to] ensure that biodiversity is maintained. In order to achieve this, there must be:	
a. implementation of safeguards to protect rare, threatened and endangered species	<p>As 5a above.</p> <p>Note also that statutory regulatory authorities with responsibility for protecting and safeguarding rare, threatened and endangered species are included in the statutory consultation process.</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/infd-8bveh4</p>
b. the conservation/set-aside of key ecosystems or habitats in their natural state	<p>As 5a above.</p> <p>Note also that statutory regulatory authorities with responsibility for conservation/set-aside of key ecosystems or habitats are included in the statutory consultation process.</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/infd-8bveh4</p>
c. the protection of features and species of outstanding or exceptional value	<p>As 5a above.</p> <p>Note also that statutory regulatory authorities with responsibility for protection of features and species of outstanding or exceptional value are included in the statutory consultation process.</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/infd-8bveh4</p>
S9. The forest management organisation and any contractors must comply with local and national legal requirements relevant to:	
a. labour and welfare	<p>As 5a above.</p> <p>Note that there is extensive labour and welfare legislation in the UK which is actively enforced.</p>
b. health and safety	<p>As 5a above.</p> <p>Note that there is extensive labour and welfare legislation in the UK which is actively enforced.</p> <p>A list of health and safety regulation is included at the end of this checklist.</p>
S10. Management of the forest must	

Timber Standard Requirement	Evidence provided
have full regard for:	
<p>a. identification, documentation and respect of legal, customary and traditional tenure and use rights related to the forest</p>	<p>Legal, customary and traditional tenure and use rights are protected through the UK legal system which is actively enforced. There are no indigenous peoples in the UK.</p> <p>Traditional tenure and use rights of local communities related to the forest are identified, documented and respected in forests certified to FSC/PEFC and those managed under an approved UKFS Management plan.</p> <p>For the remaining 5% of woodland these traditional tenure and use rights of local communities related to the forest may not be documented.</p> <p>The company considers that within this small proportion the risk that these rights are not respected is very low.</p> <p>Consideration and consultation on these use rights is made during the felling licence consultation process.</p>
<p>b. mechanisms for resolving grievances and disputes including those relating to tenure and use rights, to forest (or land) management practices and to work conditions</p>	<p>There are active mechanisms in the UK for resolving disputes relating to use rights, to forest (or land) management practices and to work conditions.</p>
<p>c. safeguarding the basic labour rights and health and safety of forest workers.</p>	<p>Basic labour rights and health and safety of forest workers are safeguarded through the UK legal system which is actively enforced.</p> <p>Freedom of association and the effective recognition of the right to collective bargaining are included in UK legislation which is actively enforced. There is a very low risk of compulsory or forced labour in the UK. There is a low risk of child labour in the UK. Elimination of discrimination in respect of employment and occupation is included in UK legislation which his actively enforced.</p> <p>Forestry was specifically exempted from UK Gangmasters legislation.</p> <p>http://www.gla.gov.uk/Guidance/Information-on-Licensing/Forestry/</p>

v. Optional UK-TPP Category B requirement – Supply Chain Management applicable at the forest level

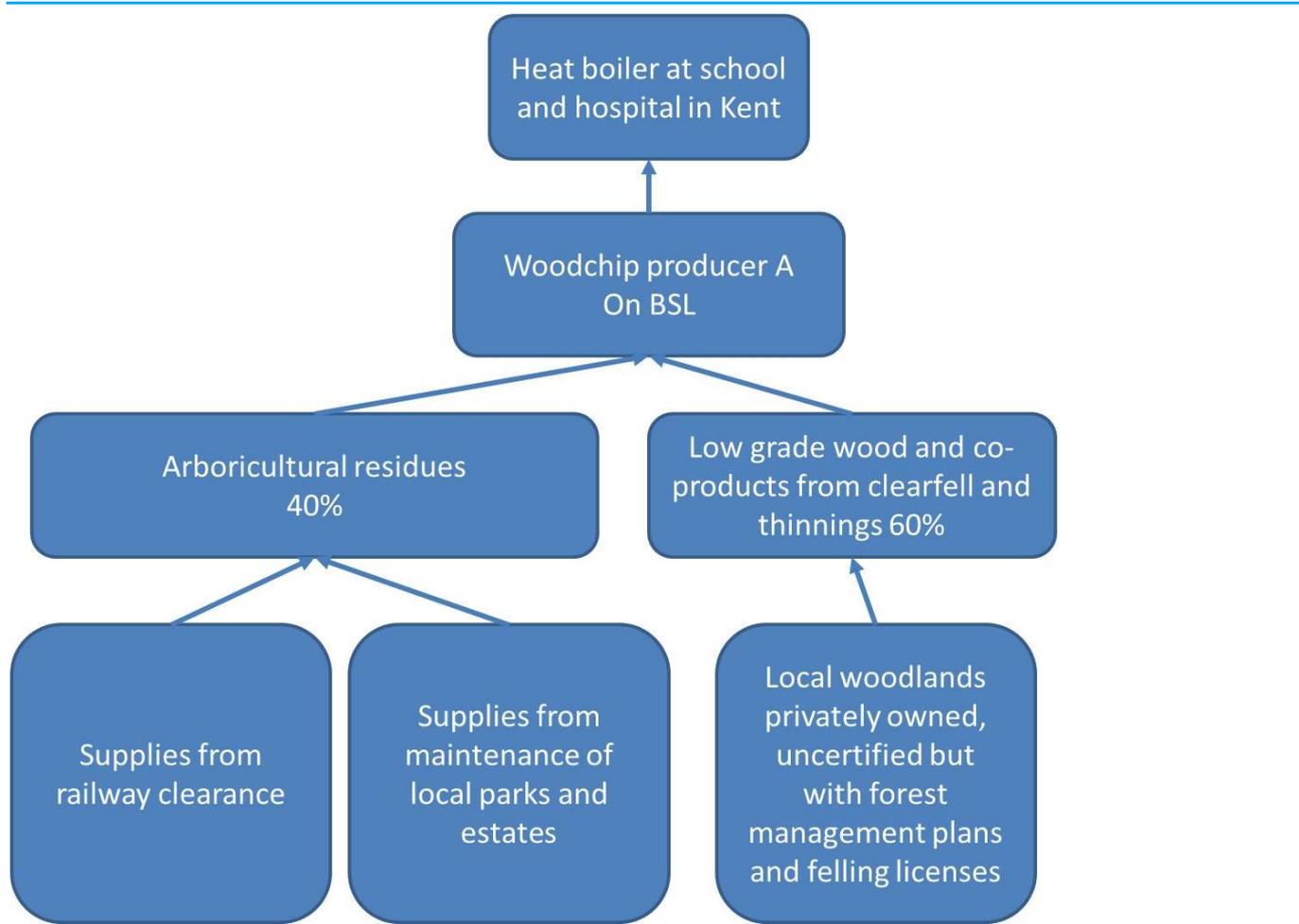
UK-TPP Requirement (optional)	Evidence provided
<p>1.1 Is the supply chain clearly described and complete from point of supply back to the forest source(s)?</p> <p>1.2 Has an adequate mechanism for preventing uncontrolled mixing or substitution been described for each stage in the supply chain?</p> <p>1.3 Has information been provided on how the mechanisms in 1.2 are checked/verified and is the approach used adequate to confirm the mechanisms described are in place and functional?</p> <p>1.4 Is the evidence provided, or available, adequate to confirm the information provided is accurate?</p>	<p>In addition to material received with an FSC and PEFC certified claim the Company uses a combination of delivery notes, contracts, and statutory transport documents to ensure that the incoming raw material can be traced back to the Supply Base.</p> <p>Additionally, the company includes requirements in its supply contracts that its suppliers ensure that material is only supplied from within the UK.</p> <p>The company contracts with sawmills require that only UK based material is being fed into the sawmill and hence the secondary products are of UK origin.</p>

4. Checklist approach: UK case study 2 – small biomass heat supplier listed on the Biomass Suppliers List

- 4.1. The following risk-based regional assessment is presented for a small UK based woodchip producer on the BSL list who supplies a UK heat boiler installed at a nearby school and hospital in Kent, England. The producer sources on average 40% of its woodfuel from arboricultural residues and 60% of low grade wood and co-products from clearfell and thinnings from local woodlands, all within 20 miles of the producer's facility.
- 4.2. The producer defines his supply base as the county of Kent and the region as England. He thinks there is low-risk of non-compliance with the woodfuel land criteria in England as a region.
- 4.3. The rationale for the determination of low risk at the England regional level is in line with UK case study 1 and goes as follows:
 - All commercial timber in England must be felled with a felling license.
 - [http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/\\$FILE/treefellingaugust.pdf](http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/$FILE/treefellingaugust.pdf)

- The Forest Commission estimates that significantly less than 1% of UK timber on the market is illegal.
 - Approximately 27% of all woodland area in England is independently certified.
 - The producer estimates that of the remaining uncertified timber traded 2/3 is supplied under the scope of a UK Forest Standard approved management plan, which has been approved by the regulatory authorities, including the Forestry Commission for England.
 - The producer considers that the remaining timber received is covered by a felling licence.
 - Timber removed for infrastructure projects must comply with planning legislation which includes statutory and public consultation processes.
 - The felling license process includes a 28 day period of statutory and public consultation, with all applications being placed on a public register - <http://www.forestry.gov.uk/publicregisters>.
 - Felling licenses are only granted where the Forestry Commission England is satisfied that the social and environmental criteria in the UKFS are met.
 - The determination of sustainability is therefore an open, transparent and consultative process throughout UK, and all stakeholders have the opportunity to comment on any application.
- 4.4. In line with the August 2014 Government response (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/343005/Response_to_Biomass_Consultation.pdf), the producer considers the woodfuel sourced from arboricultural residues as sustainable and compliant with the woodfuel land criteria from when the CfD and 2015 amended RO and RHI come into force. He is currently collecting all necessary evidence such as invoices and receipts indicating volumes and the location/address of origin of arboricultural residues to demonstrate that 40% of its woodfuel complies with the definition of arboricultural residues.
- 4.5. When sourcing the remaining 60% of low grade wood and co-products from clearfell and thinnings from local woodlands, the producer requests proof of traceability back to the Forest Management Unit (FMU) such as invoices, delivery notes, contracts with woodland managers or contractors and statutory transport documents. He also requires a copy of a valid UK felling license and a Forest Management Plan in line with the UK Forestry Standard Requirements and Guidelines for these FMUs to accompany woodfuel deliveries.
- 4.6. The producer refers to the official document "[CPET guidance for growers of wood in the UK](#)" which states that timber traceable to a forest with a fully implemented Forest Management Plan and a valid felling license in line with the UK Forestry Standard (UKFS) Requirements and Guidelines meets the woodfuel land criteria. Consequently, the 60% of low grade wood and co-products from clearfell and thinnings sourced from local woodlands and traceable back to specific FMUs that are covered by a valid felling license and a fully implemented Forest Management Plan in line with the UK Forestry Standard Requirements and Guidelines comply with these criteria.

4.7. Small UK biomass heat supplier supply chain map



Disclaimer: Please note that this supply chain map is only for illustrative purposes and is not intended to give any guidance about how to define consignment or to use the carbon calculator.

i. Credibility requirements

Timber Standard Requirement	Evidence provided
<p>S1. The definition must be consistent with a widely accepted set of international principles and criteria defining sustainable or responsible forest management at the forest management unit level.</p> <p>S2. The definition must be performance-based, meaning that measurable outputs must be included and cover all of the issues set out in S5 to S10.</p> <p>S3. The process of defining sustainable must seek to ensure balanced representation and input from the</p>	<p>All commercial timber in the UK must be felled with a felling license. http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/\$FILE/treefellingaugust.pdf</p> <p>Timber removed for infrastructure projects must comply with planning legislation which includes statutory and public consultation processes.</p> <p>The felling license process includes a 28 day period of statutory and public consultation, with all application being place on a public register</p>

<p>economic, environmental and social interest categories.</p> <p>S4. The process of defining sustainable must seek to ensure:</p> <p>a. no single interest can dominate the process for setting or changing the policy; and</p> <p>b. no decision on the contents of the policy can be made in the absence of agreement from the majority of an interest category.</p>	<p>http://www.forestry.gov.uk/publicregisters</p> <p>Felling licenses are only granted where the Forestry Commission is satisfied that the social and environmental criteria in the UKFS are met.</p> <p>The determination of sustainability is therefore an open, transparent and consultative process through the UK, and all stakeholders have the opportunity to comment on any application.</p> <p>The risk of non-compliance with these requirements in the GB can be considered to be low risk.</p> <p>See http://www.forestry.gov.uk/ukfs</p>
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ii. Definition of the Supply Base

Timber Standard Requirement	Evidence provided
<p>1.1. Woodfuel meets the TS for Heat & Electricity if it originates from an independently verifiable legal and sustainable source and appropriate documentation is provided to prove it.</p>	<p>The producer sources on average 40% of its woodfuel from arboricultural residues and 60% of low grade wood and co-products from clearfell and thinnings from local woodlands, all within 20 miles of the producer's facility.</p> <p>He defines its supply base as the county of Kent and the region as England.</p>

iv. Sustainability requirements

Timber Standard Requirement	Evidence provided
<p>S5. Management of the forest must ensure that harm to ecosystems is minimised. In order to do this the policy must include requirements for:</p> <p>a. appropriate assessment of impacts and planning to minimise impacts</p>	<p>27% of all woodland in England is independently certified.</p> <p>All low grade wood and co-products from clearfell and thinnings purchased by the producer are traceable back to a FMU with an approved UKFS management plan and a valid UKFS Felling licence which includes statutory and public consultation and approval by the regulatory authority.</p> <p>This item is adequately covered under the PEFC/FSC certification process and also in woodlands managed under a UKFS approved</p>

Timber Standard Requirement	Evidence provided
	<p>management plan.</p> <p>For timber harvested under a UKFS felling licence the felling licence must be approved by the regulatory authority and may be inspected.</p> <p>All woodlands must be managed in compliance with the statutory legislation which is actively enforced in UK.</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/inf-d-8bveh4</p>
<p>b. protection of soil, water and biodiversity</p>	<p>As 5a above.</p> <p>See http://www.forestry.gov.uk/ukfs</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/inf-d-8bveh4</p> <p>UKFS and Water http://www.forestry.gov.uk/forestry/inf-d-8bvqx9</p> <p>UKFS and Soil http://www.forestry.gov.uk/forestry/inf-d-8bvqgk</p>
<p>c. controlled and appropriate use of chemicals and use of Integrated Pest Management wherever possible</p>	<p>As 5a above.</p> <p>There is a UK pesticide policy to regulate and minimise the use of pesticides in UK Forestry http://www.forestry.gov.uk/forestry/INFD-76LGM7</p> <p>Extensive guidance and resource is available to support integrated pest management http://www.forestry.gov.uk/forestry/INFD-76LGSN</p>
<p>d. proper disposal of wastes to minimise any negative impacts</p>	<p>As 5a above.</p> <p>Waste management is tightly regulated in UK forests http://www.sepa.org.uk/planning/forestry.aspx</p>
<p>S6. Management of the forest must ensure that productivity of the forest is maintained. In order to achieve this, the policy must include requirements for:</p>	
<p>a. management planning and implementation of management activities to avoid significant negative impacts on forest productivity</p>	<p>As 5a above.</p>

Timber Standard Requirement	Evidence provided
b. monitoring which is adequate to check compliance with all requirements, together with review and feedback into planning	As 5a above.
c. operations and operational procedures which minimise impacts on the range of forest resources and services	As 5a above.
d. adequate training of all personnel, both employees and contractors	As 5a above.
e. harvest levels that do not exceed the long-term production capacity of the forest based on adequate inventory and growth and yield data	As 5a above.
S7. Management of the forest must ensure that ecosystem health and vitality is maintained. In order to achieve this, the definition of sustainable must include requirements for:	
a. management planning which aims to maintain or increase the health and vitality of ecosystems	As 5a above.
b. management of natural processes, fires, pests and diseases	As 5a above. Additionally the regulatory authority has active polices for control of pests and diseases including the imposition of plant health restrictions, timber movement restrictions and enforced felling.
c. Adequate protection of the forest from unauthorised activities such as illegal logging, mining and encroachment	As 5a above.
S8. Management of the forest must [seek to] ensure that biodiversity is maintained. In order to achieve this, there must be:	
a. implementation of safeguards to protect rare, threatened and endangered species	As 5a above. Note also that statutory regulatory authorities with responsibility for protecting and safeguarding rare,

Timber Standard Requirement	Evidence provided
	<p>threatened and endangered species are included in the statutory consultation process.</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/inf-d-8bveh4</p>
<p>b. the conservation/set-aside of key ecosystems or habitats in their natural state</p>	<p>As 5a above.</p> <p>Note also that statutory regulatory authorities with responsibility for conservation/set-aside of key ecosystems or habitats are included in the statutory consultation process.</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/inf-d-8bveh4</p>
<p>c. the protection of features and species of outstanding or exceptional value</p>	<p>As 5a above.</p> <p>Note also that statutory regulatory authorities with responsibility for protection of features and species of outstanding or exceptional value are included in the statutory consultation process.</p> <p>Biodiversity requirements of UKFS http://www.forestry.gov.uk/forestry/inf-d-8bveh4</p>
<p>S9. The forest management organisation and any contractors must comply with local and national legal requirements relevant to:</p>	
<p>a. labour and welfare</p>	<p>As 5a above.</p> <p>Note that there is extensive labour and welfare legislation in the UK which is actively enforced.</p>
<p>b. health and safety</p>	<p>As 5a above.</p> <p>Note that there is extensive labour and welfare legislation in the UK which is actively enforced.</p> <p>A list of health and safety regulation is included at the end of this checklist.</p>
<p>S10. Management of the forest must have full regard for:</p>	
<p>a. identification, documentation and respect of legal, customary and traditional tenure and use rights related to the forest</p>	<p>Legal, customary and traditional tenure and use rights are protected through the UK legal system which is actively enforced. There are no indigenous peoples in the UK.</p> <p>Traditional tenure and use rights of local communities related to the forest are identified,</p>

Timber Standard Requirement	Evidence provided
	<p>documented and respected in forests certified to FSC/PEFC and those managed under an approved UKFS Management plan.</p> <p>For the remaining 5% of woodland these traditional tenure and use rights of local communities related to the forest may not be documented.</p> <p>The company considers that within this small proportion the risk that these rights are not respected is very low.</p> <p>Consideration and consultation on these use rights is made during the felling licence consultation process.</p>
<p>b. mechanisms for resolving grievances and disputes including those relating to tenure and use rights, to forest (or land) management practices and to work conditions</p>	<p>There are active mechanisms in the UK for resolving disputes relating to use rights, to forest (or land) management practices and to work conditions.</p>
<p>c. safeguarding the basic labour rights and health and safety of forest workers.</p>	<p>Basic labour rights and health and safety of forest workers are safeguarded through the UK legal system which is actively enforced.</p> <p>Freedom of association and the effective recognition of the right to collective bargaining are included in UK legislation which is actively enforced. There is a very low risk of compulsory or forced labour in UK. There is a low risk of child labour in the UK. Elimination of discrimination in respect of employment and occupation is included in UK legislation which his actively enforced.</p> <p>Forestry was specifically exempted from UK Gangmasters legislation.</p> <p>http://www.gla.gov.uk/Guidance/Information-on-Licensing/Forestry/</p>

v. Optional UK-TPP Category B requirement – Supply Chain Management applicable at the forest level

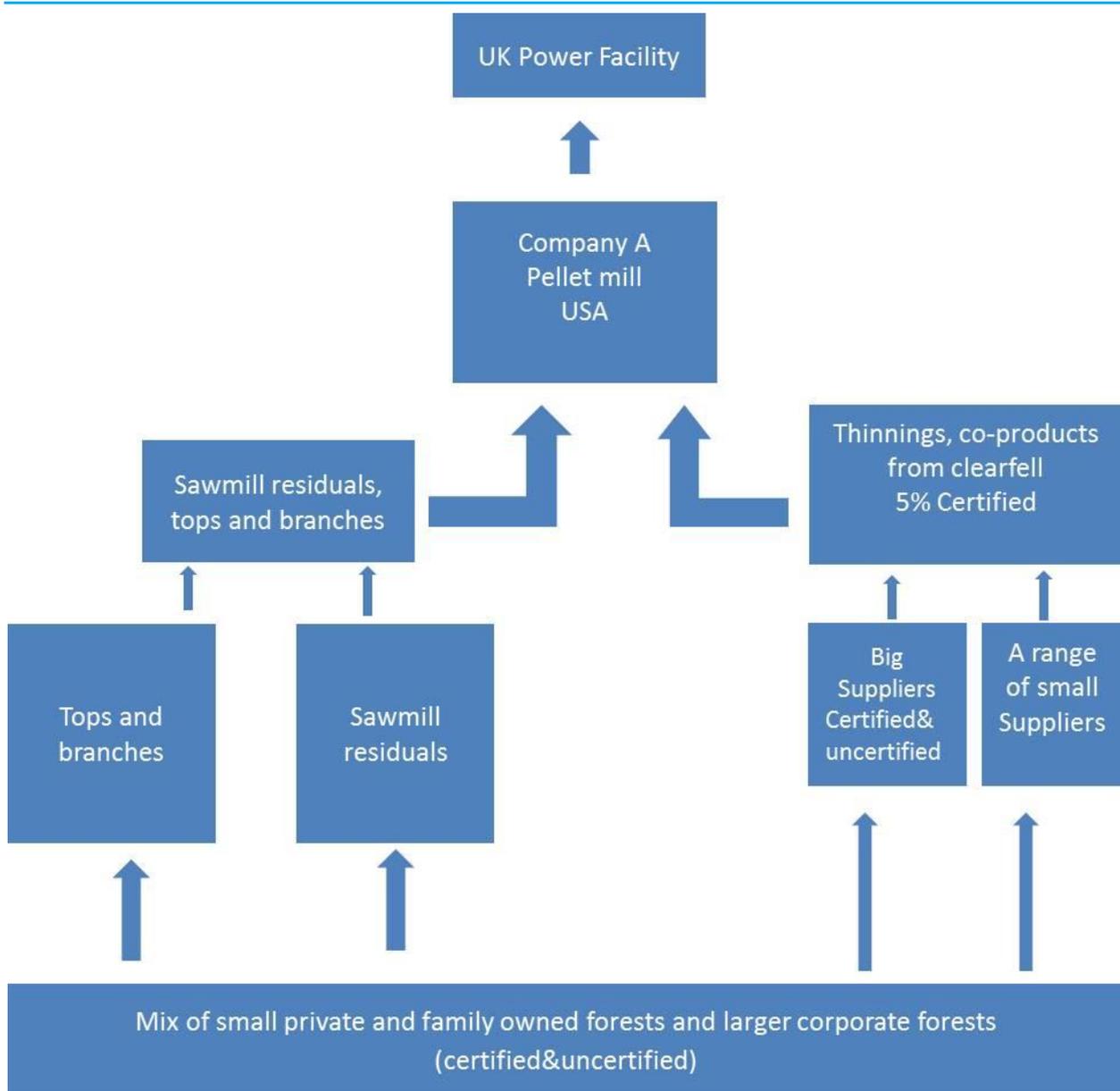
UK-TPP Requirement (optional)	Evidence provided
<p>1.1 Is the supply chain clearly described and</p>	<p>The producer uses a combination of</p>

<p>complete from point of supply back to the forest source(s)?</p> <p>1.2 Has an adequate mechanism for preventing uncontrolled mixing or substitution been described for each stage in the supply chain?</p> <p>1.3 Has information been provided on how the mechanisms in 1.2 are checked/verified and is the approach used adequate to confirm the mechanisms described are in place and functional?</p> <p>1.4 Is the evidence provided, or available, adequate to confirm the information provided is accurate?</p>	<p>invoices, delivery notes, contracts, and statutory transport documents to ensure that the incoming low grade wood and co-products from clearfell and thinnings can be traced back to FMUs, all located within 20 miles of the facility.</p>
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5. Checklist approach: USA case study – two biomass suppliers

- 5.1. Company A facility is located in region A of the United States. Its supply base extends for an approximate radius of 70 miles. Pine is the only species purchased. Thinnings and co-products from clearfell constitute approximately 85% of total wood consumption. Nearly 70% of this is purchased through two main suppliers. One of the main suppliers is SFI certified, the other is not certified. The rest of the thinnings and co-products from clearfell are purchased through a range of different suppliers on an annual basis.

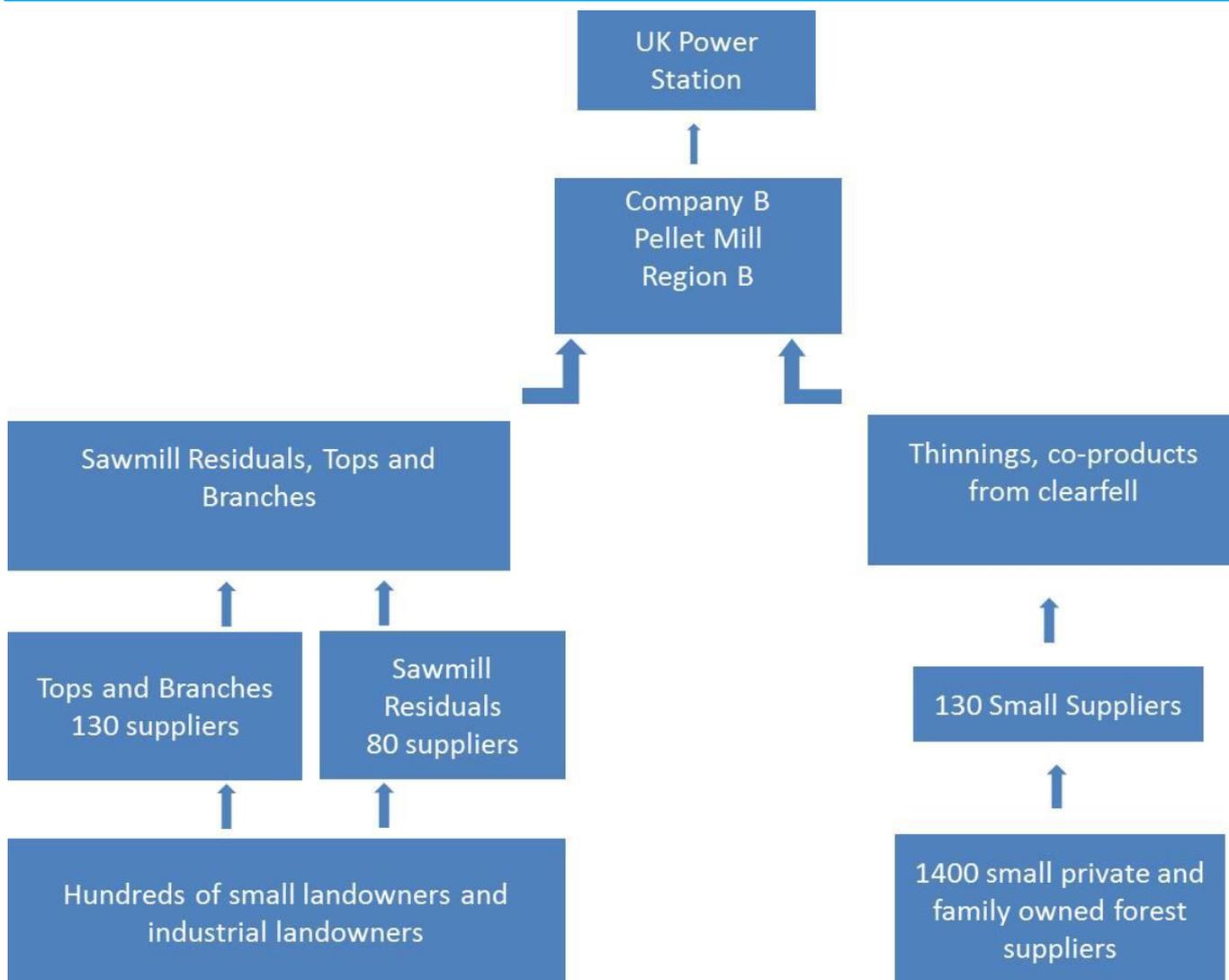
Company A supply chain map:



Disclaimer: Please note that this supply chain map is only for illustrative purposes and is not intended to give any guidance about how to define consignment or to use the carbon calculator.

- 5.2. Company B facility is situated in region B, a heavily forested area of the US.
- 5.3. This region's forests are owned primarily by individuals and families, although there is still significant company ownership in some areas. SFI and American Tree Farm System (both PEFC endorsed) constitute the overwhelming portion of certified properties in the region with FSC certification making up less than 5% of the volume. However, this is still an insignificant portion of total forested area. The facility catchment area extends for an approximate radius of 75 miles. Thinnings and co-products from clearfell constitute the majority of the procured wood and are purchased from a range of suppliers.

5.4. Company B supply chain map:



Disclaimer: Please note that this supply chain map is only for illustrative purposes and is not intended to give any guidance about how to define consignment or to use the carbon calculator.

Credibility requirements

Timber Standard Requirement	Evidence provided
<p>S1. The definition must be consistent with a widely accepted set of international principles and criteria defining sustainable or responsible forest management at the forest management unit level.</p> <p>S2. The definition must be performance-based, meaning that</p>	<p>Companies A and B cite core legislation (i.e Clean Water Act, Clean Air Act, Endangered Species Act, EPA regulations, Forestry acts, pesticides legislation. FIFRA, H&S controls through OSHA) all drawn up within a dynamic democratic system, subject to free comment by all stakeholders.</p> <p>Best Management Practices (BMPs) that are voluntary guides for forest practices) are drawn up by multi-</p>

<p>measurable outputs must be included and cover all of the issues set out in S5 to S10.</p> <p>S3. The process of defining sustainable must seek to ensure balanced representation and input from the economic, environmental and social interest categories.</p> <p>S4. The process of defining sustainable must seek to ensure:</p> <p>a. no single interest can dominate the process for setting or changing the policy;</p> <p>and</p> <p>b. no decision on the contents of the policy can be made in the absence of agreement from the majority of an interest category.</p>	<p>stakeholder groups and subject to periodic revision.</p> <p>Activities of all actors are open to comment, and there is a process of democratic change, in an environment where free speech is strongly protected.</p>
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Definition of the Supply Base

Timber Standard Requirement	Evidence provided
<p>1.1. Woodfuel meets the TS for Heat & Electricity if it originates from an independently verifiable legal and sustainable source and appropriate documentation is provided to prove it.</p>	<p>Company A provides a map of forests in the supply base; It has PEFC/FSC CoC in place and a fiber study available.</p> <p>Company B states that all woodfuel sourced originates from the region B in the United States.</p> <p>Electronic and hardcopy maps of the supply base are maintained as part of demonstrating conformance to the following Standards:</p> <ul style="list-style-type: none"> -SFI Fiber Sourcing -SFI Chain of Custody -PEFC Chain of Custody and Due Diligence System -FSC Chain of Custody -FSC Controlled Wood

Sustainability requirements

Timber Standard Requirement	Evidence provided
<p>S5. Management of the forest must ensure that harm to ecosystems is minimised. In order to do this the policy must include requirements for:</p> <p>a. appropriate assessment of impacts and planning to minimise impacts</p>	<p>Company A states: Use of BMPs and trained loggers. Records of state wide compliance with BMPs. SFI inconsistent practices records. Maps of known areas of concern available. Ad hoc monitoring and formal audit records. FSC/PEFC due diligence exercise may inform us of particular risks.</p> <p>Company B states: the SFI Fiber Sourcing Standard certification provides evidence of logger training, use and promotion of forestry “Best Management Practices”, and monitoring of the use of these practices. SFI Indicator 10.2.1, requires that Company annually conduct and use BMP monitoring information to maintain rates of conformance to best management practices and to identify areas for improved performance. Each State Forestry Agency/Commission conducts periodic BMP implementation monitoring. See the websites listed in requirement 1.4.1.</p>
<p>b. protection of soil, water and biodiversity</p>	<p>Company A states: Federal and State legislation such as Clean Water Act, Endangered Species Act etc. Some areas already under State/Federal management and therefore protected. Use of BMPs and trained loggers. Records of state wide compliance with BMPs. Ad hoc monitoring and formal audit records. Maps of known areas of concern available. FSC/PEFC due diligence exercise may inform us of particular risks.</p> <p>Company B states: BMPs that are required by SFI address the protection of soils from erosion, compaction and disturbance. BMP compliance is consistently higher than 95%, which is considered Full Compliance. See SFI Fiber Sourcing Program and BMP Monitoring Reports.</p>

Timber Standard Requirement	Evidence provided
	<p>Company requires the use of trained loggers and virtually all of the wood in the supply area is harvested by trained loggers;</p> <p>Compliance with BMPs is required in contracts with loggers and suppliers.</p> <p>Conformance can be judged and confirmed as adequate at the State level.</p> <p>Company requires compliance with applicable forestry and environmental laws in its contracts with dealer and brokers, but is not directly involved in harvesting and land management operations.</p> <p>Each State Forestry Agency/Commission conducts periodic BMP implementation monitoring. See the websites listed in requirement 1.4.1.</p> <p>Company takes steps to communicate the importance of wildlife and biodiversity protection with landowners.</p> <p>Landowners and their consulting foresters engage in such activities outside of the procurement contract with Company.</p> <p>The Standard should differentiate those activities and practices conducted by landowners and not wood procurement organizations.</p>
<p>c. controlled and appropriate use of chemicals and use of Integrated Pest Management wherever possible</p>	<p>Company A: Strong legal framework for the use of pesticides, enforced effectively through EPA. Penalties for non-compliance.</p> <p>Application by licensed operators.</p> <p>Periodic inspection.</p> <p>Company B states: Chemicals applied commercially (on lands not owned) are strictly regulated, with trained, licensed applicators.</p> <p>See EPA website for regulation of forest chemicals under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).</p> <p>U. S. Environmental Protection Agency home page</p> <p>U. S. Environmental Protection Agency's Office of Water home page</p>
<p>d. proper disposal of wastes to minimise any negative impacts.</p>	<p>Company A uses as evidence State and federal legislation regarding waste.</p> <p>Implementation of BMPs.</p> <p>Inspection results.</p>

Timber Standard Requirement	Evidence provided
	<p>Company B monitors removal of trash and other garbage through its BMP Monitoring Reports.</p> <p>State BMPs require the removal of garbage.</p> <p>The Company BMP Monitoring Checklist includes the removal of all such trash.</p>
<p>S6. Management of the forest must ensure that productivity of the forest is maintained. In order to achieve this, the policy must include requirements for:</p>	
<p>a. management planning and implementation of management activities to avoid significant negative impacts on forest productivity</p>	<p>Company A uses access to State and FIA data.</p> <p>State summary of forestry activity.</p> <p>Fibre study available.</p> <p>Company B's procurement of wood material contributes to reducing environmental impacts and enhancing the productivity of forests. Markets for low valued wood products allow for more efficient site preparation and reforestation.</p> <p>However, this requirement is outside the scope of the Company's wood procurement/fiber sourcing program.</p> <p>The latest forest inventory data for region B indicate that softwood and hardwood inventories are increasing.</p> <p>Selected FIA Updates are available on-line:</p> <p>Alabama: http://www.srs.fs.usda.gov/pubs/su/su_srs042.pdf</p> <p>Arkansas: http://www.srs.fs.fed.us/pubs/su/su_srs055.pdf</p> <p>North Carolina: http://www.srs.fs.usda.gov/pubs/su/su_srs044.pdf</p> <p>Florida: http://www.srs.fs.fed.us/pubs/su/su_srs071.pdf</p>
<p>b. monitoring which is adequate to check compliance with all requirements, together with review and feedback into</p>	<p>Company A</p> <p>Implementation of SFI (objective 20) and PEFC (standard 8) procedures that require comprehensive annual monitoring and review. Compliance is monitored through internal audits and the results are reported to management during a management</p>

Timber Standard Requirement	Evidence provided
planning	<p>review meeting.</p> <p>Relies on SFI inconsistent practices records.</p> <p>SFI training programmes.</p> <p>Monitoring program at pellet mill.</p> <p>Feedback through minutes and actions.</p> <p>Company B does not monitor forest growth and productivity on private lands owned by family forest owners and corporate entities.</p> <p>The Company BMP Monitoring Checklist, monitoring conducted by the State where region B is located, inventory and analysis, statewide forest resources assessments, etc. all address monitoring.</p> <p>SFI Objective 20 requiring an annual management review of monitoring and other information adequately.</p>
c. operations and operational procedures which minimise impacts on the range of forest resources and services	<p>Company A sites: Compliance with legislation – Clean Water Act, Endangered Species, etc.</p> <p>Follow BMPs.</p> <p>Use of trained loggers.</p> <p>Fire response plans, wet weather response plan.</p> <p>Outreach to landowners.</p> <p>Company B has a Program to ensure that harvests of purchased stumpage comply with BMPs. This includes use of a BMP Monitoring Form (10.1,2,b).</p> <p>Company annually uses BMP monitoring information to maintain rates of conformance to best management practices and to identify areas for improved performance.</p>
d. adequate training of all personnel, both employees and contractors	<p>Company A uses trained loggers.</p> <p>In-house training of personnel.</p> <p>Company B conducts in-depth internal SFI training for all responsible staff.</p> <p>Company requires logging contractors that work directly for the company to be SFI trained and encourages its indirect Wood Suppliers to encourage their contractors to attend SFI Training.</p> <p>Training records of all SFI, FSC, PEFC Standards training are</p>

Timber Standard Requirement	Evidence provided
	maintained and are available upon request.
e. harvest levels that do not exceed the long-term production capacity of the forest based on adequate inventory and growth and yield data	<p>Company A uses FIA Data for catchment where available. State summary of forestry activity. Fibre study available. Records of fibre used available. Regular review of fibre position around facility.</p> <p>Company B states: The latest forest inventory data for region B reflect increases in both hardwood and softwood volume.</p>
S7. Management of the forest must ensure that ecosystem health and vitality is maintained. In order to achieve this, the definition of sustainable must include requirements for:	
a. management planning which aims to maintain or increase the health and vitality of ecosystems	<p>Company A and B submit: US Forest Service and State forest services undertake research into forest health, their research results are available. BMPs in place. Outline local fire response plans. Outline any other operations for forest health such as thinning. Have State data to hand to show increasing yields per acre. Monitoring of above activities.</p>
b. management of natural processes, fires, pests and diseases	Company A and B: As “a” above.
c. Adequate protection of the forest from unauthorised activities such as illegal logging, mining and encroachment	<p>Company A states: Generally low risk of illegal logging see PEFC Due Diligence Risk Assessment. Demonstrate reports from SFI inconsistent practices, other prosecutions by EPA.</p> <p>Company B’s SFI Fibre Sourcing Procedures address security, legality and vandalism. BMP Monitoring Reports address legality and unauthorized activities.</p>

Timber Standard Requirement	Evidence provided
	Copies of the SFI Procurement Program are available.
S8. Management of the forest must [seek to] ensure that biodiversity is maintained. In order to achieve this, there must be:	
a. implementation of safeguards to protect rare, threatened and endangered species	<p>Company A Federal and State legislation such as Endangered species act, Clean Water Act are policed effectively.</p> <p>Certification under the SFI Fiber Sourcing Standard, including: Demonstrable compliance with BMPs especially in SMZ's. Trained loggers. Knowledge (maps) of known sensitive areas, some with statutory protection.</p> <p>Company B's existing certification under the SFI Fiber Sourcing Standard requires: "shall provide information to landowners ... for identification and protection of important habitat elements for wildlife and biodiversity, including Forests with Exceptional Conservation Value."</p>
b. the conservation/set-aside of key ecosystems or habitats in their natural state	<p>Company A: See answer to 'a' above</p> <p>Company B states: All of the States where region B is located have Forestry Assessments and Strategies, as well as Wildlife Action Plans.</p> <p>Websites for various States include: http://www.forestactionplans.org/regional-state Florida: http://myfwc.com/conservation/special-initiatives/fwli/action-plan/ Alabama: http://teaming.com/wildlife-action-plan/alabama</p>
c. the protection of features and species of outstanding or exceptional value	<p>Company A: See answer to 'a' above.</p> <p>Company B has accessed the State Natural Heritage Databases for the wood supply areas where purchased stumpage tracts are located.</p> <p>Where the Natural Heritage Database indicates that a G-1 or</p>

Timber Standard Requirement	Evidence provided
	G-2 species or community is known to exist in close proximity to the tract, Company will assess whether the species or community is actually present on the tract and notify the landowner prior to harvesting.
S9. The forest management organisation and any contractors must comply with local and national legal requirements relevant to:	
a. labour and welfare	Company A evidences that Federal and State legislation provides good protection and strong recourse if breached. Monitoring records.
b. health and safety	Company A states: In the forest, Federal and State laws and OSHA apply – plus requirement in contract. In pellet plant, strong systems. Monitoring records.
S10. Management of the forest must have full regard for:	
a. identification, documentation and respect of legal, customary and traditional tenure and use rights related to the forest	Company A states: Federal and State legislation provides good protection and strong recourse if breached. Indian Affairs programs available to contribute to improved circumstances for Tribes. Company B has a formal process for receiving and responding to public inquiries, particularly those that potentially relate to practices that appear to be inconsistent with the SFI requirements. Refers to the Bureau of Indian Affairs list of American Indian Tribes and the locations of their reservations at the following website: http://www.bia.gov/WhoWeAre/RegionalOffices/Eastern/WeAre/Tribes/index.htm

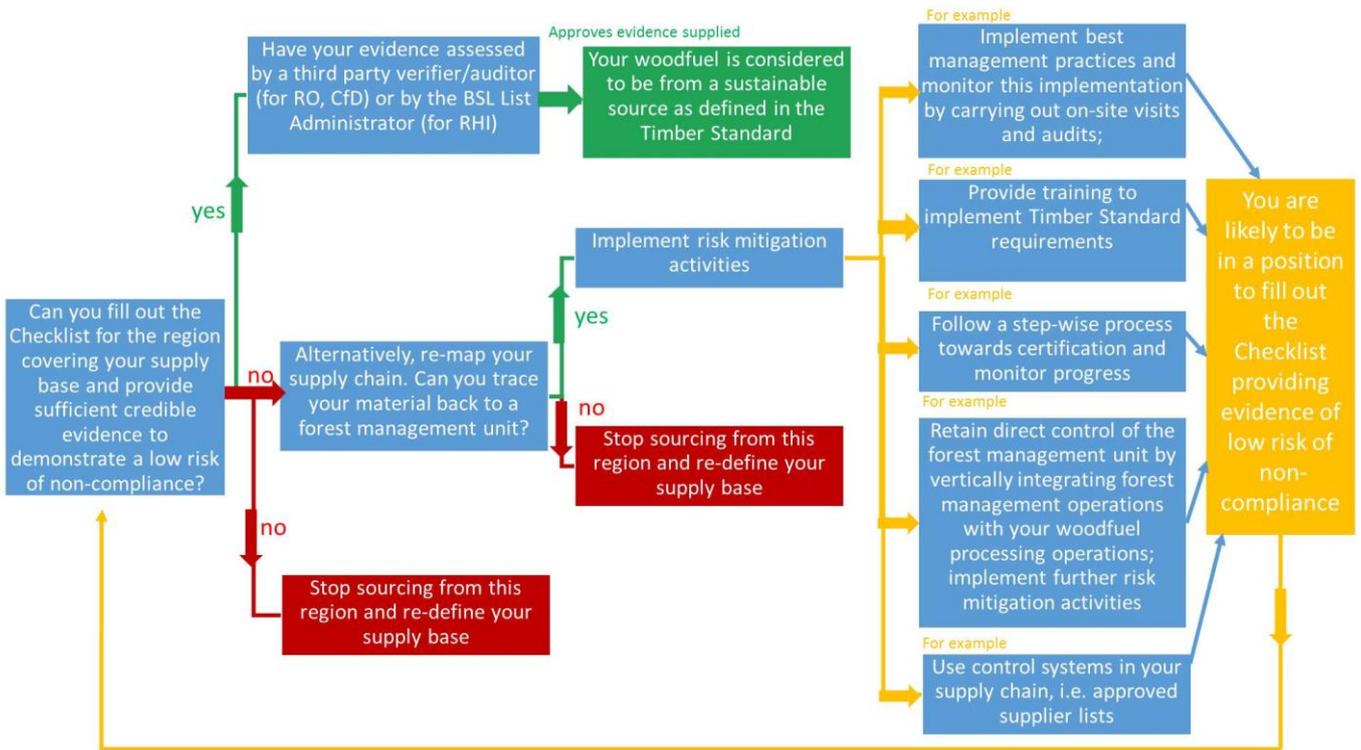
Timber Standard Requirement	Evidence provided
<p>b. mechanisms for resolving grievances and disputes including those relating to tenure and use rights, to forest (or land) management practices and to work conditions</p>	<p>Company A: Mechanisms in the courts, and at State and Federal level, are effective.</p> <p>Company B has a formal process for receiving and responding to public inquiries, particularly those that potentially relate to practices that appear to be inconsistent with the SFI requirements.</p>
<p>c. safeguarding the basic labour rights and health and safety of forest workers.</p>	<p>Company A: Existing Federal and State legislation, enforced through OSHA covers H&S aspects.</p> <p>Basic labour rights are also covered by Federal and State legislation. No evidence of contravention of ILO conventions. US Department of Labor and State Labor Commissions enforce legislation concerning these aspects. At pellet plant, proper contracts of employment are in place. Company policy. No impediment to collective bargaining within the pellet plant.</p> <p>Company H&S policies.</p> <p>Company B's has conducted a Risk Assessment covering these issues:</p> <p>“There is no evidence of child labour or violation of ILO Fundamental Principles and Rights at work taking place in forest areas in the region concerned.” US law clearly specifies rights to collective bargaining and freedom of association.</p> <p>It quotes, “Program Participants shall take appropriate steps to comply with all applicable social laws at the federal, provincial, state and local levels in the country in which the Program Participant operates.”</p> <p>“Based upon the risk assessment and evaluation of available information, there is a “low risk” that any wood that is sourced into the facilities is in violation of traditional, civil and indigenous peoples' rights.”</p> <p>Contract provisions address worker compensation insurance coverage.</p> <p>SFI/FSC/PEFC Certificates provide sufficient evidence.</p> <p>OSHA records of reportable injuries and rates are publicly available.</p> <p>Contracts containing workers compensation insurance are available for inspection.</p>

Optional UK-TPP Category B requirement - Supply Chain Management applicable at the forest level

UK-TPP Requirement (optional)	Evidence provided
<p>1.1 Is the supply chain clearly described and complete from point of supply back to the forest source(s)?</p> <p>1.2 Has an adequate mechanism for preventing uncontrolled mixing or substitution been described for each stage in the supply chain?</p> <p>1.3 Has information been provided on how the mechanisms in 1.2 are checked/verified and is the approach used adequate to confirm the mechanisms described are in place and functional?</p> <p>1.4 Is the evidence provided, or available, adequate to confirm the information provided is accurate?</p>	<p>Company A records location / species / product type as part of tract details. FSC/PEFC CoC in place provides 3rd party check on this aspect.</p> <p>Company B maintains formal contracts and keeps records of payments and receipts. These documents provide sufficient records of all suppliers.</p> <p>1.1 PEFC, SFI and FSC Chain of Custody and Controlled Wood requirements address the need to define the supply base.</p> <p>1.2 The mix of feedstock inputs are described as Categories of Origin in the Chain of Custody Procedures. Material categories are also identified in the Product Group Lists.</p> <p>1.3 PEFC, SFI and FSC Chain of Custody and Controlled Wood requirements address the need to define the supply base.</p> <p>1.4 The mix of feedstock inputs are described as Categories of Origin in the Chain of Custody Procedures. Material categories are also identified in the Product Group Lists.</p>

6. Checklist approach: Case study of a supply chain in a high risk country

- 6.1. This woodfuel generator sources from State X in country Y that is characterised by a high corruption perception index and poor implementation and enforcement of legislation and regulation as highlighted in numerous scientific papers and NGO reports. Consequently, the generator cannot rely on legislation and regulation and its implementation as evidence of meeting the woodfuel land criteria nor conclude that there is low risk of non-compliance with these criteria.
- 6.2. The generator takes a more proactive role to ensure compliance and mitigate risk by operating a vertically integrated operation and implementing comprehensive management systems, through a combination of directly managed and contracted forest operation. The management systems include extensive internal audit and training functions. The generator has evidence that these systems are adequate to ensure the woodfuel is from 'legal and sustainable' sources and that they are properly implemented.
- 6.3. The generator had been sourcing sawdust from a (currently) uncertified sawmill which takes in a proportion of FSC certified logs but also uncertified logs. The sawmill has no systems in place to separate the sawdust which originates from certified sources with that from uncertified sources nor has it any controls in place to prevent mixing or substitution. Consequently, the generator identified this source of saw dust as high risk for non-compliance with the woodfuel land criteria and has slightly changed his supply base by no longer accepting sawdust from this supplier to mitigate any risk. The sawmill however started to work towards achieving its own certification so that it can sell the sawdust with a certification claim.
- 6.4. Where the woodfuel operation harvests from its own forest holding it implements a management system which it has based on a voluntary certification scheme. This requires a dedicated in-house forest management resource.
- 6.5. Where inputs are sourced from third parties the company maintains an approved supplier list which includes screening against woodfuel land criteria. Commercial contracts with suppliers include woodfuel land criteria. These conditions include implementation of best management practices and monitoring and audit by the generator. The generator also provides support and training in implementing the woodfuel land criteria to these suppliers.
- 6.6. Below flow chart clarifies the approach that should be taken if you are sourcing from a region where low risk of non-compliance cannot be shown.



7. Where can I get more help?

- 7.1. [Timber Standard for Heat & Electricity](#): This document sets out how the land criteria will apply to woodfuel under the Renewable Heat Incentive and Renewables Obligation.
- 7.2. [Woodfuel Advice Note](#): The Woodfuel Advice Note provides background information about the Timber Standard and guidance on how to implement it.
- 7.3. [Timber Standard Mass Balance and Consignment Guidance](#): This document provides guidance on implementing the Mass Balance approach and clarification on the concept of “consignment” in order to comply with Timber Standard requirements.
- 7.4. **Central Point of Expertise on Timber (CPET)** offer a helpline service providing information and guidance to suppliers and generators of woodfuel on how they can comply with the woodfuel land criteria. CPET also provides information and guidance on how to provide Timber Standard Category A and Timber Standard Category B bespoke evidence. For woodfuel generators and suppliers who have to comply with the UK-TPP, CPET provides information and guidance on compliance.

Please note that CPET **cannot** provide technical advice on woodfuel queries (ie moisture content, weight, volume, size etc.) or provide guidance on how to get listed on the BSL. CPET also cannot provide advice on how to apply for RO or RHI schemes, determine a consignment, get incentives or comply with the GHG criteria.

Web: www.gov.uk/government/groups/central-point-of-expertise-on-timber

Email: cpet@efeca.com

Tel: +44 (0)1305 236 100 (Mon-Fri 9am – 5pm)

- 7.5. **Ofgem** can help answer enquiries regarding the RO scheme and RHI (Domestic and Non-Domestic) application processes. Ofgem also provides advice on enquiries regarding fuel classification. Queries in relation to the B2C2 calculator software should be directed to the following email b2c2support@e4tech.com.

Web: www.ofgem.gov.uk

For Renewables Obligation (RO):

Email: renewable@ofgem.gov.uk

Tel: 020 7901 7310

For Domestic RHI Applicants:

Email: domesticRHI@ofgem.gov.uk

Tel: 0300 003 0744 (Mon to Fri 8am to 7pm)

For Non-Domestic RHI Applicants:

Email: rhi.enquiry@ofgem.gov.uk

Tel: 0845 200 2122 (Mon to Thurs 9am-5pm, and Fri 9am-4.30pm)

For CfD

Email <https://lowcarboncontracts.uk/contact-us>

7.6. Please contact **DECC** if you have any enquiries regarding the RO and RHI policy or legislation process:

Web: www.gov.uk/decc

Email: correspondence@decc.gsi.gov.uk

Tel: 0300 060 4000

7.7. **The BSL Helpdesk** provides advice and support regarding the authorisation process to the Biomass Suppliers List. It also provide guidance and information about the following:

- How to comply with the GHG criteria
- Defining if you are a producer, trader, producer-trader or self-supplier and what your requirements are
- Requirements applicable to BSL mark branding guidelines
- Technical queries on woodfuel used under RHI (ie moisture content, size, weight, nature of raw material/fuel, measuring volumes of raw material/fuel)

Please note that the BSL Helpdesk **cannot** provide information and advice about application processes for incentive schemes or policy and legislation queries.

Web: <http://biomass-suppliers-list.service.gov.uk/contact-us>

Email: bslhelpdesk@gemserv.com

Tel: +44 (0)20 7090 7769 (Mon-Fri 9am – 5pm)

Further information on the BSL can be found [here](#).

7.8. The [Forestry Commission](#) provides information on management plans, felling licences and sustainable forest management practices. The [UK Forestry Standard \(UKFS\)](#) is the reference standard for sustainable forest management in the UK. The UKFS, supported by its series of Guidelines, outlines the context for forestry in the UK, sets out the approach of the UK governments to sustainable forest management, defines standards and requirements, and provides a basis for regulation and monitoring.

7.9. The National Measurement Office (NMO) answers enquiries related to compliance with the [EU Timber Regulation \(EUTR\)](#). Click [here](#) for the official NMO Enforcement enquiry form.

7.9.1. This is a guidance document only. The onus is on generators and suppliers to ensure that they are aware of the requirements of the Orders and Regulations. It is not intended to provide comprehensive legal advice on how the Orders and Regulations should be interpreted. Where necessary, generators and suppliers should seek their own technical or legal support.

8. Glossary

Approved schemes	third party voluntary certification schemes officially recognised by the UK Government as meeting the criteria set out in the Timber Standard
Arboricultural residues	material from woody plants and trees planted for landscape or amenity value that are removed as part of tree surgery usually in gardens, parks or other populated settings, and the verges of roads and railways
Best Management Practices	are voluntary conservation practices designed to provide a means of preventing or minimizing sediments and other nonpoint source pollutants on managed forest lands from entering adjacent water bodies. (Source: Texas A&M/Texas Forest Service Website)
Biomass Suppliers List (BSL)	list of suppliers of woodfuel who have been accredited as demonstrating that their fuel meets the sustainability criteria required under the RHI.
Bureau of Indian Affairs	an agency of the federal government of the United States within the US Department of the Interior responsible for the administration and management of 55,700,000 acres (225,000 km ²) of land held in trust by the United States for Native Americans in the United States, Native American Tribes and Alaska Natives
Chain of custody (CoC)	the ability to trace a product from its point of origin through the supply chain to end product
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
CITES Species	species of animals and plants listed as protected under CITES
Consignment	Ofgem have set out guidance on what constitutes a consignment. Each consignment should constitute the <i>same</i> characteristics in terms of: <ul style="list-style-type: none">• Feedstock type⁶• Biomass form (solid biomass only)• Country of origin⁷• Classification of the fuel (residue, product etc.)

⁶ This is to ensure that different biomass fuels are not grouped together, e.g. wood cannot be considered the same as sunflower pellets or rapeseed oil cannot be considered the same as used cooking oil.

⁷ UK considered as a single country of origin

- Compliance with woodfuel land criteria
- Compliance with GHG criteria

Controlled	material certified as either FSC Controlled Wood or PEFC Controlled sources
CPET	Central Point of Expertise on Timber
CfD	Contract for Difference
EPA	US Environmental Protection Agency
EU Timber Regulation No 995/2010 (EUTR)	European Union legislation prohibiting the placement of illegally harvested timber or their products on European markets
FIA	USDA Forest Service Forest Inventory Analysis
FSC	Forest Stewardship Council; is a voluntary, international forest certification scheme who sets standards for sustainable forest management
G1 and G2 Species	the conservation status of a group of organisms (for instance, a species) either critically imperilled (G1), imperilled (G2)
Generator	power and heat supplier operating under the RO and RHI
ISAE 3000	International Standard on Assurance Engagements performance assessment scheme
Integrated Pest Management (IPM)	an effective and environmentally sensitive approach to pest management that relies on a combination of practices with available pest control methods, to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment. (Source: US Environmental Protection Agency)
ILO	International Labour Organization
ILO Convention	legally binding international labour treaties that may be ratified by member countries which commit themselves to applying the convention in national law and practice and reporting on its application at regular intervals (Source: ILO website)
Land criteria	(for solid biomass, also known as “woodfuel”) – The woodfuel land criteria requires compliance with the Timber Standard for Heat & Electricity, sustainable source definition (Principles S1 – S10), including compliance with the 70/30 threshold
‘Legal and sustainable’	woodfuel which complies with both the definition of legal source and sustainable source (see legal source and sustainable source)

Legal Source	woodfuel which is in conformance to EU Timber Regulation No. 995/2010
List Manager	oversees the BSL and assesses compliance of suppliers listed
Mass Balance Approach	a system which requires that, at each step in the supply chain, parties can only use/sell biomass with the same sustainability characteristics and in the same volume as the biomass they took in originally, taking account of any conversion factors or losses in production, less any biomass they have recorded as being used or sold previously.
Office of Gas and Electricity Markets (OfGEM)	a non-ministerial government department and an independent National Regulatory Authority that regulates all gas and electricity markets in the UK
Operator	see “Generator”
OSHA	US Occupational Safety and Health Administration
Participant	installations who report to RHI
PEFC	Programme for the Endorsement of Forest Certification; is a voluntary, international forest certification scheme who sets standards for sustainable forest management
RHI	Renewable Heat Incentive
RO	Renewable Obligation
ROC	Renewable Obligation Certificate
Self-supplier	participants can be defined as a self-supplier if their installation is less than 1MW capacity and if they source woodfuel (which they have the legal right to source, through ownership, rental or other relevant arrangement) from the same Estate as the boiler
SFI	Sustainable Forestry Initiative® is a US-based, forest certification standard and program of SFI Inc., a non-profit organization operating in North America
Supplier	entity which supplies woodfuel to the generator
Supply Base	the area from which raw material and woodfuel originates
Sustainable Forest Management	forest management practices, independently verified in conformance to Timber Standard Category A or Category B Bespoke Evidence
Sustainable source	originates from a forest which is managed in accordance with a definition of sustainable that meets the requirements S1-S10 in the Timber Standard
Threshold, 70/30	generators and suppliers must ensure that each consignment or mix of

consignments of wood biomass (or wood derived biomass) meets a minimum of 70% 'legal and sustainable', with the balance from a 'legal only' source. See also sustainable source and legal source.

Traceability	see Chain of Custody
Timber Standard Category A evidence	evidence provided by approved schemes that woodfuel land criteria are complied with (see 'approved schemes')
Timber Standard Category B bespoke evidence	all forms of credible evidence other than certification schemes that indicate that the forest source meets the woodfuel land criteria
UKFS	the UK Forestry Standard
UK-TPP	United Kingdom Government's Timber Procurement Policy
Virgin Wood	wood and other products such as bark and sawdust which have had no chemical treatments or finishes applied
Waste	"waste" has the meaning given to it in section 75(2) of the Environmental Protection Act 1990([1]) but does not include gas derived from landfill sites or gas produced from the treatment of sewage. https://www.ofgem.gov.uk/publications-and-updates/renewables-obligation-sustainability-criteria-guidance-0
Woodfuel	solid fuel that is wood or derived from wood which has not been previously used for some other purpose; e.g. recycled construction material, wood pallets, wood decking
Woodfuel land criteria	See Land Criteria

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