

# SFR Application Guidance Notes

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## Overview

These guidance notes provide information on the application process for registering fuels on the Sustainable Fuel Register (SFR). It is relevant to producers, traders and users of non-woody biomass wishing to demonstrate compliance with the sustainability criteria for the Domestic and Non-Domestic Renewable Heat Incentive (RHI) in England, Scotland and Wales.

### 1. The Renewable Heat Incentive (RHI)

The Non-Domestic Renewable Heat Incentive<sup>1</sup> is a scheme commissioned by the Department for Business, Energy & Industrial Strategy (BEIS) and operated by Ofgem. The scheme provides incentives to increase the uptake of renewable heat technologies and reduce carbon emissions. Eligible installations receive quarterly payments over 20 years, based on the amount of heat generated.

On the 5<sup>th</sup> October 2015, amendments to the scheme came into force regarding the sustainability of the fuel used in biomass boilers, biogas plants and production of biomethane for injection<sup>2</sup>. These changes have resulted in a requirement for operators of eligible boilers & plants, and those trading in eligible fuels, to demonstrate the fuel they have produced, purchased, sold or ultimately consumed meets with the sustainability requirements.

### 2. The Sustainability Criteria

Participants will need to demonstrate that the fuel being registered has come from a sustainable source and has acceptable greenhouse gas (GHG) emissions:

- i. Land criteria – participants must demonstrate that the fuel was sourced from land that is not protected.
- ii. Greenhouse gas (GHG) criteria – participants must show that the renewable heat produced has a lifecycle emissions figure below or equal to 34.8 grams of carbon dioxide per mega joule (34.8gCO<sub>2</sub>/MJ) of heat generated, or biomethane generated.

In order to achieve complete lifecycle emissions, the fuel must also show that it is traceable from where it was produced to where it was finally used.

### 3. The Sustainable Fuel Register (SFR)

SFR is a register of non-wood based fuels and enables participants to demonstrate that the sustainability criteria have been met. Wood based fuels should be registered on an alternative approved list such as the Biomass Suppliers List (BSL).

The SFR is a register of fuels and approvals will only be issued for fuels NOT people, companies or entities.

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<sup>1</sup> <https://www.ofgem.gov.uk/environmental-programmes/non-domestic-renewable-heat-incentive-rhi>

<sup>2</sup> <https://www.ofgem.gov.uk/environmental-programmes/non-domestic-renewable-heat-incentive-rhi/about-non-domestic-rhi/changes-non-domestic-rhi>

SFR considers three types of participant, although in many cases participants could be a combination of types, even for the same fuel:

**Producers** – those growing, harvesting crops or producing fuels for use in RHI accredited systems.

Producers will need to register their fuel and advise SFR what will happen to the fuel, whether they are using it in their own RHI accredited system or selling it on. All emissions associated with the production of the fuel will need to be accounted for. Producers will allocate any fuel sold to the trader or end user SFR account.

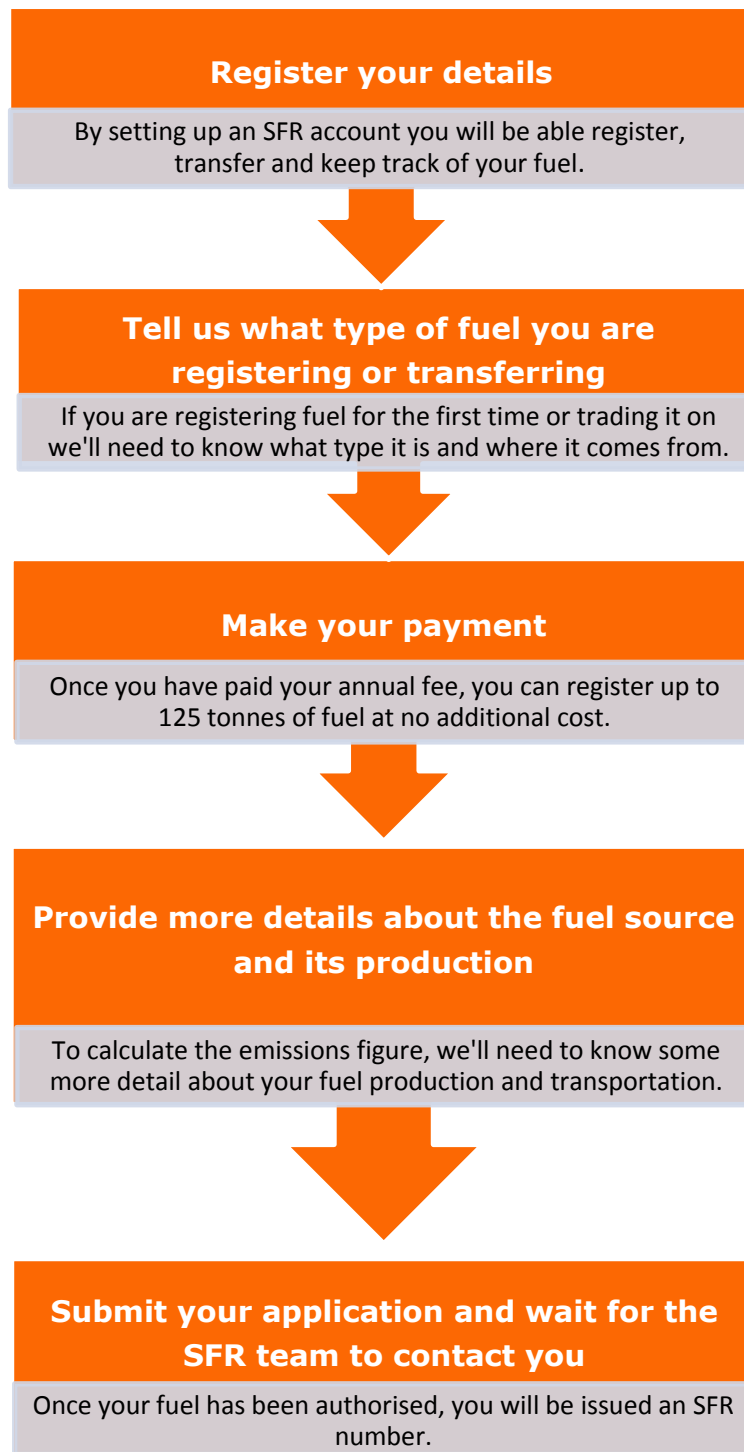
**Traders** – those purchasing and selling fuels for use in RHI accredited systems.

Traders will need to add any additional emissions that are associated to the transport, handling and further processing of registered fuels once the fuel is in their possession. Fuel sold will be allocated by the trader to the next trader or end user SFR account.

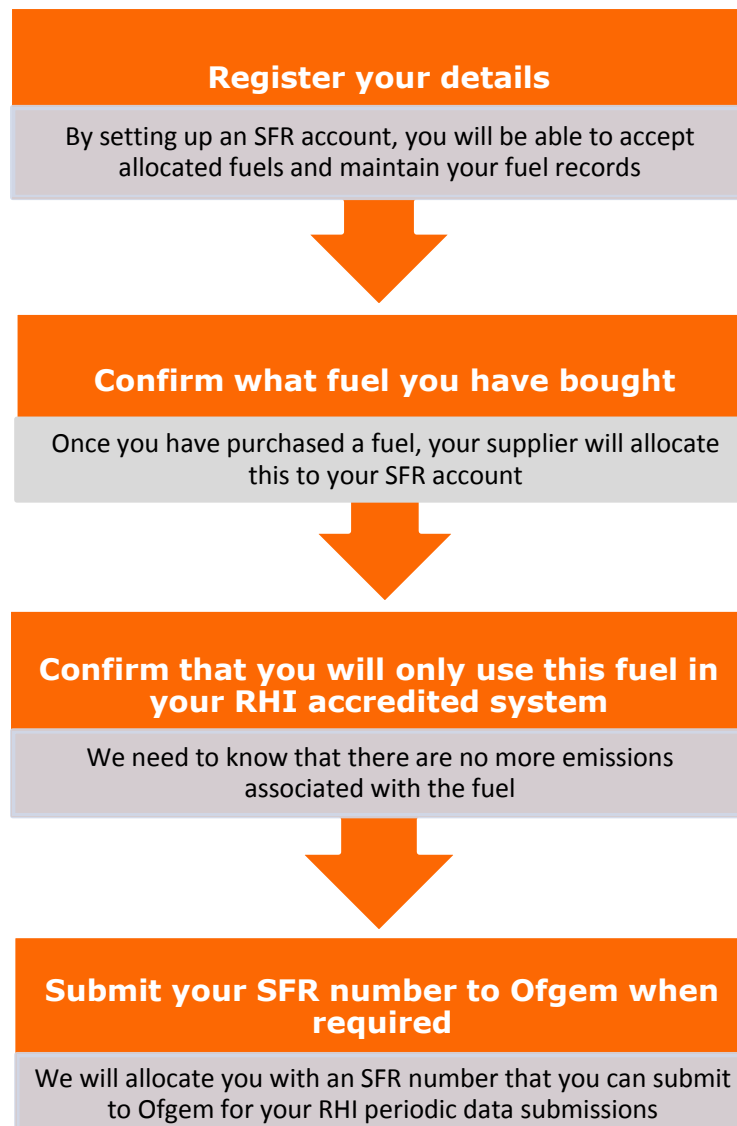
**End users** – those who purchase fuels for use in their own RHI accredited system.

End users will need to accept fuels that they have bought and confirm that the fuel will only be used in an RHI accredited boiler. They will be issued an SFR number that can be submitted to Ofgem to demonstrate the fuel meets the sustainability requirements.

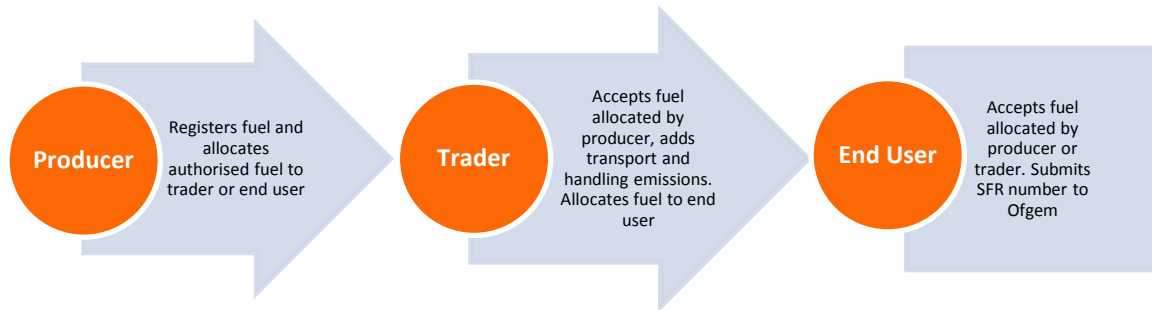
## How to register if you are a producer or trader of non-wood fuels



## How to register if you are an end user only of non-wood fuels



## Transferring fuels from producer to end user



## Establishing the fuel chain

Producers and traders have a responsibility to register the fuel, taking into account all the processes that they are involved with within the fuel chain. Depending on the category of fuel registered (see page 9), the lifecycle emissions will need to be calculated for different parts of the fuel chain:

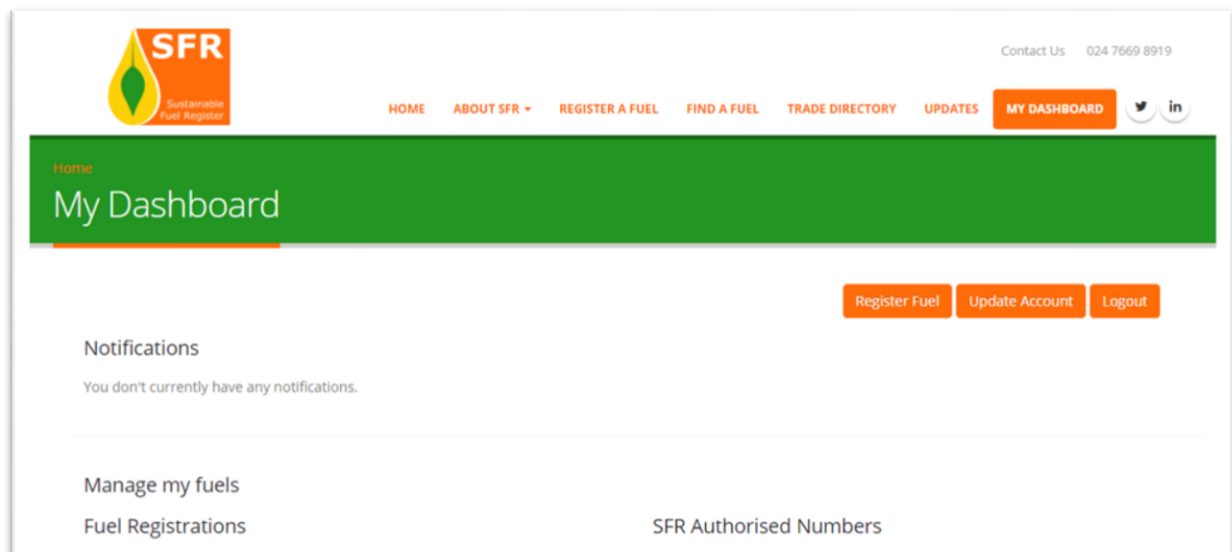
Fuel category	GHG criteria	Fuel chain modules	Land criteria
<b>Waste</b>	Not required	Not required	Not required
<b>Products</b>	Full lifecycle emissions	Establishment, cultivation and harvesting	Required
		Collection	
		Drying	
		Processing	
		Storage	
<b>Processing residues</b>	Emissions from collection only	Collection	Required
		Drying	
		Processing	
		Storage	
		Transport	
<b>Residues from agriculture, forestry, aquaculture and fisheries</b>	Emissions from collection only	Collection	Required
		Drying	
		Processing	
		Storage	
		Transport	
<b>Residues from arboriculture</b>	Emissions from collection only	Collection	Not required
		Drying	
		Processing	
		Storage	
		Transport	

## Your SFR account

### 4. Register your details

Set up your SFR account by visiting [www.sfregister.org](http://www.sfregister.org) and select Register Now. We will send you an activation link to the email address you provide. Once you have entered your password, you will be taken to your SFR dashboard.

From here, you will be able to monitor progress of your applications, allocate and accept allocated fuels and manage your registered fuels.



## Registering a fuel for the first time

### 5. Tell us about the fuel

You will be asked a series of questions so that we can identify and classify the fuel that you are registering.

**Q. Does this application include any fuel which is being registered with SFR for the first time?**

We need to understand whether your fuel is being registered for the first time or whether you are declaring additional emissions for a fuel that is already registered.

**Q. What type of fuel are you registering?**

We need to classify<sup>3</sup> your fuel as a product, residue or waste in order to determine the correct sustainability criteria route.

When you have selected your fuel from the list, you will be asked to confirm that you agree with the classification. If you do not agree with the fuel classification, you will be asked a series of questions<sup>4</sup> to work out what the classification is.

<sup>3</sup> Sustainability\_Self\_Reporting\_Guidance\_V1\_Publish.pdf - Chapter 4.



**Products** – These materials have been produced specifically for use as a fuel, such as energy grasses. A material should be considered a product when a process is designed specifically to create this material as its primary aim.

**Residues** – Agricultural residues will be collected during the cultivation and harvesting of an agricultural crop and includes straw, husks, cobs and nut shells where the production of these materials is not the primary aim of the production process.

Materials collected from fisheries, aquaculture and arboriculture are also considered residues.

**Wastes** - Materials that have either have been discarded, are intended to be discarded or are required to be discarded.

For a list of common fuel classifications<sup>5</sup> see Appendix A.

**Q. When was the material sourced/produced/grown?**

We need to know that the entire fuel lot was produced at the same time. Choose a month and year that best represents when the final form of the material was achieved. For example, if you have pellets, the month and year relating to when the pelleting was undertaken.

**Q. Where did the material originate?**

It is important that we determine where the material originated from. You can provide an address, postcode or grid reference.

**Q. What was the mass of the material at the point of collection?**

Tell us what the mass of the material is at the point of collection, and before any drying or processing as taken place.

**Q. What was the form of the material at the point of collection?**

To further identify your fuel let us know what form the fuel was in when you sourced it and before any further processing has taken place. For example: bulk, bale, shred, chip, pellet or briquette.

**Q. Do you want to add an allocated fuel to this application?**

You can combine similar fuel types that have been allocated to you into one fuel lot. Any fuels allocated to you will appear in a list and you simply select the fuels you wish to combine.

**Q. Has the form or mass of the material changed since it was collected or allocated to you?**

We need to understand whether processing or drying has changed the mass the of the material since it was collected or allocated to you.

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<sup>4</sup> <https://www.ofgem.gov.uk/publications-and-updates/renewables-obligation-fuel-classification-flow-diagram>

<sup>5</sup> Sustainability\_Self\_Reporting\_Guidance\_V1\_Publish.pdf – Appendix 2-

**Q. Are you using any of the fuel in your own RHI accredited system?**

An important element of tracing authorised sustainable fuels is knowing when the fuel ceases to exist, so it's important that we know when a fuel reaches an accredited biomass boiler so that RHI income cannot be claimed on fuel already used. Once you have provided RHI information, our system will associate that number with your account so that it can't be used by anyone else.

**Q. What do you want to call this fuel?**

We suggest using a name that will enable you to easily identify the fuel, for example 'Miscanthus Chip October 2016'.

**6. Subscription and fees**

**Annual subscription fee** – On your first fuel registration, you will be required to pay the annual subscription fee of £200. This enables you to manage your fuels online and register up to 100 tonnes (in one or more fuel lots) within 12 months of your first registration.

**Additional fuel fee** – if you register more than 100 tonnes during your 12 month registration (in one or more fuel lots), you will be required to pay £0.50p per tonne.

Fuel	Annual production/usage	Fees
<b>Producer A produces 100 tonnes of miscanthus chip that is used in his own RHI accredited biomass boiler.</b>	100 tonnes	Annual registration = £200 Additional fuel = £0
	1 <sup>st</sup> registration – 75 tonnes	Annual registration = £200 Additional fuel = £0
<b>Trader A buys and sells straw during a 12 month period</b>	2 <sup>nd</sup> registration – 100 tonnes	Additional fuel = £37.50
	3 <sup>rd</sup> registration – 125 tonnes	Additional fuel = £62.50
	4 <sup>th</sup> registration – 50 tonnes	Additional fuel = £25

End users who are only accepting a fuel to be used in their own RHI accredited boiler will not be required to pay any fees.

Payments can be made online. Cheques can be sent by post, but the application process will be delayed until payment has been confirmed as received.

All fees will be subject to an annual price review, in line with market expectations and impact of inflation. You will be notified of any changes in fees at least one month prior to the anniversary of your registration.

**7. Land criteria**

The land criteria refer specifically to the production of the raw material, i.e. at the farm, forest or plantation. The purpose of the Land Criteria is to determine the type of land from which the material

was produced and to ensure that the material has not been produced from land considered to be a protected source, such as:

- Land which was primary forest during or after January 2008.
- Land which was designated for nature protection (unless the production of biomaterial did not interfere with purposes for which the land was designated) during or after January 2008.
- Highly biodiverse grassland, unless harvesting was necessary to preserve the grassland status.
- Land which was peatland (unless cultivation and harvesting of biomaterial did not involve drainage of previously undrained soil) during or after January 2008.
- A former continuously forested area.
- A former wetland.

The land criteria are deemed to have been met for the following fuel classifications:

- Solid biomass which is waste or wholly derived from waste.
- Biogas or biomethane which is made wholly from feedstock, which is waste.
- Residues from arboriculture (management of municipal parks or other populated settings, verges of roads and railways).

You will only need to provide evidence that your fuel falls into one of these classifications, such as waste transfer notes or road verge management plans.

**Q. How much of your land was/is the fuel grown over?**

Tell us the area of land that the fuel is grown over. If only part of a crop is to be used as fuel, only provide the area of land that relates to the fuel.

**Q. How much of the land that the fuel is grown on was subject to an Energy Crop scheme application?**

For energy crops, inclusion in the Energy Crops Scheme (or equivalent) will fulfil the land criteria. You will need to upload evidence of inclusion within a scheme.

**Q. How much of the land that the fuel is grown on was subject to any voluntary scheme?**

If the land is subject to voluntary schemes, upload evidence of participation. Examples of relevant voluntary schemes can be found in Appendix A.

**Q. Provide evidence that the fuel meets the land criteria.**

Evidence provided to demonstrate sustainability of your fuels in respect of the land criteria must be for January 2008 AND the year in which your fuel was produced. Information from intervening years is not required.

Fuel registered on SFR must come from land that can be shown as sustainable. For most fuels, it is likely that the easiest way of demonstrating sustainability is to show that the land use in January 2008 was the same as that in the year used to produce the material. If your land use has changed since January 2008, this may still be considered sustainable depending

on the changes. In all cases SFR will check your evidence to ensure the land use meets the criteria.

Suggested evidence is :

- IACS / Basic Payment Scheme / Rural Payments Agency (or equivalent) Forms
- Satellite image (Google Maps © for example)
- Aerial photos
- Maps, land register entries/databases
- Site surveys
- Crop records
- Membership of the Energy Crop Scheme or other applicable schemes

If you are in any doubt about what evidence to provide, contact the SFR team for assistance.

Always identify which fields produced the material you are registering. If you use Google Earth© then there will probably not be a photo for 2008. Use the nearest preceding photo i.e. the closest photo available taken before 2008.

If the land is part of an Energy Crops or Voluntary Scheme you need to prove you are a current member. Upload documentation showing your details, the scheme name and membership/account number so this can be checked.

If none of the above is available, as a minimum send us an aerial map of the farm, identifying the farm boundary and all of the fields used to produce the material you are registering.

Evidence can be provided by post, but the application process may be delayed until the evidence has been confirmed as received.

## **8. Greenhouse gas emissions**

To be sustainable, your fuel must fall below the greenhouse gas (GHG) emissions target of 34.8gCO<sub>2</sub>/MJ of heat generated or biomethane injected. To calculate your GHG figure, we need to gather details about the emissions from the fuel production and distribution.

If your fuel has been classified as a waste, then you do not need to complete GHG criteria.

If you do not keep records of fuel use for individual tasks, you will have the option to notify us that you have used an estimated figure. We may well accept your estimated value as long as it is reasonable. Overuse of estimated figures may result in us not being able to authorise your fuel.

The GHG section of your application is broken down into fuel chain modules. These modules are:-

### **Establishment, Cultivation & Harvesting**

This module only applies to fuels that are classified as a *product*. This section asks questions about all farming inputs up to the point of collection and baling. Annualised figures should be used for crops that are established and harvested over a number of years.

**Q. Tell us about your use of fertiliser during establishment and cultivation.**

Tell us what brand of fertiliser you used and how much.

**Q. Please tell us the proportion of nutrients in your fertiliser OR provide the kg/ha used for each nutrient.**

You either provide the proportion of nutrients in your fertiliser or the actual amount of each nutrient used.

**Q. Tell us about your use of pesticides and/or herbicides during establishment and cultivation.**

Tell us what pesticides or herbicides you used and how much.

**Q. Tell us about the fuel used during establishment and cultivation only.**

Include the fuel used for such tasks as sub-soiling, ploughing, drilling, fertiliser spreading, and any task undertaken up to harvesting of the crop. You can provide the amount of fuel used for each activity or a total for all applicable activities.

**Q. Tell us about the fuel used during irrigation.**

Tell us what type of fuel you used and how much.

**Q. Tell us about the fuel used during harvesting**

Tell us what type of fuel you used and how much.

**Q. Tell us about any other processing not covered above.**

You should tell us what type of fuel and the amount you used in any other processing during the establishment, cultivation and harvesting of your fuel that has not already been covered.

**Q. Mass of the material (if known at this stage).**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material (if known at this stage).**

If you know the moisture content of the material at this stage, let us know what it is.

### **Extraction**

This module would include the fuel used to prepare, collect and remove the crop from the field such as raking, baling, scraping, loading and unloading of bales.

**Q. Mass of the material before extraction (if known at this stage).**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material before extraction (if known at this stage)**

If you know the moisture content of the material at this stage, let us know what it is.

**Q. Tell us about your fuel usage during extraction.**

Include the fuel used for such tasks as raking, baling, scraping, loading and any task undertaken during extraction of the crop. Do not include transportation of the fuel, as this is covered in a separate module. You can provide the amount of fuel used for each activity or a total for all applicable activities.

**Q. Mass of the material after extraction.**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material after extraction**

If you know the moisture content of the material at this stage, let us know what it is.

**Q. Transportation.**

If you know how much fuel you used in transportation during extraction, you can tell us here, or you can tell us about all of the fuel used during the whole fuel chain at the end.

## Drying

Many fuels will undergo drying whilst in storage, for example, drying naturally or with heat prior to being chipped. Different drying methods can be selected. Be careful to ensure that all fuels used are included. For example, you may have an on-floor drying system that uses red diesel to provide heat and electricity to power ventilation fans. Both of these fuel inputs must be included.

**Q. Mass of the material before drying.**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material before drying**

If you know the moisture content of the material at this stage, let us know what it is

**Q. Tell us about the method of drying of the material**

You should tell us the method of drying and all of the fuels that are used during this process. For example, you may have an on-floor drying system that uses diesel to provide heat and electricity to power ventilation fans. Both of these fuel inputs must be included.

**Q. Mass of the material after drying.**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material after drying**

If you know the moisture content of the material at this stage, let us know what it is

**Q. Transportation.**

If you know how much fuel you used in transportation during drying, you can tell us here, or you can tell us about all of the fuel used during the whole fuel chain at the end.

## Processing

This includes any adaptation to a material that enhances its value, either in terms of quality or quantity, such as chipping or pelleting as well as oil extraction or anaerobic digestion.

**Q. Mass of the material before processing.**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material before processing.**

If you know the moisture content of the material at this stage, let us know what it is

**Q. Tell us about the processing that your fuel underwent next.**

Select the type of processing and tell us the type and amount of fuel used during this process.

**Q. Mass of the material after processing.**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material after processing.**

If you know the moisture content of the material at this stage, let us know what it is.

**Q. Transportation.**

If you know how much fuel you used in transportation during processing, you can tell us here, or you can tell us about all of the fuel used during the whole fuel chain at the end.

### Storage & Handling

In many cases, there will be very little or even no fuel used during the storage of your material. However, any handling must be allowed for including the loading and unloading of the fuel into and out of storage.

Any fuel used to maintain the quality or quantity of the fuel (ventilation or refrigeration) during the storage must be included. For example, if the fuel is lit 24/7 (maybe for security reasons), then this should be included. However, if the lights are switched on for a few minutes for a weekly check then this can be discounted.

**Q. Mass of the material before storage and handling.**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material before storage and handling.**

If you know the moisture content of the material at this stage, let us know what it is.

**Q. Tell us about the fuel used during storage and handling.**

Tell us the type and amount of fuel used.

**Q. Mass of the material after storage and handling.**

If you know the weight of the material at this stage, let us know what it is.

**Q. Moisture content of the material after storage and handling.**

If you know the moisture content of the material at this stage, let us know what it is.

**Q. Transportation.**

If you know how much fuel you used in transportation during storage and handling, you can tell us here, or you can tell us about all of the fuel used during the whole fuel chain at the end.

## Transportation

If you have entered fuel used for transportation at the end of each module, you only need to review this section. Otherwise, input figures relating to the transport of your fuel during the whole fuel chain.

### Q. Please tell us about the transportation of the material.

Select the stage that the transport relates to and provide the type of fuel used for this stage. Then either tell us how much fuel was used in total, or the distance of a one return trip and the number of trips made.

## 9. Once you have completed your submission

Once the application has been submitted, we will email you to confirm that we have received it. An assessor will then be appointed to review your application.

In most cases, it is likely that there will be further questions your assessor will need to ask. You will be sent an email to your registered email address summarising the information required, and a notification will appear on your SFR dashboard.

Once satisfied that we have a sufficient understanding of your application, your assessor will check all the documentation you have submitted and, if applicable, check your membership of appropriate schemes and undertake the greenhouse gas calculations.

Your assessor will decide if your fuel can be authorised. If so, we will issue you with an SFR number. If your fuel is deemed not to meet the sustainability requirements, we will contact you.

## 10. What will happen after receiving my SFR number?

Once you have received the SFR number for your fuel, you will be able to use the number to demonstrate to your customers, or to Ofgem, that your fuel is sustainable. Producers and traders will be able to use the SFR logo in advertising and promotional activities subject to terms and conditions.

## 11. Transferring fuels

In order to ensure that the sustainability of an authorised fuel is traceable, from origin to final use, it is necessary to track the ownership of the fuel.

Producers and traders will allocate fuel sold or transferred to another trader or user through their SFR account, and in turn those in receipt of an authorised fuel will need to accept the fuel in their SFR account.

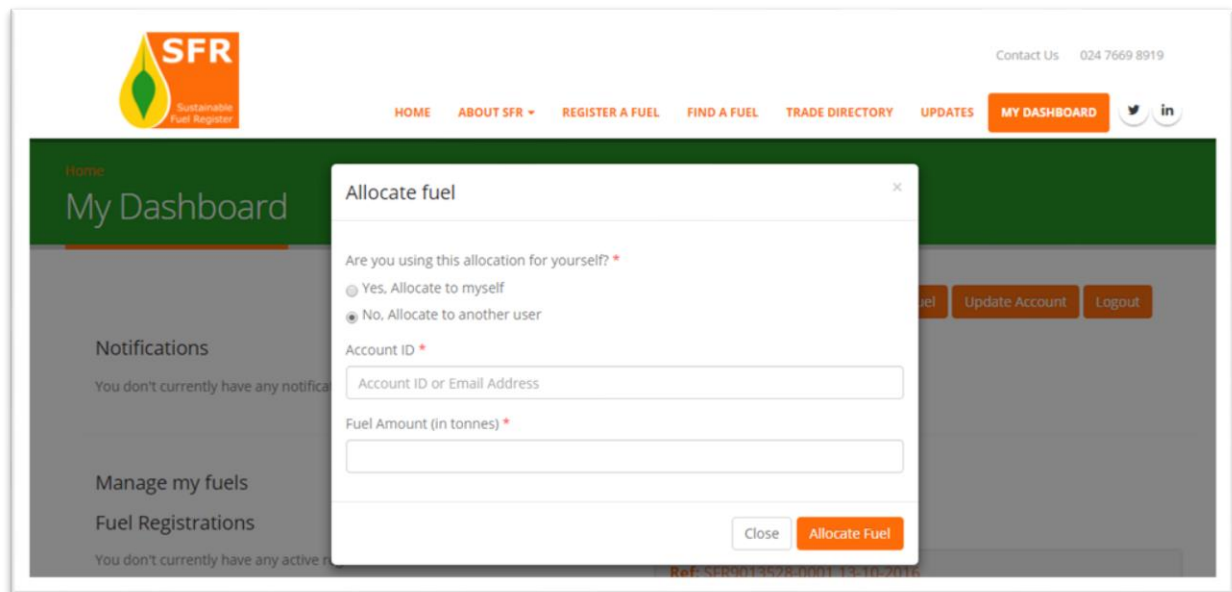
Therefore, it is necessary for all those in the custody chain to have an SFR account. Each new owner of fuel will receive their own unique SFR number for the fuel.

### Allocating a fuel

Select the fuel you wish to allocate from your SFR dashboard, and allocate the appropriate amount. You will need to have the email address of the SFR account that you are allocating fuel to. It is

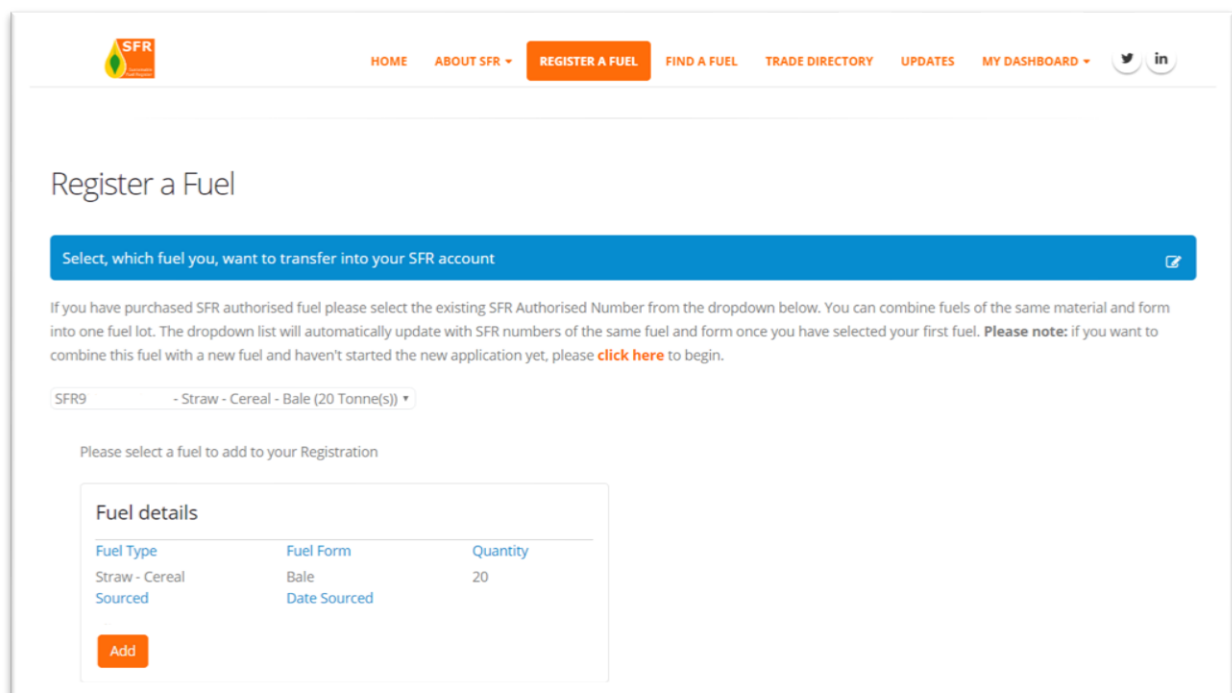


possible to allocate fuel to your own account, if you are also using the fuel in an RHI accredited system.



### Accepting an allocated fuel

The recipient of an authorised fuel will receive an email notification from SFR, advising that there is a fuel waiting to be accepted. From your dashboard, select the fuel you are accepting and confirm what you intend to do with the fuel; sell it, process it or use it.





If you are using the fuel in your RHI accredited boiler, provide the RHI number(s) of the system that the fuel will be used in. You will then be issued with a unique SFR number that you can provide to Ofgem in your quarterly data submissions.

If you are intending to sell the fuel or process the fuel, you will need to provide information about the processing, handling and transportation of the fuel while it is in your possession, (see page 12). Once we are satisfied that the fuel continues to meet the sustainability requirements, you will be issued with a unique SFR number.

## 12. Appendix A – Fuel Classifications

**Table 7 : Products**

Material	Description
Short rotation coppice (SRC)	Short rotation coppice is grown specifically for use as a fuel and, as such, it is a product
Short rotation forestry (SRF)	Short rotation forestry grown specifically for use as a fuel is a product.
Virgin wood	Virgin wood is timber from whole trees and the woody parts of trees including branches and bark derived from forestry works, woodland management , tree surgery and other similar operations. It does not include clippings or trimming that consist primarily of foliage (though these may be forestry residues). Further information on virgin wood can be found in a statement from the Environment Agency:  <a href="http://www.environment-agency.gov.uk/static/documents/Research/PS_005_Regulation_of_wood_v3.0.pdf">http://www.environment-agency.gov.uk/static/documents/Research/PS_005_Regulation_of_wood_v3.0.pdf</a>
Miscanthus	This is commonly grown as a fuel crop and in these circumstances will be a product. If it is put to another use first, e.g. as animal bedding, before being used as fuel then it will be a waste.
Material	Description
Acid ester	Esters are produced intentionally and are therefore a product.
Molasses	This material arises from the processing of sugar cane and sugar beet into sugar. It arises on the basis of a technical decision, and is considered a product.
Glycerol from virgin oils	The treatment of glycerol from virgin oils in the REF GDG calculations makes clear that it is to be treated as a product.
Meal from virgin oil production	These materials' treatment in the RED GHG calculations makes clear that they are to be treated as products.
Sugar beet sludge	This is the pulp left over following sugar extraction. Its treatment in the RED GHG calculations makes clear that it is to be treated as a product.
Corn or wheat dried distillers grain (DDGS)	This materials' treatment in RED GHG calculations makes clear that it is to be treated as a product.
Palm Stearin	Palm stearin is produced alongside palm olein from the fractionation of crude palm oil. After the fractionation process, the mixture is filtered to separate stearin (solid form) and olein (liquid).
Palm fatty acid and distillate	The treatment of PFAD in the RED GHG calculations indicates that it is to be treated as a product.

<p>Tallow – Animal By-Product Category 3</p>	<p>Tallow, also called rendered animal fat, is the hard fat obtained from the whole or part of any dead animal through the process of rendering. It is then used as feedstock for the production of biodiesel or bio liquid as fuels. Annex V, Part D of the RED makes clear that animal oil produced from animal by-product classified as category 3 should be treated as product. A revised Animal By-Products Regulation 1069/2009 takes effect on 4 March 2011. Although the revised regulation does not appear to change this definition, no decisions have yet been made by a court or other panel on the basis of this new regulation. There is a possibility that once a decision has been made, the status of tallow could change. The following documents underpin the Environment Agency’s regulation of the process of producing biodiesel from rendered animal fat:</p> <p><a href="http://www.environment-agency.gov.uk/static/documents/Business/MWRP_RPS_030_v2_biodiesel_22-12-10.pdf">http://www.environment-agency.gov.uk/static/documents/Business/MWRP_RPS_030_v2_biodiesel_22-12-10.pdf</a></p> <p><a href="http://www.environment-agency.gov.uk/static/documents/Business/Biodiesel_QP_NIEA_GEHO0311BTPC-E-E.pdf">http://www.environment-agency.gov.uk/static/documents/Business/Biodiesel_QP_NIEA_GEHO0311BTPC-E-E.pdf</a></p> <p>Note that the approach we have taken for category 3 tallow is that the participant does not have to make a response to the land criteria as the feedstock is neither cultivated nor obtained from land, as such the land criteria is considered not-applicable. The participant should therefore select ‘exempt’ in monthly reporting. GHG emissions should be considered from the starting point of the material when it is generated at the abattoir/rendering plant.</p>
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**Table 8 : Residues from agriculture, aquaculture, forestry and fisheries**

Material	Description
Forestry residues	<p>Forestry residues are identified explicitly by the RED as residues. Following statements from the EC<sup>6</sup> and the Environment Agency<sup>7</sup>, we consider forestry residues to be derived from “virgin wood” and to include all raw materials collected directly from the forest, whether or not as a result of thinning or logging activities.</p> <p>This may include (but is not limited to) materials such as tree tops, branches, brush, clipping, trimmings, leaves, bark, shavings, woodchips and saw dust from felling.</p> <p>Forestry residues do not include any residues from related industries, or residues associated with processing the virgin wood/raw material (for example sawdust from saw mills). These may be classed as processing residues (see below).</p>
Arboricultural residues	<p>Residues from arboriculture are not defined by the Orders or existing EC communications but can be considered to be biomaterial such as that which is removed as part of tree surgery, management of municipal parks and verges of roads and railways. Residues from arboriculture should not include forestry residues.</p>
Straw	<p>Straw is specifically named as an agricultural crop residue in the RED.</p> <p>As an agricultural residue, it must meet the land criteria. Straw is deemed to have zero GH emissions prior to the process of collection.</p>
Bagasse	<p>Bagasse results from crushing sugarcane or sorghum. Bagasse is specifically names as an agricultural residue in RED.</p> <p>As an agricultural residue, it must meet the land criteria. Bagasse is deemed to have zero GHG emissions prior to the process of collection.</p>
Nut shells	<p>Nut shells are specifically named as an agricultural residue in RED.</p> <p>As an agricultural residue, it must meet the land criteria. Nut shells are deemed to have zero GHG emissions prior to the process of collection.</p>
Husks	<p>Husks are specifically named as agricultural residues in RED.</p> <p>As an agricultural residue, it must meet the land criteria. Husks are deemed to have zero GHG emissions up to the point of collection.</p>
Cobs	<p>Cobs are specifically named as agricultural residues in RED.</p> <p>As an agricultural residue, it must meet the land criteria. Cobs are deemed to have zero GHG emissions up to the point of collection.</p>

<sup>6</sup> European Commission, *Report From The Commission To The Council And The European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling*, [http://ec.europa.eu/energy/renewables/transparency\\_platform/doc/2010\\_report/com\\_2010\\_0011\\_3\\_report.pdf](http://ec.europa.eu/energy/renewables/transparency_platform/doc/2010_report/com_2010_0011_3_report.pdf) [accessed 14 December 2011].

<sup>7</sup> Statement from the Environment Agency [http://www.environment-agency.gov.uk/static/documents/Research/PS\\_005\\_Regulation\\_of\\_wood\\_v3.0.pdf](http://www.environment-agency.gov.uk/static/documents/Research/PS_005_Regulation_of_wood_v3.0.pdf)

**Table 9 : Processing Residues**

Material	Description
Vinasse	Vinasse results from the processing of sugar cane or sugar beet. The treatment of vinasse in the RED GHG calculations makes clear that it is to be treated as a residue.
Palm processing residues: empty palm bunches fibre and shell from palm oil production palm oil mill effluent (POME)	These materials' treatment in the RED GHG calculations makes clear that they are to be treated as residues.
Saw dust from saw mills	This is a processing residue. Note that any deliberate change to the production process to increase the volume of sawdust resulting from processing would make the resulting material a product rather than a residue.

**Table 10 : Wastes**

Material	Description
Waste wood	Any waste wood, including "non-virgin" wood, will be considered a waste.  Following statements from the Environment Agency, waste wood may include non-virgin timber off-cuts, shavings, chippings and sawdust from the processing of non-virgin timbers (whether clean or treated).  The phrase "non-virgin" wood refers to materials such as post-consumer waste and construction and demolition waste.
Brown grease (ex USA)	Brown grease is the grease that is removed from the wastewater sent down a restaurants sink drain. This is a waste.
Manure	As defined in regulation 2 of the Renewable Heat Incentive Scheme (Amendment) Regulations 2015.

Material	Description
Tallow – Animal By-Product Category 1	<p>Tallow, also called rendered animal fat, is the hard fat obtained from the whole or part of any dead animal through the process of rendering. It is then used as feedstock for the production of biodiesel or bio liquid as fuels.</p> <p>Annex V, Part D of the RED makes clear that animal oil produced from animal by-product classified as category 1 should be treated as waste.</p> <p>A revised Animal By-Products Regulation 1069/2009 takes effect on 4 March 2011. Although the revised regulation does not appear to change this definition, no decisions have yet been made by a court or other panel on the basis of the new regulation. There is a possibility that once a decision is made, the status of tallow could change. The following documents underpin the Environment Agency’s regulation of the process of producing biodiesel from rendered animal fat:</p> <p><a href="http://www.environment-agency.gov.uk/static/documents/Business/MWRP_RPS_030_v2_biodiesel_22-12-10.pdf">http://www.environment-agency.gov.uk/static/documents/Business/MWRP_RPS_030_v2_biodiesel_22-12-10.pdf</a></p> <p><a href="http://www.environment-agency.gov.uk/static/documents/Business/Biodiesel_QP_NIEA_GEHO0311BTPC-E-E.pdf">http://www.environment-agency.gov.uk/static/documents/Business/Biodiesel_QP_NIEA_GEHO0311BTPC-E-E.pdf</a></p>
Municipal Solid Waste	This is a waste.
Construction and demolition wastes	For the purposes of generation, this category will be mainly waste wood.
Meat/bone meal	This is a waste.
Food waste	Whether from manufacturers, retailers or consumers, this will be a waste.
Waste pressings from production of vegetable oils	When a vegetable material such as olives is pressed to produce vegetable oil, the pressed material consisting of pips, skins, flesh etc. remains. This may be used as a fuel. The purpose of the process is to produce oil; the pressings are therefore waste.
Olive pomace	As above.
Soapstocks	From oil de-acidification; again an output from vegetable oil refining that will be a waste.
Distillation residues	Distillation residues are what are left over following the distillation of products such as biodiesel so will be wastes.
Food crops affected by fungi during storage	These are wastes.
Food crops that have been chemically contaminated	These are wastes.