

Proposal for A Low Carbon Fuel Tracking Scheme

For review and feed-back from FWG project steering group

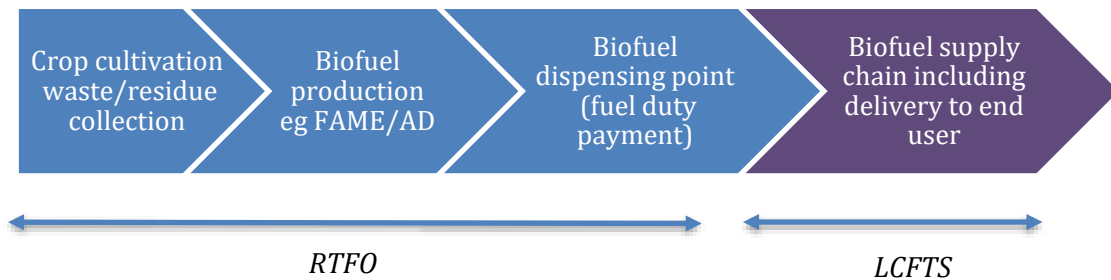
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1 Introduction

The Low Carbon Fuel Tracking Scheme (LCFTS) aims to provide assurance and traceability of the carbon and sustainability performance of renewable fuels being sold to fleet operators in the UK. The scheme is intended to complement the DfT Renewable Fuel Transport Obligation and facilitate evidence of carbon and sustainability for low carbon fuels beyond the point of fuel duty, see Figure 1. It will require low carbon fuel suppliers to have a robust and transparent system in place demonstrating the GHG emission and sustainability performance of renewable fuels along their entire supply chain.

Figure 1: Boundaries for RTFO and LCFTS scheme



The scheme will be open to all UK low carbon fuel suppliers, with particular focus in the near term on companies supplying high blend biofuels. The overarching intention is to award low carbon fuel suppliers a Low Carbon Fuel ‘kite mark’ as independent verification that the liquid or gaseous fuel being sold achieve low GHG emissions and sustainable production.

The scheme will be managed and administered by LowCVP Secretariat. Low carbon fuel suppliers will be required to apply for the kite mark. Once approved on-going assessment will be required to remain eligible. It is anticipated that the Secretariat will collaborate with audit companies to implement the scheme, potentially those providing RTFO verification services. As part of the scheme implementation, the Secretariat sees value in producing a Low Carbon Fuel Certificate for low carbon fuel suppliers, at twelve-month intervals. The certificate can be presented to their customers to identify the well-to-tank GHG emission savings and carbon intensity of the renewable fuel, as well as showing evidence of certified sustainable fuel production.

The Secretariat, in partnership with a bespoke group of FWG members will develop the LCFTS standard between August and November 2019. The intention is to launch the scheme in January 2020. The purpose of this document is to present recommendations to how the scheme could be structured and function. Some elements are not discussed in detail as they require further input from the steering group once overall agreement has been made on this document and subsequent questions raised. The intention is to produce a LCFTS Standard, which serves as the framework for biofuel suppliers, auditors and LowCVP Secretariat.

2 GHG Emission Thresholds and Sustainability Standards

Outlined below are two options for the LCFTS performance criteria. These will serve to qualify the low carbon fuel suppliers for the LCF Kite Mark and a baseline for on-going compliance.

Option 1: 'Keeping to the status quo'

The LCFS could in the first instance align with the GHG emission and sustainability standards set under the RTFO, with an additional element of 'traceability', see Table 1. (More detail will be provided when standard is developed)

Table 1: Proposed LCFTS performance criteria

GHG emissions threshold	> 60% savings
Sustainability	Protection of land with high biodiversity value, high carbon stock and peatland.
Traceability	Volume of biofuel sold to customers to achieve GHG savings and sustainability standards required by this scheme.

Option 2: 'Driving ambition and best practise'

In order to stimulate innovation and ambition a second, more superior set of standards could be introduced alongside those in Option 1 or in the near future. These could be considered the 'Gold Standard' and involve a different coloured kite mark being awarded. Traceability would remain the same as Option 1. An example is as follows:

- GHG emission threshold of more than 85% savings
- Preservation of natural resources with measures to reduce emissions to air, land and water. This includes compliance with national environmental regulations.
- Resource management and efficiency taking into account reduction of energy, waste, water and chemical usage. Encouraging principles of circularity including use of waste and residue as low carbon fuel feed-stocks.
- Conservation of land and biodiversity, particular attention to high biodiversity value and high carbon stock (same as Option 2).
- Compliance with national and international laws related to human rights and labour.
- Measures to encourage carbon capture and storage such as afforestation, conversion of waste GHG emissions into bio-based by products (eg CO₂ capture from AD and use as industrial products)
- Local community benefits such as boosting rural economies, production of organic by-products that can substitute products made from fossil fuels (eg digestate use on agricultural land)

The requirements for compliance with Option 2 have not been outlined in this note, if this option is favoured for inclusion in the LCFTS, this can be expanded.

3 Low Carbon Fuel Kite Mark and Continuous Assessment

Low Carbon Fuel Kite Mark Application and Approval

Low carbon fuel suppliers will be required to make an application to LowCVP for the Low Carbon Fuel kite mark. This will entail submitting evidence demonstrating a specific volume of renewable fuel sold their customers meets the three elements of LCFTS performance standards a) GHG emissions threshold b) sustainability c) traceability. Once approved, the supplier will be required to demonstrate on-going compliance with the standard.

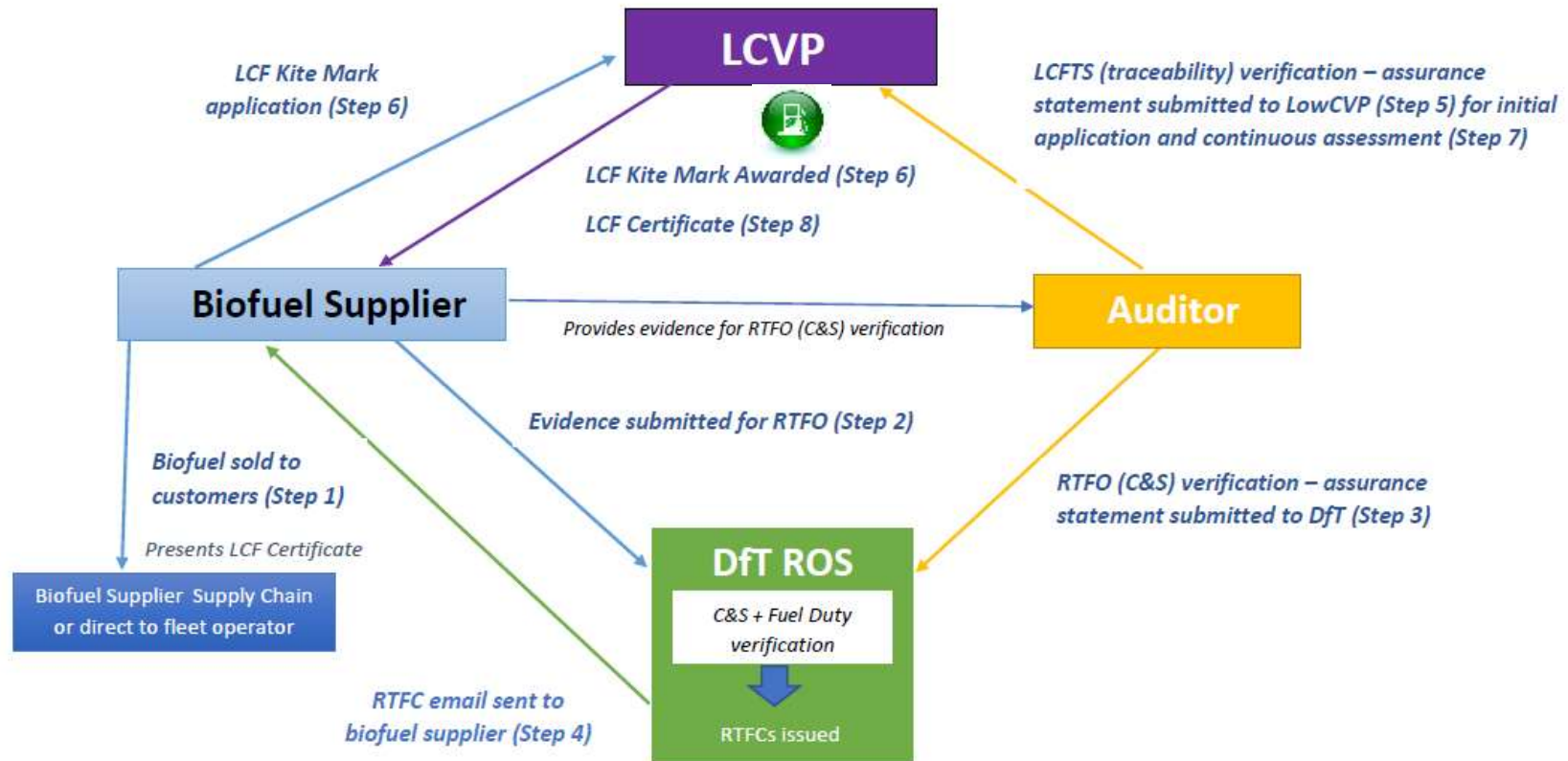
A company’s approval under the RTFO could provide suitable evidence to demonstrate compliance with the LCFTS GHG emissions and sustainability criteria. The traceability requirement of the LCFTS is considered the most important, and challenging, element. LowCVP recommends using RTFCs as a proxy for tracking the carbon and sustainability performance of the renewable fuel delivered to the customer. One way this could be achieved is by applying a mass balance methodology, matching for example RTFC’s awarded by DfT for a volume of biofuel supplied, to the volume of biofuel sold to a customer.

LowCVP could require compliance with the ‘traceability’ criteria to be verified by an independent auditor. In order to make this process efficient and less time consuming, we propose that the LCFTS verification is undertaken by the low carbon fuel company’s RTFO auditor. This could be seen as an ‘add on’ to the RTFO audit. An alternative approach is for LowCVP to commission their own auditor to undertake this validation. Only if the scheme becomes revenue generating could such a service be commissioned. Requirements for the auditor in terms of biofuel supplier checks and reporting will be outlined in the LCFTS Standard. Figure 2 and Table 2 illustrate how the scheme could work. It is anticipated approval process will take up four months (Steps 1 – 5).

Table 2: Low carbon fuel kite mark application and compliance monitoring

Step 1	Low carbon fuel supplier dispenses renewable fuel Paper work submitted to HMRC for fuel duty payment
Step 2	Low carbon fuel supplier enters C&S data into ROS
Step 3	Auditor carries out RTFO verification, enters assurance statement into ROS
Step 4	RTFO team approval - issue RTFCs to low carbon fuel supplier (email confirmation)
Step 5	Auditor undertakes LCFTS verification (could co-inside with subsequent RTFO audit)
Step 6	Low carbon fuel supplier applies to LowCVP for kite mark submitting all relevant information. LowCVP reviews evidence, awards Kite Mark
Step 7	Auditor carries LCFTS verification 3 times a year, verifier’s assurance statement sent to LowCVP
Step 8	Low Carbon Fuel Certificate issued to low carbon supplier at the end of the year

Figure 2: Schematic of Low Carbon Fuel Track Scheme



In terms of making an application for the kite mark low carbon fuel suppliers will be required to have the following tasks undertaken. (We could assume the 'tracking system' is setup prior to application)

- a) A volume of renewable fuel approved by the RTFO team over a specific period of time (suggest one month minimum)
- b) RTFCs issued by the RTFO team in relation to the approved volume of renewable fuel
- c) An assurance statement from an independent auditor to validate the existence of a 'tracking system' that aligns the volume of sold to their customers with the carbon and sustainability standards of the LCFTS. This should be a transparent method that avoids any double counting.

A 'tracking system' could be established that matches a low carbon fuel supplier's customer invoices for each monthly fuel supply with RTFCs issued. This mass balance could be undertaken various ways. For example using software to link a low carbon supplier's virtual RTFC 'bank' with their accounts system, an electronic recording keeping system (see page 6), a more sophisticated cryptography technique, such as blockchain, which accurately matches individual RTFCs to a customer's invoice and volume of fuel sold each month. A key element of this will be to match the consignment of fuel approved by the RTFO team, RTFC issued and customer invoices. All systems would need to take into account the blend of the biofuel sold and allocate RTFC accordingly. RTFC allocation rules for waste based feed-stocks and development fuels would also need to be factored in.

Continuous assessment

Low carbon fuel suppliers could be required to provide evidence to LowCVP every three months to demonstrate on-going compliance (Step 6 Table 2 and Figure 2) This could include the auditor's LCFTS assurance statement and GHG emission figures. This data could be used to produce the end of year LCF certificate. Any non-compliance identified by the auditor would need to be rectified and could potentially result in the kite mark being revoked. This would require further explanation in the LCFTS Standard.

What to do about companies not approved under the RTFO

For low carbon fuel suppliers not to be approved under the RTFO a different approach is suggested for demonstrating compliance. The LCFTS could serve as an 'add on' to bio-fuel voluntary sustainability schemes such as ISCC and RSB. The certification company could issue an 'assurance' report which the biofuel supplier could submit to demonstrate compliance. LowCVP would have to write a slightly different LCFTS standard for this purpose. Further consideration is required how biofuel companies using Green Gas Certification Scheme run by REAL could benefit from the LCFTS.

Information confidentiality and communication

All LCFTS information submitted to LowCVP by low carbon fuel suppliers will be kept confidential. The intention would be to publish a list of companies awarded the LCF Kite Mark, the date and reference number for their latest LCF Certificate. This would serve as a check for fleet operator who wish to verify the authenticity of the kite mark and certificate.

What record keeping system could a biofuel supplier have in place to demonstrate mass balance? These three examples could essentially work together. This does rely on DfT having a unique code for the RTFC's they issue to biofuel suppliers each month for a specific volume of biofuel. These records could be part of verification the auditor undertakes, in conjunction with other records such as company invoices and DfT RTFC emails. This could also work by using blockchain which could provide a more efficient and robust mechanism.

Recording monthly RTFC allocation

Month	Vol of biofuel supplied	Consignment Reference	Feed-Stocks	Date of RTFO Audit	Date DfT Issued RTFC	No of RTFCs	DfT unique RTFC reference number	GHG emissions savings (range)
May	3000 litres	A1,B2,C3	Tallow oil, sewage grease	July 2019	Aug 2019	6000	DfT/May01	83-85%

Matching invoicing with RTFCs

Customer Name	Invoice No	Date	Volume of Fuel Sold	Proportion that is biofuel	Biofuel Blend	No of RTFC	DfT RTFC reference no
Tesco	B234	18.5.19	1000 litres	1000 litres	B100	2000	DfT/May01
Morrison	C123	19.5.19	2000 litres	2000 litres	B100	4000	DFT/May01

RTFC virtual bank account

Month	RTFCs awarded DfT RTFC reference no and number of RTFC	RTFCs allocated (C&S match)	Customer Invoice Numbers	Total Volume of Biofuel Sold
May		6000 DfT/May 01	B234, C123	3000 litres
June				
August	6000 DfT/May01			

4 Low Carbon Fuel Kite Mark and Certificate

A LCF Kite Mark will need to be designed, a simple idea is shown below. Each kite mark awarded could have a unique reference which be shown on Low Carbon Fuel Certificate, and be listed on LowCVP website. Requirements will need to be built into the standard about circumstances that could result in the kite mark being revoked, and how it can be used.

Figure 3: Example Low Carbon Fuel Kite Mark Infographic



LowCVP could issue an annual LCF certificate to low carbon fuel supplier that they can give to their customers.

Figure 4: Example Low Carbon Fuel Certificate

Low Carbon Fuel Certificate		
Company: G Power Address: St James Park, WC1 Reference: LCVP.A1.20 Certification Reference: AA10		
Low Carbon Fuel	Biodiesel	Blend: B100
Feed-stock	Mixed organic waste	
Volume of fuel sold	100,000,000 litres	
Period covered	1 Jan - 31 Dec 2020	
Lifecycle GHG emissions <i>(Scope 3 Company Carbon Reporting)</i>	9gCO ₂ e/MJ	
GHG emissions savings compared to diesel	85%	
Low carbon fuel regulatory policy	RTFO	
Sustainability Voluntary Scheme	ISCC	
Carbon & Sustainability Traceability	SGS verified	
LowCVP issue date	12 th December 2020 Signed -	

5 Low Carbon Fuel Tracking Scheme Standard

Following agreement of this paper and discussion of the questions raised overleaf, the Secretariat will work collaboratively with the project steering group to create the Low Carbon Fuel Tracking Scheme Standard. This will be the framework for the scheme and used by biofuel supplier, auditors and Secretariat. A suggested structure for the guide is presented in Table 3.

The intention would be to have the document finalised by end of November 2019. Delivery timelines will be proposed following the next steering group meeting 30th July.

Table 3: LCFTS Standard - Suggested Chapters

1	Scheme Overview and Administration
2	LCFTS Performance Criteria - GHG emission, sustainability and traceability
3	Application Process and Kite Mark Award
4	Continuous Assessment and LCF Certificate
5	Governance - Demonstrating compliance with LCFTS Performance Criteria - Requirements for low carbon fuel suppliers (application/continuous assessment) - Requirements for auditors - Communication and claims (kite mark/certificate) - Data confidentiality

Example of the information a company could be required to submit for the LCFTS Kite Mark application, Chapter 3, could include:

General

- Low carbon fuel type, production process, feed-stock(s), blend sold, volume of renewable fuel submitted for RTFC (ROS system info)

GHG Emission Threshold

- Lifecycle GHG emissions - carbon intensity and savings (RTFO methodology)

Sustainability

- Voluntary scheme certificate and date of last annual audit
- RTFO auditor's verification report for the volume of fuel entered into ROS
- Evidence of RTFC awarded by DfT for the volume of fuel supplied

Traceability

- Outline of the 'tracking' system
- Evidence of mass balance linking RTFC with renewable fuel sold.
- Auditors assurance statement verifying compliance with LCFTS traceability requirements

