

RTFO Carbon and Sustainability Reporting Requirements

1. Introduction

The UK Renewable Transport Fuel Obligation (RTFO) scheme aims to encourage the supply of transport fuels from renewable sources in order to deliver carbon savings. When introduced by an order under the Energy Act 2004, it will impose a legal obligation on suppliers of fossil fuel for road transport (Obligated Suppliers).

They will be required to produce Renewable Transport Fuel Certificates (RTFCs) showing that an amount of renewable fuel has been supplied which is equivalent to a specified percentage of their overall fuel sales. The certificates can be earned from their own sales of renewable fuels, or can be acquired from other suppliers of renewable fuels. Alternatively, obligated companies can buy out of their obligation.

The greenhouse gas (GHG) and sustainability impacts of different biofuels vary significantly. The GHG benefits of biofuels depend upon the system of cultivation, processing and transportation of feedstock. The introduction of biofuels can also lead to unintended negative environmental and social impacts. Key issues include potential competition with food crops leading to increased commodity prices. Increased pressure for land may lead to direct deforestation to make way for new plantations with biodiversity impacts and loss of carbon stocks that negate any GHG savings. Changes in land use may also occur indirectly where existing agricultural activities are displaced into forest land by crops for energy.

Some biofuels production has also been associated with social concerns including: labour rights, potential violent land conflicts and health concerns related to improper use of agrochemicals. Biofuel demand also creates economic benefits including employment opportunities.

Maintaining public confidence in biofuels requires Government and the biofuels industry to find effective ways to manage potential negative impacts arising from their increased use. Most risks can be managed by suppliers through effective assurance schemes demonstrating that biofuels are sourced sustainably. Competition with food and indirect land-use changes can be managed by national governments and international bodies through other policy mechanisms.

To encourage suppliers to source sustainable biofuels, the Government proposes that the Administrator of the RTFO scheme will require fuel suppliers to submit reports on both the net GHG saving and sustainability of the biofuels they supply in order to receive RTFCs. This document provides a summary of the carbon and sustainability reporting requirements included in the RTFO scheme.

2. A Reporting Scheme

A commitment to C&S reporting within the RTFO scheme was announced in November 2005. Reporting is seen as a 'stepping-stone' towards a mandatory assurance scheme that rewards biofuels based upon their carbon intensity and seeks to penalise feedstock produced unsustainably. This first step is necessary due to the limited initial availability of data; the need to demonstrate the robustness of the criteria and methodology; and to reduce the risk of challenge under trade rules.

All biofuels will be eligible for RTFCs irrespective of how they have been produced, but to receive RTFCs suppliers must report on the sustainability of the fuel supplied. It is proposed that "not known" reports will at least initially be permissible in recognition that it may be difficult to provide information for some fuels sourced from overseas - particularly those purchased on the spot market. It is proposed that annual, independently verified reports of overall supplier performance will be required from suppliers applying for certificates to demonstrate the performance of suppliers towards sourcing sustainable biofuels with good GHG savings¹.

It is proposed that the Secretary of State will set targets for three key aspects of the reporting scheme. The targets will not be mandatory but will illustrate the level of performance which the Government expects from fuel suppliers. Suppliers will be encouraged to strive to meet these targets but no penalties will be issued for failing to meet them.

Annual supplier target	2008-2009	2009-2010	2010-2011
Percentage of feedstock meeting a Qualifying Standard	-	50%	80%
Annual GHG saving of fuel supplied	40%	50%	60%
Data reported on sustainability characteristics	35%	65%	80%

The Secretary of State will keep these targets under review and will give notice of any modifications.

It is proposed that the Administrator will publish reports of individual supplier performance in the areas of carbon intensity and sustainability on an annual basis. The Administrator may also choose to make available on a more frequent basis such information as it sees fit on the environmental impact of the RTFO. It is intended that this reporting process will make information available in a way that is accessible to consumers and which could inform their purchasing decisions.

¹ Suppliers claiming less than 450,000 certificates in an obligation period do not need to submit an annual report.

3. Reporting Requirements

It is proposed that obligated suppliers who wish to claim RTFCs will be required to submit monthly and (if they apply for 450,000 or more certificates in an obligation period) annual C&S reports. The monthly reports are expected to be required by the 15th day of the month following the month in which the fuel was supplied. This would mean that, for example, reports for the period 15 June 2008 to 14 July 2008 (inclusive) would be due by 15 August 2008. Non-obligated suppliers will be required to report whenever they wish to claim RTFCs.

Under the RTFO Order the obligation period ends on 14th April of 2009 and each subsequent year. It is expected that the Administrator will require annual reports by 30th September in the same year and that these will have to be accompanied by a verifier's statement. The annual report will not be linked to the issuing of certificates, but failure to submit an annual report is an offence which may incur a civil penalty.

3.1 Monthly reports

It is proposed that monthly reports should list the "administrative batches" of feedstock or fuel. An "administrative batch" is one with homogenous sustainability characteristics. For example: one hundred tanker movements of fuel with the same characteristics (e.g. palm oil from Malaysia meeting the requirements of the Round Table on Sustainable Palm Oil (RSPO)) could be reported as a single batch. A separate tanker movement of palm oil from Malaysia without any form of assurance would be reported as a different batch.

The proposed data requirement of the monthly report is shown in Table 1 and includes:

- Feedstock: the feedstock type from which the fuel is made
- Feedstock origin: the country of origin of the feedstock as defined by ISO 3166
- Environmental standard to which the feedstock has been grown
- Social standard to which the feedstock has been grown
- Land-use in 2005 based on IPCC guidelines
- Carbon intensity including land-use change expressed in g CO₂eq / MJ
- The impact of land use change expressed in g CO₂eq / MJ
- Information on how the carbon intensity calculation has been performed.

3.2 Annual Reports

It is proposed that Annual Reports will contain aggregate monthly information with the exception of fuel volumes (which may be subject to commercial confidentiality) and in addition details of:

- Actions to increase sourcing of sustainable biofuels and lower carbon intensity including actions to promote production on idle land
- Environmental management system certificates
- Existing verified environmental / corporate responsibility reporting.

Table 1: Monthly reporting format

Batch number	Fuel type	Quantity of fuel (litres or kg)	Biofuel Feedstock	Feedstock Origin	Sustainability Information			Carbon Information		
					Env. Standard	Social Standard	Land use in Nov 2005	Carbon intensity	Impact of LUC	Accuracy level
33001	Bioethanol	250,000	Wheat	UK	LEAF	Mechanised + LEAF	Cropland	72	0	2
33002	Bioethanol	100,000	Wheat	France	-	Mechanised	Cropland	76	0	2
33003	Bioethanol	250,000	Sugar beet	UK	ACCS	Mechanised	Cropland	45	0	4
33004	Bioethanol	1,000,000	Sugar cane	Brazil	-	-	Cropland	19	0	2
33005	Bioethanol	500,000	Unknown	Unknown	-	-	Unknown	72	Unknown	0
33006	Biodiesel	1,000,000	Oilseed rape	UK	ACCS	Mechanised + RTFO	Cropland	79	0	2
33007	Biodiesel	250,000	Oilseed rape	Unknown	-	Mechanised	Unknown	79	0	2
33008	Biodiesel	500,000	Palm oil	Malaysia	RSPO + RTFO	RSPO + RTFO	Cropland	49	Unknown	2
33009	Biomethane	150,000	Dry manure	UK	By-product	By-product	By-product	36	0	2
33010	Bio-ETBE	500,000	Wheat	UK	LEAF	Mechanised + LEAF	Cropland	12	0	2

4. Scope and Principles for RTFO C&S Reporting

4.1 Greenhouse Gas Calculation Methodology

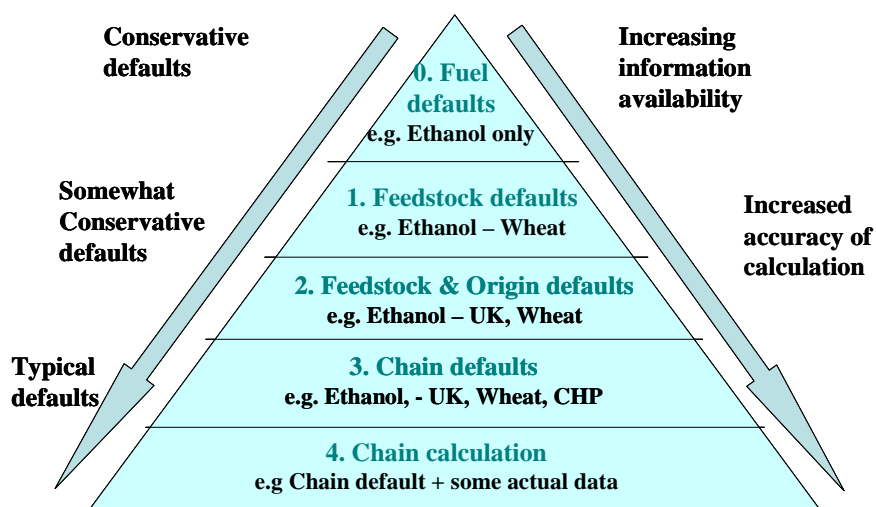
The methodology is based on a well-to-wheel calculation that includes all significant sources of GHG emissions. This enables direct comparison of fuel chain GHG saving on a like-for-like basis. Detailed calculations have been made for the principal feedstocks expected to supply biofuel to the UK at the start of the RTFO scheme:

- Ethanol from: sugar cane, sugar beet, wheat and corn
- Ethanol converted to ETBE
- FAME biodiesel from: tallow, used cooking oil, palm oil, soy and rapeseed
- Biomethane from anaerobic digestion of MSW and manure.

It is expected that the Administrator will extend this list as significant new production pathways are introduced into the UK market. The Technical Guidance provides instructions for fuel chains not currently defined.

The calculation methodology uses default values that provide estimates of the carbon intensity of different fuel chains. It enables suppliers with specific information about their supply chain to supply additional qualitative or quantitative data to improve the accuracy of the calculation. The scheme is designed to encourage better reporting of data by applying more conservative GHG savings to high level default values (where little is known about the origin of the supply chain), but typical default factors where the calculation includes more detailed information. This is illustrated in Figure 1. This flexible calculation method provides a practical, cost-effective and credible reporting system. Suppliers will also be required to report on the amount of detailed information used in their GHG calculations.

Figure 1: Hierarchy of default values used



Where information on previous land use has been supplied, the calculation includes the effect on overall GHG savings. Default values for specific land-use changes are based on Intergovernmental Panel on Climate Change guidelines. Where information is not provided, the calculation does not include any land-use change carbon impacts. It is proposed that the Administrator will conduct an *ex-post facto* analysis of the potential emissions associated with 'unknown' land-use changes.

4.2 Sustainability Reporting

The principal environmental and social risks arising from biofuel production (such as deforestation and loss of biodiversity) arise at the plantation. The sustainability reporting therefore focuses on this part of the supply chain. It is proposed that a future evolution of the scheme would encompass the wider supply chain including processing and transportation of feedstock.

The sustainability reporting model makes use of existing voluntary agri-environment and social accountability schemes to minimise the cost and administrative burden of compliance. These existing standards have been benchmarked against an RTFO Sustainable Biofuel Meta-Standard. This has seven principles identified in Table 2 and includes a number of criteria and indicators to assess the extent to which the feedstock produced in accordance with each scheme can be considered sustainable.

Table 2: Environmental and social principles

Environmental principles
1. Biomass production will not destroy or damage large above or below ground carbon stocks
2. Biomass production will not lead to the destruction of or damage to high biodiversity areas
3. Biomass production does not lead to soil degradation
4. Biomass production does not lead to the contamination or depletion of water sources
5. Biomass production does not lead to air pollution
Social principles
6. Biomass production does adversely affect workers' rights and working relationships
7. Biomass production does not adversely affect existing land rights and community relations

A comprehensive range of existing standards has been benchmarked as illustrated in Table 3. Additional standards can be benchmarked by the Administrator as they become available. Benchmarked standards that meet the required level of sustainability and audit quality are called Qualifying Standards.

Under the proposed model, suppliers will also be able to organise additional supplementary checks to demonstrate that feedstock complies fully with the Meta-Standard criteria.

Table 3: Benchmarked and qualifying standards

Standard	Qualifying Environmental Standard?	Qualifying Social Standard?
Linking Environment and Farming Marque	Yes	No
Roundtable on Sustainable Palm Oil	Yes	Yes
Sustainable Agriculture Network/ Rainforest Alliance	Yes	Yes
Basel Criteria	Yes	Yes
Forest Stewardship Council	Yes	No
Social Accountability 8000	No	Yes
Assured Combinable Crops Scheme ²	No	No
EurepGAP IFA	No	No
International Federation of Organic Agriculture Movements	No	No

To minimise the burden on business, it is not proposed to require suppliers to report on criteria where the risk of adverse impacts is minimal. In developing these principles objective, risk-based metrics have been used. The following rules apply:

- a) Where a feedstock represents less than 10% of the farm gate value

The biofuel producer purchasing these by-products will have little influence on the sustainability of the production process for the original product. For example, a biofuel producer buying tallow will have little or no influence on the standards applied to rearing the cattle. Used cooking oil, tallow, municipal solid waste and animal manure currently fall into this category and the model does not require suppliers to report on environmental and social standards and land use in respect of these biofuels. For these feedstocks suppliers may enter 'by-product' into these columns within the monthly reports. Reporting carbon intensity would be required and can be derived using the GHG calculation methodology.

- b) Where a feedstock is grown with a labour intensity of less than 5 man days/hectare

Highly mechanised feedstock production represents considerably different risks to the working conditions of labourers than feedstock grown under labour intensive conditions. It is proposed that suppliers of biofuels from feedstock produced in highly mechanised processes (less than 5 man days/hectare) may enter 'mechanised' into the social standard column within the monthly standard reports. Highly mechanised feedstocks are soy, sugar beet, wheat, maize and rape and therefore represent a range of geographic regions. It is proposed that reports on the principle of land rights would be required for all feedstock, whether highly mechanised or not.

5. Verification

To validate the accuracy of C&S reports a chain of custody must be established from the feedstock producer to the fuel supplier. Where the existing assurance scheme does not operate its own chain of custody the RTFO C&S reporting model operates a “mass balance approach”. This requires suppliers in the supply chain to account for their product on a “units in - units out” basis but does not require physical separation of certified feedstock or fuel from uncertified. This ensures that for every unit of sustainable biofuel sold the corresponding feedstock entered the market.

The model requires suppliers throughout the chain to keep input and output records of the feedstock characteristics entering and leaving the plant or process stage. The feedstock or fuel sold will describe, on an invoice or related document, the carbon and sustainability characteristics of the product sold.

It is proposed that the reliability of claims made in annual C&S reports should be demonstrated through an independent verification (or assurance engagement) to be completed by the 30th September. Initially, it is considered that assurance engagements should aim to provide at least ‘moderate’ assurance (from a limited assurance engagement). It is proposed that suppliers engage auditors who are qualified to carry out audits against the International Standard on Assurance Engagements (ISAE 3000), which defines requirements for limited-scope engagements. It is likely that the verifier’s statement, with the annual report, will be made available on the Administrator’s website.