



Department for Transport

Renewable Transport Fuel Obligation statistics: period 10 (2017/18), report 6 Final Report

About this release

This quarterly release covers the supply of renewable fuels from 15th April 2017 to 14th April 2018, based on final data as of 3rd January 2019.

This is the final report for period 10 (2017/18) covering the whole of this period.

Six reports are published for each annual obligation period as Renewable Transport Fuel Certificates (RTFCs) can be issued up to seven months following the close of the period.

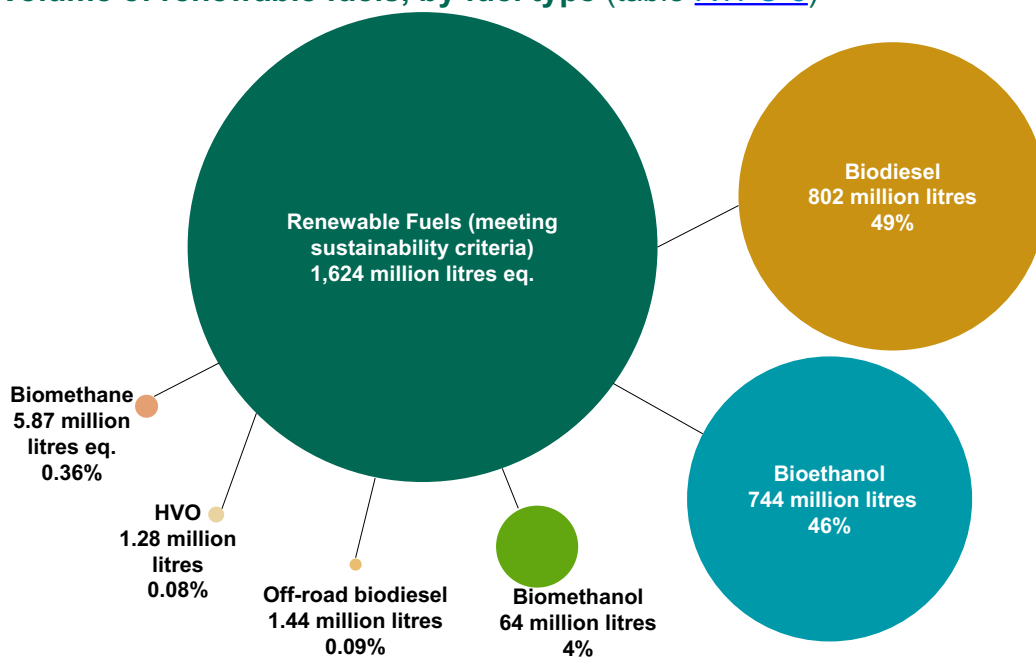
The **Renewable Transport Fuel Obligation** (RTFO) order requires transport fuel suppliers to ensure that a proportion of the fuel they supply comes from renewable sources (biofuels). This is to deliver reductions in greenhouse gas (GHG) emissions from fuels used for transport purposes and for non-road machinery.

Final returns show 1,624 million litres eq. of renewable fuels have been supplied in period 10, which constitutes 3.1% of total road and non-road mobile machinery fuel.

1,623 million litres eq. (99.96%) of this renewable fuel has been demonstrated to meet the sustainability requirements.

Of the 1,623 million litres eq. meeting the sustainability requirements, **biodiesel** comprised **49%** of supply, **bioethanol** comprised **46%**, and **biomethanol** **4%**. There were also small volumes of **biomethane**, **off-road biodiesel**, and **HVO***.

Volume of renewable fuels, by fuel type (table [RTFO 5](#))



1. Biogases (such as biomethane) are reported in kg but are converted to litres using standard multiplication factors (1.9 for biomethane) as stated in the RTFO order.

2. Figures may not sum to 100% due to rounding.

* HVO = Hydrotreated Vegetable Oil.

In this publication:

Renewable Transport Fuel Certificates **p2**

Carbon & Sustainability characteristics **p3**

Time Trends **p6**

Supply Maps **p12**

Background Information **p13**

Annex A: RTFO Statistics Reporting Timescales **p15**

RESPONSIBLE STATISTICIAN: Jack Marks 0207 944 4847 Environment.stats@dft.gov.uk

RESPONSIBLE DATA OWNER: Carly Whittaker 07773 072991 RTFO-compliance@dft.gov.uk

FURTHER INFORMATION: Media: 020 7944 4833



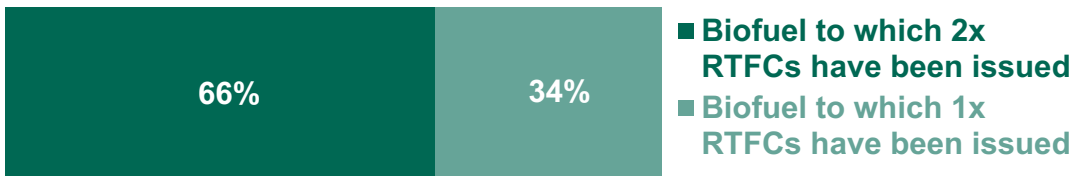
Renewable Transport Fuel Certificates

Renewable Transport Fuel Certificates¹ (RTFCs) are awarded to transport fuel suppliers whose biofuels meet the sustainability criteria.

- In period 10, **2,688 million** RTFCs have been issued for fuel meeting the sustainability requirements.
- This includes **2,129 million certificates** which have been issued to “double counting” feedstocks.

Of the biofuel supplied to the UK in period 10, **99.96%** has been demonstrated to be sustainable, **66%** of which was eligible for double counting certificates. Double counting certificates are awarded to biofuels which are derived from feedstocks which yield greater GHG savings. For example, waste feedstocks typically provide greater GHG savings compared to feedstocks grown specifically for biofuel production so are awarded double counting certificates.

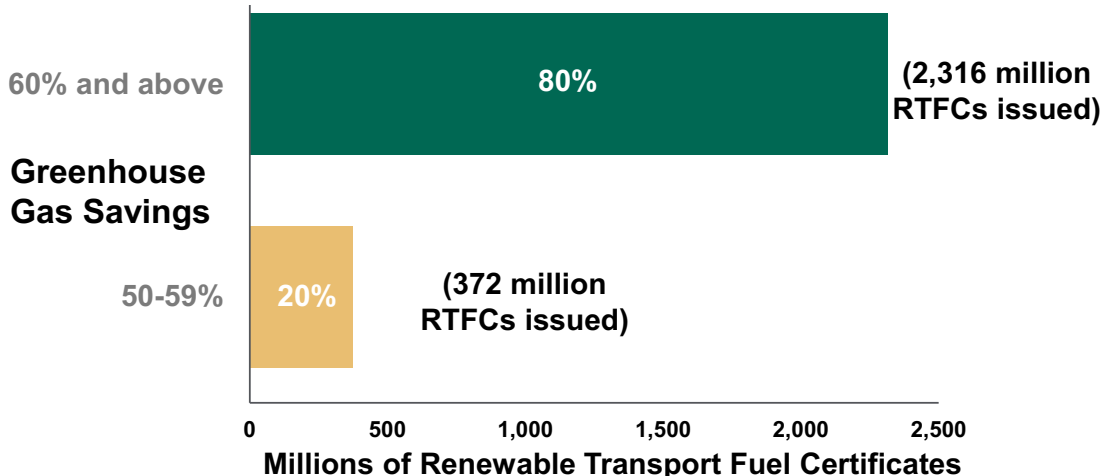
Figure 1: Biofuel to which Renewable Transport Fuel Certificates have been issued (table [RTFO 2](#))*



*Note: 0.04% of biofuels did not receive RTFCs in this period.

Sustainability criteria ensure that biofuels deliver a minimum GHG saving compared to fossil fuels and that their production does not adversely impact on biodiversity.

Figure 2: Renewable Transport Fuel Certificates issued by GHG savings category (table [RTFO 3](#))



The majority (**80%**) of the RTFCs issued in 2017/18 have been to biofuel that delivered 60% or more GHG savings. This does not include emissions from **Indirect Land-Use Change** (ILUC). This was the first period in which no RTFCs were issued to biofuels that delivered less than 50% GHG savings.

¹The deadline for applying for RTFCs is 12 August following the obligation period.

Sustainability Criteria

To receive Renewable Transport Fuel Certificates, fuels supplied must meet the sustainability criteria set out in the [Renewable Energy Directive](#) (RED) and the [Renewable Transport Fuel Obligations Order](#) (2007).

Feedstock

Any renewable, biological material that can be used directly as a fuel, or converted to another form of fuel or energy product, is defined as feedstock.

What is double counting?

To encourage the use of fuels that offer environmental benefits some biofuels, such as waste-derived biofuels and residues, are double counted and issued with twice the number of RTFCs per litre.

Note on figures

Please note that, throughout the publication, figures may not sum to totals due to rounding.

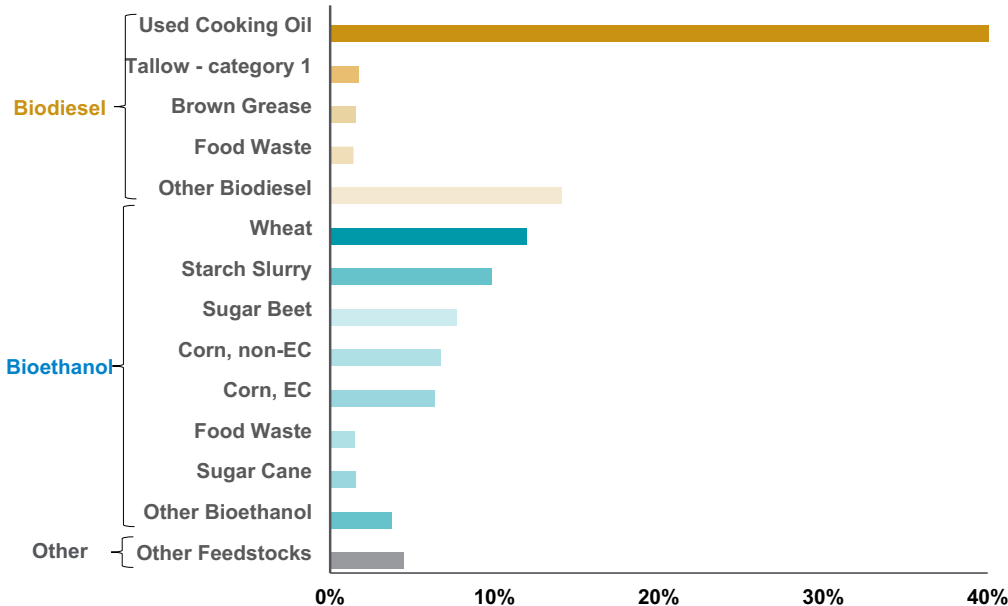
Statistical Tables

Tables for this release are available on [GOV.UK](#).

Carbon and Sustainability Characteristics

Certain carbon and sustainability criteria have to be met by suppliers in order to receive RTFCs. The feedstocks and biofuels reported in this document represent those that are incentivised and rewarded under the RTFO. However, in line with EU rules, suppliers are not required to separate certified material and uncertified material. This can mean the actual feedstock mix might differ from that reported. For more information see "Biofuel Mix Reporting" on page 13.

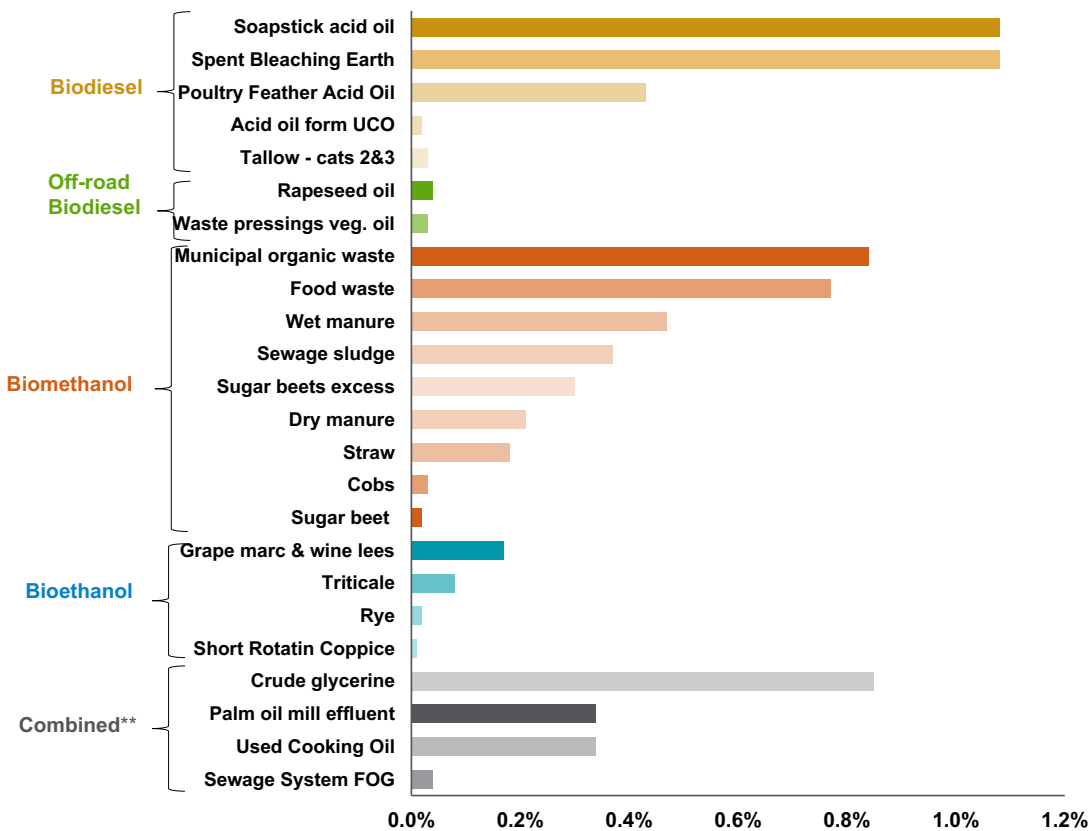
Figure 3: Supply of biofuel to the UK by feedstock: main fuels and feedstocks (table [RTFO 5](#))



Of the 1,623 million litres eq. of biofuel meeting the sustainability criteria, **used cooking oil** made-up the largest share at **42%** of total biofuel supply to the UK.

Wheat constituted the largest proportion of **bioethanol** feedstock, accounting for **24%** of total bioethanol.

Figure 3a: Supply of "other" biofuel to the UK by feedstock (table [RTFO 5](#))



"Other Feedstocks" includes feedstocks for biofuels other than biodiesel or bioethanol, which make up **4.6%** (**75 million litres eq.**) of total biofuel meeting the sustainability criteria. This chart shows the detailed breakdown of feedstocks under "Other Biodiesel", "Other Bioethanol" and "Other Feedstocks".

** These feedstocks are used in the production of multiple fuels

Carbon and Sustainability Characteristics (continued)

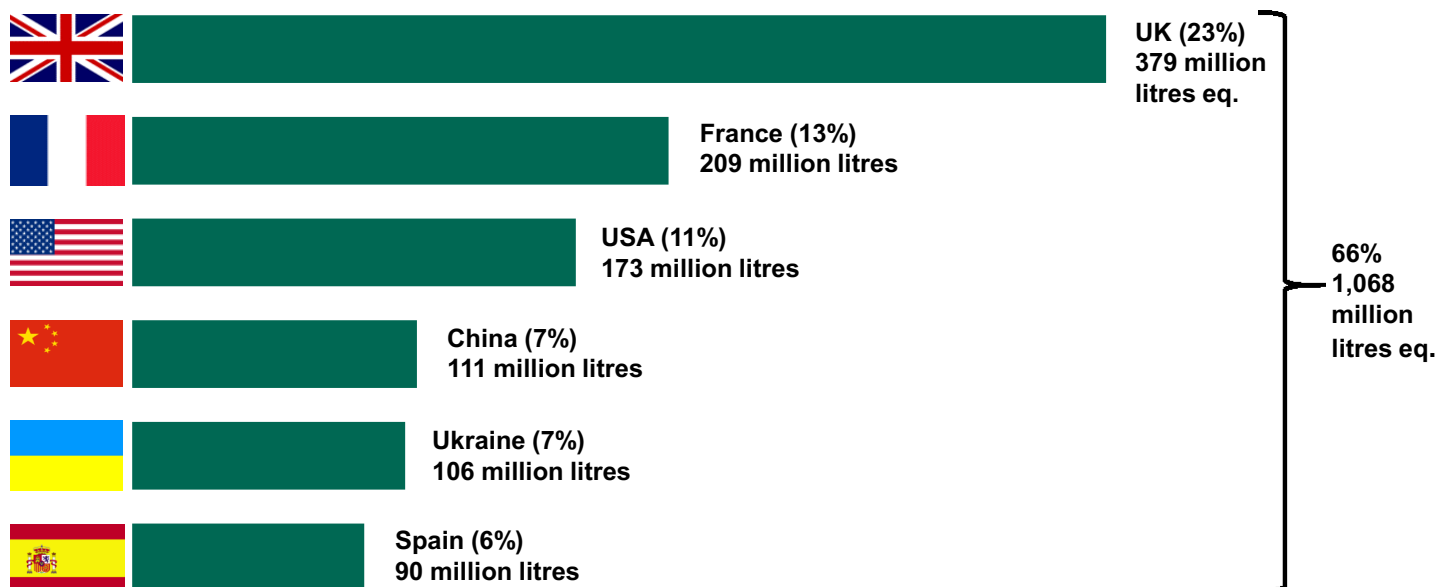
Double counting feedstocks

Of the 1,623 million litres eq. of renewable fuels meeting the sustainability criteria, **66%** was made from a waste/non-agricultural residue (double counting) feedstock.

Country of origin

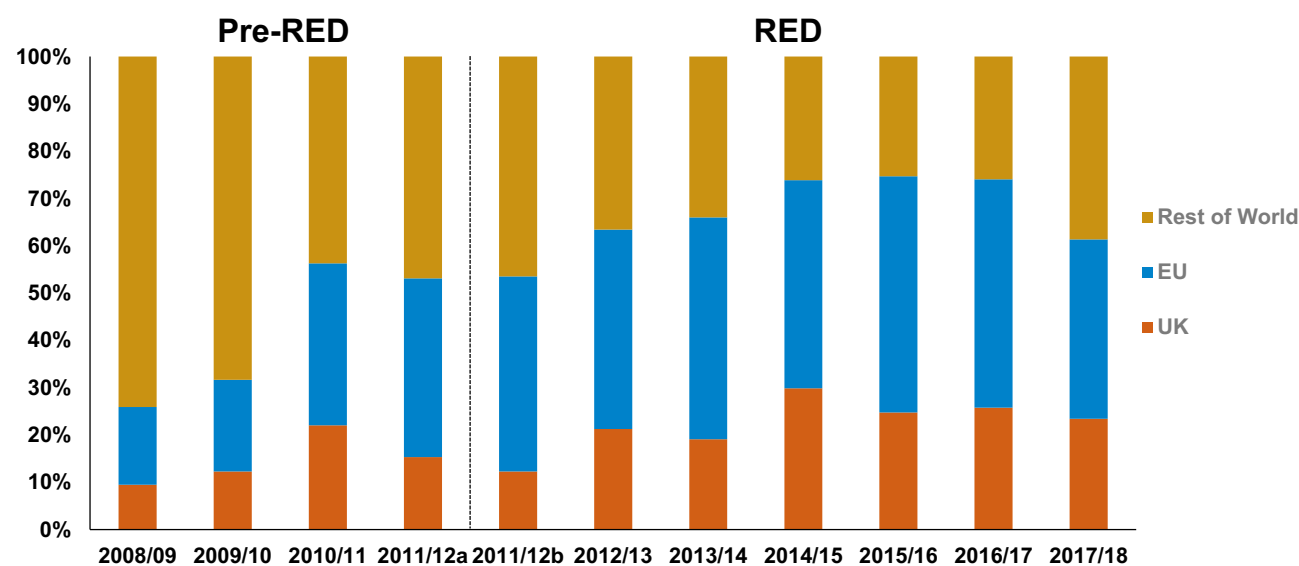
In 2017/18, the top 6 countries supplying biofuel to the UK, including the UK itself, constituted **66%** of total supply. **UK feedstocks** accounted for **23%** of total biofuels.

Figure 4: Top 6 countries supplying biofuel to the UK (table [RTFO 5](#)).



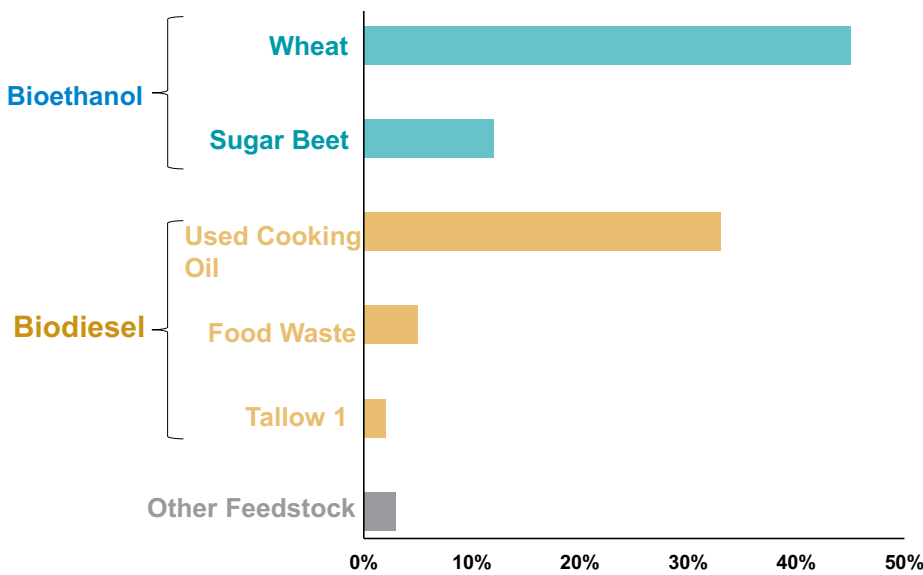
- The most widely reported source for biodiesel (by feedstock and country of origin) was **used cooking oil from the UK** (126 million litres, 8% of total fuel, 16% of biodiesel).
- The most widely reported source for bioethanol (by feedstock and country of origin) was **wheat from the UK** (171 million litres, 11% of total biofuel, 23% of total bioethanol).

Figure 5: Proportion of biofuel supplied to the UK by region, 2008/09 to 2017/18



*Note: some region information is missing from datasets prior to the Renewable Energy Directive (RED) implementation.

Figure 6: UK origin biofuel by feedstock for 2017/18 (table [RTFO 5](#))



Of the 379 million litres of UK origin biofuel supplied to the UK, the most common biofuel by feedstock and fuel-type was **bioethanol from wheat** (171 million litres, 45% of UK origin biofuel).

This was followed closely by **biodiesel from used cooking oil** (126 million litres, 33% of UK origin biofuel).

*Other Feedstock Includes biodiesel (soapstock acid oil contaminated with sulphur and rapeseed residue (high erucic acid content)), bioethanol (EC-corn) and off-road biodiesel (food waste and used cooking oil).

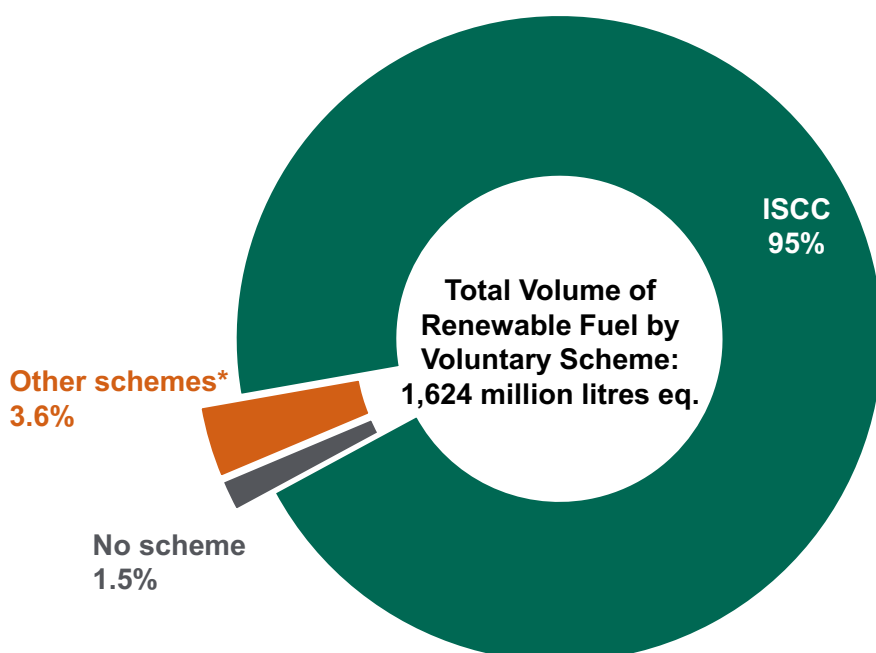
Contribution to GHG savings

- An aggregate GHG saving of **76%** compared to fossil fuels was achieved in this period. Accounting for **Indirect Land-Use Change (ILUC)** reduces this to **71%**.

Schemes for certification and traceability

- Almost all (**99%**) of biofuel feedstocks that have met the sustainability criteria have been certified by voluntary scheme.
- From the current voluntary schemes listed, the International Sustainability and Carbon Certification Scheme (ISCC) certified **95%** of UK biofuel in period 10.

Figure 7: Proportion of fuel reported via a voluntary scheme 2017/18 (table [RTFO 6](#))



What is a voluntary scheme?

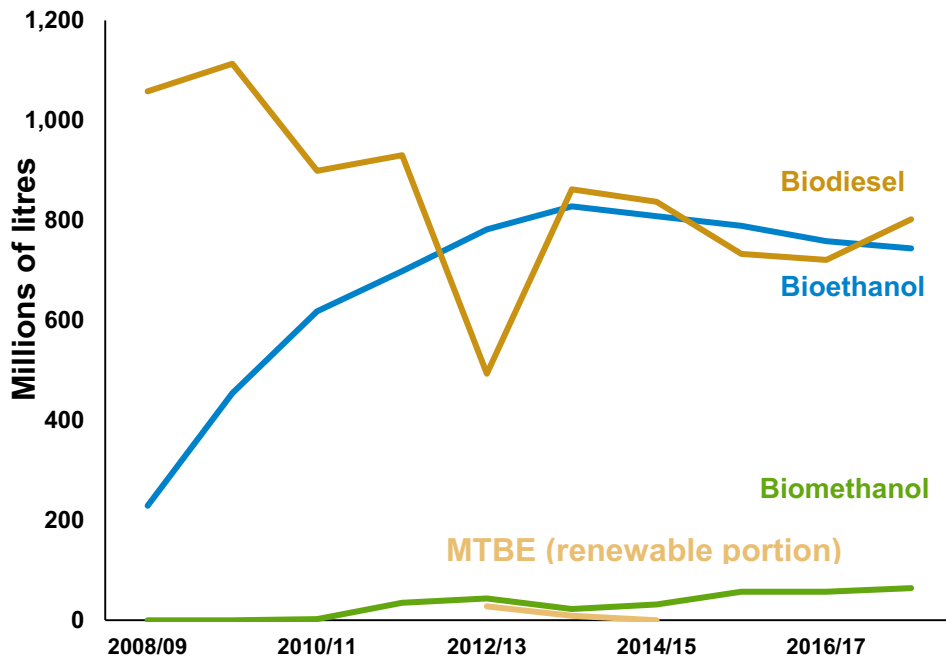
Voluntary schemes verify compliance with the EU's biofuel sustainability criteria, which is a prerequisite for RTFCs to be issued.

*Other RTFC schemes: RSB, 2BSVS, Redcert EU, Ensus, and NTA 8080

Time Trends in the Supply of Biofuels

Of all renewable fuels supplied to the UK, **biodiesel** made up **49%** in 2017/18, overtaking **bioethanol** which accounted for **46%**.

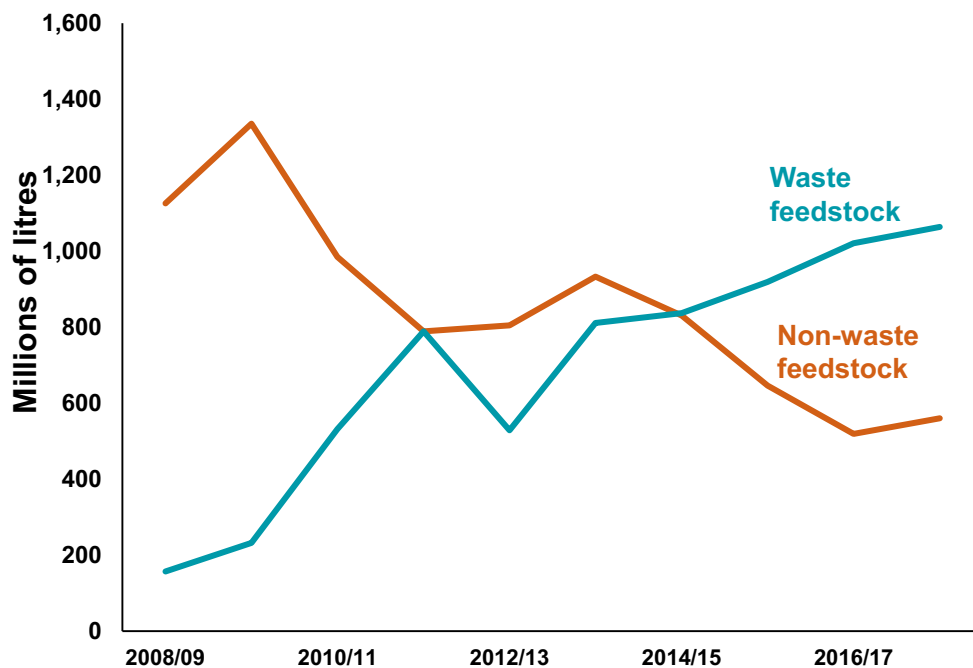
Figure 8: Supply of selected biofuels to the UK by fuel type, 2008/09 to 2017/18



Biofuel trends

Volumes of **bioethanol** have been steadily declining since 2013/14, possibly owing to an overall decline in the supply of petrol [see Figure 18]. Volumes of **biodiesel** are also lower than 2013/14 despite an increase from last year. The supply of **biomethanol** has been increasing in recent years to an all-time high in 2017/18 of 64 million litres, contributing **4%** to total biofuel supply.

Figure 9: Biofuels from waste and non-waste feedstock, 2008/09 to 2017/18



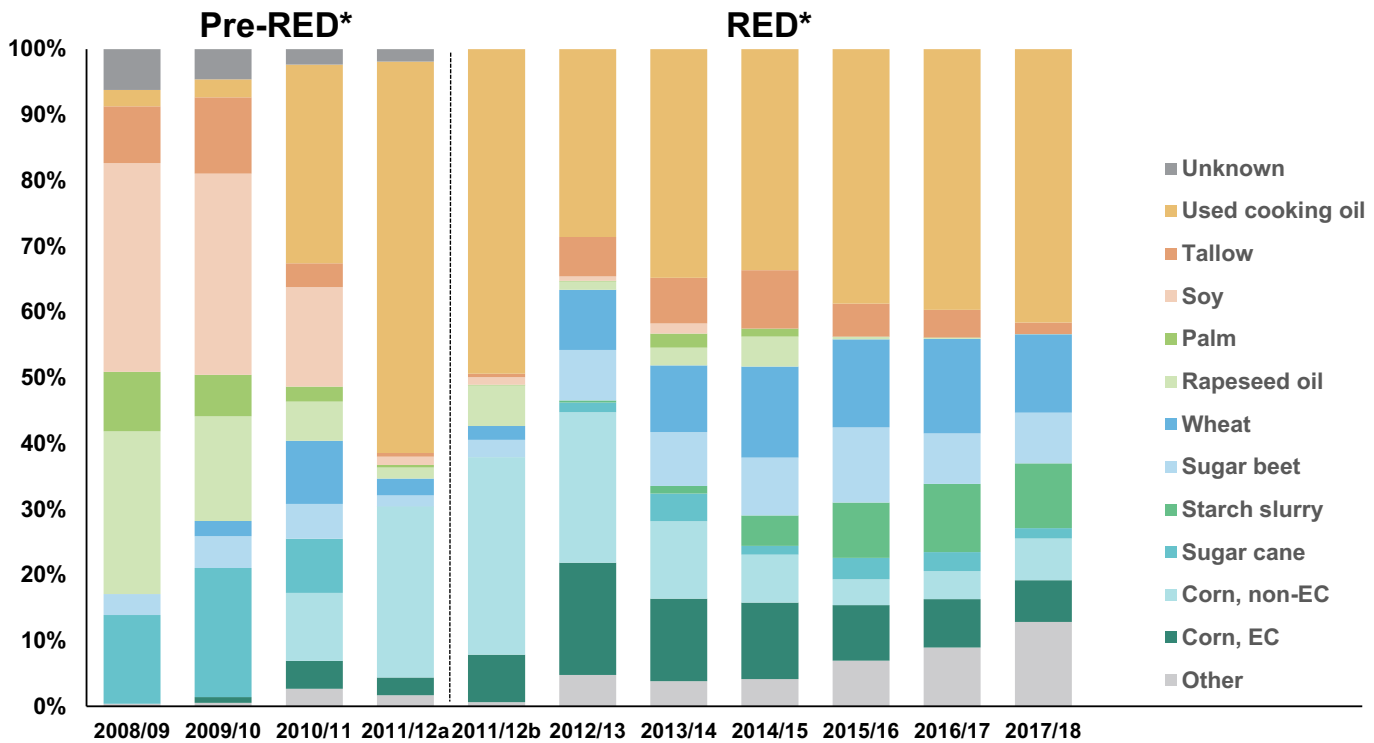
Waste feedstock

Waste-derived fuels, which benefit from double counted RTFCs, have been increasing over time. In 2017/18, **waste feedstocks** accounted for 1,064 million litres eq. of biofuel. This continues the trend of the volume of waste-derived fuels increasing since 2012/13. The volume of non-waste feedstocks also rose in 2017/18, reversing a trend of decline since 2013/14.

Time Trends in the Supply of Biofuels (continued)

The feedstock mix has also changed over time, though **used cooking oil** has remained the most common feedstock supplied to the UK since 2010/11.

Figure 10: Supply of biofuels to the UK by feedstock, 2008/09 to 2017/18

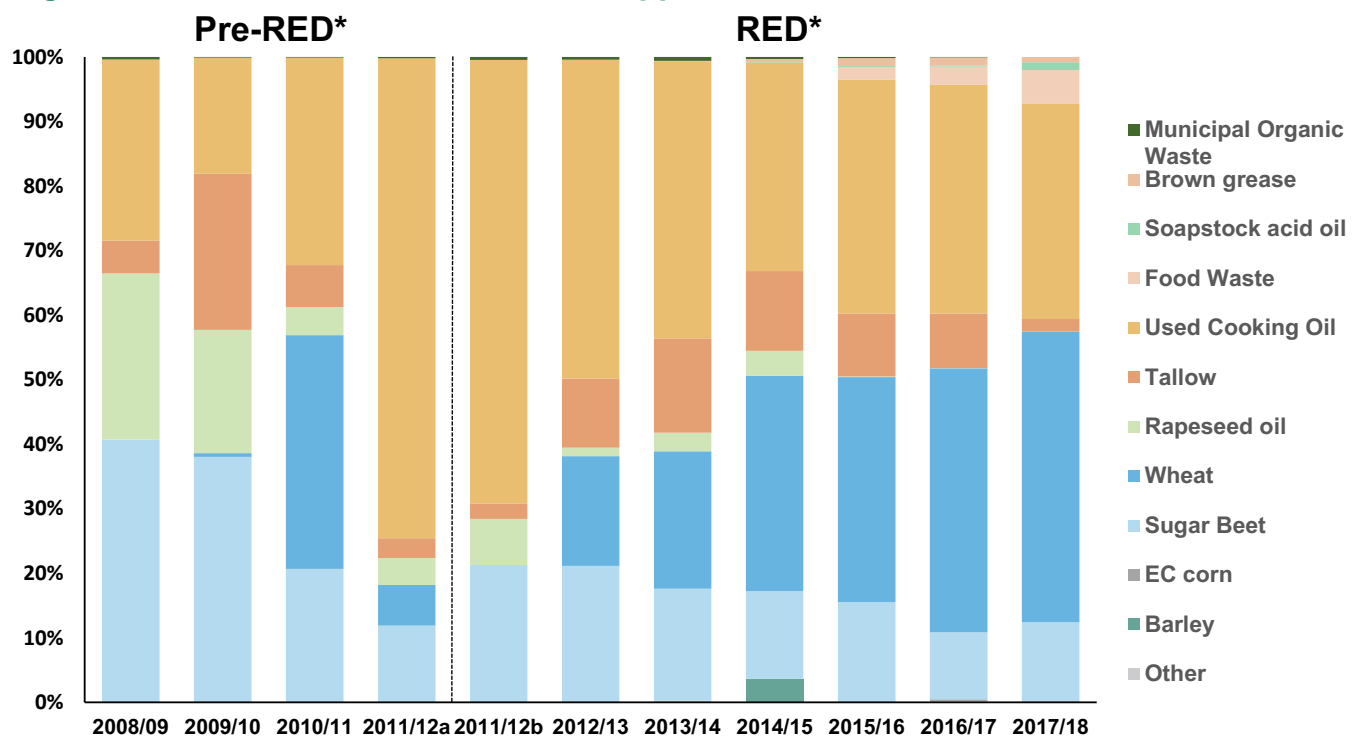


*RED - Renewable Energy Directive

"Other" includes soapstick acid oil, spent bleaching earth, brown grease, poultry feather acid oil, and others. For full list see table [RTFO 5](#).

Biofuels from UK feedstocks made up **23%** of total biofuels in 2017/18. **62%** of UK feedstocks comprised of waste-derived fuels, up from **47%** in 2016/17.

Figure 11: Biofuels from UK feedstock supplied to the UK, 2008/09 to 2017/18



Time Trends in the Supply of Biofuels (continued)

GHG savings have improved over time especially when ILUC is taken into account. This is linked to an increase in waste feedstock as a proportion of total biofuel.

Figure 12: Greenhouse gas saving delivered by biofuel supplied to the UK, 2008/09 to 2017/18

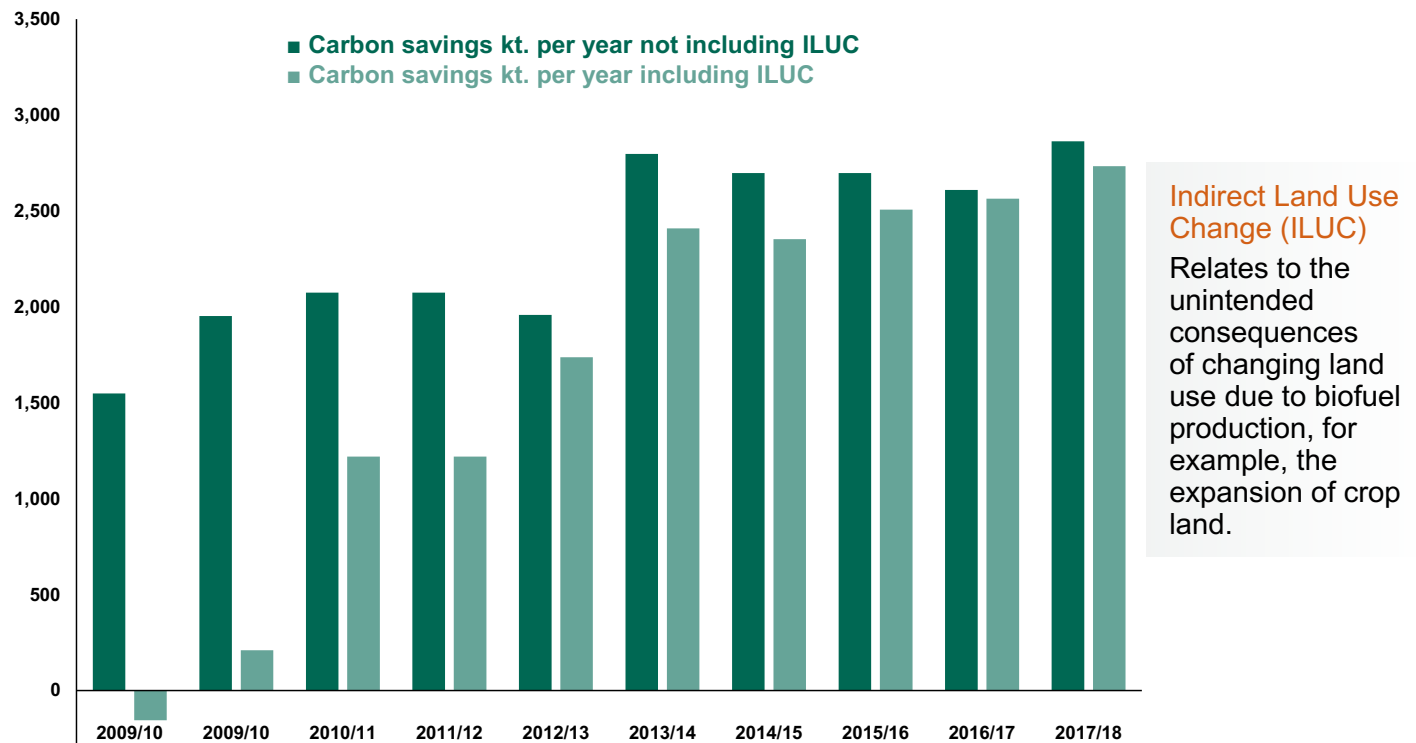
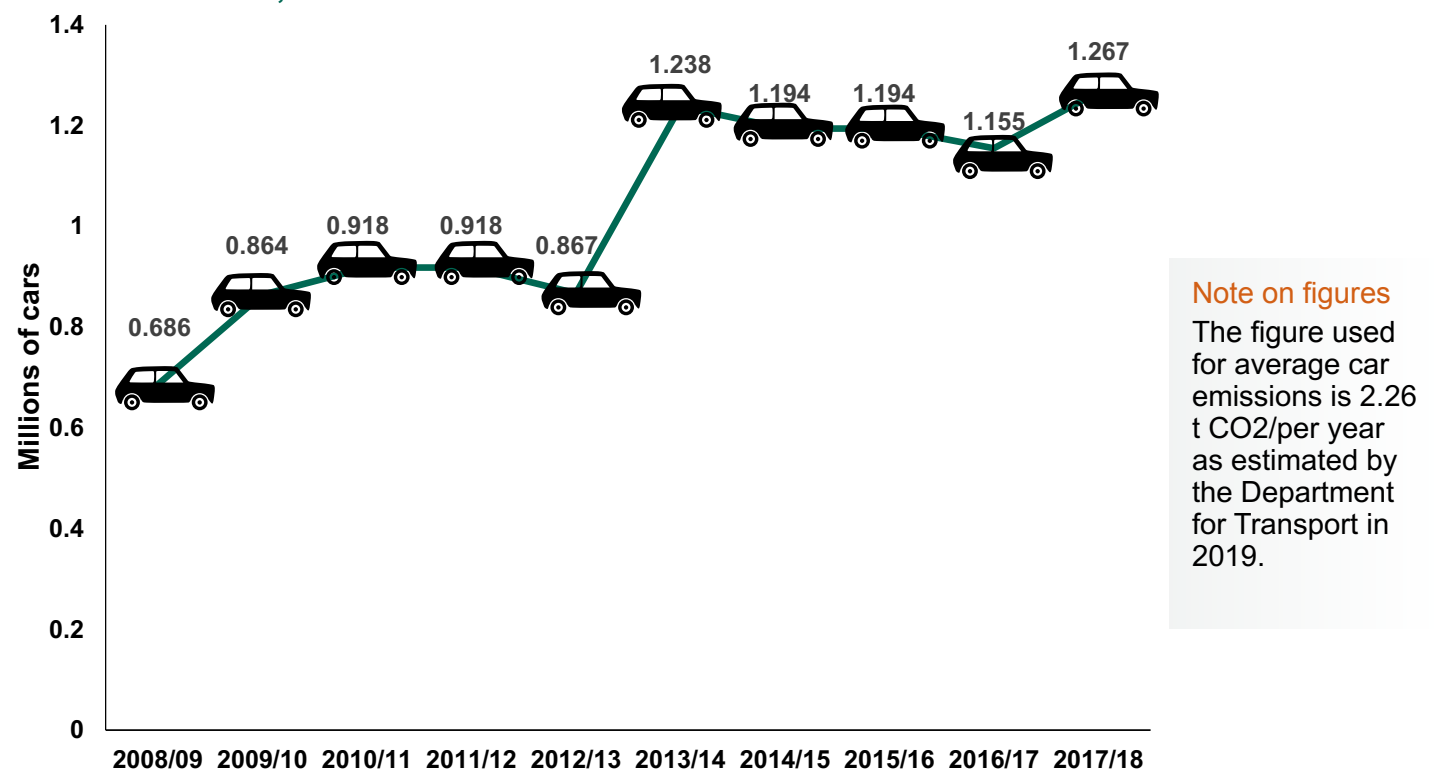



Figure 13: Greenhouse gas savings - equivalent number of average cars taken off the road, 2008/09 to 2017/18

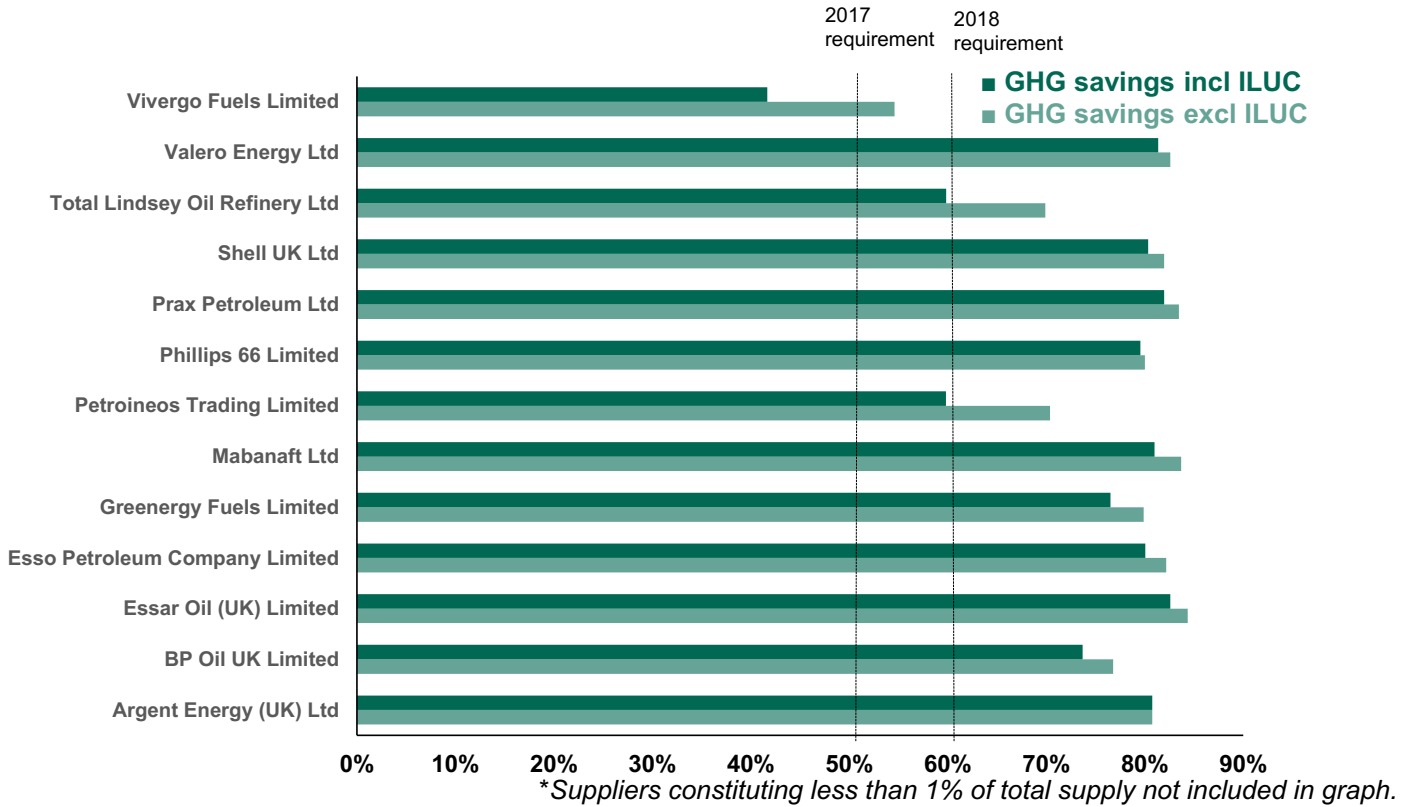


 Total GHG savings in 2017/18 was the equivalent of taking **1.27 million** cars off the road (1.21 million cars if ILUC is accounted for).

Time Trends in the Supply of Biofuels (continued)

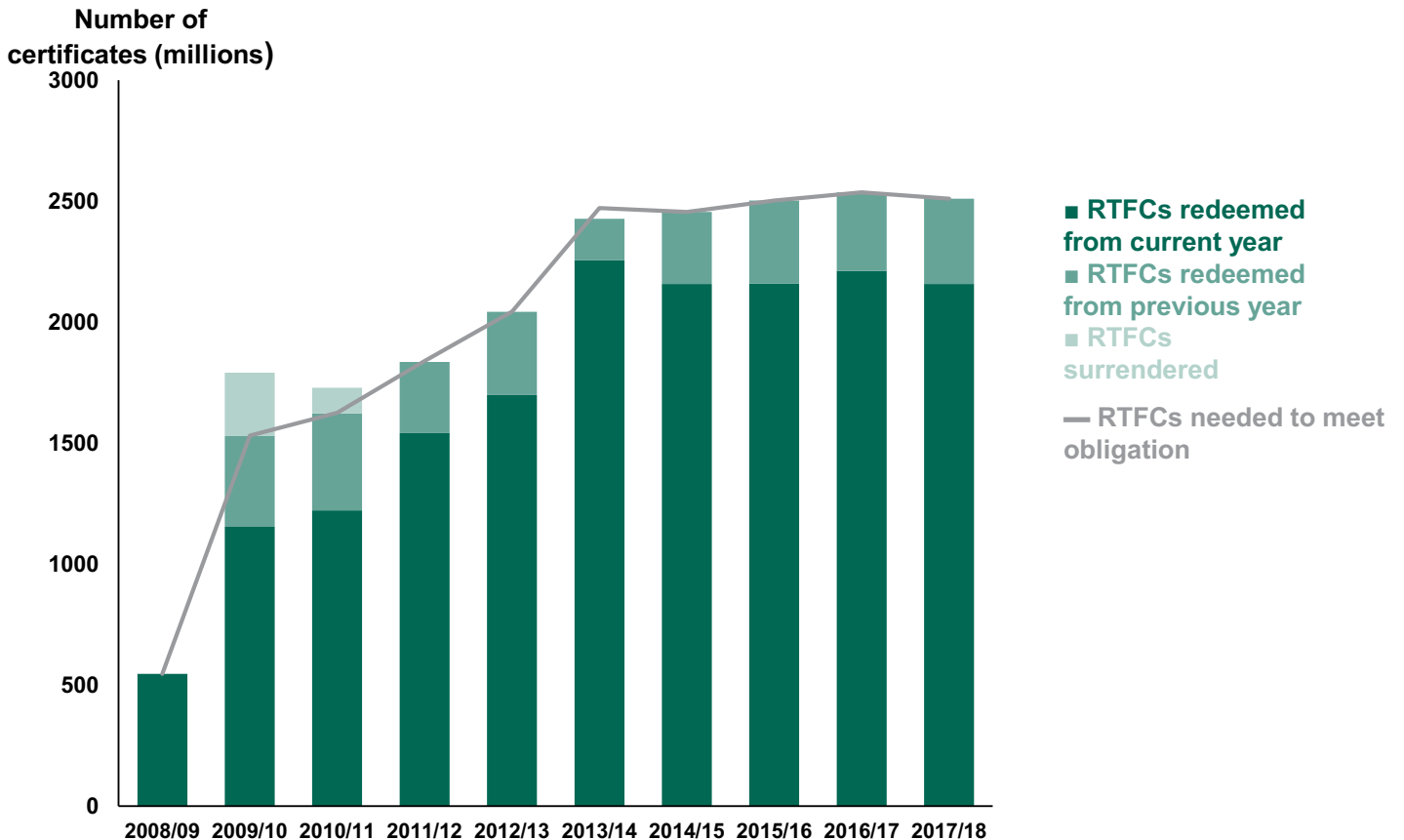
The figure below gives information on GHG savings by supplier.

Figure 14: Average GHG savings by supplier for 2017/18 (table [RTFO 6](#))



The figure below shows activity in Renewable Transport Fuel Certificates across years.

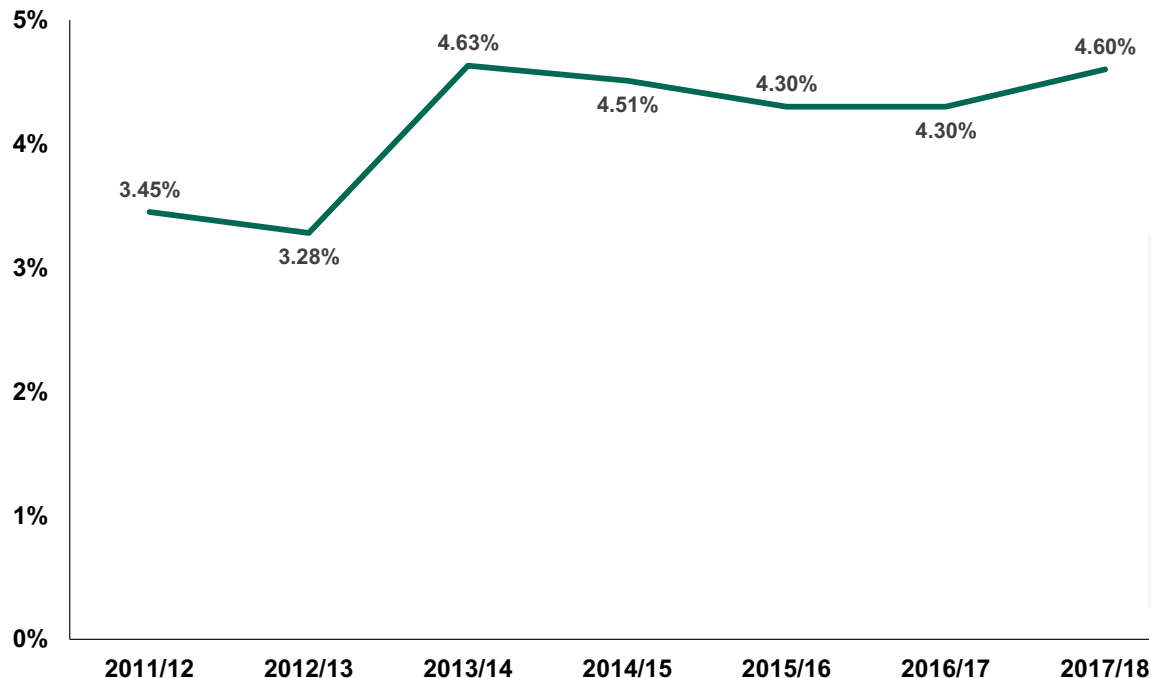
Figure 15: Activity in Renewable Transport Fuel Certificates, 2008/09 to 2017/18



Time Trends in the Supply of Biofuels (continued)

Under the **Renewable Energy Directive (RED)** the UK has a **10%** target for renewable fuels in transport energy by 2020. Progress towards this target includes an allowance for double counting fuels that meet RED requirements.

Figure 16: Supply of renewable fuels against RED transport energy targets, 2008/09 to 2017/18

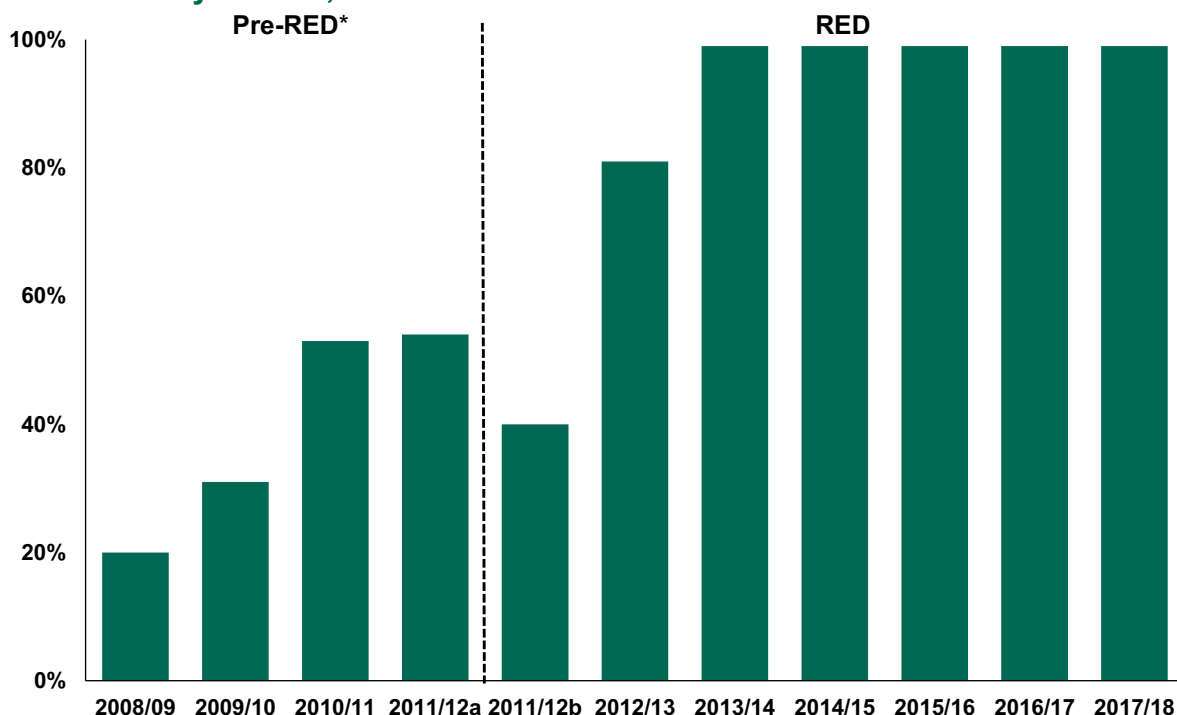


What is RED?

The Renewable Energy Directive (RED) was introduced in 2011/12 and includes sustainability criteria for biofuels.

The uptake of voluntary schemes has remained above **99%** for the past five years, compared to **20%** in the first year of the RTFO.

Figure 17: Percentage of renewable fuel meeting a voluntary scheme sustainability criteria, 2008/09 to 2017/18



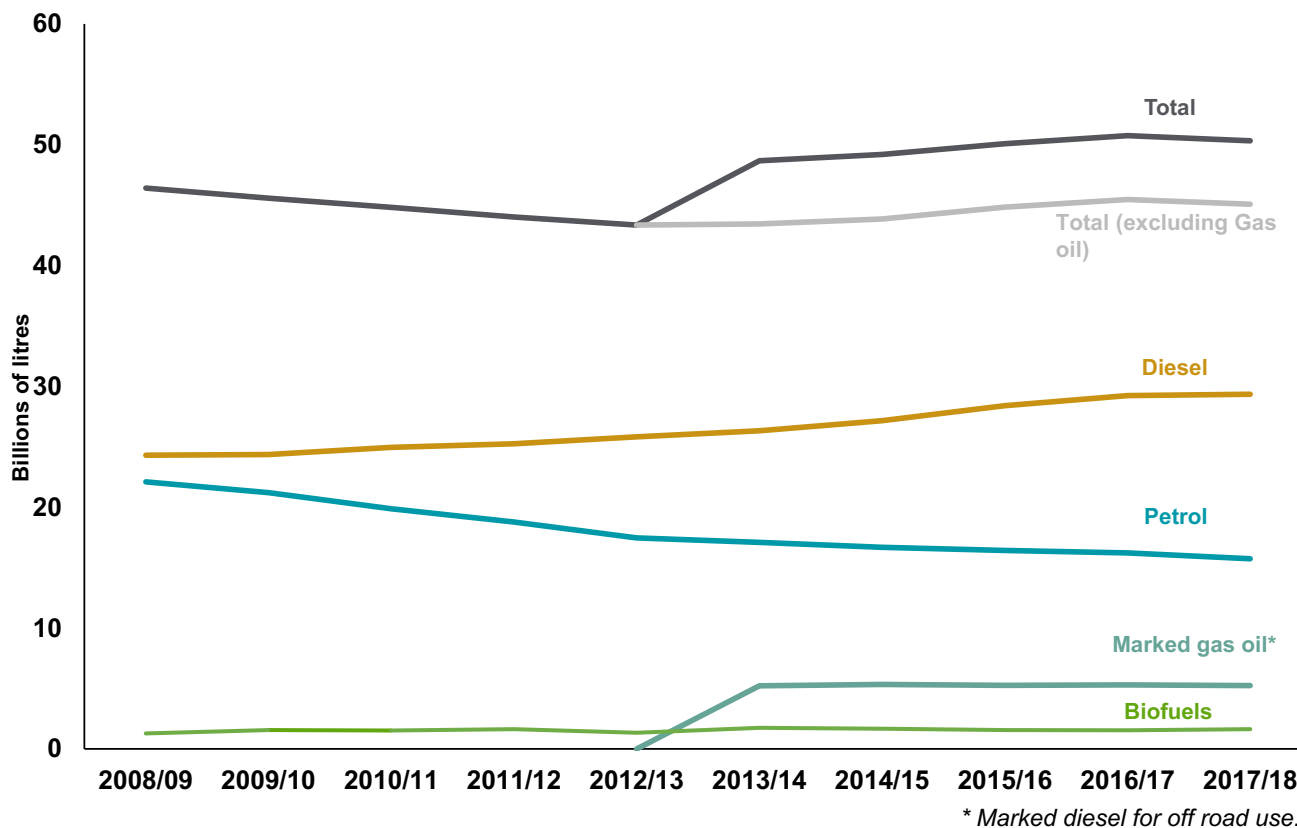
What is a voluntary scheme?

Voluntary schemes verify compliance with the EU's biofuel sustainability criteria, which is a prerequisite for RTFCs to be issued.

Time Trends in the Supply of Biofuels (continued)

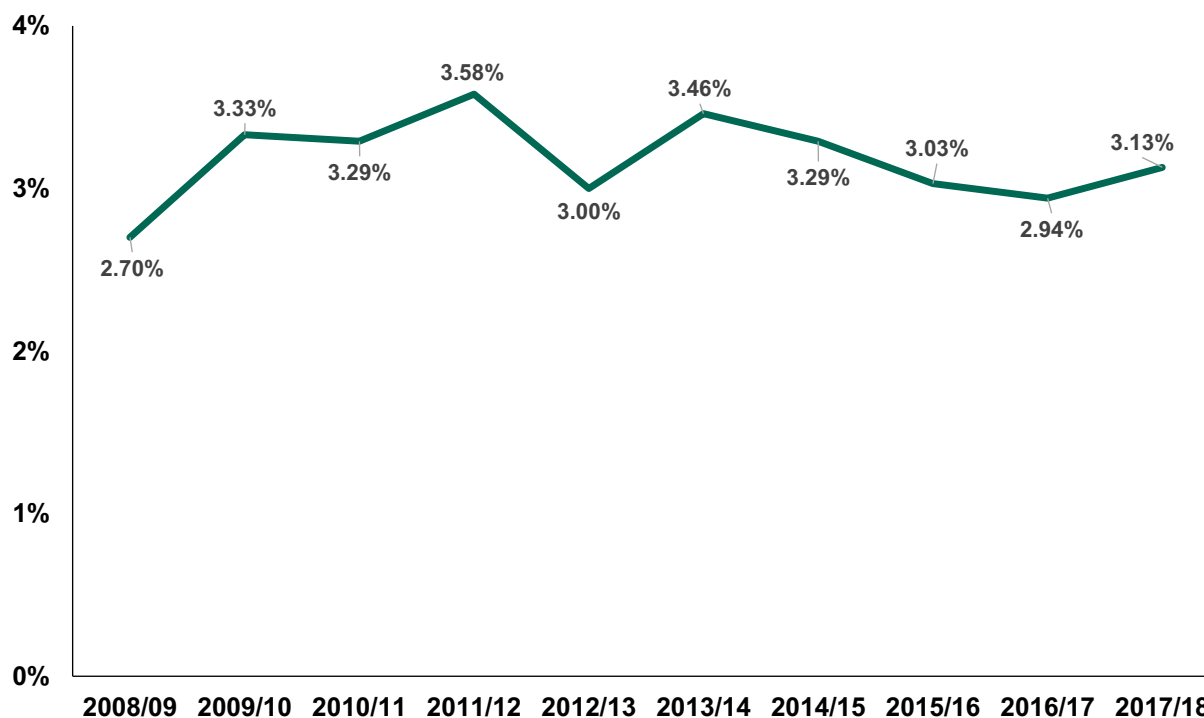
Overall fossil fuel supply fell slightly in 2017/18. Supply of diesel remained similar to 2016/17 levels (rising only 100 million litres), while petrol saw a decline of half a billion litres (3%).

Figure 18: Trends in the supply of fuels, 2008/09 to 2017/18



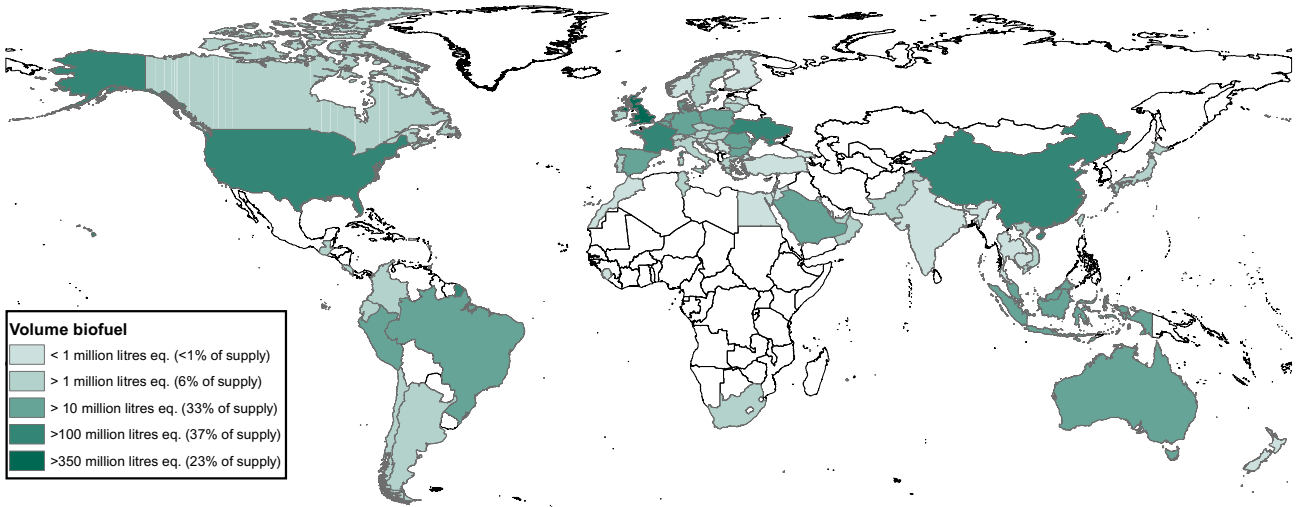
The proportion of biofuel as a proportion of total fuel was 3.13% in 2017/18. This represents an increase on 2016/17 (0.19%), and reverses a trend of decline since 2013/14.

Figure 19: Biofuels as a proportion of total UK fuel supply, 2008/09 to 2017/18



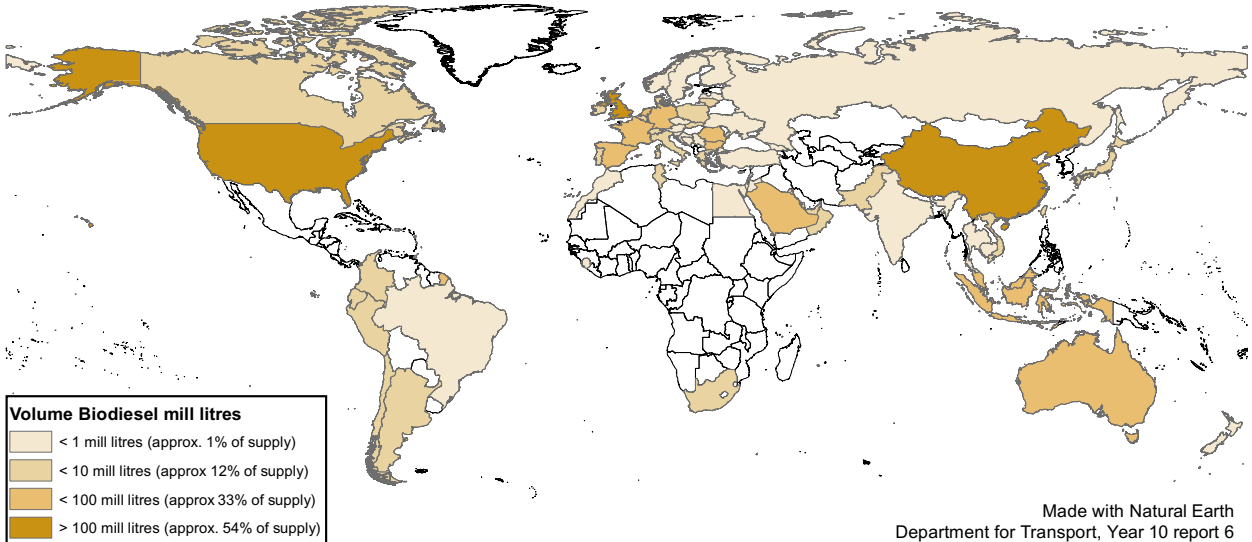
Maps of Biofuel Supply

Global Supply of Biofuel to the UK



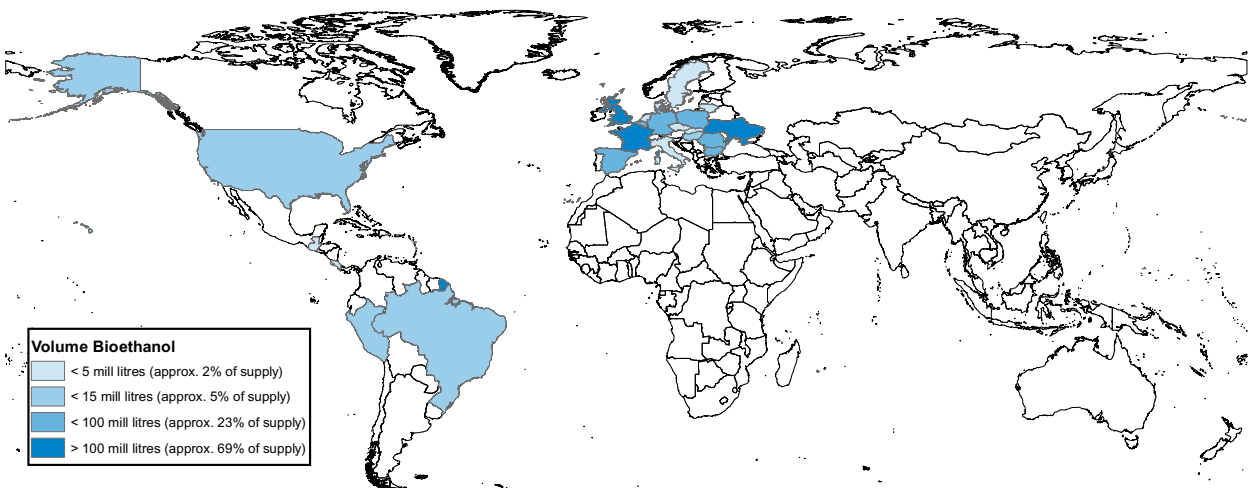
Made with Natural Earth
Department for Transport, Year 10 report 6

Global Supply of Biodiesel to the UK



Made with Natural Earth
Department for Transport, Year 10 report 6

Global Supply of Bioethanol to the UK



Made with Natural Earth
Department for Transport, Year 10 report 6

Background Information

Sources of data in this report

Data on volumes of fuel, Renewable Transport Fuel Certificates (RTFCs) (issues, redemptions, surrenders, transfers) and Carbon & Sustainability (C&S) are held by the Renewable Transport Fuel Obligation (RTFO) Administrator on the RTFO Operating System (ROS).

Fuel volume data is submitted on a monthly basis by fuel suppliers to the RTFO Administrator and validated against HMRC duty payment data.

C&S data is submitted as part of a supplier's RTFC application. As suppliers may choose when to apply for RTFCs, and if the application is not approved the renewable fuel is not regarded as sustainable, C&S data is only reported on once RTFCs have been issued. There will therefore be a difference between the volume of biofuel supplied and the number of RTFCs issued/C&S data available. This difference will decrease over time until the final deadline for issuing RTFCs has passed (15th November following the obligation period). The final report for an obligation period will show the final position.

Data on RTFCs (issues, redemptions, surrenders, transfers) is recorded in ROS as all are issued, traded and tracked electronically.

Biofuel Mix Reporting

The data reported by fuel suppliers under the RTFO is in line with EU rules on mass balance. A mass balance system requires suppliers throughout 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 material. It ensures that for every unit of sustainable biofuel sold, the corresponding sustainable feedstock has been produced. This can mean the actual feedstock mix might differ from that reported. Nonetheless, the feedstocks and biofuels reported in this document represents those that are incentivised and rewarded under the RTFO.

Strengths and weaknesses of the data

The Administrator validates volume data submitted by fuel suppliers against that held by HMRC regarding fuel duty liabilities. This data may change over time even after validation against HMRC data as suppliers make amendments to the volumes of fuel they have supplied (and duty liabilities).

C&S data is verified by independent verifiers and is also checked against the RTFO Guidance by the Administrator.

Further Details

Further information on the data can be found in the [Notes and Definitions](#).

Next Update

The next publication will be year 11 (2018) report 3, scheduled for release in May 2019.

Datasets are published quarterly.

Carbon and Sustainability data on biofuel supplied by fuel suppliers are published annually.

Related Information

Previously published reports can be found on the DfT website: <https://www.gov.uk/government/organisations/department-for-transport/series/biofuels-statistics>.

The publication timetable can be found at Annex A.

Background Information (continued)

Whilst the Administrator validates volume data against HMRC data at a company level, there is not an exact match between the volume of fuel reported in this report and the volume of fuel reported in HMRC's Hydrocarbon Oils bulletin. Reasons for this include:

- Road duty is paid on fuel that is later proven to be for non-road use;
- Differences between how fuel is categorised under the RTFO and by HMRC, in particular, the RTFO requires recording of fuels on the basis of their renewability but this is different than the categories HMRC use for duty coding (e.g. petrol used as denaturant in ethanol is recorded as ethanol by HMRC and petrol under the RTFO);
- Accidental recording of fuel against the incorrect duty codes by suppliers;
- Calendar month and quarterly duty payments being recorded against different supply periods under the RTFO and by HMRC (these are typically a month different);
- Differences in when adjustments in duty payments are recorded. HMRC record these in the month the adjustment occurs: whilst this practice is usually followed under the RTFO there are exceptions around the change in obligation period.

Official Statistics

Official Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure they meet customer needs.

Details of ministers and officials who received pre-release access to these statistics up to 24 hours before release can be found in the pre-release access list



To hear more about DfT statistics publications as they are released please follow us on Twitter via our @DfTstats account: <http://www.twitter.com/DfTstats>. TWITTER, TWEET, RETWEET and the Twitter logo are trademarks of Twitter, Inc. or its affiliates.

Annex A: RTFO Statistics Reporting Timescales and Contents

Reports are published quarterly.

The last report for the obligation period (number six) will report on the carbon and sustainability performance of individual suppliers. These reports are available online at:

<https://www.gov.uk/government/organisations/department-for-transport/series/biofuels-statistics>

Table 1 – content of RTFO reports

Table	Description	Report					
		One	Two	Three	Four	Five	Six
RTFO 01	Volume of fuel supplied	Yes	Yes	Yes	Yes	Yes	Yes
RTFO 02	Volume of fuel to which RTFCs issued and number of RTFCs issued	Yes	Yes	Yes	Yes	Yes	Yes
RTFO 03	RTFC balances by obligation period	Yes	Yes	Yes	Yes	Yes	Yes
RTFO 04	RTFC trades to date by company type	Yes	Yes	Yes	Yes	Yes	Yes
RTFO 05	RTFO wide carbon and sustainability data	Yes	Yes	Yes	Yes	Yes	Yes
RTFO 06	RTFO wide voluntary scheme data	Yes	Yes	Yes	Yes	Yes	Yes
RTFO 07	Performance against obligation by supplier	No	No	No	No	No	Yes
RTFO 08a	Feedstock by supplier as a percentage of their supply	No	No	No	No	No	Yes
RTFO 08b	Country of origin by supplier as a percentage of their supply	No	No	No	No	No	Yes
RTFO 09	Percentage of renewable fuel that was sustainable by supplier	No	No	No	No	No	Yes
RTFO 10	Carbon and sustainability data by supplier	No	No	No	No	No	Yes
RTFO 11	RTFO wide fuel supply by volume and energy	No	No	No	No	No	Yes
RTFO 12	Civil penalties and other non-compliance	No	No	No	No	No	Yes
RTFO 13	Performance against GHG reporting Requirements	No	No	No	No	No	Yes

Table 2 – Publication dates and contents of each report

		Feb 18	May 18	Aug 18	Nov 18	Mar 19	May 19	Aug 19	Nov 19
Obligation Period 10 2017/18	Quarter 1	Report 2	Report 3	Report 4	Report 5	Report 6			
	Quarter 2	Report 2	Report 3	Report 4	Report 5	Report 6			
	Quarter 3		Report 3	Report 4	Report 5	Report 6			
	Quarter 4			Report 4	Report 5	Report 6			
Obligation Period 11 2018	Quarter 1				Report 1	Report 2	Report 3	Report 4	Report 5
	Quarter 2					Report 2	Report 3	Report 4	Report 5
	Quarter 3						Report 3	Report 4	Report 5
Obligation Period 12 2019	Quarter 1							Report 1	Report 2
	Quarter 2								Report 2
	Quarter 3								
	Quarter 1								

* Highlighted reports indicate summary report for the period.