



Department for Transport

Renewable Fuel Statistics 2019

Second Provisional Report

About

This quarterly release covers the supply of renewable fuel in 2019, based on data available on 18th September 2019, which has been reported under the Renewable Transport Fuel Obligation (RTFO).

Data can be supplied up to seven months after the end of the year. Therefore, this report contains an incomplete dataset for the year so far and should be read as provisional.

The final report for 2019 is scheduled for release in November 2020.

This series was previously entitled "Renewable Transport Fuel Obligation Statistics: period x, report x."

In this publication

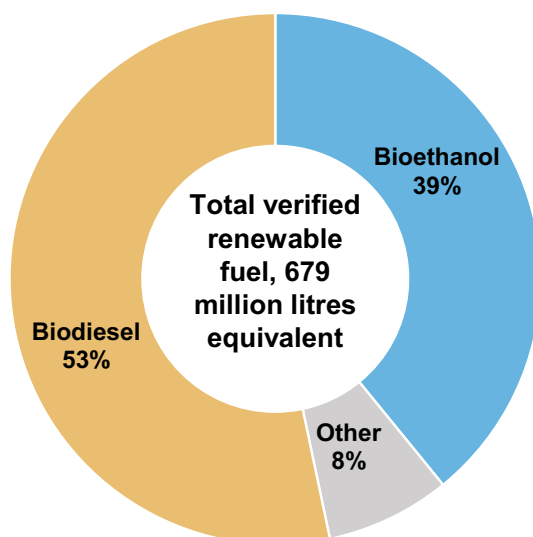
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Renewable fuels are fuels produced from biomass (organic material from plants and animals) or some other renewable energy source. They are often blended with conventional fuels such as petrol or diesel, but they produce lower greenhouse gas emissions as their energy comes from renewable sources.

In 2019:

- **1,561 million litres equivalent (eq.) of renewable fuel** has been supplied, which constitutes **4.9%** of total road and non-road mobile machinery fuel for the year.
- **679 million litres eq. (44%) has been verified** so far under the Renewable Transport Fuel Obligation (see background information).
- Of this 679 million litres eq., an aggregate **greenhouse gas (GHG) saving of 80%** was achieved when compared to fossil fuel use. This drops to 75% when indirect land-use change is accounted for (see note on page 3).
- **13%** of all verified renewable fuel supplied to the UK in this period was produced from **UK origin feedstocks**.

Figure 1: Volume of verified renewable fuel by fuel type (table [RF_0105a](#))

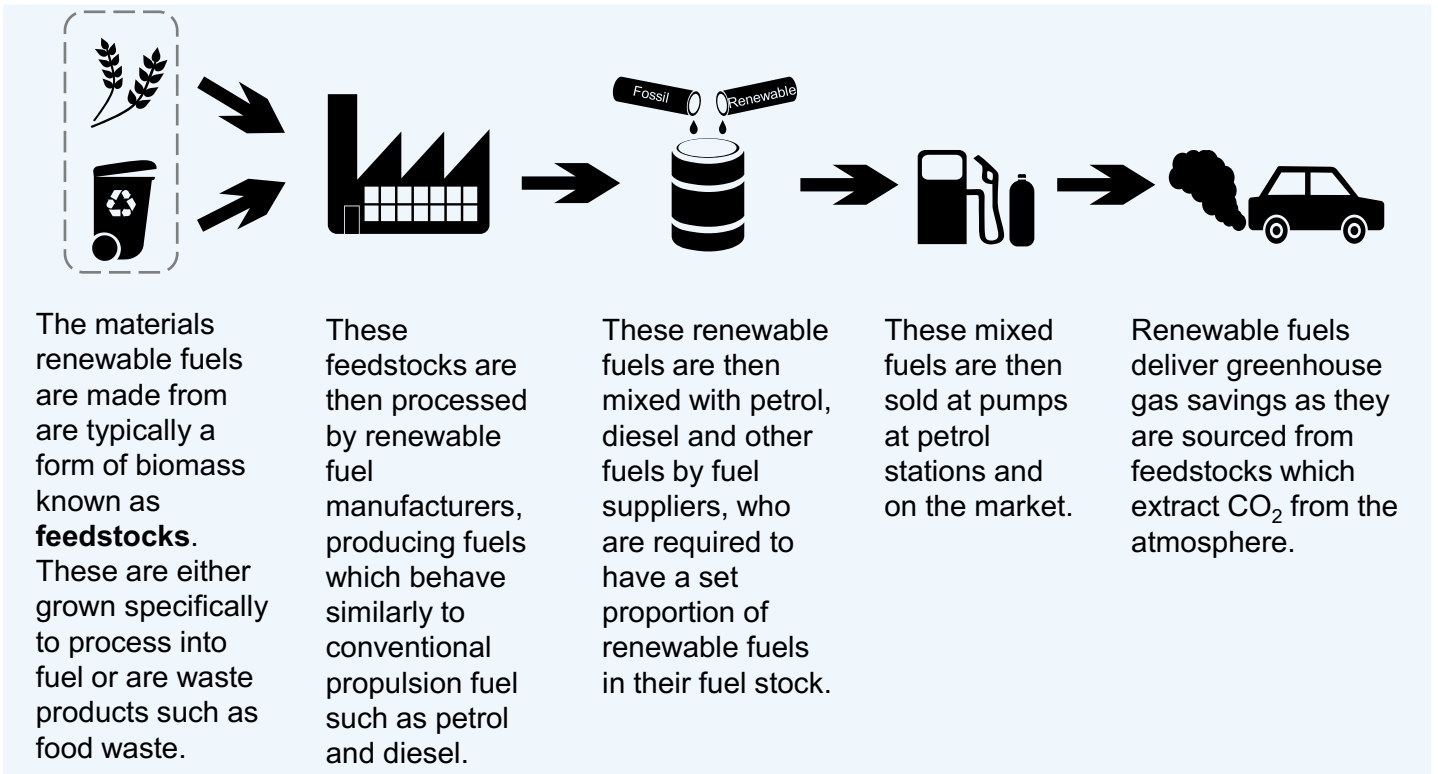


Of the 679 million litres eq. of renewable fuel verified so far in 2019, biodiesel comprised 53% of supply, and bioethanol 39%. There were also small amounts of other renewable fuels including biomethanol, biomethane, off-road biodiesel, and biopropane.

**Biogases (such as biomethane and biopropane) are reported in kg but are converted to equivalent litres using standard multiplication factors (as laid-out in the RTFO).
**Figures may not sum due to rounding.*

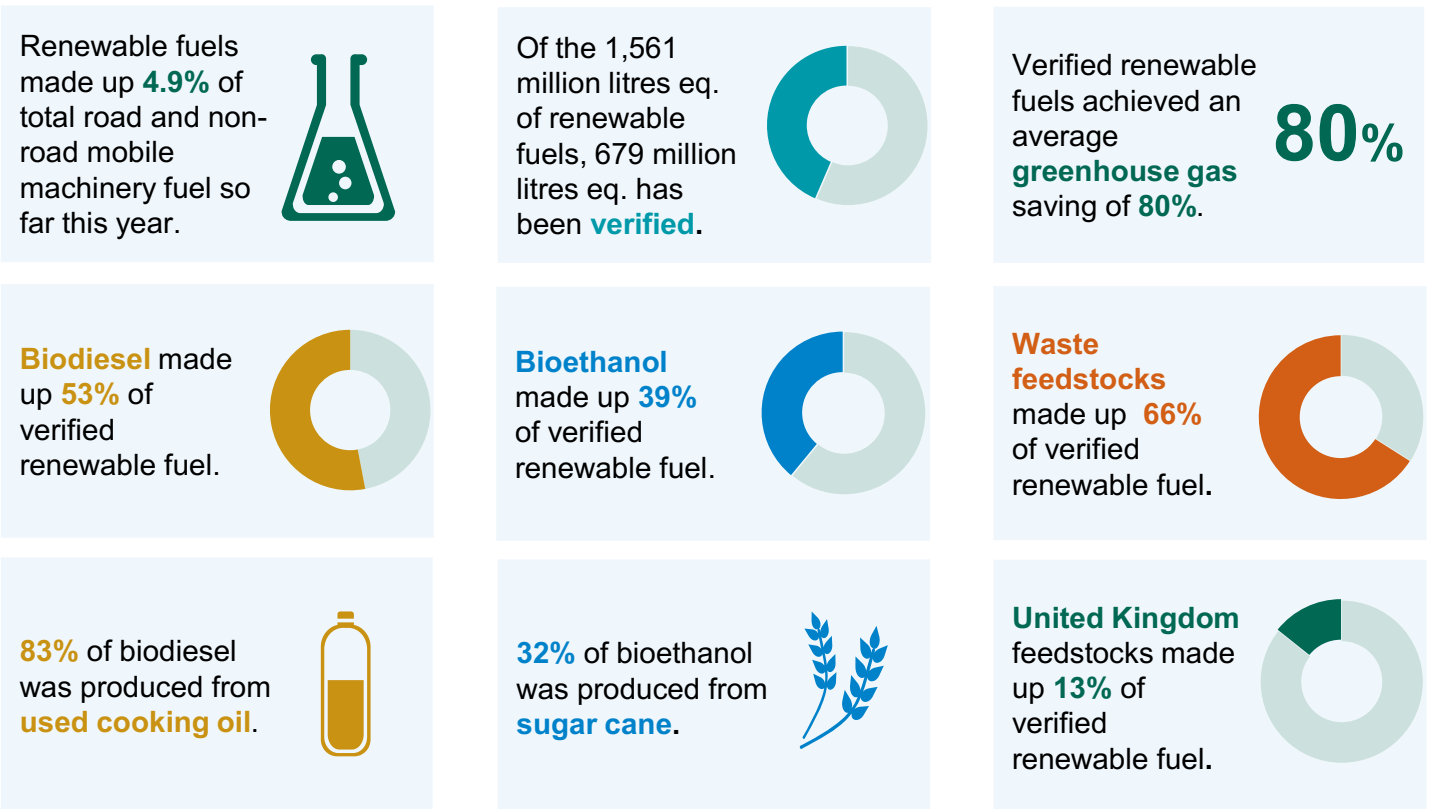
Overview

Figure 2: What is a renewable fuel?



Some renewable fuels have a significantly different production process, in particular Renewable Fuels of Non-Biological Origin (RFNBOs). For more information see the Notes and Definitions.

Figure 3: Highlights - 2019



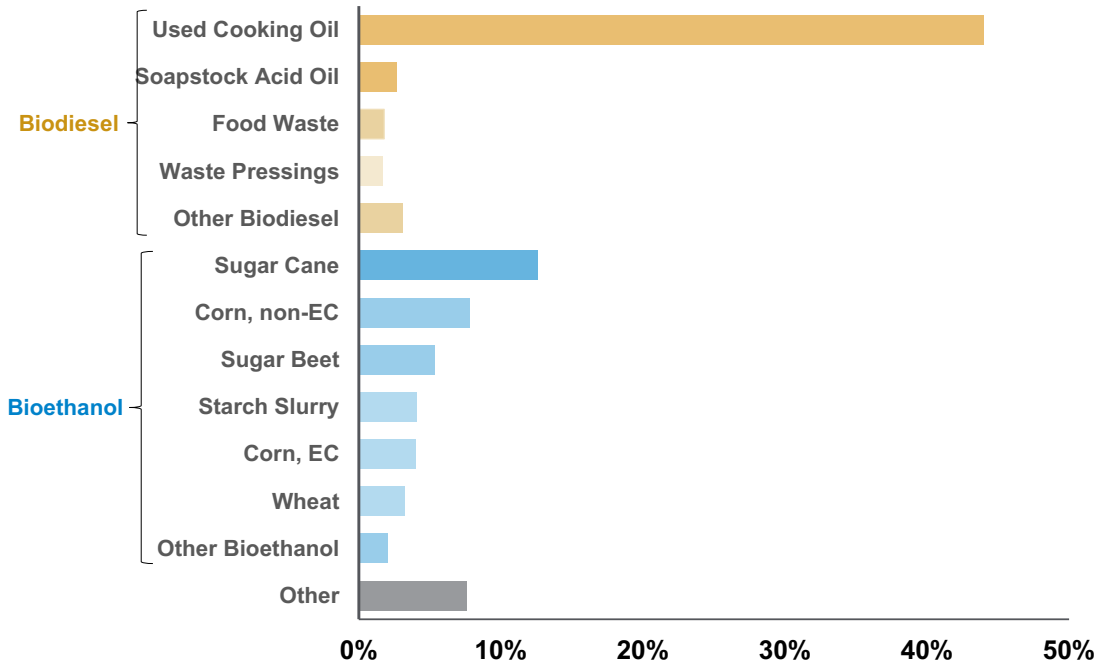
Greenhouse Gas Savings and Feedstock

GHG Savings

An aggregated GHG saving of 80% was achieved when compared to fossil fuels. Accounting for emissions from **indirect land-use change (ILUC)** reduces this GHG saving to 75%.

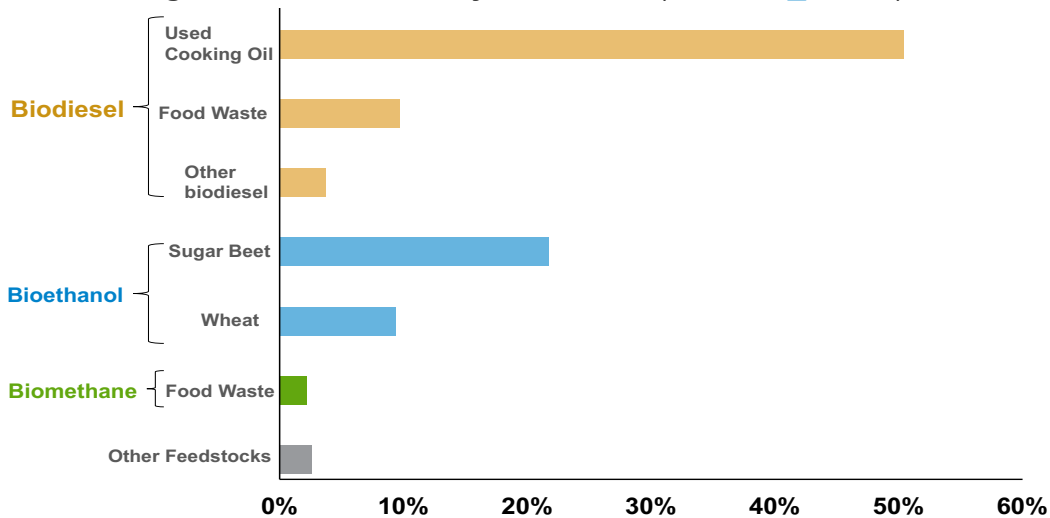
Feedstock

Figure 4: Supply of renewable fuel to the UK by feedstock and fuel type (table [RF_0105a](#))



Used cooking oil made-up the largest proportion of feedstock, accounting for 47% of total verified renewable fuel, and 83% of total biodiesel. Sugar cane constituted the largest proportion of bioethanol feedstock, making up 13% of total verified renewable fuel, and 32% of total bioethanol.

Figure 5: UK origin renewable fuel by feedstock (table [RF_0105a](#))



Of the 88 million litres eq. of verified renewable fuel produced from UK origin feedstock, the most common by feedstock and fuel-type was biodiesel from used cooking oil (44 million litres, 50% of renewable fuel from UK origin feedstock). The most common source of bioethanol from UK origin feedstock was sugar beet (19 million litres, 22% of renewable fuel from UK origin feedstock).

Greenhouse gas savings

GHG savings represent the difference in ghg emissions between using renewable fuel as opposed to the conventional fuel which they replace.

Indirect Land Use Change (ILUC)

Relates to the unintended consequences of changing land use for renewable fuel production. For example the expansion of crop land for feedstocks driving deforestation elsewhere. This reduces the GHG savings from the renewable fuel produced.

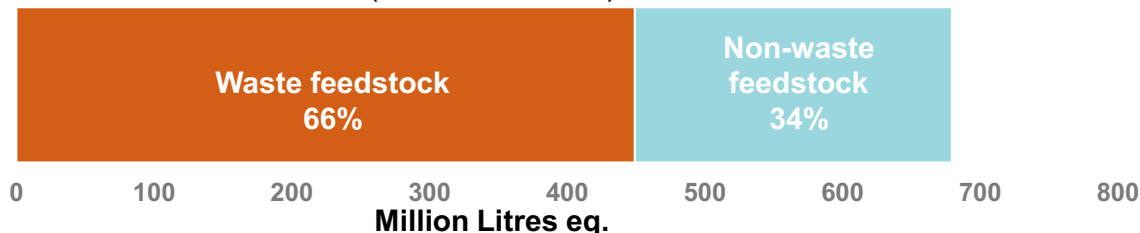
Feedstocks

Any renewable biological material that can be used directly as an energy source, or converted to a transport fuel or other energy product.

Waste Feedstock and Origin

Waste feedstocks made up two thirds of all renewable fuel verified so far this year. Waste feedstocks include large quantities of used cooking oil, as well as brown grease, municipal organic waste, waste agricultural products such as corn husks, and sewage sludge.

Figure 6: Proportion of waste and non-waste feedstock amongst verified renewable fuel (table [RF_0105a](#)).

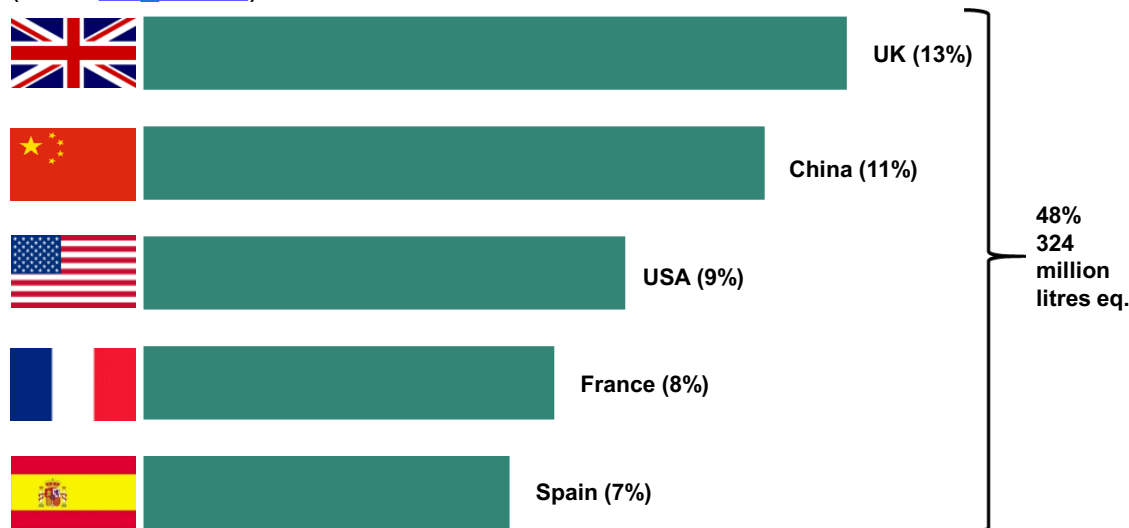


Waste Feedstocks

Renewable fuel produced from waste feedstocks typically delivers greater greenhouse gas savings than fuel derived from feedstocks produced specifically to be made into renewable fuel. For this reason, they are encouraged under the RTFO and are typically awarded double counting certificates.

Country of Origin

Figure 7: Top 5 countries supplying verified renewable fuel to the UK (table [RF_0105a](#)).



Double Counting

Renewable fuel produced from waste feedstocks, crop residues and dedicated energy crops are incentivised by awarding double the RTFCs per litre or kilogram supplied.

UK origin feedstocks made up 13% of verified renewable fuel supplied to the UK so far this year. The top 5 feedstock origin countries together account for 48% of verified renewable fuel.

Of the 679 million litres eq. of verified renewable fuel supplied so far in 2019, the most widely reported source for biodiesel supplied to the UK (by feedstock and country of origin) was used cooking oil from China (73 million litres, 11% of verified renewable fuel, 20% of total biodiesel).

The most widely reported source for bioethanol supplied to the UK (by feedstock and country of origin) was non-EC corn from Ukraine (34 million litres, 5% of verified renewable fuel, 13% of total bioethanol).

Certificates Awarded Under the RTFO

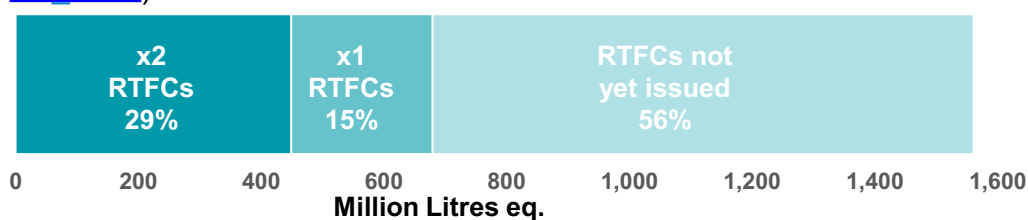
Renewable Transport Fuel Certificates (RTFCs)

RTFCs are awarded to transport fuel suppliers whose renewable fuel meets the sustainability criteria. In 2019, **1,128 million RTFCs** have so far been issued to 679 million litres eq. of renewable fuel. This is out of a total 1,561 million litres eq. supplied so far this year.

Double Counting Feedstock

- Of the 1,128 million RTFCs awarded to renewable fuel that met the sustainability criteria, **898 million** were issued to fuel from a waste/residue or “Double Counting” feedstock.

Figure 8: Renewable fuel to which RTFCs have been issued (table (table [RF_0102](#)).



Obligations under the RTFO

Suppliers of fuel for road and non-road mobile machinery (e.g. tractors) that supply 450,000 litres or more per year have an obligation under the RTFO Order. Obligated suppliers may meet their obligation by redeeming Renewable Transport Fuel Certificates (RTFCs) or by paying a fixed sum for each litre of fuel for which they wish to ‘buy-out’ of their obligation. RTFCs are gained by supplying sustainable renewable fuels. In 2019, such suppliers must redeem RTFCs for 8.5% of their share of total fuel. This will increase to 12.4% by 2032.

One certificate may be claimed for every litre or kilogram of sustainable renewable fuel supplied. Fuel from certain wastes or residues, fuel from dedicated energy crops, and renewable fuels from non-biomass origin (RFNBOs) are incentivised by awarding double the RTFCs per litre or kilogram supplied.

Companies have up to 7 months after the end of the year before they must apply for RTFCs. As a result of this delay, 56% of renewable fuel so far supplied this year is not yet verified. Each provisional report typically has a higher proportion of renewable fuel which has been verified, and the final report describes all renewable fuel supplied in the year.

Sustainability Criteria

To receive Renewable Transport Fuel Certificates, fuels supplied must meet the sustainability criteria set out in the amended [Renewable Transport Fuel Obligations Order 2007](#) and the [RTFO Carbon and sustainability guidance](#).

Renewable fuel must deliver minimum GHG savings and must not originate from land with high biodiversity value or carbon stock.

Verified Renewable Fuel

Verified renewable fuel refers to fuel that has received RTFCs for having met the Sustainability Criteria. For more, see the Notes and Definitions.

Statistical Tables

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

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 only reported once RTFCs have been issued. There will therefore be a difference between the volume of renewable fuel supplied and the number of RTFCs issued/C&S data available. The final report for an obligation period will show the final position.

Renewable fuel 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 renewable fuel sold, the corresponding sustainable feedstock has been produced. This can mean the actual feedstock mix might differ from that reported. Nonetheless, the feedstocks and renewable fuels reported in this document represent those that are incentivised and rewarded under the RTFO.

Strengths and weaknesses of the data

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

The Administrator validates volume data submitted by fuel suppliers against that held by HMRC regarding fuel duty liabilities. 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. For further information see the notes and definitions.

Official Statistics

Official Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. However, these statistics have not yet been assessed by the Office for Statistics Regulation.

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.

Further Details

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

Related Information

Previously published reports can be found on the DfT website:

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

The publication timetable can be found at Annex B.



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: Renewable Fuel Statistics Content of Tables

Reports are published quarterly.

The final report for this reporting period (scheduled for publication in November 2020) will report on the carbon and sustainability performance of individual suppliers. These reports are available online at:

<https://www.gov.uk/government/collections/renewable-fuel-statistics>

Table 1 - Typical content of renewable fuel statistics tables

| Table | Previously reported as | Description | Provisional Report | Final Report |
|----------|------------------------|---|--------------------|--------------|
| RF_0101 | RTFO_01 | Volume of fuel supplied | Yes | Yes |
| RF_0102 | RTFO_02 | Fuels issued with RTFCs and number of RTFCs issued | Yes | Yes |
| RF_0103 | RTFO_03 | RTFC balance by obligation period | Yes | Yes |
| RF_0104 | RTFO_04 | RTFC trades to date by company type | Yes | Yes |
| RF_0105 | RTFO_05 | RTFO wide carbon and sustainability data | Yes | Yes |
| RF_0106 | RTFO_06 | RTFO wide voluntary scheme data | Yes | Yes |
| RF_0105b | - | Feedstock and country of origin over time | No | Yes |
| RF_0107 | RTFO_07 | Performance against obligation by supplier | No | Yes |
| RF_0108a | RTFO_08a | Feedstock by supplier as a % of their supply | No | Yes |
| RF_0108b | RTFO_08b | Country of origin by supplier as a % of their supply | No | Yes |
| RF_0109 | RTFO_09 | % of renewable fuel that was sustainable by supplier | No | Yes |
| RF_0110 | RTFO_10 | Carbon and sustainability data by supplier | No | Yes |
| RF_0111 | RTFO_11 | RTFO wide fuel supply by volume and energy | No | Yes |
| RF_0112 | RTFO_12 | Civil penalties and other non-compliance | No | Yes |
| RF_0113 | RTFO_13 | Performance against GHG reporting requirements | No | Yes |
| RF_0114 | - | Total greenhouse gas savings over time | No | Yes |
| RF_0201 | - | GHG savings and fuel volume by fuel type | Yes | Yes |
| RF_0202 | - | GHG savings by fuel type, carbon intensity and credits issued | Yes | Yes |
| RF_0203 | - | Transactions of GHG credits | Yes | Yes |

Annex B: Renewable Fuel Statistics Reporting Timescale

Table 2 – Publication dates and contents of each report

| | 2018 (April to December) statistics | 2019 statistics | 2020 statistics |
|----------------------|--|---------------------------|---------------------------|
| August 2019 | Fourth Provisional Report | First Provisional Report | |
| November 2019 | Final Report | Second Provisional Report | |
| February 2020 | | Third Provisional Report | |
| May 2020 | | Fourth Provisional Report | |
| August 2020 | | Fifth Provisional Report | First Provisional Report |
| November 2020 | | Final Report | Second Provisional Report |

Highlighted reports indicate summary report for the period.