



Department
for Transport

Motor Fuel Greenhouse Gas Emissions Reporting Regulations Guidance From 15/4/2018

Moving Britain Ahead

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Executive summary

- 1 This document is the guidance for reporting under the Motor Fuel (Road Vehicle and Mobile Machinery) Greenhouse Gas Emissions Reporting [Regulations](#) 2012 as amended ('the GHG Reporting Regulations'), which came into effect on 15 April 2012. The GHG Reporting Regulations implement the reporting requirements from [Directive 98/70/EC](#) of the European Parliament and of the Council relating to the quality of petrol and diesel (known as the Fuel Quality Directive (FQD)).
- 2 From April 2018, the GHG Reporting Regulations are amended in order to implement [Council Directive \(EU\) 2015/652](#) of 20 April 2015 laying down calculation methods and reporting requirements pursuant to the FQD (known as the 'FQD Article 7a implementing Directive').
- 3 The aim of this document is to provide information on how suppliers should comply with the GHG Reporting Regulations and practical information on how they should submit the required information to the Administrator. This document provides detailed instructions and information on:
 - The GHG reduction and reporting obligations that the GHG Reporting Regulations place on certain suppliers;
 - Applying for and maintaining an account with the Administrator;
 - Applying for GHG Credits;
 - Reporting information to the Administrator;
 - Penalties for non-compliance.
- 4 This document should be read in conjunction with the [guidance](#) on the Renewable Transport Fuel Obligations Order 2007 No. 3072 ('the RTFO Order'), as amended, as these schemes operate closely in parallel.

The GHG Reporting Regulations

- 5 The GHG Reporting Regulations are a key measure for reducing greenhouse gas emissions from the fuel supplied for use in i) road vehicles, and ii) non-road mobile machinery (including inland waterway vessels which do not normally operate at sea), agricultural and forestry tractors, and recreational craft that do not normally operate at sea - termed 'road' and 'NRMM' respectively throughout the rest of this document.
- 6 This policy ensures compliance with the FQD, which requires suppliers of fuels for use in road transport and non-road mobile machinery to achieve at least a 6% reduction in life cycle greenhouse gas emissions from the transport fuel that they supply by 2020, relative to the EU average life cycle greenhouse gas emissions from fossil fuels in 2010. Renewable aviation fuel and electricity supplied to vehicles may also contribute to suppliers' GHG reduction targets.

- 7 Initially the GHG Reporting Regulations (2012) required suppliers to register with the Administrator and open an account, and report annually on the amount, energy content and GHG emissions of relevant fuels supplied.
- 8 The requirements are now extended to include GHG reduction targets, such that obligated suppliers will need to achieve a 6% reduction in GHG emissions for their fuel supply by 2020, and to ensure compliance with new reporting requirements on the greenhouse gas intensity of fuels in place across all EU Member States.

Meeting the GHG reduction target

- 9 Those supplying over 450,000 litres of liquid or kilograms of gaseous fuel for use in road vehicles and/or NRMM in a given obligation period must reduce the average GHG intensity of their fuels by at least 6% in 2020, compared to the EU average 2010 baseline of 94.1 gCO_{2e}/MJ. They can meet this GHG reduction target by redeeming GHG credits, which evidence:
 - The supply of sustainable renewable fuels with a GHG intensity below the 2020 GHG target;
 - The supply of fossil fuels which have a GHG intensity below the 2020 GHG target level, such as liquid petroleum gas (LPG) or compressed natural gas (CNG);
 - The supply of fossil fuels which have a GHG intensity below the 2020 GHG target level once a powertrain efficiency factor is accounted for, such as natural gas-derived hydrogen used in a fuel cell electric vehicle (FCEV) - see Chapter 5 for detail;
 - The supply of electricity for use in road transport – see Chapter 6 for detail;
 - The achievement of applicable upstream emission reductions (UERs) – see Chapter 7 for detail.
- 10 To allow suppliers to meet their 6% GHG reduction target in a cost-effective manner, and so suppliers can demonstrate that they have met the GHG reduction target, a new, flexible mechanism with tradeable GHG credits will be introduced. This mechanism is similar in nature to the RTFO and will operate in parallel to it.
- 11 To help the industry prepare and to encourage investment, fuel suppliers will only need to report the GHG intensity of their fuel supply for the first year of reporting against the amended regulations (15 April 2018 to 31 December 2018). **Mandatory targets will be introduced from 2019**, with a 4 % GHG reduction target set for 2019 (90.34 gCO_{2e}/MJ), and a 6% GHG reduction target set for 2020 (88.45 gCO_{2e}/MJ). If any fuel supplied has a GHG emissions intensity above the GHG target level for the relevant year, this is reported and added to a fuel supplier's GHG obligation¹.
- 12 GHG credits will be awarded to each kg of CO_{2e} saved, for fuels that have a GHG intensity below the GHG target level for the relevant year (renewable transport fuels will also need to meet the sustainability criteria, as outlined in the [RTFO guidance](#)). Each calendar year will be assessed separately, with no carry-over of GHG credits permitted.

¹ An exception is, renewable aviation fuel that does not meet the sustainability criteria will not add to the GHG obligation. This is because fossil fuels used in aviation do not count towards suppliers' GHG reduction targets under the FQD.

- 13 This means for example that companies which supply diesel and petrol, renewable liquid fuels that do not meet mandatory sustainability criteria and/or hydrogen derived from coal for use in road vehicles and/or NRMM, will incur an obligation and will need to acquire GHG credits to meet their obligation (or pay the buy-out price). Those which supply only sustainable renewable fuels, most gaseous fuels or RFNBOs that deliver GHG savings below the GHG target level for the relevant year, will not incur an obligation and will be able to sell the GHG credits earned.
- 14 The award of GHG credits is based solely on the fuel's direct GHG emissions (i.e. without considering indirect land-use change (ILUC) emissions). If the fuel is electricity used in a battery electric powertrain or hydrogen used in a fuel cell electric powertrain an efficiency factor (multiplied by 0.4) is applied for calculating these emissions. The RTFO concepts of double rewarding, development fuels and crop-based biofuel caps do not apply within the GHG mechanism.

Reporting requirements

- 15 To improve supply chain transparency, fuel suppliers must report volumes, GHG emissions and information on the origin and place of purchase of all fuels supplied. In addition, ILUC emissions must be reported for biofuels. **The amended reporting requirements apply from April 2018**, and are detailed in Chapter 5.

Accounts and administration

- 16 The Administrator uses an online reporting system for reporting information under the GHG Reporting Regulations, calculating a company's obligation and issuing GHG credits. The system also enables suppliers to transfer GHG credits to each other and to redeem them to meet their obligation.
- 17 This system operates in parallel to the RTFO Operating System (ROS) and suppliers can submit claims and information required under both the RTFO and the GHG Reporting Requirements through one account.
- 18 Those with an obligation under the GHG Reporting Regulations who do not have an obligation under the RTFO, or those who wish to apply for GHG Credits but not for RTFCs should apply for a separate account with the Administrator.

Penalties for non-compliance

- 19 The Administrator may impose civil penalties in certain cases of non-compliance with the requirements of the GHG Reporting Requirements including: failure to register with the Administrator if obligated; failure to meet the obligation through either the redemption of GHG credits or the payment of the buy-out price; or the fraudulent application for, or gaining of, GHG credits. The Administrator will also apply interest to, and will collect, overdue civil penalties and buy-out payments.

Implications of leaving the EU

- 20 On 29 March 2017 the Government invoked Article 50 of the Treaty of the European Union, starting the negotiations to leave the EU. Until these negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation.

1. Eligibility of fuels and definitions

Chapter summary

This chapter outlines which fuel suppliers must participate in the GHG reporting Regulations, and which suppliers are eligible to participate in the GHG mechanism if they choose to.

Types of eligible fuel are also defined.

Key terms

- 1.1 Definitions of key terms and how they are used within the scope of this document:
- **Fossil fuel baseline** - the EU average life cycle GHG emissions from fossil fuels in 2010 (94.1 gCO_{2e}/MJ)².
 - **GHG reduction target** - the % reduction in GHG emissions intensity in a calendar year, compared to the fossil fuel baseline. This target is set at 4% for 2019 and 6% for 2020.
 - **A supplier's GHG obligation** - For a supplier who is within scope of the obligation, the amount of emissions (in kgCO_{2e}) which they need to offset to meet the GHG target level, by either redeeming GHG credits (or by paying the buy-out).

Fuel types and scope

- 1.2 The GHG Reporting Regulations apply to parties supplying over 450,000 litres of liquid or kilograms of gaseous fuel used for road or NRMM transport (non-road mobile machinery, tractors, and recreational craft which do not normally operate at sea) and any party that applies for GHG credits under the regulations. This reporting threshold figure relates to the combined liquid volume in litres, plus gaseous mass in kg, of all the fossil fuels, wholly renewable fuel and partially renewable fuels supplied by the company in a reporting period. These parties must report the information laid out in Chapter 5, and must meet their GHG reduction obligation should they accrue one.
- 1.3 For suppliers above the reporting threshold, the following fuel types used for road transport or NRMM end uses must be reported under the GHG Reporting Regulations:
- Fossil fuels, including diesel, petrol, gasoil;

² Note that this is different to the fossil fuel comparator for ensuring renewable fuel sustainability compliance (of 83.8 gCO_{2e}/MJ), which is used for determining whether a fuel is eligible to claim GHG credits under the GHG reporting regulations

- Low-carbon fossil fuels, including natural gas and some hydrogen fuels of fossil origin;
 - Wholly renewable biofuels;
 - Partially renewable biofuels;
 - Renewable fuels of non-biological origin (RFNBOs), including hydrogen;
 - Partially renewable fuels that are part RFNBO, part non-RFNBO.
- 1.4 These categories are not mutually exclusive, and if a renewable or partially renewable fuel is classified as diesel or petrol, it is not precluded from counting as a renewable fuel.
- 1.5 The following parties are not subject to a requirement to report under the GHG Reporting Regulations, but can apply for GHG credits:
- Suppliers of electricity to electric road vehicles;
 - Suppliers of renewable aviation fuel.
- 1.6 The following parties will not incur an obligation under the GHG mechanism, but can apply for GHG credits:
- Suppliers³ of sustainable biofuels;
 - Suppliers of renewable gaseous fuels;
 - Suppliers of renewable fuels of non-biological origin (with a GHG intensity below the GHG target);
 - Suppliers of low carbon fossil fuels (with a GHG intensity below the GHG target);
 - Suppliers of electricity for electric road vehicles;
 - Suppliers of renewable aviation fuel.
- 1.7 Whether a fuel is covered by the GHG Reporting Regulations is independent of whether that fuel is blended, at any rate, with any other fuel. In practice, this means that fuels covered by the following HMRC duty types (code in brackets) are also covered by the GHG mechanism (however, any fuel covered by the description in 1.2 is covered, regardless of the HMRC duty type that duty is paid under):
- Unleaded petrol (522);
 - Heavy oil (541);
 - Marked gas oil (556);
 - Biodiesel for non-road use (571);
 - Biodiesel (589);
 - Bioethanol (595);
 - Natural gas including biogas (591);
 - Road fuel gas other than natural gas (592) e.g. liquefied petroleum gas (LPG).
- 1.8 Fuels covered by the following HMRC duty codes will also be covered by the GHG mechanism, depending on what use the fuel is put to:

³ If a supplier only supplies sustainable biofuels and/or renewable gaseous fuels, the carbon intensities of these fuels will mean that the supplier does not incur an obligation under this mechanism.

- Light oil (other than unleaded petrol) (520);
- Biodiesel blended with kerosene (572).

- 1.9 Note that fuel additives are not covered by the GHG Reporting Regulations.
- 1.10 Both renewable and non-renewable hydrogen are eligible to receive GHG credits, if they have a GHG intensity below the target level, with non-renewable hydrogen considered a low carbon fossil fuel, and renewable hydrogen considered to either be a RFNBO (renewable fuel of non-biological origin, as per the [RTFO Guidance](#) definition) or biofuel depending on the production method.
- 1.11 Biofuels and partially renewable biofuels must meet the minimum carbon and sustainability (C&S) criteria defined by the RTFO (see [RTFO Part 2 C&S Guidance](#)). Biofuels and partially renewable biofuels that are determined not to have met the C&S criteria will be assigned a GHG intensity equal to that of the equivalent fossil fuel, as determined by the Administrator.. As a result, supply of biofuel that doesn't meet the C&S criteria may increase a supplier's GHG reduction obligation.⁴
- 1.12 RFNBO fuels, and fuels which are partially RFNBO, part non-RFNBO, do not need to meet any sustainability criteria in order to be eligible for GHG credits, although the GHG intensity of the fuel must be below the GHG target level for the relevant year.

Partially renewable biofuels

- 1.13 A partially renewable biofuel is one where part of that fuel was derived from biological feedstocks and part from non-biological feedstocks. Also note that co-processed fuel under Directive 2015/652 is a partially-renewable fuel under the Order.
- 1.14 The full definition of partially renewable biofuels and method for determining the volume of renewable biofuel and non-renewable fuel from a partially renewable biofuel process is given in the [RTFO Process Guidance](#), and the minimum carbon and sustainability requirements are outlined in the [RTFO C&S Guidance](#).
- 1.15 In line with other biofuels, if proven to be sustainable, the renewable volume of the fuel may be awarded GHG credits. If the renewable volume of a partially renewable biofuel is deemed not to have met the C&S criteria it will be assigned a GHG intensity as explained in paragraph 1.11.
- 1.16 The non-renewable volume of the fuel will have its GHG intensity determined by the Administrator as equivalent to the fossil fuel likely to be displaced⁵ (, which may attract a GHG obligation or be eligible to apply for GHG credits. To give an example, 100 litres of petrol derived from municipal solid waste could have 55 litres of renewable bio-petrol with very low GHG emissions, and 45 litres of non-renewable petrol with 86 gCO_{2e}/MJ⁶. Where there is doubt as to the fossil equivalent for a biofuel (e.g. methanol, which could displace petrol or diesel), the Administrator will decide. Fossil fuel GHG intensities are shown in Table 4
- 1.17 Where the renewable volume of a partially renewable biofuel meets the sustainability criteria under the RTFO (and received RTFCs) this information will be sufficient for reporting under the GHG Reporting Regulations to receive GHG credits.

⁴ The exception to this is in the case of gaseous biofuels. If these fuels are deemed not to have met the sustainability criteria and are assigned a GHG intensity equal to the equivalent fossil fuel they may still receive some GHG credits, because the GHG intensity of some fossil gases is below the target level.

⁵ The GHG intensity of the fossil component will be determined having regard to implementing Directive EU 2015/652

⁶ Default GHG intensity for petrol derived from fossil waste plastic.

Renewable fuels of non-biological origin

- 1.18 Renewable fuels of non-biological origin (RFNBOs) are renewable liquid or gaseous fuels for which the energy content of the fuel comes from renewable energy sources but excluding bioenergy sources⁷.
- 1.19 The full definition of RFNBOs and the relevant criteria for reporting them are given in the [RTFO Guidance](#).
- 1.20 To obtain GHG credits, RFNBOs are not required to meet the sustainability criteria, including the minimum GHG savings threshold (in contrast to the position under the RTFO Order). A RFNBO that has a GHG intensity below the GHG target level can obtain GHG credits.
- 1.21 RFNBOs can be produced alongside non-RFNBO fuels in the same facility, if the process energy used is a mix of renewable and non-renewable energy (e.g. using grid electricity in the UK). The RFNBO and non-RFNBO fractions of the fuel are required to take the same GHG intensity value, due to sharing the process energy inputs during the consignment time period, and hence should report the same GHG intensity under the GHG Reporting Regulations. There are some exceptions allowing use of entirely renewable power, which would make the fuel entirely a RFNBO, as outlined in the *RTFO C&S Guidance*.
- 1.22 Where suppliers receive RTFCs for RFNBOs, the supporting information required under the RTFO will enable claiming of GHG credits under the GHG Reporting Regulations. If RFNBOs are not reported under the RTFO⁸, information should be provided separately under the GHG Reporting Requirements in order to receive GHG credits.

Low carbon fossil fuels

- 1.23 Low carbon fossil fuels are fuels made wholly from fossil feedstock, which have lower GHG emissions than conventional fossil fuels due to their feedstock or method of production. An example of such a fuel is compressed natural gas used in a spark ignition engine.
- 1.24 This category of fuels also includes those fossil fuels which have a GHG intensity above the GHG target level, but below that level once a powertrain efficiency factor is accounted for, such as hydrogen from natural gas using steam reforming used in a fuel cell vehicle.
- 1.25 If these fuels (after applying a powertrain efficiency factor) have GHG intensity lower than the GHG target level, and these GHG savings have been verified as needed, then they are awarded GHG credits.
- 1.26 Low carbon fossil fuels are not required to meet any of the sustainability criteria required of renewable fuels, including the GHG saving threshold.

⁷ Energy from renewable sources is defined as any of the following non-fossil sources of energy, namely wind, the sun, aerothermal sources, geothermal sources, water (including hydrothermal sources, waves and tides) and biomass (including landfill gas, sewage treatment plant gas and biogases), where—

(a) “aerothermal” means energy stored in the form of heat in the ambient air;
(b) “geothermal” means energy stored in the form of heat beneath the surface of solid earth; and
(c) “hydrothermal” means energy stored in the form of heat in surface water;”

⁸ There may be some RFNBOs that do not meet the minimum GHG saving for the RTFO, but which have a GHG intensity lower than the GHG target level and which could therefore still be eligible for credits.

Electricity in road vehicles

- 1.27 Suppliers of electricity for use in road vehicles can claim GHG credits, but are not obligated under the GHG Reporting Regulations. See Chapter 6 for more information on electricity in road vehicles.

2. Accounts

Chapter summary

This chapter contains details of who should register with the Administrator, how to register, and the penalties for not doing so.

It contains details on how to manage an account once opened and on what grounds an account will be closed.

Requirement to register with the Administrator

- 2.1 Under the GHG Reporting Regulations, all suppliers who are required to report to the Administrator (see section 1.2) must register with the Administrator.
- 2.2 Fuel used in road transport and NRMM becomes subject to the GHG Reporting Regulations at the point when the fuel becomes liable for excise duty in the UK - termed the 'duty point' - or the alternative 'assessment time' for fuels which are not subject to fuel duty (see section 3.10). If there is any uncertainty over whether or not a company is required to register, it is advisable to contact the Administrator.
- 2.3 Suppliers must have begun the process of opening an account within 28 days of having passed the 450,000 litre (or kilogram) threshold within an obligation period. Obligation periods under the GHG mechanism run on a calendar year basis.
- 2.4 If suppliers of less than 450,000 litres (or kilograms as per section 1.2) of renewable sustainable or low-carbon fuels wish to apply for GHG credits, they must first open an account with the Administrator.
- 2.5 As GHG credits are virtual certificates that exist only within the online IT system, any companies wishing to act as GHG credit 'traders'⁹, must also open an account with the Administrator to be able to access the online system. Companies that wish to facilitate GHG credit trade, but who do not wish to own the GHG credits at any point, do not need to open an account.
- 2.6 Fuels that are physically present within the UK but have not crossed the duty point (i.e. are 'duty suspended') or assessment time as applicable are not covered by the GHG mechanism.

Penalties for failure to open an account

- 2.7 Obligated parties failing to begin the process of opening an account within 28 days of becoming obligated are liable for a civil penalty up to a maximum of £50,000 or 10% of their annual turnover (whichever is the lesser amount).

⁹ The term traders in this context refers to those who wish to own the GHG credits for onwards sale.

Applying for an account

- 2.8 Suppliers use the online IT system to submit information on the volume of fuel they supplied and (where relevant) the sustainability of those fuels. The online system is used to calculate a supplier's obligation, to record the issuing of GHG credits, to enable account holders to transfer GHG credits between themselves and to enable suppliers to redeem GHG credits to meet their obligation. The IT system for the GHG Reporting is an online accessible database. Data submitted by suppliers is held within the Department's IT systems and is therefore subject to the same level of security and control as the Department's own data and information.
- 2.9 Those wishing to register for an account should contact the Administrator via rtfo-compliance@dft.gsi.gov.uk. Once the Administrator is satisfied that they have a valid reason for applying for an account, they will be provided with the website address (the URL) required to access the online system. For security reasons the website URL is not published.
- 2.10 Once the applicant has received the URL, they are required to complete an online registration form. The Administrator will carry out the necessary registration checks before granting full access to the online IT system.
- 2.11 When registering, companies must enter the following information on the online system:
- Account type (these either the same as HMRC's reporting form type - i.e. HO10, HO930 or if wishing to trade in GHG credits - trader);
 - Reporting frequency (this is the frequency with which you pay duty to HMRC - i.e. monthly, quarterly, not applicable);
 - Business type (e.g. limited company, plc, sole trader);
 - Country in which the company is based;
 - Full business address;
 - VAT registration number (where applicable);
 - Companies House number (where applicable);
 - Companies House registration date (where applicable);
 - Registered account name (official name of the business);
 - Reporting account name (how the supplier will be referred to in reports);
 - Account code (2-6 letter abbreviated supplier name);
 - Full correspondence address (if different to registered address);
 - HMRC unique reference number (where applicable);
 - The full name, position, email and phone number of a person with legal responsibility for the entity (usually a director or a partner¹⁰);
 - The full name, position, email and phone number of a 'lead user' (each user can choose a login and password to access the supplier's information on the online system).
- 2.12 Optionally, applicants may also enter:

¹⁰ This will be yourself for a sole trader.

- Website address;
- Pollution prevention control number;
- A second legally responsible person's full name, position, email and phone number;
- Other users' names, positions, emails and phone numbers;
- Additional relevant addresses (e.g. of storage sites etc.);
- Verifier's¹¹ full name, position, email and phone number.

2.13 To ensure that all entities that have access to the system are legitimate, this registration information will be checked by the Administrator.

2.14 UK registered companies applying for an account must provide:

- A photocopy of their 'Certificate of Incorporation' from Companies House (if a registered limited company from the UK). For companies registered outside the UK, an equivalent document is required from the appropriate licensing authority of the country where the company is registered.
- Photographic proof of identity of one or more of the persons named under 2.11 who have legal responsibility for the organisation. This can either be the original of a government issued proof of identification¹², a photocopy, or a scanned electronic copy. If a copy is provided, this must be certified as being an accurate likeness by a person with independent legal standing such as a lawyer, accountant or bank manager¹³. If a copy of a passport is provided, this must be in black and white as it is illegal to make a colour copy of a passport.
- Proof of VAT registration (if applicable).
- Proof of intent to supply road/NRMM transport fuel, where the applicant is a fuel supplier. This is likely to be in the form of a copy of a letter of registration from HMRC, an excise duty registration document, or other correspondence that confirms the intent to supply road/NRMM transport fuel.
- The Company Registration Number (CRN), where the applicant is a Licensed Electricity Supplier.

2.15 If an applying organisation is not registered at Companies House (e.g. a sole trader, a charity, or where a non-UK supplier has no equivalent company licensing authority) the information required is:

- Photographic proof of identity of one or more of the persons named under 2.11 who have legal responsibility for the organisation. This can either be the original of a government issued proof of identification¹², a photocopy or a scanned electronic copy. If a copy is provided, this must be certified as being an accurate likeness by a person with independent legal standing such as a lawyer, accountant or bank manager¹³. If a copy of a passport is provided, this must be in black and white as it is illegal to make a colour copy of a passport.
- Proof of address. Copies of correspondence with government, lawyers, accountants or a bank will be considered.

¹¹ Your verifier is the person or company who will provide assurance on the sustainability of any biofuel you supply.

¹² Original documents will be returned by registered post to the applicant.

¹³ Copies will be destroyed in a controlled manner once proof of identity has been verified.

- Proof of registration with any other regulator that controls the role or remit of entities within your sector (e.g. Charities Commission for charities).
 - Where the applicant is a fuel supplier, proof of intent to supply road transport/NRMM fuel is required. This is likely to be in the form of a copy of a letter of registration from HMRC, an excise duty registration document, or other correspondence that confirms the intent to supply road transport/NRMM fuel.
- 2.16 To ensure that all entities that have access to the system are legitimate, a certified copy of proof of identity of one or more of their directors/partners registered under 2.11 (or the individual if they a sole trader) is required.
- 2.17 The Administrator may exercise discretion as to which proofs are required or whether alternative proofs are acceptable on a case-by-case basis, for example where a supplier is registered outside of the EU or where the legal structure of the supplier is not one commonly associated with fuel supply or certificate trading.
- 2.18 Suppliers or traders who are not above the reporting threshold (as per section 1.2) but who wish to open an account must also consent to allowing the Administrator access to premises and to company information as required for purposes connected to the administration of the GHG Reporting Regulations.
- 2.19 The Administrator will conduct checks on the information provided as considered necessary. This may include contacting other entities that the applicant is regulated by, registered with, or which it has a professional relationship with, to confirm the information provided.
- 2.20 The Administrator will begin processing a new account application within ten working days of receiving all the required information and aim to have completed its assessments within 20 working days.
- 2.21 There is no fee for opening an account and no requirement to re-register in subsequent obligation periods.
- 2.22 Should an applicant not submit their application for consideration by the Administrator, within 28 calendar days of beginning the process on the online system, the system will automatically delete that application. A new application can be started, at any point.

Account refusal

- 2.23 The Administrator may refuse to open an account if an applicant is not considered to have a valid reason to hold an account, or if an organisation has refused to accept the conditions of application.
- 2.24 The Administrator will provide, in writing, the reason why the account has been refused.

Changing information concerning an account

- 2.25 All account holders are required to ensure that the information concerning their account is accurate. Most information can be updated by the lead user on the online IT system.
- 2.26 To change a nominated director you must provide the Administrator with either:
- The same information as was required for the original director.

- A statement signed by both the incoming and outgoing directors to hand over the 'nominated director' role. The template to do this is available directly from the Administrator.
- The Administrator, after undertaking the necessary checks, will then alter these details for the account holder.

2.27 Companies House registration numbers may also only be altered by the Administrator. Evidence of this change will be required before an alteration is made. This will include a copy of the new incorporation certificate or other communication with Companies House.

Penalties for failure to maintain correct details

2.28 An account holder must ensure that all information concerning their account is correct and must inform the Administrator within 28 days of any of the information becoming incorrect.

2.29 Failure to maintain correct details may result in the account holder being liable for a civil penalty of up to £50,000 or 10% of turnover (whichever is the lesser amount). See Chapter 9.

Account closure

2.30 The Administrator must close an account when a supplier who is below the reporting threshold (as per section 1.2):

- no longer has good reason to hold an account;
- has withdrawn their consent to allow the Administrator to access premises and records.

2.31 The Administrator may close an account when no certificates have been awarded or traded into the account in the preceding 36 months.

2.32 An account will not be closed where there are still certificates that can be redeemed against an obligation in the account.

2.33 If the Administrator considers that an account should be closed, the nominated director of the account will be notified of the reason in writing and will be given 14 days to object to this decision. If there is no response within 28 days, the account will be closed. If a response is received, any representations will be considered and a decision will be made and communicated to the recipient within a further 21 days.

2.34 If an account holder wishes to close their account, the nominated director of the company (or owner of a non-limited business) must write to the Administrator as soon as possible stating the reasons for the closure request. These reasons will be considered and a response will be provided within 21 calendar days. The template to do this is available directly from the Administrator.

2.35 Once an account has been closed, the account will become inactive and users will be unable to access the online IT system. Data already recorded will be retained for 10 years and will continue to be reported as official statistics.

Reinstating a closed account

2.36 The Administrator may reinstate a closed account if the circumstances warrant this. Any such application will be dealt with on a case-by-case basis and the Administrator may require new copies of the evidence required at registration.

Managing users on an account

2.37 An account holder may create different user profiles so that different operatives representing the company may access and update details on the online system. The first registered user will be designated the 'lead user' who is the main contact between the Administrator and the supplier. This individual has responsibility for creating new users on the online system. The lead user also has the responsibility to ensure the list of users is kept up to date and any users no longer requiring access are removed. The lead user can choose whether these users have the ability to:

- enter volume figures (trader accounts do not have this facility);
- enter carbon and sustainability (C&S) data (trader accounts do not have this facility);
- trade credits;
- or all three.

2.38 The lead user may designate any other user to be lead user instead of themselves.

2.39 A director may also provide a written request to change the lead user.

2.40 A user may change their own password (the user's login will always be their email address). This can be changed using a menu within the online system.

2.41 The Administrator can reset users' passwords and will do so upon request. Information on the online IT system will be used to confirm that a user is who they claim to be. Where there is any doubt, password information will be communicated via the account's lead user.

Consolidating an account

2.42 Accounts may be consolidated by the Administrator. The Administrator will do so where one transport fuel supplier has been wholly subsumed into another supplier.

2.43 The sale of assets used in the production or supply of transport fuels from one supplier to another will not be grounds for an account merger. If the original supplier continues to exist it will still be an account holder under the RTFO and must discharge its duties accordingly.

2.44 Any supplier that expects to be in this position must contact the Administrator who will seek further evidence and provide guidance on a case-by-case basis.

3. How the Greenhouse Gas mechanism works

Chapter summary

This chapter outlines the GHG target levels that must be achieved in each year by those suppliers required to report (as per section 1.2). It outlines how a supplier's obligation to reduce GHG emissions is calculated, and how the number of GHG credits they receive is calculated.

GHG target levels

- 3.1 The GHG obligation operates on a calendar year basis, with GHG reduction targets set for 2019 and 2020 (although, from April 2018, suppliers are required to report the GHG intensity of their fuel supply to the Administrator against the amended reporting requirements described in this guidance).
- 3.2 Fuel suppliers required to report under the GHG regulations must achieve a reduction in life cycle GHG emissions from the fuel they supply of 4% in 2019 and 6% in 2020, when compared to the EU fossil fuel baseline figure of 94.1 gCO_{2e}/MJ. The corresponding GHG target levels are shown in Table 1. Suppliers who do not supply more than the minimum threshold (section 1.2) do not have to achieve reductions in their fuel GHG intensity, and those that supply between 450,000 and 10 million litres of energy product with a GHG_i above the unit GHG_i reduction target do not incur an obligation on the first 450,000 litres.

	2019	2020
GHG reduction target	4%	6%
GHG target level (gCO _{2e} /MJ)	90.34	88.45
GHG obligation on 450,000 litres of baseline fossil fuel (kgCO _{2e}) ¹⁴	59,352	89,029

Table 1 GHG reduction target and corresponding GHG target levels

- 3.3 Note that the fossil fuel baseline figure of 94.1 gCO_{2e}/MJ, against which the GHG intensity reductions must be made within the GHG mechanism is different to the fossil fuel comparator of 83.8 gCO_{2e}/MJ required for determining biofuel sustainability.

¹⁴ For consistency with the RTFO and to protect smaller suppliers, those supplying between 450,000 and 10 million litres of fuel, a deduction will be made from the GHG obligation of such suppliers. This will be equivalent to deducting 450,000 litres of fuel with the baseline GHG intensity, which is 59,352 kgCO_{2e} in 2019 and 89,029s kgCO_{2e} in 2020.

How the mechanism works

- 3.4 Suppliers who accrue a GHG obligation must ensure that their obligation is discharged through supplying fuels with a GHG emissions intensity below the 2020 target level and applying for GHG credits, through acquiring tradeable 'GHG credits' from others or through a buy-out option.
- 3.5 A scheme of tradable GHG credits allows suppliers to meet their GHG targets in a cost-effective manner. It allows suppliers to effectively jointly meet their targets. This mechanism is similar in nature to the RTFO and operates in parallel to it.
- 3.6 Those suppliers above the reporting threshold and or wishing to apply for GHG credits must report the GHG intensities of the fuel/energy supplied (see Chapter 5). All fuels with a GHG intensity above the GHG target level for the relevant period (Table 1) incur a GHG obligation based on the extra kgCO_{2e} emitted, while all fuels with a GHG intensity below the target level (sustainable biofuels, RFNBOs and low carbon fossil fuels) may apply for GHG credits based on the kgCO_{2e} savings compared to the target level for the relevant year. GHG credits are also rewarded for supply of electricity for use in electric road vehicles (see Chapter 6) and for upstream emission reductions (see Chapter 7).
- 3.7 One unit of GHG credit (1 kgCO_{2e}) is required to offset each unit of GHG obligation incurred (1 kgCO_{2e}). GHG credits may be traded, so that companies which supply mostly diesel and petrol can acquire sufficient GHG credits to offset their GHG obligation, and companies which supply low-carbon fuels can sell the GHG credits they have earned.
- 3.8 As GHG credits are awarded only on the basis of GHG savings made, no fuel-types are double rewarded in contrast to the position under the RTFO, for example for certain waste derived biofuels.

Note that some renewable fuels can achieve negative GHG emission intensities (for instance, by employing carbon capture and utilisation); and these are similarly rewarded in proportion to the GHG reductions achieved.

Awarding of GHG credits

- 3.9 GHG credits are awarded to biofuels which meet the mandatory sustainability criteria. RFNBOs which do not meet the mandatory sustainability criteria may also apply for GHG credits, provided that their GHG intensity is below the GHG target level for the relevant year.
- 3.10 For fuels which do not have a duty point, GHG credits are awarded at the following assessment times (see also RTFO [Process Guidance](#), Chapter 2 for further details on the assessment times of renewable transport fuels):
 - **Renewable gaseous fuels used in non-road mobile machinery** - the point at which the fuel is set aside for use in non-road mobile machinery. For bio-LPG, we consider this to be the point at which it is put into a liquid offtake container that is not intended for use in road vehicles or for heating.
 - **Renewable avtur** - the point at which the fuel is blended and certified as meeting the industry standard for aviation fuel.

- **Renewable and fossil hydrogen** - GHG credit applications are restricted to the owner of the hydrogen at the point of retail sale i.e. the point at which the hydrogen is sold to the end user and not for resale in the course of a trade or business. Whilst there is a duty point for hydrogen supplied to internal combustion engines, for hydrogen supplied to fuel cell vehicles there is no duty point. For ease we are applying a consistent assessment time as set out here.

3.11 In relation to **electricity for use in electric road vehicles**, the assessment time is the point at which the electricity is given through an appropriate meter, and for this purpose “appropriate meter” in relation to Great Britain, has the meaning given in paragraph 1 of Schedule 7 to the Electricity Act 1989 (in relation to Northern Ireland, has the meaning given in paragraph 2 of Schedule 7 to the Electricity (Northern Ireland) Order 1992). GHG credit applications for electricity used in electric vehicles are restricted to licensed electricity suppliers¹⁵. To claim GHG credits, electricity suppliers must report how much electricity is used in electric vehicles and must be able to demonstrate that they have supplied electricity for use in those vehicles (see Chapter 6).

3.12 GHG credit applications for UERs are restricted to regulated suppliers who open an account under the GHG Reporting Regulations. Electricity providers who register to open an account with the Administrator so as to apply for GHG credits and those that open accounts solely for the purpose of trading GHG credits would not be eligible to apply for GHG Credits for UERs. GHG credits are awarded to UERS at the same rate as other emissions savings, i.e. 1 credit per kg CO_{2e} saved.

Calculation of GHG credits awarded to fuels

3.13 Suppliers can apply for GHG credits throughout the year on a monthly cycle. The number of GHG credits they receive is proportional to the amount (in kg) of CO_{2e} that is saved through the provision of the fuel or energy, compared to the GHG target level for the relevant year. This is calculated by multiplying the amount of a given fuel that a supplier supplies (MJ) by the GHG emissions saving it makes (gCO_{2e}/MJ) (Equation 1).

Equation 1:

$$\frac{GHG \text{ target level} - (GHG \text{ intensity} * AF) * amount * energy \text{ density}}{1000} = \text{Number of GHG credits}$$

- *GHG target level* is that in Table 1.
- *GHG intensity* is the GHG intensity of the fuel as determined by regulation 5 of the GHG Reporting Regulations (as amended) in gCO_{2e}/MJ (where the fuel or its fossil equivalent is below the GHG target level). See Chapter 5 for more information.
- *AF* is the adjustment factor given in 2015/652 Annex I part 1 para 3(f) (as below).

Predominant conversion technology	Efficiency factor
Internal combustion engine	1
Battery electric powertrain	0.4
Hydrogen fuel cell electric powertrain	0.4

¹⁵ Ofgem regulate the electricity markets and maintain an up-to-date list of licensed electricity suppliers - see <https://www.ofgem.gov.uk/publications-and-updates/list-all-electricity-licensees-registered-or-service-addresses>.

- *amount* is the amount of the fuel or energy expressed in kilograms for gaseous fuels, litres for liquid fuels, or kilowatt hours for electricity used in electric road vehicles.
- *energy density* is, in the case of fuel, its lower heating value expressed in MJ per kilogram for gaseous fuel or MJ per litre for liquid fuels. In the case of electricity used in electric road vehicles, it is 3.6 MJ per kilowatt hour.

3.14 This method for the calculation of GHG credits awarded to suppliers will be applied in years 2019 and 2020.

Calculation of supplier's GHG obligation

3.15 The GHG obligation, which is accrued for each fuel supplied that has a GHG intensity that is above the GHG target level, is calculated as per Equation 2 below.

Equation 2:

Specified amount =

$$\frac{((GHG\ intensity * AF) - GHG\ target\ level) * amount * energy\ density}{1000} - deduction$$

- *Specified amount* is the amount of carbon savings required in kg, to offset the supplier's GHG emissions sufficiently to meet the obligation.
- *GHG intensity* is the GHG intensity of the fuel as determined by regulation 5 of the GHG Reporting Regulations (as amended) in gCO_{2e}/MJ (where the GHG_i of fuel or its fossil equivalent is above the GHG target level). See Chapter 5 for more information.
- *AF* is the adjustment factor, as explained in Equation 1 above.
- *GHG target level* is that in Table 1.
- *amount* is the amount of the fuel or energy as expressed in kilograms for gaseous fuels or litres for liquid fuels.
- *energy density* is the lower heating value expressed in MJ per kilogram for gaseous fuel or MJ per litre for liquid fuels.
- *deduction* is 59,352 kgCO_{2e} in 2019 and 89,029 kgCO_{2e} in 2020 for supply of between 450,000 and 10 million litres of relevant fuel with a GHG_i above the target level.

3.16 For a supplier who supplies both fossil fuels above the GHG target level and low carbon fuels below the GHG target level, their net position at the end of the year (assuming no GHG credits have been bought or sold during the year) is equal to their total GHG obligation minus the total number of GHG credits in their account for the obligation period in question.

GHG obligation adjustment for smaller suppliers.

- 3.17 For suppliers of road transport and NRMM fuel above the reporting threshold (section 1.2), but supplying between 450,000 and 10 million litres of liquid (or kilograms of gas as per section 1.2), there is no GHG obligation on the first 450,000 litres (or kilograms) supplied. This is achieved through subtracting the GHG obligation which would result from supplying 450,000 litres of fuel with a lower heating value (LHV) of 34.99 MJ/litre and a GHG intensity equivalent to the baseline GHG intensity (94.1 gCO_{2e}/MJ) from the GHG obligation of these suppliers. The amount to subtract in each year is shown in Table 1. Note that this adjustment cannot be used to make a supplier's GHG obligation negative (can only fall as far as zero).
- 3.18 For suppliers above 10 million litres of liquid (or kilograms of gaseous as per section 1.2) fuels, there is still an obligation on the first 450,000 litres (or kilograms) supplied, and hence no reduction in their GHG obligation.

Calculation example 1

- 3.19 In 2020, a supplier supplies 100 million litres of petrol (GHG intensity 93.3 gCO_{2e}/MJ), 1.0 million kg of compressed natural gas used in spark ignition engines (GHG intensity 69.3 gCO_{2e}/MJ), and 0.2 million kg of renewable hydrogen used in fuel cell vehicles (adjusted GHG intensity of $9.1 * 0.4 = 3.64$ gCO_{2e}/MJ¹⁶).
- 3.20 Their total fuel supply 101.2 million units¹⁷, which is above the 450,000 litres threshold, and also above the 10 million litres threshold.
- 3.21 Volumes of fuel supplied must be converted to amount in MJ of fuel supplied using LHV energy values.
- $100,000,000 * 32$ MJ/litre = 3,200,000,000 MJ of petrol
 - $1,000,000 * 50$ MJ/kg = 50,000,000 MJ of natural gas
 - $200,000 * 120$ MJ/kg = 24,000,000 MJ of hydrogen
- 3.22 The supplier receives $24,000,000 * (88.45 - 3.64) / 1000 + 50,000,000 * (88.45 - 69.30) / 1000 = 2,992,940$ kgCO_{2e} of GHG credits for the low carbon hydrogen and the natural gas.
- 3.23 The supplier's GHG obligation is $3,200,000,000 * (93.3 - 88.45) / 1000 = 15,520,000$ kgCO_{2e} due to the supply of fossil petrol.
- 3.24 If the supplier does not sell or buy any GHG credits during the year, their net position at the end of the year is: $15,520,000 - 2,992,940 = 12,527,060$ kgCO_{2e}. They must therefore buy additional GHG credits or pay the buy-out price.

Calculation example 2

- 3.25 In 2020, a supplier supplies 1.0 million litres of petrol (GHG intensity 93.3 gCO_{2e}/MJ), 3.0 million litres of diesel (GHG intensity 95.1 gCO_{2e}/MJ) and 1.0 million litres of bioethanol (GHG intensity of 33.0 gCO_{2e}/MJ).

¹⁶ This is the default GHG intensity reported in Table 4 multiplied by the powertrain efficiency factor of 0.4. See chapter 5 for more details.

¹⁷ Units is used as a term to account for the difference in the reporting units for liquid and gaseous fuels, and is equivalent to: litres of liquid fuel + kg of gaseous fuel

- 3.26 Their total fuel supply is 5 million units. This is above the 450,000 litre threshold (hence the supplier is required to report), but below the 10 million litre threshold, so there is a deduction in their GHG obligation for the first 450,000 litres supplied (from Table 1, 89,029 kgCO_{2e} in 2020).
- 3.27 Volumes of fuel supplied must be converted to amount in MJ of fuel supplied using LHV energy values.
- 1,000,000 * 32 MJ/litre = 32,000,000 MJ of petrol
 - 3,000,000 * 36 MJ/litre = 108,000,000 MJ of diesel
 - 1,000,000 * 21 MJ/litre = 21,000,000 MJ of bioethanol
- 3.28 The supplier receives $21,000,000 * (88.45 - 33.0) / 1000 = 1,164,450$ kCO_{2e} of GHG credits for the bioethanol.
- 3.29 The supplier's GHG obligation based on the petrol and diesel is $32,000,000 * (93.3 - 88.45) / 1000 + 108,000,000 * (95.1 - 88.45) / 1000 = 873,400$ kgCO_{2e}.
- 3.30 This GHG obligation is reduced by the first 450,000 litres, to an adjusted GHG obligation of $873,400 - 89,029 = 784,371$ kgCO_{2e}.
- 3.31 If the supplier does not sell or buy any GHG credits during the year, their net position at the end of the year is $784,371 - 1,164,450 = -380,079$ kgCO_{2e}. They therefore do not need to buy additional GHG credits or pay the buy-out price, and can sell their excess GHG credits to other suppliers.

Calculation example 3

- 3.32 In 2019, a supplier sells 4.0 million litres of diesel (GHG intensity 95.1 gCO_{2e}/MJ), 2.0 million litres of petrol (GHG intensity 93.3 gCO_{2e}/MJ) and 0.2 million litres of used cooking oil FAME biodiesel (GHG intensity 14.0 gCO_{2e}/MJ) into road transport.
- 3.33 Their total fuel supply is 6.2 million litres. This is above the 450,000 litre threshold (hence the supplier is required to report), but below the 10 million litre threshold, so there is a deduction in their GHG obligation for the first 450,000 litres supplied (from Table 1, 59,352 kgCO_{2e} in 2019).
- 3.34 Volumes of fuel supplied must be converted to amount in MJ of fuel supplied using LHV energy values.
- 4,000,000 * 36 MJ/litre = 144,000,000 MJ of diesel
 - 2,000,000 * 32 MJ/litre = 64,000,000 MJ of petrol
 - 200,000 * 33 MJ/litre = 6,600,000 MJ of UCO biodiesel
- 3.35 The supplier receives $6,600,000 * (90.34 - 14.0) / 1000 = 503,844$ kCO_{2e} of GHG credits for the UCO biodiesel.
- 3.36 The supplier's GHG obligation based on the diesel and petrol is $144,000,000 * (95.1 - 90.34) / 1000 + 64,000,000 * (93.3 - 90.34) / 1000 = 874,880$ kgCO_{2e}.
- 3.37 This GHG obligation is reduced by the first 450,000 litres, to an adjusted GHG obligation of $874,880 - 59,352 = 815,528$ kgCO_{2e}.
- 3.38 If the supplier doesn't sell or buy any GHG credits during the year, their net position at the end of the year is $815,528 - 503,844 = 311,684$ kgCO_{2e}. They must therefore buy additional GHG credits or pay the buy-out price.

Calculation example 4

- 3.39 In 2019, a supplier sells 0.6 million litres of petrol (GHG intensity 93.3 gCO_{2e}/MJ).

- 3.40 Their total fuel supply is 0.6 million litres. This is above the 450,000 litre threshold (hence the supplier is required to report), but below the 10 million litre threshold, so there is a deduction in their GHG obligation for the first 450,000 litres supplied (from Table 1, 59,352 kgCO_{2e} in 2019).
- 3.41 Volumes of fuel supplied must be converted to amount in MJ of fuel supplied using LHV energy values.
- $600,000 * 32 \text{ MJ/litre} = 19,200,000 \text{ MJ of petrol}$
- 3.42 The supplier receives no GHG credits.
- 3.43 The supplier's GHG obligation based on the petrol is $19,200,000 * (93.3 - 90.34)/1000 = 56,832\text{kgCO}_2\text{e}$.
- 3.44 This GHG obligation is reduced to zero, because the reduction from the first 450,000 litres (of 59,352 kgCO_{2e}) is larger than the supplier's GHG obligation.
- 3.45 If the supplier doesn't sell or buy any GHG credits during the year, their net position remains as 0 kgCO_{2e}. They therefore do not have to buy any additional GHG credits or pay the buy-out price.

4. Operation of the Greenhouse Gas mechanism

Chapter summary

This chapter sets out how the timing of reporting, awarding and redeeming of GHG credits and the buy-out mechanism. Information on revocation of GHG credits is also provided.

Timetable for claiming GHG credits

- 4.1 Reporting periods for the GHG Reporting Regulations run from 1 January to 31 December. Suppliers can report to the Administrator as often as they wish, although GHG credit applications will be processed monthly.
- 4.2 The GHG Reporting Regulations and RTFO operate in parallel – with data reported under the RTFO being relied upon for the GHG Reporting Regulations (where fuels are covered by both legislation), to maximise efficiency and effectiveness and eliminate any need for companies covered by both schemes to report twice.
- 4.3 Reporting under the GHG mechanism will align to the same periods in which suppliers report to HMRC and will largely be mid-month to align with the HO10 supplier fuel volume reporting, and thereby also with the timing of reporting under the RTFO. Table 2 shows reporting dates for a standard GHG reporting year.
- 4.4 Applications for both the period 15 December to 31 December and 1 January to 14 January the following year should be made by 14 February.
- 4.5 Where suppliers need to split HMRC reporting periods, this should be done proportionally, based on the average daily fuel supply over that period. The Administrator will check total fuel volumes over the quarter/year.
- 4.6 The deadline for applying for a GHG credit is 12 May (or a later date if specified by the Administrator) following the end of the obligation year.

Mid-month to mid-month duty payments			Calendar month and quarter duty payments				
Period end	Reporting deadline		Period end	Reporting deadline	Quarter end	Report deadline	*First potential GHG credit award ¹
1	14/01/aa ²	14/02/aa					15/03/aa
2	14/02/aa	14/03/aa	1	31/01/aa	14/03/aa		15/04/aa
3	14/03/aa	14/04/aa	2	28/02/aa	14/04/aa		15/05/aa
4	14/04/aa	14/05/aa	3	31/03/aa	14/05/aa	31/03/a a	15/06/aa
5	14/05/aa	14/06/aa	4	30/04/aa	14/06/aa		15/07/aa
6	14/06/aa	14/07/aa	5	31/05/aa	14/07/aa		15/08/aa
7	14/07/aa	14/08/aa	6	30/06/aa	14/08/aa	30/06/a a	15/09/aa
8	14/08/aa	14/09/aa	7	31/07/aa	14/09/aa		15/10/aa
9	14/09/aa	14/10/aa	8	31/08/aa	14/10/aa		15/11/aa
10	14/10/aa	14/11/aa	9	30/09/aa	14/11/aa	30/09/a a	15/12/aa
11	14/11/aa	14/12/aa	1 0	31/10/aa	14/12/aa		15/01/bb
12	14/12/aa	14/01/bb	1 1	30/11/aa	14/01/bb		15/02/bb
13	31/12/aa ²	14/02/bb	1 2	31/12/aa	14/02/bb	31/12/a a	15/03/bb

Table 2 New reporting dates for obligation periods running 1 January to 31 December in year 'aa', starting from 2019

* Mid-month to mid-month duty payments can be made one month earlier (see Section 5.9).

1) GHG credits will continue to be awarded overnight between 14th and 15th of the month – i.e. around 2am on the 15th.

2) Mid-month to mid-month duty payment reporting companies must split their submissions of supply for the HMRC period 15/12/aa to 14/01/bb such that the supplies from both periods, i.e. 15/12/aa to 31/12/aa and 01/01/bb to 14/01/bb are reported on the same date in the following obligation period, i.e. in the obligation year 'bb' on the 14/02/bb.

Meeting the obligation

4.7 A supplier is required to meet their GHG obligation by either redeeming one GHG credit per unit of GHG obligation or by paying a 'buy-out' price.

4.8 The Administrator will notify designated suppliers at the end of the obligation year of any shortfall in meeting the GHG obligation in respect of GHG credits held in accounts so that suppliers may purchase GHG credits or pay the buy-out price.

- 4.9 The deadline for suppliers to redeem GHG credits to the Administrator to meet the obligation is 15 September following the end of the obligation year. This deadline aligns with the final date for the redemption of RTFCs under the RTFO.
- 4.10 Use of GHG credits in subsequent obligation periods (carry over) is not permitted.

Buy-out mechanism

- 4.11 Where a supplier fails to redeem sufficient GHG credits to meet their obligation (in kgCO_{2e}) they must pay a buy-out price of 7.4 p per kg of CO_{2e} saving not delivered, equivalent to £74 / tCO_{2e}.
- 4.12 This sum must be paid to the Administrator by 26 October following the end of the obligation year.
- 4.13 Where a supplier fails to make the buy-out payment by the deadline, interest will be payable on that sum at 5% above the Bank of England base rate as at the date for payment. This interest will be applied daily.
- 4.14 Where a buy-out payment is not made, the supplier is liable for a civil penalty. Non-payment of a civil penalty may result in further action being taken through the courts to recover this debt. Further information on civil penalties is given in Chapter 9.

Revocation of GHG credits

Circumstances in which GHG credits may be revoked

- 4.15 The Administrator may revoke a GHG credit where they are satisfied that:
- the declaration that accompanied the application for GHG credits was false;
 - GHG credits were issued as a result of fraudulent behaviour, statement or undertaking on the part of the supplier, any connected person or the verifier;
 - the information reported on volumes of fuel or sustainability information was materially inaccurate or any evidence presented to support this information was insufficient to substantiate it;
 - the verifier's assurance report on the information submitted was materially inaccurate.

Which GHG credits will be revoked

- 4.16 Whilst the GHG Reporting Regulations apply revocation to individual GHG credits, in practice the Administrator will revoke all the necessary GHG credits in one action and actions in the subsequent paragraphs apply to that group of GHG credits. Where the reasons for revocation relate to the verifier's assurance report on an 'administrative consignment group'¹⁸ it is likely that all GHG credits relating to that group will be revoked. Where the reasons for the revocation relate to the sustainability information within an administrative consignment, the revocation will relate to that consignment. Where the reasons for revocation relate to the volume of fuel supplied and the volume in question does not match the volume in one or more administrative

¹⁸ An 'administrative consignment' is a volume of fuel that has homogeneous sustainability characteristics; an 'administrative consignment group' is one or more administrative consignments that a supplier has sought a verifier's assurance report on. Further information can be found in the [RTFO Guidance](#).

consignment, the Administrator will decide on a case-by-case basis whether the revocation(s) occur within or at administrative consignment level.

- 4.17 Where possible the Administrator will revoke GHG credits from the original supplier.
- 4.18 Where the supplier does not have sufficient GHG credits for the Administrator to revoke, GHG credits from that same calendar year will be revoked from a transferee.
- 4.19 The Administrator will apply a 'first in-first out' principle to tracing GHG credits from the original supplier to a transferee, unless the original supplier or any subsequent transferor notifies the Administrator of a different arrangement for the relevant GHG credits.
- 4.20 If, upon the notice of revocation being served the original supplier or a subsequent transferor wishes to submit evidence that the assignment of the GHG credits in question to a particular transfer should not be applied on a 'first in-first out' principle or any notification made to the supplier at the point of the transfer, this will be taken into account by the Administrator in determining which GHG credits to revoke.
- 4.21 For example, 15,000 GHG credits are issued to supplier A for two administrative consignments of 7,500 litres with the same GHG savings. (Note that the units for GHG credits are kgCO_{2e}.) Supplier A then transfers these GHG credits in the following order: 5,000 to supplier B, 5,000 to supplier C and 5,000 to supplier D. The Administrator then determines that GHG credits should not have been issued to one of the administrative consignments and revokes 7,500 GHG credits. As supplier A no longer has any GHG credits from that calendar year, they must be revoked from one of the suppliers to whom they have been transferred. If the transferor has not provided any evidence as to which GHG credits they purchased, the Administrator will apply the 'first in-first out' principle. This means that 5,000 GHG credits will be revoked from supplier B and 2,500 from supplier C.

Process for revoking GHG credits

- 4.22 The Administrator will mark the administrative consignment data in question as 'revoked' and this data will become available to the suppliers affected as an 'open' administrative consignment.
- 4.23 The Administrator must inform a supplier of its intent to revoke a GHG credit and inform the supplier as to the grounds for revoking that GHG credit.
- 4.24 The Administrator may not serve notice of intent to revoke after 16 June immediately after the obligation period to which the GHG credit in question belongs.
- 4.25 A GHG credit will be marked on the IT system as 'intended for revocation' during this process. Whilst GHG credits are marked 'intended for revocation', they cannot be traded, redeemed or surrendered by the current owner.
- 4.26 If that GHG credit has been transferred out, then the Administrator must inform both the original supplier, and any subsequent owner of the GHG credit, of both the intent to and the grounds for revocation.

Obligation status of fuel for which GHG credits have been revoked

- 4.27 Where the GHG credits relating to a particular volume of fuel are revoked, the Administrator will take action as appropriate to ensure the correct obligation is applied.

Making representations against a revocation proposal or decision

- 4.28 Revocation of a GHG credit occurs in two stages. First the Administrator issues 'notice of intent to revoke' which both the original owner and any subsequent owner(s) may make representations against. Should the Administrator decide to, a 'revocation notice' is then served, against which the original owner and any subsequent owner(s) may appeal.
- 4.29 Any representations against the 'notice of intent to revoke' or the 'revocation notice' must be made within 14 days of the notice being received.
- 4.30 The last date the Administrator may issue a 'notice of intent to revoke' is 16 June after the end of the obligation period. Any representations against this 'notice of intent' must be considered by 16 July after the end of the obligation period.
- 4.31 The last date the Administrator may issue a 'revocation notice' is 16 July after the end of the obligation period. Any appeal against this revocation must be considered by 15 August after the end of the obligation period.
- 4.32 The Administrator will inform the parties involved of the outcome of its consideration of either a representation against a 'notice of intent to revoke', or an appeal against a 'revocation notice'.
- 4.33 If the Administrator determines that the revocation should not occur at either stage, the relevant parties will be informed and the GHG credits will become available to the current owner for trading, redeeming or surrendering.
- 4.34 The Administrator may allow an oral hearing when considering a representation against a 'notice of intent to revoke' or an appeal against a 'revocation notice'.
- 4.35 If the Administrator fails to make a determination by 15 August, the GHG credits will be re-instated.
- 4.36 If the Administrator confirms that a revocation should occur, the GHG credit will be marked on the IT system as revoked and therefore be permanently unavailable for trading, redemption or surrender by the current owner. The grounds for this confirmation (which may be different to the grounds for the original intent to revoke) will be communicated in writing.

Applying for GHG credits for fuel that has had GHG credits revoked

- 4.37 Where GHG credits have been revoked for the fuel in question, suppliers may apply again for GHG credits. However, unless there is new information or evidence to support the application the Administrator is unlikely to issue GHG credits.

Temporarily freezing new certificate issue and trading

- 4.38 If the Administrator has grounds to suspect that a supplier has incorrectly gained certificates and is therefore considering a revocation, an account may be temporarily frozen to ensure that the Administrator can revoke from that supplier if necessary. Whilst an account is frozen no new certificates can be issued to the account and no trades can occur.

- 4.39 The Administrator will provide, in writing, the grounds for 'freezing' an account.
- 4.40 A supplier may write to the Administrator to have the 'freezing' reconsidered.
- 4.41 Once the grounds for freezing have been resolved, the Administrator will reactivate the account. Any GHG credits due to be issued or traded in or out of the account will be.

Links from GHG credit revocation to civil penalties

- 4.42 The gaining or attempt to gain a GHG credit through the provision of inaccurate information, or the continued ownership of a GHG credit where a supplier is aware that the information used to gain that GHG credit is inaccurate, but has failed to inform the Administrator, is subject to a civil penalty as set out in Chapter 9.

Links with RTFO / RTFCs

- 4.43 The GHG Reporting Regulations runs parallel to, although separately from, the RTFO mechanism.
- 4.44 Trades and exchanges of RTFCs or GHG credits between the two mechanisms is not allowed.
- 4.45 The RTFO and GHG Reporting schemes apply to the same suppliers, with the exception of fossil gas suppliers, who are not covered by the RTFO. Therefore, for most suppliers, applications for RTFCs and GHG credits will be made and handled in parallel.
- 4.46 While RTFCs and GHG credits will be largely awarded to fuels together, there are some variations in eligibility criteria between the two schemes. RTFCs are not allowed to be claimed for electricity used in road vehicles and RFNBOs which do not meet the mandatory sustainability criteria, however, GHG credits can be claimed for these fuels provided their GHG intensity is below the relevant GHG target level. Additionally, GHG credits can be claimed for UERs, which are not supported under the RTFO.
- 4.47 Most information required under the GHG Reporting Regulations is the same as that reported under the RTFO, and, in general, suppliers can use the information reported under the RTFO to meet the requirements of the GHG Reporting Regulations.
- 4.48 The information common to both schemes includes the amount of fuel (litres or kilograms), whether the fuel is fossil, renewable or partially renewable, the GHG intensity of the renewable fuel, whether the renewable fuels meet the C&S criteria and the additional sustainability information in respect of each type of biofuel.
- 4.49 Additional information required by the GHG Reporting Regulations includes GHG emissions of fossil fuels, energy content of fuel (LHV), ILUC values from biofuels, origin and place of purchase (PoP) information, plus information on UERs and electricity used in road vehicles.
- 4.50 For renewable fuels, one application and one verification report covers both schemes.¹⁹

¹⁹ There may be some exceptions to this, where RFNBOs are supplied which do not meet the GHG savings threshold of the RTFO but which do have a lower carbon intensity than the GHG Mechanism comparator.

5. Reporting

Chapter summary

This chapter explains how suppliers report the information required to the Administrator, and what must be reported:

- Amount (litres or kg) of fuel supplied;
- Amount (MJ) of energy supplied;
- Whether the fuel is fossil, renewable or partially renewable;
- The proportions of renewable fuels that are sustainable;
- The GHG intensity of each type of fuel;
- Additional sustainability information (biofuels and RFNBOs only);
- ILUC emissions (biofuels from crops only);
- Origin and place of purchase (PoP).

How to report

- 5.1 Suppliers must report the required information via an online portal administered by the Department for Transport as outlined in Chapter 4.
- 5.2 Where suppliers already report information under the RTFO that information can be relied upon for reporting under the GHG Regulations. Some information, including the amount of energy supplied for all fuels, greenhouse gas intensity of fossil fuels, and origin and PoP information, is required under the GHG Regulations but not under the RTFO.
- 5.3 The annual reporting period under the GHG emissions regulations runs from 1 January to 31 December. This will align with the RTFO, which will move to a calendar year basis from 1 January 2019 (see [RTFO Guidance](#)).
- 5.4 Suppliers must report annually, by 15 September each year in respect of fuels supplied between 1 January and 31 December the previous year.
- 5.5 Renewable fuels must have their C&S data independently verified, in line with the RTFO (see [RTFO Guidance](#)). Other information reported under the GHG Reporting Regulations may be subject to independent verification (see Chapter 8).

Publication of information

- 5.6 In the interests of transparency the Administrator will publish data relating to the information provided under the GHG Reporting Regulations. This information will exclude data on individual supplier fuel volumes. It is intended to include the proportions of the different types of fuel supplied and the average GHG intensity (including ILUC emissions for biofuels) for each fuel supplier.

Amount of fuel supplied

- 5.7 Suppliers should report on the amounts (in litres for liquid fuels or in kg for gaseous fuels) of fuel that are owned at the UK duty point for supply to places in the UK. If fuel is not owned by the supplier then this does not need to be reported.
- 5.8 If fuel is exported from the UK and duty is reclaimed (whether by the supplier or another party), please contact the Administrator to discuss how this should be reported.
- 5.9 The Administrator has access to HMRC fuel duty data²⁰ and will use this to validate the amount of fuel supplied. Where there are any discrepancies the Administrator may require suppliers to provide information as to why this is and evidence to substantiate this information.
- 5.10 Some fuels do not have a duty point. Amounts should be measured and reported as per sections 3.10 (and section 3.11 for electricity).
- 5.11 The Administrator may require all data submissions to be accompanied by a verifier's statement (see Chapter 8) and other evidence as required by the Administrator.

Amount of energy supplied

- 5.12 Table 3 summarises the LHV²¹ energy content of fossil and renewable fuels. Suppliers should use Table 3 when reporting fuel LHV numbers, unless their fuel is not listed in Table 3, or their fuel LHV is significantly different to Table 3 - in both cases they should contact the Administrator

Fuel Type	HMRC duty tax code	Energy (LHV, MJ/kg)	Energy (LHV, MJ/l)
Unleaded petrol	522		32
Light oil (other than unleaded petrol)	520		32
Diesel (heavy oil)	541		36
Marked gas oil	556		36
Kerosene (off road or excepted vehicle)	542		36
CNG (other than biogas)	591	50	

²⁰ This access is granted by law and the data is subject to strict data protection provisions

²¹ For biofuel, as per RED Annex III, and for fuel of non-biological origin, the lower heating value for that type of fuel set out in Appendix I to the JRC Well-to-Tank [Report](#).

Fuel Type	HMRC duty tax code	Energy (LHV, MJ/kg)	Energy (LHV, MJ/l)
LPG (other than biogas)	592	46	
Biogas ²²	591	50	
Bioethanol	595		21
Biomethanol	595		16
Biobutanol	595		27
Biodiesel	595		33
Hydrogen		120	
ETBE	595		27 (of which 37% is renewable)
MTBE	595		26 (of which 22% is renewable)
TAAE	595		29 (of which 29% is renewable)

Table 3 Fuel energy contents

Reporting on whether the fuel is fossil, renewable or partially renewable, or co-processed

- 5.13 Suppliers should report on whether their fuel is a fossil fuel, a renewable fuel, or a partially renewable fuel. Co-processed fuels (as described at Annex 1, Part 1, 3. (c) (ii) of Directive 2015/652) should be considered as partially-renewable under the RTFO Order. There is a methodology for calculating the renewable component of partially-renewable fuels set out in the *Process guidance* for the RTFO Order. The methodology is binding, and should be used in conjunction with the requirements for co-processed fuels set out at Annex 1, Part 1, 3. (c) (ii) of Directive 2015/652.
- 5.14 The Administrator anticipates that any supplier of renewable or partially renewable gaseous fuel will already be an account holder under the RTFO to benefit from the certificates that are issued to such fuel under the RTFO.
- 5.15 Therefore, the Administrator expects that fuel which is only reported on under the GHG Reporting Regulations will be gaseous fossil fuel, RFNBOs which do not meet the RTFO GHG savings threshold, or electricity in electric vehicles applying for GHG credits. If this is not the case, please contact the Administrator to discuss whether you are also obligated under, or would benefit from opening an account under the RTFO

GHG intensity

- 5.16 To calculate the GHG obligation and the number of GHG credits, it is necessary to know the GHG intensity and the volume (or mass) and LHV energy content of fuels supplied. For different fuel types, the method of determining the GHG intensity may vary.

²² "Biogas" refers to biomethane, not a mixture of biomethane and carbon dioxide as it does in other contexts.

Fossil fuels and low carbon fossil fuels

5.17 For conventional fossil fuels, the GHG intensity reported must be that listed in the FQD 7a implementing measure²³, as stated in Table 4.

Raw material source and process	Fuel placed on market	Lifecycle GHG intensity (gCO _{2e} /MJ)
Conventional crude, natural gas-to-liquid, coal-to-liquid, natural bitumen, oil shale	Petrol	93.3
Conventional crude, natural gas-to-liquid, coal-to-liquid, natural bitumen, oil shale	Diesel or gasoil	95.1
Any fossil sources	Liquefied petroleum gas in a spark ignition engine	73.6
Natural gas, EU mix	Compressed natural gas in a spark ignition engine	69.3
Natural gas, EU mix	Liquefied natural gas in a spark ignition engine	74.5
Sabatier reaction of hydrogen from non-biological renewable energy electrolysis ⁹	Compressed synthetic methane in a spark ignition engine	3.3
Natural gas using steam reforming	Compressed hydrogen in a fuel cell	104.3*
Electrolysis fully powered by non-biological renewable energy ²⁴	Compressed hydrogen in a fuel cell	9.1*
Coal	Compressed hydrogen in a fuel cell	234.4*
Coal with carbon capture and storage of process emissions	Compressed hydrogen in a fuel cell	52.7*
Waste plastic derived from fossil feedstocks	Petrol, diesel or gasoil	86

* For electricity used in battery-electric powertrains or hydrogen used in fuel cell electric powertrains, the fuel GHG intensity is multiplied by a powertrain efficiency factor (See 5.23)

Table 4 Average lifecycle greenhouse gas intensity default values for fossil fuels and low carbon fossil fuels

5.18 For fossil fuels for which there is not a default available, which is likely to include some novel low-carbon fossil fuels, please contact the Administrator. Suppliers may not carry out and report their own calculations of 'actual' GHG emissions for low carbon fossil fuels.

Biofuels and RFNBOs

5.19 For biofuels, RFNBOs, or partially renewable fuels that are supplied as sustainable fuels under the RTFO (see [RTFO Guidance](#)), suppliers may use the actual or default GHG emissions factor that they reported under the RTFO for the volume of sustainable renewable fuel that they supply.

²³ 2015/652 Annex I, Part 2, paragraph 5.

²⁴ These fuels are RFNBOs but are included here for completeness. For calculating the GHG intensity of RFNBOs, see *RTFO C&S Guidance*.

- 5.20 In the case of biofuels that do not meet the sustainability criteria of the RTFO, the GHG intensity of the fuel is considered to be at least as high as the GHG intensity of the respective fossil fuel that they were designed to replace, as determined by the Administrator (Table 4). If a renewable fuel fails the C&S criteria and has a GHG intensity above that of its intended fossil fuel replacement, this higher value will be used.
- 5.21 If RFNBO do not meet the minimum GHG savings threshold required by the RTFO sustainability criteria they can still receive GHG credits where their GHG emissions are below the target level. In this case, suppliers should report and verify a GHG intensity calculated according to the methodology laid out in the [RTFO Guidance](#).

Electricity

- 5.22 The methodology for calculating GHG emissions of electricity supplied in road vehicles is outlined in Chapter 6.

Adjustment for powertrain efficiencies

- 5.23 For electricity used in battery electric powertrains and hydrogen used in fuel cell electric powertrains, the GHG intensity of the fuel may be multiplied by an adjustment factor (see Table 5) to account for the higher efficiencies of battery electric and fuel cell electric powertrains compared to internal combustion engines.
- 5.24 Note that the hydrogen adjustment factor is specific to fuel cell electric powertrains, and does not apply to hydrogen used in internal combustion engines.

Powertrain technology	Adjustment factor
Internal combustion engine	1
Battery electric powertrain	0.4
Hydrogen fuel cell electric powertrain	0.4

Table 5 Adjustment factors for powertrain efficiencies

- 5.25 Similar to the reporting of electricity for use in transport (Chapter 6), hydrogen suppliers must report how much hydrogen for road transport they have supplied in a given reporting period. Appropriate supporting evidence must also be provided to the Administrator (e.g. sales invoices).
- 5.26 For the hydrogen supplied for road transport, the GHG emissions of the fuel before the powertrain efficiency factor is applied should be reported. The IT system will then apply the factor automatically²⁵.

Indirect land-use change emissions from biofuels

- 5.27 For biofuels, estimations of the indirect land-use change (ILUC) effects derived from economic modelling - known as 'ILUC values' - suggest that some crop derived biofuels can lead to an overall increase rather than a decrease in GHG emissions. According to the ILUC values in the revised RED, when ILUC is included crop derived biodiesel can increase GHG emissions, whilst the GHG savings for crop derived bioethanol are more modest than previously estimated.

²⁵ A powertrain adjustment factor of 0.4 will be applied to all hydrogen supplied for road transport which is eligible under the GHG Reporting Regulations.

- 5.28 Under the GHG Reporting Regulations, suppliers must report ILUC values for any biofuels used towards their targets, although the factors are not taken into account for compliance with the GHG target level. Similarly, the ILUC values are not included when determining whether a biofuel meets the minimum biofuel GHG saving thresholds under the RTFO.
- 5.29 In addition to the existing C&S reporting requirements for biofuels, the Administrator will gather information on estimated mean ILUC emissions from land-based (crop) biofuels. The information is **automatically populated in the online IT system** based on the feedstock information already reported by suppliers.
- 5.30 The ILUC values used by the Administrator are given in Table 6 below. The values are given for groups of feedstocks including cereals and other starch rich crops, sugars, and oil crops.

Feedstock group	Mean(*)
Cereals and other starch-rich crops	12
Sugars	13
Oil crops	55

Table 6 Estimated ILUC emissions from biofuel and bio liquid feedstocks (gCO_{2e}/MJ)

(*) The mean values included here represent a weighted average of the individually modelled feedstock values.

- 5.31 Estimated ILUC emissions are considered to be zero for feedstocks that are not listed in Table 6.

Origin and place of purchase reporting

- 5.32 Suppliers above the reporting threshold are required to report annually on the origin of the fuel they supply and the place of purchase (PoP). The reporting period for this information will be 15 April to 31 December for 2018, and then 1 January to 31 December for subsequent years.
- 5.33 For suppliers of renewable fuels receiving RTFCs for their fuel, this information will be captured through the RTFC application process. The Administrator will provide further information on how information relating to the origin and place of purchase of fossil fuels should be reported in due course.

Origin

- 5.34 For suppliers of fossil fuels, 'origin' refers to the feedstock trade name (FTN) of the crude oil (also known as the marketable crude oil name (MCON)), which identifies where the crude oil was extracted. A comprehensive list of feedstock trade names is given in Annex I to the FQD 7a implementing directive. For instances where this information is not available, 'origin' refers to whether the oil was extracted either within the EU or outside the EU. If this information is also not available, a supplier may report that the origin is unknown (see 5.41-5.45).
- 5.35 For suppliers of biofuels, 'origin' refers to the biofuel production pathway set out in Annex IV to amended Directive 98/70/EC.

Place of purchase

- 5.36 For fossil fuels, place of purchase (PoP) refers to the country and name of the processing facility where the fuel underwent the last substantial transformation i.e. the place where it was refined. Blending of fuels is not considered a substantial transformation and so does not represent the PoP.
- 5.37 For biofuels, PoP refers to the country in which the feedstock originated.

Allocation of data on origin and place of purchase

- 5.38 To reduce the burden upon suppliers who are obtaining data from refineries, and given that there is no agreed methodology to allocate crude oil sources to the multiple products and intermediates that a refiner produces, suppliers may use a simple allocation approach based on the ratio of the crudes used by the refinery that year.
- 5.39 Where suppliers use an allocation method, it must meet the requirements set out below:
- Data allocation would apply to define crude oil origin when suppliers receive crudes from multiple sources.
 - The condition to use data allocation is that none of the relevant crude which is subject to that data allocation system is reported to have origin characteristics other than those attributed to it by that system.
 - A data allocation system is a system which—
 - a. allows amounts of relevant crude with different origin characteristics to be mixed (“the mixture”);
 - b. provides for the origin characteristics of amounts added to the mixture to be attributed to other amounts withdrawn from the mixture; and
 - c. requires the origin characteristics attributed to the sum of the amounts withdrawn from the mixture to be the same, and in the same quantities, as the origin characteristics attributed to the sum of the amounts added to the mixture.
- 5.40 As an example, this means that if 30% of the crude brought into the refinery was from Murchison oil field then 30% of all of the products obligated by the FQD will be reported as originating from that crude.

Exemptions for fossil fuel

- 5.41 Where suppliers are not in possession of the detailed origin data suppliers may report the origin of their crude as simply EU / non-EU.
- 5.42 If suppliers do not have information on either the FTN or the knowledge of the EU / non-EU origin of the crude, and they cannot obtain such information, they will be exempted from the requirement to report on the origin of the crude. Likewise, where suppliers are not in possession of data on the PoP, and they cannot obtain such information, they are exempted from this reporting requirement.
- 5.43 Suppliers are however required to make reasonable efforts to access the data that must be reported. The Administrator may require suppliers to produce information on the reasonable steps they undertook to access such data. In some instances, the Administrator may also require independent verification that suppliers undertook such reasonable steps. In these cases, the lower ‘limited’ level of assurance is sufficient.

- 5.44 Suppliers are not required to report information on origin and place of purchase of electricity, as this is already collected by BEIS and OFGEM.
- 5.45 To avoid an unreasonable administrative burden, reporting requirements for small and medium sized enterprises (SMEs)²⁶ are simplified. SMEs are only required to report on whether the fuels being supplied are either 'EU' or 'non-EU' irrespective of whether they import crude oil or they supply petroleum oils and oils obtained from bituminous materials. If suppliers are not in possession of this data, they will be exempted from this requirement. However, as in 5.43 above, the Administrator may require suppliers to produce information on the reasonable steps they undertook to access such data. In some instances, the Administrator may also require independent verification that suppliers undertook such reasonable steps. In these cases, the lower 'limited' level of assurance is sufficient.

²⁶ SMEs are defined in accordance with Article 2 of the Annex to the EU Commission Recommendation 2003/361/EC

6. Electricity in road vehicles

Chapter summary

This chapter describes how to report electricity used in road vehicles for the purposes of claiming GHG credits, and how to calculate the GHG saving from electricity in road vehicles.

- 6.1 Suppliers of electricity for road vehicles are not obligated under the GHG mechanism.
- 6.2 Nevertheless, electricity in road vehicles is eligible to count towards a supplier's GHG reduction target, and suppliers of electricity for electric vehicles can apply for and trade credits if they choose. They receive GHG credits if the electricity they supply has a lower GHG intensity than the 2020 GHG target level. Electricity suppliers can then trade such GHG credits with liquid and gaseous fuel suppliers.

Mechanism for claiming GHG credits

- 6.3 Electricity suppliers covered by this legislation are those categorised by Ofgem as licensed electricity suppliers. In the UK at present, there are approximately 80 active licensed electricity suppliers.
- 6.4 To claim GHG credits, electricity suppliers must report how much electricity is used in electric vehicles (EVs), and must be able to demonstrate that they have supplied electricity for use in EVs.
- 6.5 The amount of electricity supplied to road transport may be based on actual metered data collected by the electricity supplier, when this data is known or reasonably ascertainable. If metered data is not known or reasonably ascertainable, suppliers can instead provide information as to estimated usage of electricity in such vehicles. We will provide further guidance on how this should be done in due course.

GHG emissions saving of electricity supplied for use in road vehicles

- 6.6 Electricity suppliers providing electricity for use in road vehicles must calculate the carbon intensity (in gCO₂e/MJ) from the weighted average carbon intensity of their electricity supply, based on Fuel Mix Disclosure data²⁷. Suppliers of 100% renewable electricity are therefore permitted to report a carbon intensity of zero. Emission factors for each technology providing electricity to the supplier mix must account for

²⁷ The [Electricity \(Fuel Mix Disclosure\) Regulations 2005 \(SI 2005 No. 391\)](#) introduced a requirement on all electricity suppliers in Great Britain to disclose to their customers the mix of fuels used to generate the electricity supplied annually, provided that electricity is supplied for a full disclosure period (1 April – 31 March). Suppliers must disclose this information by 1 October annually.

transmission and distribution losses and other indirect emissions covered by Scope 3 reporting standards of the Greenhouse Gas Protocol.

- 6.7 Due to the greater efficiency of a battery electric power train compared to an internal combustion engine, suppliers can multiply the GHG intensity of the supplied electricity by 0.4 for the purposes of reporting under the GHG mechanism, provided that the requirements of section 6.4 above are met.

Reporting data

- 6.8 Electricity suppliers are not required to report origin and PoP of electricity.
- 6.9 To receive GHG credits suppliers will need to submit an application to the scheme Administrator which should include:
- The amount of electricity supplied to EVs (in MJ);
 - The GHG intensity of the supplied electricity (in gCO_{2e}/MJ) (the weighted average carbon intensity of the supplier's based on its Fuel Mix Disclosure data), after the powertrain efficiency factor is applied;
 - A verifier's statement (see Chapter 8) or other evidence as required by the Administrator.

7. Upstream emissions reductions

Chapter summary

This chapter contains details on the use of UERs to claim GHG credits. It outlines the eligibility and reporting requirements for UERs, the mechanism for claiming GHG credits from UERs, and the verification requirements.

Introduction and definition

- 7.1 There is significant potential for reducing GHG emissions from upstream processes related to crude or gas extraction and other processes before the fossil raw material is refined. These are termed upstream emissions reductions (UERs).
- 7.2 UERs are eligible for GHG credits, which can be used by suppliers to help them meet the GHG target level.
- 7.3 UERs are defined in Article 7a implementing measure (Directive 2015/652)²⁸ as “all greenhouse gas emissions occurring prior to the raw material entering a refinery or a processing plant where the fuel, as referred to in Annex 1, was produced”. The implementation of UERs in the UK is informed, where possible, by the guidance document prepared by the European Commission on UER implementation²⁹.
- 7.4 Most (though not all) upstream emissions arise from the flaring and venting of associated petroleum gas (APG) produced during oil extraction. A typical UER project could therefore be one that results in a reduction of APG flaring.

Eligibility of UERs

- 7.5 To be eligible for GHG credits, relevant criteria in relation to UERs are as follows:
 - UERs shall only be applied to the upstream emission’s part of the average default values for petrol, diesel, CNG or LPG³⁰ and cannot be greater than this upstream emissions portion of the default fossil fuel GHG intensity value;
 - UERs originating from any country may be counted as a reduction in GHG emissions against fuels from any feedstock source supplied by any supplier, i.e. UERs and the projects from which they are generated can be entirely separate to the physical supply of fuel;

²⁹ Guidance note on approaches to quantify, verify, validate, monitor and report upstream emission reductions
https://ec.europa.eu/clima/sites/clima/files/guidance_note_on_uer_en.pdf

³⁰ The values are 11.0 gCO₂e/MJ for petrol, 11.3 gCO₂e/MJ for diesel, 9.1 gCO₂e/MJ for compressed natural gas, 15.0gCO₂e/MJ for liquefied natural gas, and 6.2gCO₂e/MJ for LPG.

- UERs shall only be counted if they are associated with projects that have started after 1 January 2011;
- UERs should be generated only during the 2020 calendar year;
- UERs can only be claimed during the calendar year in which they were created. They cannot be aggregated over the full period of UER project eligibility (1 Jan 2011 - 31 Dec 2020);
- Emissions reductions must have occurred before they can be claimed (i.e. it is not permitted to claim emissions savings that are expected to occur in the future as a result of a project);
- It is not necessary to prove that UERs would not have taken place without the reporting requirement set out in Article 7a of the FQD;
- UERs which are used to claim GHG credits under the UK GHG mechanism must not have been previously, or be intended to be in the future, reported and rewarded under any other GHG offsetting mechanism such as the Clean Development Mechanism under the United Nations' Kyoto Protocol;
- A UER project must offer GHG savings that would not have occurred in the absence of the project. It is not necessary to prove that the UER project was the direct result of the requirements of the FQD;
- It should be demonstrated that either the baseline emissions case would be permissible under local law, or that local law that prohibits the baseline case is not enforced and that disregard for that local law represents normal business practice.

7.6 Upstream emissions reduction credits generated from projects certified under the Clean Development Mechanism (CDM) or Joint Implementation (JI) mechanism are eligible for GHG credits if they satisfy the points under 7.5, and if they are not already claimed as Certified Emissions Reductions (CERs) under the CDM, or Emission Reduction Units (ERUs) under JI.

Reporting UERs

7.7 For each consignment of UERs, fuel suppliers shall report the following to the Administrator:

- The start-date of the project, which is the first point at which a project has generated emission reductions, and must be after 1 January 2011;
- The annual emissions reductions in kgCO₂e;
- The duration for which the claimed emissions reductions occurred;
- The project location;
- The baseline annual emissions and the emissions reductions occurring in consequence of the application of the reduction measures;
- Non-reusable UER certificate numbers³¹ relating to the scheme, claimed GHG reductions and calculation method;

³¹ The non-reusable certificate number refers to the unique UER identifier code which will be applied to each batch of UERs. This will reduce the risk of over-claiming on any single project. The unique identifier should include identification of the first and the last unit of emission reduction in a batch, and also locational data for the project. Member States will need to agree a single common method to generate and apply certificate numbers to batches of UERs.

- Where the project relates to oil extraction, the average annual historical and reporting year gas-to-oil ratio (GOR) in solution, reservoir pressure, depth and well production rate of crude oil.

Calculation of emissions reductions from UERs

- 7.8 UERs shall be estimated and validated in accordance with principles and standards identified in International Standards, and in particular ISO 14064³², ISO 14065³³ and ISO 14066³⁴.
- 7.9 Emissions savings must be calculated as the difference between the GHG emissions and / or removals (for the project) and the baseline scenario, in kgCO_{2e}. The baseline is defined (in ISO 14064-2) as a counterfactual *"hypothetical reference-case that best represents the conditions most likely to occur in the absence of a proposed GHG project"*.

Mechanism for claiming UERs

- 7.10 UERs are created and verified through a UER project, managed by a project proponent. Projects must conform to international standards for project accreditation and verification (specifically ISOs 14064, 14065 and 14066).
- 7.11 Project proponents receive UERs based on the kgCO_{2e} that the project has saved. UERs can be freely traded and are sold to UK fuel suppliers.
- 7.12 Fuel suppliers register UERs on the UK's online system, where it becomes a UK GHG credit. This mechanism is summarised in Figure 1 below.
- 7.13 The GHG credits awarded for UERs are the same as any other UK GHG credits and can be traded in the same way (based on kgCO_{2e}). Once converted to GHG credits (1 kgCO_{2e} for 1 kgCO_{2e}), such credits cannot then be used outside of the UK scheme.
- 7.14 Applications for GHG credits for UERs are restricted to suppliers of fuels in the UK. Traders of fuel and electricity providers who register to open an account with the Administrator of the GHG mechanism are not eligible to make claims for GHG Credits for UERs.
- 7.15 Such credits could be revoked at a later date if evidence was later found to be incorrect (see Chapter 4).
- 7.16 The approach to verification of UERs is covered in Chapter 8. Further guidance on verification will be issued in due course.

³² Comprising ISO 14064-1:2006 Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals, http://www.iso.org/iso/catalogue_detail?csnumber=38381 ; ISO 14064-2: 2006 Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emissions reductions or removal enhancements, http://www.iso.org/iso/catalogue_detail?csnumber=38382 ; ISO 14064-3: 2006 Specification with guidance for the validation and verification of greenhouse gas assertions, http://www.iso.org/iso/catalogue_detail?csnumber=38700

³³ ISO 14065:2013 Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition, http://www.iso.org/iso/catalogue_detail?csnumber=60168

³⁴ ISO 14066:2011 Competence requirements for greenhouse gas validation teams and verification teams, http://www.iso.org/iso/catalogue_detail?csnumber=43277

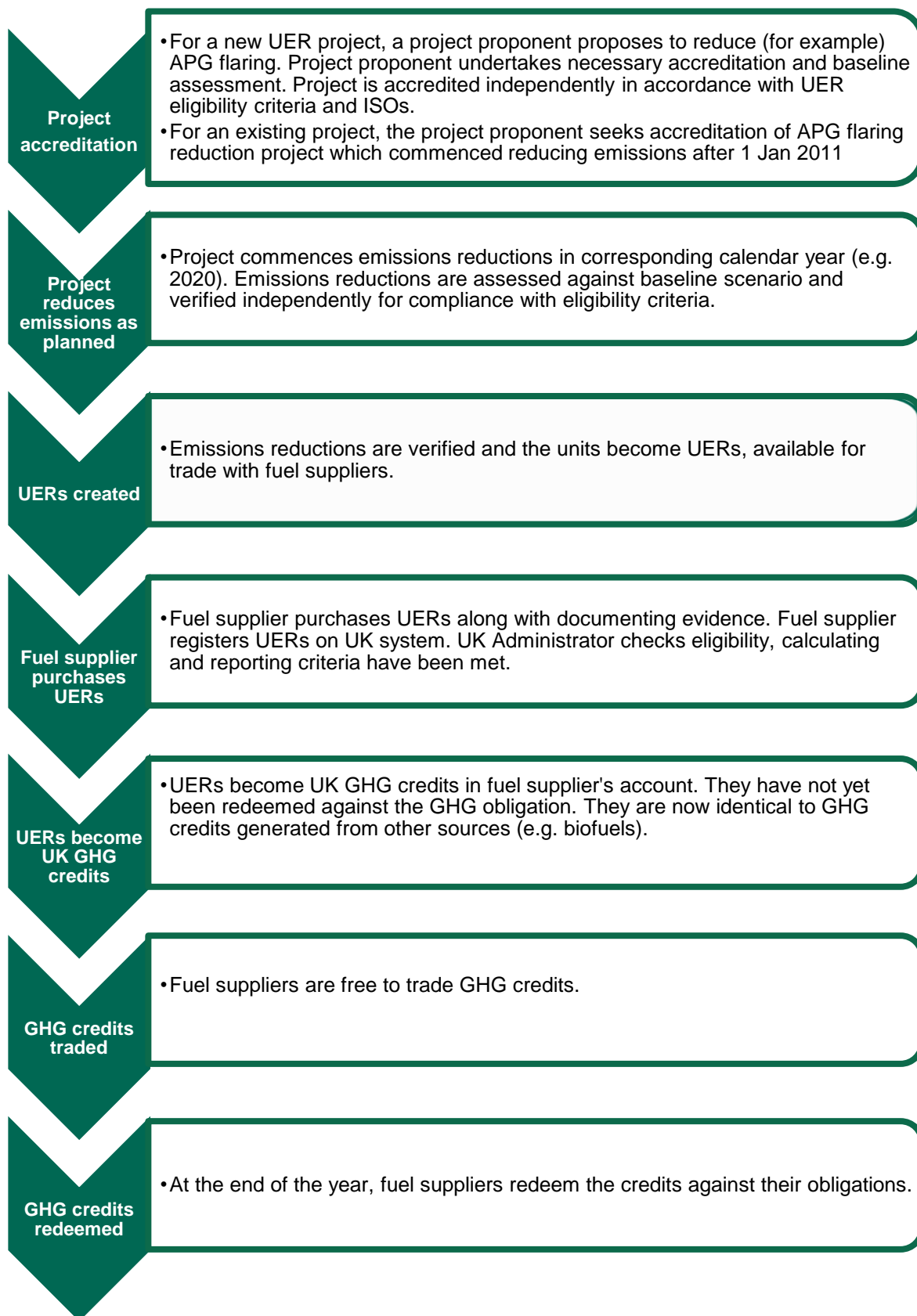


Figure 1 Typical passage of UERs from point of creation to point of redemption

8. Verification

Chapter summary

This chapter gives an overview of the approach to verifying information submitted to the Administrator.

What needs to be verified

8.1 To ensure that the data submitted by suppliers (outlined in 8.3) is accurate, direct examination of evidence by the Administrator, as currently established by Regulation 13 of the GHG Reporting Regulations, may be sufficient. However, in some instances it may be necessary to require independent assurance (verification) of this data to ensure its accuracy. The Administrator therefore has the powers to require independent assurance of:

- the data submitted by a supplier; and of
- the reasonable steps taken by suppliers to acquire origin and PoP information for fossil fuels

Where possible data which is already reported and verified under the RTFO will be relied upon for the purposes of the GHG Regulations to avoid duplication of effort and minimise burden on industry.

8.2 Data relating to biofuels including volumes, country of origin and compliance with the mandatory carbon and sustainability criteria is already independently verified in the context of the RTFO (see [RTFO Guidance](#)), and as such this data does not need to be verified again for the purpose of the GHG Reporting Regulations.³⁵

8.3 As described in this Guidance, for each consignment of fuel, suppliers will have to report (see Table 7):

- Fuel type and volume (in litres) for liquid fuels or fuel mass (in kilograms) for gaseous fuels;
- Fuel energy content (in MJ/litre for liquid fuels, or MJ/kg for gaseous fuels);
- GHG intensity (in gCO₂e/MJ) - default value (where available) or actual values (not an option for fossil fuels). For biofuels or RFNBOs claiming RTFCs under the RTFO, GHG intensity is already reported under the RTFO;
- Compliance with the land-based criteria (biofuels only, reported under the RTFO);

³⁵ RFNBOs that cannot be rewarded under the RTFO as they do not meet the GHG threshold, but which do make savings against the GHG Mechanism target, will require their own independent verification report.

- ILUC value (certain categories of biofuels only, auto-populated in ROS under the RTFO);
- Origin (see 5.34-5.45);
- PoP (see 5.36-5.45);
- The GHG intensity of the supplied electricity (in gCO₂e/MJ) (the weighted average carbon intensity of the supplier's based on its Fuel Mix Disclosure data), after the powertrain efficiency factor is applied.

	Reported under RTFO	Reported under GHG Regulations
Fossil fuels	<ul style="list-style-type: none"> • Fuel type and amount (in litres for liquid fuels or kg for gaseous fuels) 	As for RTFO, and additionally: <ul style="list-style-type: none"> • Fuel origin and PoP • Fuel GHG intensity (in gCO₂e/MJ) • Fuel LHV energy content (in MJ/l for liquid fuels or MJ/kg for gaseous fuels)
Renewable fuels	<ul style="list-style-type: none"> • Fuel type and amount (in litres for liquid fuels or kg for gaseous fuels) • Fuel GHG intensity (in gCO₂e/MJ) • Feedstock and biofuel production pathway, where applicable • Feedstock country of origin • Information to demonstrate compliance with sustainability criteria, e.g. voluntary scheme, as applicable (see Table 1 in C&S Guidance) 	As for RTFO, and additionally: <ul style="list-style-type: none"> • Fuel LHV energy content (in MJ/l for liquid fuels or MJ/kg for gaseous fuels) • ILUC value, where applicable (in gCO₂e/MJ)

Table 7 Summary of reporting requirements for fossil fuels and renewable fuels under the RTFO and GHG Reporting Requirements

8.4 Where the Administrator requires independent verification of data before a GHG credit can be awarded, each consignment should be accompanied by an independent verifiers' statement.

Level of assurance

8.5 When required by the Administrator, verification should be undertaken to a 'limited assurance' level following International Standard on Assurance Engagements (ISAE) 3000, in line with the verification of data required under the RTFO.

8.6 In the following cases for fuel volume data, the Administrator has the right to assess supporting evidence directly and has discretion to request independent verification where deemed appropriate. In such cases, verification is required to either 'limited assurance' or 'reasonable assurance' level in line with ISAE 3000 (see [RTFO Guidance](#)):

- Renewable aviation fuel volumes;

- Amount of electricity used in road vehicles;
- Mass of renewable gas set aside for use in NRMM;
- Mass of hydrogen.
- GHG intensity of RFNBOs which have not been awarded an RTFC.

Verification of UERs

- 8.7 For UERs to be eligible for GHG credits, they must be verified by established third party organisations. The FQD Implementing Directive (Directive 2015/652) requires that the verifying organisation must be accredited in accordance with ISO 14065³⁶, and that the verification of methods for estimating UERs must be done in accordance with ISO 14066³⁷.
- 8.8 Key to the scope of verification of UERs will be to check that UERs reflect real emissions savings and are not being counted more than once. Suppliers will need to provide evidence that multiple claiming has not happened.
- 8.9 UERs from a given project may only be claimed against FQD GHG emission reduction obligations once. Coordination will take place between the administrators in Member States to prevent double-counting, or counting the same reductions in different years.
- 8.10 The precise mechanism for doing this will depend on whether or not a pan-European UER database is established.

Further guidance on verification

- 8.11 Chapter 11 of the [RTFO C&S Guidance](#) provides advice on how to appoint a verifier.
- 8.12 The [RTFO Verifiers' Guidance](#) gives detailed guidance on how verification should be approached and undertaken in the context of the RTFO and may be helpful for verifiers in preparing for engagements under the GHG Reporting Regulations.

³⁶ ISO 14065, Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition

³⁷ ISO 14066 Part 6,

Greenhouse gases - Competence requirements for greenhouse gas validation teams and verification teams

9. Civil penalties

Chapter summary

This chapter contains information on the civil penalty process and when they might be applied.

- 9.1 The GHG Reporting Regulations provide the Administrator the power to issue civil penalties under the following circumstances:
- if a supplier fails to wholly discharge its GHG obligation by either the redemption of GHG credits or making a buy-out payment;
 - failing to report GHG intensity of fuel supplied (Regulation 4(2));
 - failing to supply a verifiers report in respect of renewable transport fuel supplied (Regulation 6(1));
 - failing to provide supporting evidence of the GHG intensity of fossil and renewable transport fuel supplied, either as part of the revocation process for GHG credits or when applying for GHG credits (including, where appropriate, a verifier's report); and/or
 - failing to provide accurate information regarding the GHG reporting items, for example, information or evidence relating to the origin and place of purchase of fossil fuel, either as part of the revocation process for GHG credits or when applying for GHG credits (including, where appropriate, a verifier's report).
 - if a supplier does not apply for a GHG mechanism account from the Administrator within 28 days of the supplier becoming obligated (see Chapter 1);
 - where a supplier or other person has taken reasonable steps to ensure that information or evidence (to support that information) when applying for GHG credits, is accurate, but the supplier has subsequently become aware (either through their own or another person's actions) that it is in fact inaccurate and has failed to inform the Administrator, within 20 days of becoming aware.
- 9.2 For information, or evidence supporting information, that relates to the establishment of an account, a supplier or other person is not liable for a civil penalty if they inform the Administrator within 20 days of becoming aware (either through their own actions or another party's actions) that the information is no longer accurate. If the Administrator becomes aware that such information or evidence is inaccurate, a supplier is not liable for a civil penalty if the supplier investigates and, if necessary, remedies the inaccuracy within a time period set by the Administrator.
- 9.3 For information or evidence supporting information that relates to:
- volume information;

- an application for a GHG credit;
- the revocation of a GHG credit;

Note: a supplier or other person is not liable for a civil penalty if they inform the Administrator within 20 days of becoming aware that the information is no longer accurate, so long as the Administrator is informed before or on the date immediately after the obligation period to which that volume or GHG credits relates. This applies whether this is due to the supplier's own actions or another party's actions. If the Administrator becomes aware that such information or evidence is inaccurate, a supplier is not liable for a civil penalty if they:

- are not informed of this by the Administrator before or on 16 August immediately after the obligation period to which that volume or GHG credits relates; or
- investigate, and if necessary remedy, the inaccuracy within a time period set by the Administrator.

Communicating civil penalty notices

- 9.4 A civil penalty notice will be given, by written notice, from the Administrator, to the defaulter, detailing the amount, the reason for the penalty and informing the supplier or other person of their rights to appeal.

Amount of civil penalties

- 9.5 Where a supplier has gained, or attempted to gain, one or more GHG credits by failing to provide accurate information, the maximum civil penalty charge would be the lesser of 10% of turnover or an amount equivalent to twice the value of the GHG obligation buy-out for the number of GHG credits subject to the penalty.
- 9.6 In any other case, the maximum civil penalty charge proposed is the lesser of £50k or 10% of applicable turnover.

Objections to civil penalties

- 9.7 A supplier or other person who wishes to object to a civil penalty must do so in writing within 28 days of being issued with the civil penalty notice. The supplier must state the grounds for the objection.
- 9.8 The Administrator will consider the objection and will inform the supplier or other person in writing of the outcome of that consideration.
- 9.9 The objection will be considered outside of the RTFO Unit to ensure it is assessed objectively.
- 9.10 A supplier or other person may also challenge the outcome of the Administrator's decision through the courts.

Appeals to civil penalties

- 9.11 An appeal can be made under section 131 of the Energy Act 2004 on either or both of the following grounds: that the recipient considers that they are not liable to pay the penalty and/or that the amount of the penalty is too high.

Unpaid civil penalties

- 9.12 Where a civil penalty is not paid by the date specified in the civil penalty notice (i) interest will be applied at 5% above the Bank of England base rate (calculated on a daily basis) as of the day before the civil penalty is due and (ii) the total sum will be a debt recoverable by the Administrator. Non-payment of a civil penalty may therefore result in further action being taken through the courts to recover this debt.
- 9.13 Where a supplier objects to, or appeals against, a civil penalty, interest shall accrue while the objection or appeal is being considered, and the supplier shall be liable to pay that interest where an objection or appeal is dismissed.

Annex A: Changes

Section	Changes
All	New guidance document replaces existing 'Motor Fuel Greenhouse Gas Emissions Reporting regulations: guidance for suppliers not obligated under the RTFO' Last updated June 2015.

Table 8 Changes in Version 1.0