

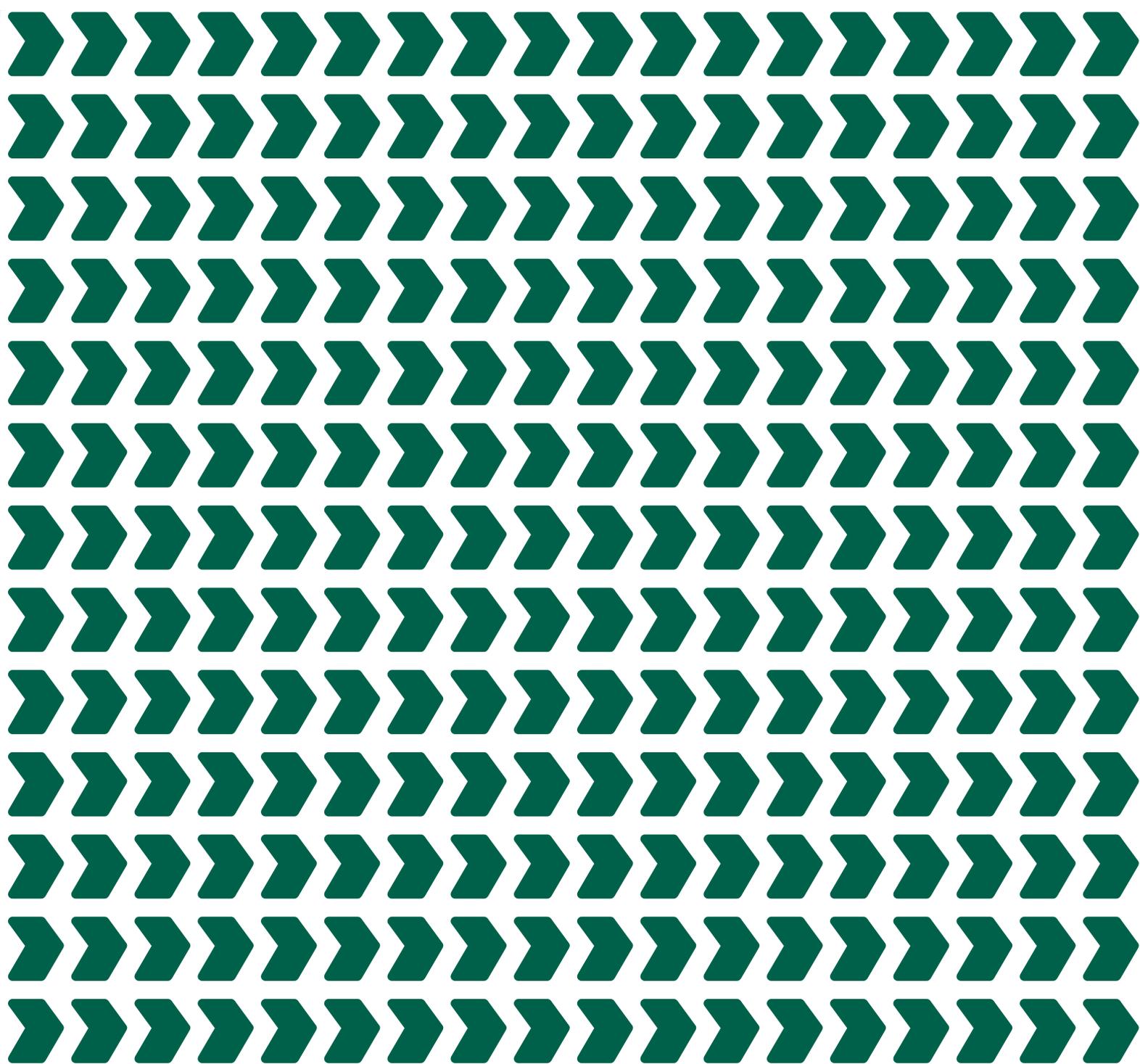


Department
for Transport

The Motor Fuel Greenhouse Gas Emissions Reporting Regulations

Government response to
the consultation on amendments

Moving Britain Ahead





The Motor Fuel Greenhouse Gas Emissions Reporting Regulations Government response to the consultation on amendments

Presented to Parliament
by the Secretary of State for Transport
by Command of Her Majesty

September 2017



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This publication is available at www.gov.uk/government/publications

ISBN 978-1-5286-0014-9

CCS0817817596 09/17

Printed on paper containing 75% recycled fibre content minimum

Printed in the UK by the APS Group on behalf of the Controller of Her Majesty's Stationery Office

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Foreword: Jesse Norman MP



Renewable sources of energy are of ever greater importance if we are to address the challenges of climate change cost effectively.

The Government's 15 year strategy for renewable transport fuels is designed to build a firm platform for investment to develop sustainable advanced fuels for automotive, aviation and road freight.

We will maximise the industrial opportunities to be gained for the UK, increasing our energy resilience through reducing reliance on imported fossil fuels. For the first time we will be setting a greenhouse gas (GHG) reduction target which rewards suppliers who have invested in more efficient and advanced processes or switched to lower carbon fuels.

I am very grateful to all those organisations and individuals who responded to our consultations on the amendments to the GHG Reporting Regulations.

Our commitment to increase the contribution from renewable fuels over a long term was broadly welcomed. This commitment includes support for innovation in new carbon saving alternative fuels for planes and lorries, and for the development of fuels from wastes. Where stakeholders have expressed concerns, including as to the role of crops, we have listened and responded. We will continue to provide strong support for UK producers of renewable fuels where their fuels comply with the stringent sustainability standards we set and enforce.

Maintaining public confidence in the value of renewable fuels is all the more important at a time when the automotive industry's claims for environmental performance and compliance have been publicly challenged.

The sustainability requirements for renewable fuels, along with the further improvements set out in this Government Response should give the public extra confidence that the petrol and diesel they buy do genuinely deliver a lower carbon impact than 100% fossil fuels.

By the same token, the next steps set out in this Response should also provide the confidence needed by UK producers and the farms that supply them that their existing installed plant capacity will be fully utilised, and that there will be the continuing demand in the UK needed to encourage investment in productivity and

yield improvements. These improvements can drive down costs, improve efficiency and deliver even greater carbon savings.

At the same time, we are also making clear to industry the need for them to increase their use of waste sources and drive further technological advancement.

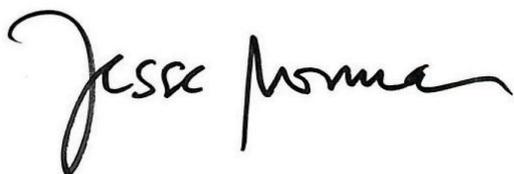
The Government is committed to reducing the impact of waste on our environment and supporting the transformation of wastes into fuel where this gives the greatest economic and environmental benefits. We have a large amount of waste in the United Kingdom, and the Government will develop further measures to see more of this domestic resource used for biofuels where that is consistent with our broader objectives to move towards a genuinely circular economy.

Economically, businesses and motorists rely on access to good quality fuels at a reasonable price. These legislative amendments should help ensure that industry increases the renewable content of fuel without a significant effect on prices.

Increasing the renewable content of petrol by moving to E10 fuel should make achieving our targets easier and potentially more cost effective, as well as providing an economic boost to domestic producers. The Government will work with industry to facilitate any future introduction of E10 petrol, playing our part to ensure that it is managed carefully and to ensure ongoing availability of fuel suitable for older (pre-2000) petrol vehicles. In doing so, we expect the oil industry to do their part to help minimise any impacts on owners of older vehicles.

These changes will accelerate the delivery of sustainable alternative fuels for aviation, enabling the UK to lead in developing and deploying those fuels, alongside other high value sustainable heavy transport fuels and chemical products made from low value wastes.

Our legislative changes should also encourage a clear demand side pull in the UK market. But we recognise that capital investment support can play a critical role in generating additional domestic supply. That is why we have launched a second Advanced Fuels Competition already this year. The Future Fuels for Flight and Freight Competition (F4C) will provide up to £20 million to promote the development of an advanced low carbon fuels industry within the UK, including greater supplier capabilities and skills in relevant technologies, whilst maximising value for money for the taxpayer. Looking further ahead I would like to see an even greater focus on the use of domestic feedstocks and domestic production in this sector.

A handwritten signature in black ink, reading "Jesse Norman". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

Executive summary

What we consulted on

- 1 We consulted on proposed amendments to the UK Motor Fuel (Road Vehicle and Mobile Machinery) Greenhouse Gas Emissions Reporting Regulations 2012 (the GHG Reporting Regulations). The consultation period began on 29 November 2016 and ran until 22 January 2017.
- 2 We proposed three main changes to the GHG Reporting Regulations to deliver the greenhouse gas reduction target and reporting requirements on fuel suppliers set out in the Fuel Quality Directive (FQD), including the amendments made by Directive 2015/652 agreed in 2015. These were:
 - A 6% greenhouse gas emissions reduction obligation on fuel suppliers;
 - Rewards for greenhouse gas emissions savings in the form of GHG credits; and,
 - Improvements in the transparency of the UK oil supply chain and the greenhouse gas intensity of fuel imported into the UK.
- 3 The consultation examined six different policy options to introduce a greenhouse gas emissions reduction obligation on UK fuel suppliers. As illustrated in Table 1 below, the options differ based on the level of buy-out price, and whether a greenhouse gas obligation is set only in 2020 or over three years to 2020.
- 4 The Government's preferred option was 2b, which would set a mid-range buy-out price over a three year implementation intended to help industry prepare and encourage investment in lower carbon fuels.

Table 1: Policy options to introduce a GHG emissions reduction obligation

Option	Buy-out price (nominal prices)	Implementation period	Max pump price impact in 2020 (undiscounted, 2015 prices)	Max policy cost (discounted, 2015 prices)
1a	£7/tCO ₂	1 year	0.03 ppl	£12m
1b	£7/tCO ₂	3 years	0.03 ppl	£13m
2a	£74/tCO ₂	1 year	0.42 ppl	£148m
2b	£74/tCO ₂	3 years	0.42 ppl	£166m
3a	£146/tCO ₂	1 year	0.84 ppl	£293m
3b	£146/tCO ₂	3 years	0.84 ppl	£327m

What we proposed

- 5 The consultation contained proposals aimed at securing reductions in emissions of greenhouse gases and enhancing their monitoring, listed below:
- The introduction of a 6% greenhouse gas emissions reduction obligation on fuel suppliers, and of a greenhouse gas savings mechanism, to reward with tradeable credits the supply of fuels with GHG intensities lower than the 2020 target level of 88.45 gCO_{2e}/MJ. A buy-out mechanism would act as a cap on pump price impact;
 - A mechanism to encourage the reduction of emissions generated in upstream oil production;
 - Supporting the uptake of electric vehicles, by allowing electricity suppliers to claim credits for the electricity used to charge electric vehicles.
 - Supporting the decarbonisation of aviation and freight, by making a number of fuels eligible for reward under the GHG scheme, and promoting advanced renewable fuels, by allowing suppliers to claim GHG credits;
 - Enhancing oil supply chain transparency, by requiring suppliers to report on the GHG emissions from their fuels, the source of the crude used to make their fuels, the country where the fuel was purchased, and the name of the processing facility where the fuel was refined. Simplified reporting requirements for small and medium-sized enterprises (SMEs) were also proposed; and,
 - Reducing burdens on businesses, by aligning the Renewable Transport Fuel Obligation (RTFO) and GHG reporting deadlines to a calendar year cycle.

Stakeholder views and Government response

- 6 We received responses from 33 stakeholders. The majority of responses focussed on the questions regarding the GHG target, reducing upstream emissions, and supporting the uptake of electric vehicles.
- 7 A detailed summary of the responses to each question are set out in full in this document.
- 8 We would like to thank all stakeholders for their time taken in responding to the consultation. We have carefully considered them and the evidence provided in developing the Government response and final amendments to the GHG Regulations.

The greenhouse gas reduction target

- 9 We are pleased that the majority of respondents supported our proposal to set a 6% GHG reduction target on fuel suppliers for 2020. Respondents from both the renewable and fossil fuel sectors, non-government organisations (NGOs) and other stakeholders also provided reasons for not going beyond a 6% GHG reduction target because of uncertainty as to how suppliers may achieve a higher GHG reduction target, and whether it would bring unintended consequences. Furthermore, stakeholders believed that a higher GHG reduction target might be detrimental to meeting the 2020 Renewable Energy Directive (RED) target for renewable fuels.
- 10 Many agreed that there is value in interim targets, as they can help drive investments

in lower carbon fuels as well as help us and the industry prepare for the more challenging 2020 target. However, we also acknowledge the concerns raised regarding interim targets, and will therefore only be setting an interim target of 4% in 2019 (there will be no target in 2018). We believe that this strikes the best balance between realising the benefits that interim GHG reduction targets offer and avoiding imposing an unnecessary burden on suppliers.

- 11 The first and foremost of these benefits is driving additional GHG savings, including through reducing upstream emissions. We also believe that operating the GHG scheme for two years instead of three will allow us to assess whether it is beneficial to extend a GHG scheme beyond 2020.

Savings from reducing emissions generated in upstream oil production

- 12 We welcome stakeholders' support for legislating for the core upstream emission reduction (UER) criteria as proposed. We will continue to engage with industry and member states regarding how to ensure UERs meet the requirements, and set this out in guidance.

Supporting the uptake of electric vehicles

- 13 Whilst broadly supporting our approach, stakeholders also provided numerous views and comments. In the light of the responses received we will retain the main structure of the policy as set out in the consultation, and proceed in making GHG credits available to electricity suppliers for the provision of electric vehicle usage data sourced from infrastructure operators.

Supporting the decarbonisation of aviation and freight and promoting advanced renewable fuels

- 14 Following support from stakeholders, we will bring into the scope of the GHG Reporting Regulations sustainable renewable aviation fuels and renewable fuels of non-biological origin (RFNBOs) – including renewable hydrogen – making them eligible for GHG credits and subject to the reporting requirements.

Oil supply chain transparency

- 15 We are pleased that a majority of stakeholders supported our approach, and will introduce the reporting requirements on origin and place of purchase, alongside an exemption for suppliers who do not have access to the relevant information.

Aligning the GHG Reporting Regulations and the Renewable Transport Fuel Obligation (RTFO) reporting cycles

- 16 We will implement our proposal to align RTFO and GHG reporting deadlines to a calendar year cycle.

Parallel consultation on proposed amendments to the Renewable Transport Fuel Obligations Order

- 17 In a parallel consultation, we set out proposals to amend the RTFO which supports the supply of sustainable biofuels in the UK. The objectives of the RTFO are to increase the supply of biofuel with the aim of reducing transport greenhouse gas emissions, demonstrating compliance with targets for renewable energy including UK carbon budgets, and to ensure that the UK benefits from the industrial opportunities available from the decarbonisation of transport
- 18 The proposals set out in the RTFO consultation were aimed at:
- Meeting our obligations, including the 2020 renewable energy target;
 - Providing long term certainty to industry;
 - Stimulating the supply of sustainable advanced fuels;
 - Minimising the supply of biofuels with a high indirect land use change (ILUC) risk; and,
 - Targeting those sectors that are difficult to decarbonise such as aviation.¹

Implications of leaving the EU

- 19 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.
- 20 Whilst the policy proposals outlined in this consultation will fulfil current EU requirements, the underlying policy driver – climate change – is relevant to the UK at domestic, EU and international level. The measures outlined will not just help transport meet its share of the carbon budget reductions – they also offer UK industry the long term certainty it needs to invest and be in a position to take advantage of the growing global advanced fuels market. Leaving the EU is therefore not expected to have a material effect on the direction of the policy outlined in this consultation and Government response.
- 21 Looking ahead, the decision to leave the EU means we have the opportunity to look afresh at how we can act to further reduce the climate change impact of the transport fuels we use in the UK. We have designed the approach outlined in this consultation and Government response to meet the needs of our country. We want a smart, efficient approach focused on delivering the outcomes we all want to support low carbon transport and a strong economy.

Geographical coverage

- 22 This consultation and the proposed amendments to the Motor Fuel (Road Vehicle and Mobile Machinery) Greenhouse Gas Emissions Reporting Regulations 2012 apply across the whole of the United Kingdom.

¹ Consultation on the Renewable Transport Fuel Obligations - Proposed Amendments.

List of consultation policy questions

Chapter 1: Delivering greenhouse gas savings in transport

- Question 1 – Do you agree that the UK should set the GHG reduction target on fuel suppliers at 6% for 2020 and not include the optional aspects which could increase it to 10%?
- Question 2 – Do you agree that the proposed interim GHG reduction targets for 2018 (2%) and 2019 (4%) will help industry prepare for the more stretching 2020 target (6%)?
- Question 3 – Do you agree that a single application for RTFCs and GHG credits should be required for biofuels? Please set out any circumstances where you consider that a separate application might be required.
- Question 4 – Do you agree that the proposal to use a system of tradeable credits will provide flexibility to suppliers and is an effective way to meet the GHG obligation?
- Question 5 – Do you agree that we should align the minimum threshold in the GHG obligation with that in the RTFO? Please include any comments you may have on the proposed method of calculating the deduction.

Chapter 2: Delivering greenhouse gas savings through upstream emission reduction

- Question 6 – Do you agree with our proposal to legislate for the criteria covering the origin, reporting and eligibility of UERs?
- Question 7 – We would welcome views on assessing a UER project baseline, and calculating emissions reductions against the baseline. Do you consider that requiring a minimum standard in national guidance for each criterion listed at ISO 14064-2 5.4 is the best way to ensure that UERs are additional?
- Question 8 – We would welcome views on the verification and validation of UER projects, including how verifiers should be appointed, and what the role of the Administrator should be – if any – in appointing verifiers.
- Question 9 – We would welcome views on our proposal to adopt a specific verification standard (like ISAE 3000) and/or other standards, in the absence of a central UER administrative database. Do you consider that ISAE 3000 would be adequate to minimise the risk of multiple claiming in the event a central database is not available?
- Question 10 – We would welcome comments on the possibility of accepting credits generated from the Kyoto Protocol flexible mechanisms, such as the Clean Development Mechanism and Joint Implementation projects, including any advantages and disadvantages.

- Question 11 – Do you agree with the proposal that UER credits should count as GHG credits against a fuel supplier's obligation?

Chapter 3: Supporting electric vehicles

- Question 12 – Do you agree that enabling electricity suppliers to receive GHG credits – which they can trade with fuel suppliers who need them – is the best way that the GHG saving from electricity used in electric vehicles can contribute to other fuel suppliers' GHG obligations?
- Question 13 – Do you agree with our proposed approach of using actual and estimated metering data?
- Question 14 – Which of the proposed methodologies A-D (or combination of methodologies) do you prefer, and why? Do you have a proposal for an alternative methodology?
- Question 15 – Do you agree with the proposal that electricity suppliers should contact their customers to ask if they have an EV charge point, and who the infrastructure operator is? Please set out any alternative suggestions for obtaining this data.
- Question 16 – Do you consider that GHG credits will provide an incentive for electricity suppliers to obtain data on electricity used in EVs, and that in doing so, some of that reward will be passed to charge point operators?
- Question 17 – Do you have alternative suggestions for how data could be verified / validated?
- Question 18 – Do you agree that continuing to reward electricity used in EVs with GHG credits could be a way to incentivise investment in UK EV infrastructure (for example charge points) in the longer term? We would welcome suggestions as to how the reward could contribute to the development of EV infrastructure, or how future policies might direct support here.

Chapter 4: Setting the buy-out level to incentivise greenhouse gas savings whilst minimising costs

- Question 19 – Do you agree that a medium buy-out price of £74/tCO₂ is the best option (option 2b in the CBA)? This would limit the maximum impact of the GHG targets on 2020 pump prices to 0.42ppl (2015 prices).
- Question 20 – Do you have any other comments on the proposed approach for a new separate GHG obligation buy-out mechanism? If you have an alternative proposal please set it out.
- Question 21 – Is there a better way we could minimise costs whilst still achieving the policy objective?

Chapter 5: Civil penalties and revocation of greenhouse gas credits

- Question 22 – Do you have any views on the proportionality of the proposal to enable the Administrator to issue civil penalties to ensure the integrity of the proposed GHG obligation?

- Question 23 – Do you agree that there should be a mechanism to withdraw GHG credits where it transpires that they should not have been issued, and that the mechanism should be the same as that used under the RTFO?
- Question 24 – If you disagree with this revocation proposal, please set out an alternative mechanism which prevents rewarding UK fuel suppliers where GHG savings were not delivered.

Chapter 6: Eligibility of fuels

- Question 25 – Do you agree that renewable aviation fuel should be eligible for reward under the GHG obligation scheme?
- Question 26 – Do you agree that we should include renewable fuels of non-biological origin, including hydrogen, under the GHG Reporting Regulations thereby making them eligible for GHG credits and subject to the reporting requirements?

Chapter 7: Supplier reporting requirements

- Question 27 – Do you agree with our proposed proportionate approach underpinning the GHG reporting requirements? This means that suppliers are exempt from the requirements if they do not have data on the FTN, whether the crude is of EU/non-EU origin, and/or the place of purchase.
- Question 28 – Do you envisage any situations where origin data will not be available and/or cannot be reported? If yes, please provide details about these situations and why the data could not be reported.
- Question 29 – Do you envisage any situation where data on the place of purchase will not be available and/or cannot be reported? If yes, please provide details about these situations and why the data could not be reported.
- Question 30 – With regards to the verification of the information supplied, do you have any comments on our proposal to provide the Administrator with powers to require independent assurance (verification) of the data, where necessary?
- Question 31 – Do you have any comments on the proposed application of the simplified reporting requirements for small and medium-sized enterprises?
- Question 32 – Do you agree that the reporting deadlines proposed for the GHG obligation should align with those in the RTFO?

Chapter 8: Reviewing the greenhouse gas reporting regulations

- Question 33 – Do you agree that the GHG Reporting Regulations minimise burdens on suppliers by relying on data already submitted and verified under the RTFO?
- Question 34 – Are there ways that any costs or burden could be minimised further?
- Question 35 – Do you have information on compliance costs when the legislation was introduced further to the estimates provided?

- Question 36 – What changes, if any, did suppliers make as a result of the introduction of the GHG Reporting Regulations in 2013?
- Question 37 – What were the costs to suppliers of familiarising themselves with the regulations and implementing any changes to their business?
- Question 38 – What uses have suppliers made of data collected on the greenhouse gas intensity of fuel reported under the GHG Reporting Regulations?
- Question 39 – Has the operation of the scheme to date assisted suppliers to monitor their progress towards their GHG target?

Further comments

- Question 40 – Do you have any other comments on the amendments to the GHG Reporting Regulations 2012 proposed within this consultation?

Glossary

A glossary of terms used throughout this consultation.

Administrator	The Secretary of State is the Administrator of the Greenhouse Gas Reporting Regulations. This function is in practice exercised by the RTFO Unit based in the Department for Transport.
Biofuel	A liquid or gaseous fuel used in transport that is produced wholly from biomass. ²
CO ₂ e	Carbon dioxide equivalent; a standard unit for measuring emissions of greenhouse gases including methane, nitrous oxide etc. The impact of each different greenhouse gas is expressed in terms of the amount of CO ₂ that would create the same amount of warming. This means that the GHG emissions that occur over a life cycle of producing and supplying a fuel can be expressed as a single number.
Economic operator	Any company or organisation involved in the fuel supply chain.
FAME	Fatty-acid-methyl-ester is made through the chemical reactions of vegetable or animal fats being processed with alcohols, typically methanol. A mixture of fatty-acid-methyl-esters, or 'FAME', is commonly referred to as biodiesel.
Feedstock	Raw material used to produce transport fuels including biofuels.
Feedstock trade name	The feedstock trade name (FTN) of crude oil, which identifies where it was extracted, for example Australia, Barrow Island. The feedstock trade name is typically referred to as the marketable crude oil name (MCON), a classification which groups oil fields according to the oil characteristics, primarily its density and sulphur content.
Fossil fuel baseline	In the FQD, as amended, the 6% GHG reduction target is relative to the baseline for the EU average life cycle greenhouse gas emissions from fossil fuels in 2010 of 94.1 gCO ₂ e/MJ - where 'gCO ₂ eq/MJ' means 'grams of carbon dioxide equivalent per megajoule'.
Fossil fuel comparator	The fossil fuel comparator is the average carbon intensity of petrol and diesel supplied in the EU and is currently set as 83.8 gCO ₂ e/MJ. It is used to calculate the GHG savings of biofuels in order to determine whether they meet the sustainability criteria.
FQD	Directive 98/70/EC (as amended) known as the Fuel Quality Directive. Requires suppliers to reduce the lifecycle

² Defined in the Energy Act 2004

	greenhouse gas (GHG) intensity of transport fuels and includes sustainability criteria for biofuels.
FQD 7a implementing measure	EU Directive 2015/652, known as the FQD 7a implementing measure, which sets out the methodology and reporting requirements for meeting the 6% GHG reduction target under the FQD, as amended.
GHG	Greenhouse gas – a gas which in the atmosphere absorbs and emits radiation causing the greenhouse effect whereby heat is trapped in the atmosphere making the earth warmer and leading to climate change. For example carbon dioxide (CO ₂) nitrous oxide (NO), methane, water vapour, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.
GHG credit	We propose to award GHG credits to suppliers of fuels which deliver savings below the 6% GHG target. Excess credits can be traded with other suppliers that need them, with the value determined by the market.
GHG Reporting Regulations	The Motor Fuel (Road Vehicle and Mobile Machinery) Greenhouse Gas Emissions Reporting Regulations 2012.
GHGi	Greenhouse gas intensity – the greenhouse gas intensity of a fuel (or energy such as electricity) is the GHG emissions <i>per unit of energy</i> . It is usually expressed in grams of carbon dioxide (equivalent) per megajoule. Therefore, the higher the value, the higher the GHG emissions.
HVO	Hydrotreated vegetable oil is a renewable diesel that can be produced from a wide array of vegetable oils and fats which are thermochemically treated with hydrogen.
ILUC	Indirect land-use change where the cause is at least a step removed from the effects – the knock-on effects on expansion of agricultural land-use resulting from the cultivation of biofuel feedstocks.
ILUC Directive	Directive 2015/1513, known as the ILUC Directive, which amends the RED and the FQD in order to take account of the effect of indirect land-use change, and aims to encourage the transition away from first generation biofuels.
ISO	International Organisation for Standardisation.
ISAE	International Standard on Assurance Engagements.
Mandatory sustainability criteria	Criteria specified in the Renewable Energy and Fuel Quality Directives – requiring that biofuels, with some exceptions, must deliver greenhouse gas savings of at least 35% when compared to fossil fuels and that biofuels must not be sourced from areas of high biodiversity, or from high carbon soils (e.g. rainforests or wetlands). All biofuels will have to meet these mandatory sustainability criteria in order to be counted towards meeting the targets in the Directives.
MCON	Marketable crude oil name (MCON) (see feedstock trade name).
Minimum threshold	The RTFO Order places an obligation on entities that supply a volume of road transport and NRMM fuel above a minimum threshold. The minimum threshold is set at 450,000 litres.
NRMM	Non-road mobile machinery. NRMM is used to collectively refer to the end uses of fuel specified in the Fuel Quality Directive,

namely: inland waterway vessels when not at sea; agricultural and forestry tractors; and recreational craft when not at sea.

Obligated supplier	A transport fuel supplier upon whom a greenhouse gas emissions reduction obligation or a greenhouse gas reporting requirement is imposed.
Origin	'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.
Partially renewable fuel	Fuels that are produced in part from renewable feedstocks and in part from mineral/fossil feedstocks.
Place of purchase	Place of purchase means the country and name of the processing facility where the fuel was refined. To improve transparency of information on the greenhouse gas intensity of fossil fuel, suppliers will report information on the place of purchase of fuel being supplied, where known.
RED	EU Directive 2009/28/EC – the Renewable Energy Directive, on the promotion of the use of energy from renewable sources, as amended. Requires member states to ensure that 10% of the energy used in transport is from renewable sources in 2020.
Renewable fuel	A fuel used from a source that is either inexhaustible or can be indefinitely replenished at the rate at which it is used. Such as a biofuel or other fuels produced from a renewable energy source i.e. renewable fuels or non-biological origin (RFNBOs).
ROS	Renewable Transport Fuel Obligations operating system. The IT system used to administer the RTFO.
RTFC	Renewable transport fuel certificate. One RTFC is awarded for every litre of liquid biofuel reported. Biomethane receives 1.9 RTFCs per kg and bio-LPG receives 1.75 RTFCs per kg. Biofuels from wastes receive double the number of RTFCs. They can be traded between suppliers. Their value is determined by the market.
RTFO	Renewable Transport Fuel Obligations. Introduced in 2008, it is the UK's main mechanism for supporting the supply of renewable fuels in transport. It places an obligation on suppliers of more than 450,000 litres per year of fuel intended for road transport and NRMM use to ensure a certain percentage of the fuel supplied is renewable, and operates as a certificate trading scheme.
RTFO Order	The Renewable Transport Fuel Obligations Order 2007, as amended. The legislation establishing the RTFO scheme.
UERs	Upstream emission reductions. The reduction of greenhouse gas emissions from fossil oil extraction processes, such as reduced flaring or venting.
Verification	The process of providing assurance of biofuel sustainability data or other fuel related data (e.g. place of purchase, volume produced) supplied on behalf of reporting parties. Verifiers must be independent of the reporting party whose data they are verifying.
Well-to-wheel emissions	Well-to-wheel greenhouse gas emissions take into account the production and distribution of a fuel over the entire life cycle: from the sourcing of the energy and materials used to power a vehicle, to the direct tailpipe emissions.

Responses received

A range of organisations responded to questions concerning the Government's proposals:

Type of organisation	Number of respondents
Charge point industry representative body	1
Consultancy	2
Electricity industry representative body	1
Electricity supplier	4
Fossil fuel industry representative body	2
Fossil fuel supplier	10
Gas fossil fuel supplier	1
Gas industry representative body	3
Independent advisory body	1
Non-government organisation	2
Renewable fuel industry representative body	1
Renewable fuel supplier	4
Vehicle manufacturer	1

1. Delivering greenhouse gas savings in transport

Overview of consultation

- 1.1 We proposed to implement a greenhouse gas (GHG) reduction target which would deliver a reduction in the average GHG intensity of transport fuels in the UK by 2020. The target would be achieved through placing an obligation on fuel suppliers in a similar manner to the Renewable Transport Fuel Obligations (RTFO). The key difference is that certificates would be issued on the basis of GHG savings for fuel or energy supplied, as opposed to volumes.
- 1.2 Under the GHG saving mechanism, these certificates, known as GHG credits, may be earned for switching to lower carbon fossil fuels, supplying biofuels and other renewable fuels, securing upstream emissions reductions (UERs) and for electricity used in transport.
- 1.3 The proposed mechanism to deliver greenhouse gas savings would include:
 - An obligation on fuel suppliers, which acts to reduce the overall GHG emissions of the fuels they supply;
 - Rewards for low carbon fuels through issuing 'GHG credits', which will have a cash value determined by the market;
 - Allowing these GHG credits to be traded to provide flexibility for suppliers and enable the obligation to be met cost effectively;
 - A process for measuring and verifying GHG savings claimed, and therefore the amount of GHG credits earned;
 - Measures to minimise any burden on small and medium sized enterprises; and,
 - An option for suppliers to buy-out of their GHG obligation which would act as a consumer protection mechanism should the costs and impacts of accumulating GHG credits be unsustainable.
- 1.4 It is anticipated that the scheme would drive additional reductions in GHG emissions on top of those delivered through supplying biofuels under the RTFO, by encouraging better performing biofuels, fossil fuels with lower GHG intensities and other measures such as UERs and electricity used in transport. In particular, we recognise the importance that electric vehicles have in reducing emissions from transport. As set out in the [UK plan for tackling roadside nitrogen dioxide concentrations](#), the Government's ambition for Britain to lead the world in electric vehicle technology and use is central to its objective of tackling emissions of both nitrogen oxides and carbon dioxide. We announced in 2011 our intention that conventional car and van sales would end by 2040, and for almost every car and van on the road to be a zero emission vehicle by 2050. We have committed to investing over £2.7 billion overall in

air quality and cleaner transport. This includes £1 billion in the development, manufacture and use of ultra-low emission vehicles (ULEVs).

- 1.5 By allowing a range of fuels to contribute to meeting the target, the scheme would also support the production and supply of advanced fuels that the UK needs over the long term, particularly in aviation and freight which cannot easily be electrified.
- 1.6 In the consultation we asked what level the GHG reduction target should be set at, whether there should be interim targets and if a system of tradeable credits will provide an effective means of meeting the target. We also asked questions as to how we could minimise the administrative burden for scheme participants.

Setting the greenhouse gas target level

Consultation proposal

- 1.7 We proposed to introduce a 6% GHG reduction target on fuel suppliers in 2020 but could have opted for a more challenging GHG reduction target, of up to 10%, as outlined in Article 7a of the Fuel Quality Directive (FQD) 98/70/EC. We proposed, however, not to set a higher target due to the uncertainties about the methods of delivering the additional savings. For instance, a higher target might incentivise an increased supply of crop-derived biodiesel. Risks associated with this include increases in GHG emissions from ILUC and increases in food and fuel prices.

Question 1 – Do you agree that the UK should set the GHG reduction target on fuel suppliers at 6% for 2020 and not include the optional aspects which could increase it to 10%?

Summary of responses

Total	Yes	No	Other
25	18	4	3

- 1.8 Twenty-five respondents provided an answer with the majority agreeing with our proposal.
- 1.9 Respondents from both the renewable and fossil fuel sectors (including industry representative bodies for both), NGOs and an independent advisory body provided reasons for not going beyond a 6% GHG reduction target. The main reasons cited were:
 - 1 We should not go beyond the FQD requirements for a 6% reduction in the GHG intensity of transport fuels;
 - 2 There is uncertainty as to how suppliers may achieve a higher GHG reduction target, and whether it would bring unintended consequences. It was thought that a higher target could lead to more crop-derived biofuels, with one respondent suggesting that this might even happen under a 6% target. It was also pointed out that as the availability of UERs is uncertain it is difficult to assess the potential for GHG savings beyond that delivered by biofuels;

- 3 A higher GHG reduction target might be detrimental to meeting the RED target. For instance, without knowing the potential availability of UERs, a higher GHG reduction target could result in lower RTFC prices if it was achieved through increased blending of biofuel which created surplus RTFCs. It was considered this is also a risk even under a 6% target.
- 1.10 A fossil fuel supplier thought that no GHG reduction obligation is needed at all as the UK will be exiting the EU, potentially before 2020 when the GHG reduction target in the FQD applies. This respondent also noted that the EU appears to be favouring renewable fuel mandates and therefore seems unlikely to set further GHG reduction targets.
- 1.11 The fossil fuel sector (including an industry representative body) also thought that GHG reduction targets for transport fuels should not be imposed beyond 2020.
- 1.12 Respondents – including a fossil fuel supplier, an independent advisory body, a gas supplier, an electricity supplier, industry representative bodies for the gas and energy sectors, one car manufacturer and an NGO – commented on why we should be more ambitious or how this could be achieved:
- The GHG reduction targets should go beyond 2020, or the RTFO should be turned into a GHG based scheme. Stakeholders considered that setting targets beyond 2020 is required for investment today, and to drive further deployment of electric vehicles, renewable electricity and sustainable advanced renewable fuels;
 - All fuels that deliver GHG savings should be eligible, including those which are not considered renewable, as this would help deliver greater GHG savings without the risks noted in the consultation, such as incentivising crop biodiesel;
 - Setting higher GHG reduction targets will mean the Government is more likely to meet its carbon targets;
 - The 6% GHG reduction target does not reflect the potential for electric vehicles in terms of both uptake and their ability to reduce GHG emissions;
 - Other similar successful Government schemes, such as the Renewables Obligation (RO), are more ambitious; and,
 - We should consider the progress made since 2010 in reducing the GHG intensity of transport fuels, as this might mean a 10% GHG reduction target is achievable.
- 1.13 A consultancy thought that there should be total clarity as to the sources of crude oil due to the changing composition of UK crude.
- 1.14 An NGO commented that UERs should be addressed through regulations instead. They did, however, note that a limited contribution of UERs may be appropriate for the purpose of meeting the FQD target without an oversupply of crop biofuels.

Government response

- 1.15 In light of the support for a 6% GHG reduction target in 2020 we will not be including the optional aspects which could increase the target to 10%. We agree that there is uncertainty as to how a higher target would be met and there might be unintended consequences, such as expanding the supply of crop biodiesel which could lead to an increase in GHG emissions. We also note the risk of RTFC prices being depressed, potentially undermining the supply of renewable fuels under the RTFO.

- 1.16 Our analysis shows that electricity used in electric vehicles will only provide a small contribution to the required reductions in GHG emissions. We will however use data gathered from the scheme when assessing if a GHG savings mechanism is a suitable means of supporting electricity used in electric vehicles in the future. It should also be noted that the Government has a wider programme of support for electric vehicles – delivered by the Office for Low Emission Vehicles (OLEV) – including grants for cars, vans, taxis and motorcycles, infrastructure schemes and consumer outreach.
- 1.17 Clarification concerning other points raised by stakeholders is set out below.
- 1.18 The experience gained from the GHG obligation scheme and the RTFO to 2020 will inform future decisions on the best method and type of scheme to cost effectively incentivise future reductions in GHG emissions. We will therefore keep under review the possibility of moving fully from a renewable volume based scheme (i.e. the RTFO) to a GHG scheme post-2020.
- 1.19 Fuels which are not considered renewable will also be eligible for GHG credits, where the GHG intensity of those fuels is below the target level.
- 1.20 One respondent commented that we should not implement this directive given Brexit; however, until exit negotiations are concluded, the UK remains a full member of the EU and we will continue to apply EU legislation.
- 1.21 Concerning the comment regarding clarity of the sources of crude oil, further details on supplier reporting requirements are outlined in chapter 7.
- 1.22 Regarding the comment on considering the progress made since 2010 in reducing the GHG intensity of transport fuels, the GHG reduction target is already relative to a 2010 baseline, which is set by the FQD.
- 1.23 As the FQD allows UERs to contribute to the GHG reduction target they will be eligible for GHG credits. It is expected that GHG savings from UERs will be needed to meet the GHG reduction target. As explained above, the experience gained from the operation of the GHG obligation scheme and the RTFO to 2020 will inform future decisions, including how best to incentivise UERs.

Setting interim greenhouse gas reduction targets

Consultation proposal

- 1.24 To help industry prepare for delivering the 6% GHG reduction target in 2020 we proposed to introduce binding interim GHG reduction targets of 2% in 2018 and 4% in 2019. We also explained that interim targets would allow us to assess the merits of extending the mechanism beyond 2020 and provide greater certainty to industry and consumers that the GHG reduction targets will be met in a managed and gradual way. We considered that interim targets, especially in 2019, would provide further support for reducing the GHG intensity of transport fuels, GHG savings from upstream oil production and the uptake of electric vehicles.

Question 2 – Do you agree that the proposed interim GHG reduction targets for 2018 (2%) and 2019 (4%) will help industry prepare for the more stretching 2020 target (6%)?

Summary of responses

Total	Yes	No	Other
25	14	9	2

- 1.25 Around two-thirds of the 25 respondents supported our proposal including stakeholders from the renewable and fossil fuel sectors (including industry representative bodies for both) and NGOs.
- 1.26 There was agreement that interim GHG reduction targets would help industry to better prepare for the 2020 target, and that they should reduce the risk of failure in 2020. Indeed, it was highlighted that they would help obligated parties in the same way that voluntary reporting requirements in the RTFO from 2009 to 2012 allowed the industry to develop adequate reporting systems, ahead of the introduction of binding requirements.
- 1.27 Stakeholders also agreed that interim GHG reduction targets will give us the opportunity to resolve any issues before 2020 and assess the merits of extending the scheme beyond 2020.
- 1.28 Those that provided other reasons for supporting interim GHG reduction targets included stakeholders from the renewables (including an industry representative body) and fossil fuel sectors, and an industry representative body from the gas sector. Their reasons included:
 - Interim targets will support the transition to a low carbon economy, reinforce commitment to the 2020 target and support further production of renewable fuels; and,
 - The reporting and verification systems under the RTFO are already developed and are directly transferable to the requirements under the FQD.
- 1.29 Whilst agreeing with our proposals, some respondents, including an electricity supplier, one independent advisory group and industry representative bodies in the renewables and gas sectors, explained how the proposals could be improved. Their suggestions included:
 - The GHG reduction targets should be higher in all years;
 - There should be a trajectory to 2030 or beyond to ensure investor certainty.
- 1.30 Respondents from the fossil fuel sector, including an industry representative body, disagreed with our proposal and suggested that interim GHG reduction targets should be reporting obligations only. Their reasons included:
 - Reporting obligations would still help industry prepare and allow Government to identify any issues before 2020;
 - Interim GHG reduction targets are not required by the FQD;
 - Interim targets would add burden to fuel suppliers and cost to the consumer; and,

- Interim GHG reduction targets would not help industry prepare for the 2020 target as the biofuel industry will be different in 2020, with significant increases in biofuel blending and demand for double counting feedstock expected across the EU.
- 1.31 There was one renewable fuel supplier who also disagreed. They thought as the interim GHG reduction targets will already be met through fuel supplied under RTFO they would not encourage the use of higher GHG saving fuels. An independent advisory body, who did agree with our proposal, also thought that the interim targets might largely be a paper exercise. On the contrary, one fossil fuel supplier considered that biofuels supplied under the RTFO in 2019 are unlikely to deliver the 4% GHG reduction target.
- 1.32 Other general comments regarding our proposals were provided by the fossil fuel industry (including an industry representative body) and a car manufacturer. Their comments included:
- We should review the suitability of the interim GHG reduction targets in light of the reductions in carbon intensity of transport fuels since 2010;
 - Meeting the 2018 and 2019 GHG reduction targets may be achieved through biofuels, but it was less clear how the 2020 target of 6% could be attained;
 - Three separate deadlines will be needed to ensure suppliers understand their performance; and,
 - If interim GHG reduction targets are set then suppliers should be able to trade and carry forward credits from 2018 to 2019 and preferably 2020 as well.

Government response

- 1.33 We are pleased that the majority of respondents supported our proposal and agreed that there is value in interim targets as they can help drive investments in lower carbon fuels as well as help us and the industry prepare for the more challenging 2020 target. However, we also acknowledge the concerns raised regarding interim targets, and will therefore only be setting an interim target of 4% in 2019 (there will be no target in 2018).
- 1.34 We believe that this strikes the best balance between realising the benefits that interim GHG reduction targets offer and avoiding imposing an unnecessary burden on suppliers.
- 1.35 The first and foremost of these is driving additional GHG savings, including through UERs. Furthermore, we feel that an interim target in 2019 will still allow industry to prepare, and provide sufficient time for us to resolve any issues with the scheme, ahead of the binding 2020 target. We also believe that operating the GHG scheme for two years instead of three will allow us to assess whether it is beneficial to extend it beyond 2020.
- 1.36 We do not consider that making 2019 a reporting only obligation would provide these benefits, especially as we are bringing UERs and electricity used in electric vehicles into scope for the first time.
- 1.37 Clarification concerning other points raised by stakeholders is set out below.
- 1.38 Concerning the comments about the level of the GHG reduction target and going beyond 2020, we explain our position on this in paragraphs 1.15 and 1.18.

- 1.39 In response to the comment on reviewing the suitability of the interim GHG reduction targets in light of the reductions in carbon intensity of transport fuels since 2010, the 2019 interim GHG reduction target, like the 2020 target, will be relative to a 2010 baseline, which is set by the FQD.
- 1.40 Regarding how the 2020 GHG reduction target of 6% could be attained, the accompanying cost benefit analysis provides further details.
- 1.41 Concerning the comment reporting deadlines, suppliers will need to report, and redeem the relevant number of GHG credits (or pay the buy-out), separately for each year.
- 1.42 Regarding the points raised on trading and carryover, trading of credits will be permitted but carryover will not. See paragraph 1.62 for further details on why carryover will not be allowed.

Designing the new greenhouse gas scheme to minimise the burden on suppliers

Consultation proposal

- 1.43 We proposed that the GHG mechanism would operate in a similar way to the RTFO, in that there would be an obligation which could be met using tradeable certificates or through a buy-out option. In light of this, and given that the sustainability criteria and verification requirements would be the same, we proposed that applications for RTFCs and GHG credits in respect of biofuels should be made and handled in parallel, with one application and one verification report covering both schemes. We thought this would reduce the burden on suppliers.

Question 3 – Do you agree that a single application for RTFCs and GHG credits should be required for biofuels? Please set out any circumstances where you consider that a separate application might be required.

Summary of responses

Total	Yes	No	Other
22	19	2	1

- 1.44 All respondents apart from three agreed with our proposals. These include renewable and fossil fuel suppliers, an NGO and industry representative bodies for the renewable, fossil fuel and gas sectors. They provided the following reasons:
 - A single application will minimise the administrative burden and/or verification costs for obligated fuel suppliers, which should encourage biofuel production;
 - Operating a separate and distinct scheme for GHG credits may result in less trading of GHG credits which, in turn, could depress prices;
 - A single application will help ensure that the GHG scheme does not inadvertently incentivise the use of crop-based biofuels above the level applicable in the RTFO; and

- There is no need for separate applications.
- 1.45 Whilst the majority agreed, some respondents, including a fossil fuel supplier, an industry representative body in the renewables sector and a consultancy, did ask for clarification in the following areas:
- Whether a single application would also cover development fuel RTFCs;
 - How an RTFC and the associated GHG credit would be issued. This respondent also took the opportunity to suggest that the RTFO should be changed to a scheme which rewards GHG savings; and,
 - Whether approval timelines will differ, for RTFCs and GHG credits.
- 1.46 The respondent from the fossil fuel sector who did not agree with our proposal sought further clarity on which fuels would be subject to a joint application. They were concerned this approach might exclude fuels that do not qualify under the RTFO.
- 1.47 This respondent also considered that as reducing GHG emissions is key to meeting our climate goals there should be an equal playing field for low carbon fossil fuels and renewable fuels, with support being provided according to their GHG emissions reduction potential. They feared this was not the case with the RTFO and GHG mechanism treating them differently.

Government response

- 1.48 In light of the strong support and rationale provided by respondents, we will be requiring suppliers to submit a single application for RTFCs and GHG credits in respect of sustainable renewable fuels, of both biological and non-biological origin.
- 1.49 Clarification concerning other points raised by stakeholders is set out below.
- 1.50 GHG credits will be issued, as appropriate, in respect of all types of applications for RTFCs, including development fuels.
- 1.51 The existing process for applying for, and issuing, RTFCs will also be used for GHG credits, with the same timelines.
- 1.52 Only sustainable renewable fuels will be subject to the single application process. Some fuels are eligible for GHG credits but not RTFCs – such as low carbon fossil fuels. Suppliers of these fuels will be able to apply for GHG credits separately.
- 1.53 As the RTFO is designed to meet our RED renewable energy in transport target, non-renewable fuels are not eligible for support. The FQD, however, permits other fuels, such as low carbon fossil fuels, to contribute to the GHG reduction target.

Joint reporting to deliver the target cost effectively

Consultation proposal

- 1.54 The FQD 7a implementing measure gives flexibility to fuel suppliers so that they may report jointly on meeting the 6% GHG reduction target. This means that each fuel supplier can partner with others to deliver the GHG savings required rather than delivering directly through their own fuel. This is designed to give flexibility to the market where fossil and renewable fuels are often supplied by separate entities.

1.55 As the UK already operates the RTFO as a certificate trading mechanism, effectively allowing all fuel suppliers to report jointly with all others, we proposed that a similar system of tradeable credits should be used for the GHG reduction target.

Question 4 – Do you agree that the proposal to use a system of tradeable credits will provide flexibility to suppliers and is an effective way to meet the GHG obligation?

Summary of responses

Total	Yes	No	Other
22	20	1	1

1.56 All respondents apart from two explicitly supported our proposal.

1.57 Comments from the renewable and fossil fuel sectors, a consultancy and a gas industry representative body included:

- Tradeable credits under the RTFO, and other schemes like the Renewables Obligation, have been a successful, cost-effective means of meeting an obligation;
- Tradeable credits will drive further reductions in the carbon intensity of fuels;
- Tradeable credits would encourage investment in renewable fuel production, particularly from companies which may not have otherwise been involved in the industry, and reinforce the Government’s long-term decarbonisation targets; and
- Trading is needed if non-obligated suppliers are to receive financial reward for supplying renewable fuels.

1.58 Whilst there was strong support for our proposal, some respondents from the renewable and fossil fuel sectors (including industry representative bodies for both), as well as one electricity supplier, one independent advisory body and one vehicle manufacturer, did offer suggestions as to where further consideration was needed. These included:

- GHG credits should be allowed to be carried forward into the next obligation period in a similar way to RTFCs;
- Where a supplier needs to buy-out of their RTFO obligation, the bought out RTFCs should come with a GHG credit to avoid unintended consequences and/or protect the consumer. One supplier recognised that the schemes are delivering separate EU directives, but requested we consider if a workaround can be found;
- The potential price volatility of GHG credits could encourage short-term, marginal reductions in GHG emissions rather than investments to reduce the GHG intensity in the mid to long-term. This respondent also mentioned that the interim and final GHG reduction targets have to be ambitious for the scheme to have an impact, and if the trading of credits is to represent a real incentive for more GHG efficient fuels;
- The price of credits must be transparent and the cost of matching buyers and sellers should be low. The same respondent also thought that the GHG credit

market should be easily accessible as new participants are going to be encouraged to take part in a short period of time;

- Strict verification of GHG credits and robust administration of the scheme would be required to maintain GHG credit integrity and price stability, and to prevent loopholes being exploited;
- Concerns regarding the potential uptake of the scheme by anaerobic digestion operators. This respondent thought there was a need to introduce stability to create greater biomethane deployment, and that further means of stimulating demand would be needed (under both the GHG Regs and RTFO). For instance, introducing a floor price for certificates or removing fuel duty for low carbon fuels until they constitute a significant proportion of UK fuel supply; and,
- The system should remain as simple as possible as it is only required in 2020;

1.59 Clarification was also sought on the following points:

- Whether GHG credits will only be available to transport fuels or if they could be claimed for any fuel that has GHG savings over the baseline; and,
- Whether UERs would be converted to a GHG credit at year end.

Government response

1.60 We note the success of other schemes that use a system of tradeable credits and that without such a system suppliers of low carbon fuels that do not have a GHG reduction obligation would not be able to receive a reward. We also agree that tradeable credits, along with the GHG reduction obligation, will encourage investment in renewable fuels and industry to adopt measures to reduce the GHG intensity of transport fuels. In light of these reasons, and the strong support from stakeholders, we will be using a system of tradeable credits.

1.61 Clarification concerning other points raised by stakeholders is set out below.

1.62 Article 7a of the FQD requires suppliers to reduce the GHG intensity of fuel and energy supplied in 2020 by 6%. By allowing carryover we could not guarantee that suppliers would deliver the necessary reductions in GHG emissions in 2020, as they could partially meet their 2020 GHG reduction target with credits issued in respect of fuel or energy supplied in 2019. We will therefore not be allowing suppliers to carryover GHG credits into 2020. Carryover into 2019 will also not be possible as the 2018 interim target will no longer apply.

1.63 Concerning comments about the issuance of GHG credits where suppliers buy-out of their RTFO obligation, our response to question 21 explains the approach we will adopt.

1.64 Regarding comments about driving investment, we explain in paragraphs 1.33 to 1.35 that we believe the GHG scheme will encourage suppliers to reduce the GHG intensity of transport fuel. Paragraph 1.18 also explains that we will keep under review the possibility of moving fully from a renewable volume based scheme to a GHG scheme post-2020.

1.65 Concerning comments about ensuring the stability of the scheme and the price of GHG credits, the scheme will operate in the same way as the RTFO with the price determined by the market. Taxation is outside the scope of this consultation.

- 1.66 In response to the comment about which fuels will be eligible for GHG credits, GHG credits will only be available to transport fuel and energy which falls within scope of the revised legislation and where emissions are below the target level.
- 1.67 Further details on converting GHG emission savings from UER projects is provided in chapter 2.

Minimising the burden for small suppliers

Consultation proposal

- 1.68 We proposed that a minimum threshold should be set so that all suppliers of fewer than 450,000 litres of relevant fuel are excluded from the GHG reduction target. We considered this would protect smaller organisations from any unnecessary administrative burden. A threshold of 450,000 litres was chosen as it mirrors the RTFO.
- 1.69 We also considered a reduction in obligation for suppliers of between 450,000 and 10 million litres of relevant fuel (also in line with the RTFO). This is intended to prevent a ‘cliff edge’ effect occurring for suppliers of close to 450,000 litres, where a supplier of just under 450,000 litres would incur no obligation, but a supplier of just over 450,000 litres would incur an obligation resulting from the whole amount supplied. To achieve this we proposed to deduct the GHG obligation which would result from supplying 450,000 litres of the baseline fuel mix from the obligation of suppliers of between 450,000 and 10 million litres of fuel.

Question 5 – Do you agree that we should align the minimum threshold in the GHG obligation with that in the RTFO? Please include any comments you may have on the proposed method of calculating the deduction.

Summary of responses

Total	Yes	No	Other
18	17	1	0

- 1.70 All 18 respondents except one agreed with our proposal. Stakeholders from the fossil fuel sector (including an industry representative body), an industry representative body for the renewables sector and an independent advisory group provided the following reasons:
 - The proposal would make administering the scheme simpler and potentially reduce the cost for small and medium enterprises. It was also mentioned that an assessment of the number and nature of such suppliers should be made to avoid unintended consequences;
 - Our proposal would avoid a ‘cliff edge’ effect; and,
 - The closer the two schemes (RTFO and GHG Regulations) can be aligned the better.

Government response

- 1.71 In light of strong support for our proposal we will proceed with aligning the minimum thresholds in the GHG obligation with that in the RTFO. As highlighted by stakeholders, this will ensure synergy between the RTFO and GHG mechanism and avoid a 'cliff edge' effect.
- 1.72 We understand the effect that our proposal will have on the industry through our experience of administering the RTFO and do not consider that this will result in unintended consequences.

2. Delivering greenhouse gas savings through upstream emission reductions

Overview of consultation

- 2.1 There is significant potential for reducing GHG emissions globally from upstream processes related to crude extraction and other processes before the crude is refined.
- 2.2 We proposed a system which should incentivise such upstream emission reductions (UERs), and in sufficient quantities that UERs are a GHG abatement option for fuel suppliers in addition to that provided by the supply of biofuels and other low carbon fuels.

Origin, reporting and eligibility of UERs

Consultation proposal

- 2.3 The core criteria covering origin, reporting and eligibility of UERs are set out in legislation with further detail provided in non-legislative guidance issued by the European Commission in 2016. Our proposal was to legislate for the core criteria, and to provide for additional details in separate guidance in due course.

Question 6 – Do you agree with our proposal to legislate for the criteria covering the origin, reporting and eligibility of UERs?

Summary of responses

Total	Yes	No	Other
19	9	2	8

- 2.4 Nine respondents were supportive of this proposal, with eight expressing other views and two against.

Temporal eligibility of UERs

- 2.5 Four respondents from the fossil fuel sector, including an industry representative body, felt that UERs should not be limited only to the corresponding calendar year, and that UERs should be aggregated across all years from the project start-date through to the end of the reporting period. In other words, not limiting the contribution of UERs to the 2020 GHG reduction target to those GHG savings delivered directly in

2020, but allowing GHG savings to count which were in fact delivered in the years before 2020.

- 2.6 The fossil fuel sector also supported allowing interim use of UERs towards earlier GHG targets (2018 and 2019).

Geographical eligibility of UERs

- 2.7 Four respondents from the fossil fuel sector, including an industry representative body, felt that UERs from regions where legislation governing flaring and venting³ does not exist or may not be uniformly applied, should be eligible. One of those felt that, provided that validation and verification can substantiate a credible baseline, issues around national compliance in the country of origin should not be an issue.

Verification and validation of UERs

- 2.8 Three respondents from the fossil fuel sector, including an industry representative body, felt that the verification of UERs should fall on the UER supplier.
- 2.9 A renewable energy industry representative body and a respondent from the renewable energy sector both wanted parity of treatment between suppliers of fossil fuels and biofuels: rules governing reporting and verification should be comparable in their stringency.

Reporting requirements for UERs

- 2.10 Four respondents from the fossil fuel sector, including an industry representative body, felt that the requirement to report average historical and reporting year gas-to-oil ratio (etc.) is unnecessary and should be simplified. Three respondents from the fossil fuel sector felt that the level of reporting for obligated suppliers should be minimal.

Other points

- 2.11 Other points from NGOs included the view that offsets are not the best way to tackle emissions from industry (two respondents) and that emissions reductions should be linked to physical supply of oil in EU and UK markets (one respondent, although this view was also shared by a renewable energy supplier). A respondent also flagged the need for tightened eligibility criteria.
- 2.12 Four respondents from the fossil fuel sector, including an industry representative body, felt that legislation must be consistent across all member states to be meaningful. Three respondents from the fossil fuel sector also recommended that the UK does not legislate for UERs now and should wait to see how the market develops.
- 2.13 One respondent from the fossil fuel sector felt that all GHG reduction projects in the value chain prior to the raw material entering a refinery or processing plant must be eligible, including energy efficiency projects and the transportation of oil and gas.

³ Flaring and venting is undesirable on both conservation of resource and environmental grounds. Flaring is the controlled burning of natural gas in the course of routine oil and gas production operations. This burning occurs at the end of a flare stack or boom. Venting is the controlled release of gases into the atmosphere in the course of oil and gas production operations.

- 2.14 One respondent from the renewable energy sector felt that UERs should only be included in the UK GHG scheme if they had been created specifically in response to the UK GHG scheme incentive.

Government response

- 2.15 The Government welcomes responses to the proposal and support for legislating for the core UER criteria as described. We consider that a consistent legislative approach is required across all member states for UERs, and that accepting UERs which have been generated in 2020 only is consistent with the Directive, which sets a target for GHG emissions to be saved in 2020 (and as also set out in the EC guidance). As such, we will accept only UERs that have been generated in the corresponding calendar year (i.e. 2020 only).
- 2.16 We agree that rules governing reporting and verification of UERs should be comparable in their stringency with those for biofuels. As such, and for consistency across all member states, any verification requirement for UERs will fall to fuel suppliers rather than UER project proponents.
- 2.17 We note the comment that UERs should only be included in the UK GHG scheme if they have been created specifically in response to the UK GHG scheme incentive. There is a legislative requirement for UERs to be the result of GHG abatement measures (rather than other drivers such as economic or technological factors), but fuel suppliers do not need to prove anything more specific. We therefore consider that to impose a UK-specific eligibility criterion such as that suggested is inconsistent with the Directive.

Upstream emission reductions project baseline assessment and calculation of emissions reductions

Consultation proposal

- 2.18 To inform our forthcoming guidance on UERs, we requested views on whether we should impose minimum criteria around assessing a UER project baseline and calculating emissions reductions. Whilst the legislation and European Commission guidance on UERs both reference ISO 14064, the ISO itself includes only possible criteria for assessing a project baseline and calculating emissions reductions, without specifying how such criteria should be applied.

Question 7 – We would welcome views on assessing a UER project baseline, and calculating emissions reductions against the baseline. Do you consider that requiring a minimum standard in national guidance for each criterion listed at ISO 14064-2 5.4 is the best way to ensure that UERs are additional?

Summary of responses

Total	Yes	No	Other
12	2	0	10

- 2.19 Two respondents were supportive of this proposal, with nine expressing other views.
- 2.20 Seven respondents from the fossil fuel sector, including an industry representative body, felt that there is no need to require minimum standards in national guidance because the ability to trade UERs across jurisdictions decreases the cost of compliance. In consequence, increasing the number of national measures placed on UERs risks UERs becoming less tradeable because standards may differ across member states.
- 2.21 Five respondents from the fossil fuel sector, including an industry representative body, felt that any national guidance to establish baselines should be no more onerous than the requirements to generate a suitable baseline under other ISO-based offset crediting schemes. These respondents flagged that existing offset crediting schemes that rely on ISO principles depend on project proponents adhering to the requirements of ISO 14064-2, and also the stringency and effectiveness of robust validation and verification procedures.
- 2.22 Six respondents from the fossil fuel sector, including an industry representative body, felt that, if UERs are eligible for one year only, the focus should be an accurate and defensible baseline and emissions reductions claimed, rather than the motivation for the emissions reductions themselves.
- 2.23 Five respondents from the fossil fuel sector, including an industry representative body, felt that there should not be a requirement to demonstrate additionality and instead, just requirements to demonstrate a credible baseline against which emissions reductions are quantified. This in turn would only be relevant for self-generated UER projects, as any other registered offsets purchased from existing ISO-based crediting schemes would already have satisfied additionality requirements.
- 2.24 Five respondents from the fossil fuel sector, including an industry representative body, felt that, if the point is to demonstrate that additional emissions reductions have occurred - noting that the Commission UER guidance suggests that UERs do not have to be the result of obligations under FQD Article 7a - the risk and complication of demonstrating additionality is unnecessary.
- 2.25 Other points from NGOs included the view that a minimum standard in national UER guidance for each of the criteria listed for assessing a project baseline is crucial.
- 2.26 Other points from the fossil fuel sector included:
- Support for a methodology to establish a baseline scenario before emission reductions take place;
 - Support for at least the ISO standard to limit the risk of fraud; and
 - The view that to impose minimum standards against each criterion as proposed would add an additional hurdle which is not required in the Directive, and would disadvantage UK suppliers in the UER market.

Government response

- 2.27 The Government notes comments received about national measures and associated risks to how tradeable UERs are. As set out in our response to question 6, the Government considers that a consistent legislative approach is required across all member states for UERs. Discussion with other member states regarding minimum standards for assessing baseline and calculating emissions reductions against the

baseline is ongoing. At present, we will legislate for the standards set out in the ISOs, and in particular ISO 14064-2. If consensus is reached with other member states on any additional aspects, we will set this out in guidance.

- 2.28 We recognise the likelihood that some UERs are likely to originate from existing projects accredited to the same ISO standards as required for UERs, and supplying offsets into other schemes (for example the Clean Development Mechanism). We consider it appropriate that the same minimum requirements for assessing a project baseline and calculating emissions reductions which apply to other ISO-accredited projects should also apply to UERs, to provide the greatest flexibility for fuel suppliers in meeting the target.

Verification and validation of UER projects

Consultation proposal

- 2.29 To inform our forthcoming guidance on UERs, we requested views on the verification and validation of UER projects. Whilst we consider that the accreditation of verifiers is outside the scope of the role of the Administrator, placing a requirement on the Administrator to ensure that UERs meet certain standards could help to ensure that UER verification bodies are sufficiently specialised in the verification of this kind of project.

Question 8 – We would welcome views on the verification and validation of UER projects, including how verifiers should be appointed, and what the role of the Administrator should be – if any – in appointing verifiers.

Summary of responses

Total	Comments
13	13

- 2.30 Twelve respondents provided comments.
- 2.31 Six respondents from the fossil fuel sector, including an industry representative body, supported the requirement that verification and validation bodies be accredited to ISOs 14065 and 14066. Five of those also suggested that the Administrator could require that verifiers be accredited to the specific scope of the project they are validating.
- 2.32 Five respondents from the fossil fuel sector, including an industry representative body, felt that it would be important to ensure that there are enough verification bodies available so as not to drive up costs on obligated parties. Further, it was flagged that any delays (resulting from insufficient verification bodies being available) could jeopardise obligated suppliers' ability to be fully compliant whilst increasing costs for their services. This would also apply to the use of credits from other offset schemes.
- 2.33 Five respondents from the fossil fuel sector, including an industry representative body, felt that the Administrator could point to approved validation and verification

bodies which are already eligible under existing ISO-based offset crediting schemes, and mentioned the Clean Development Mechanism (CDM) and Verified Carbon Standard (VCS). Verifiers also listed under other 3rd party accreditation bodies – like the American National Standards Institute (ANSI) and the Canadian Standards Association (CSA) – could also be included.

- 2.34 Four respondents from the fossil fuel sector, including an industry representative body, felt that appointing non-specialist bodies to act as UER verifiers could increase the risk to fuel suppliers of having UER credits revoked, leaving them financially exposed to paying the buy-out.
- 2.35 One respondent from the renewable energy sector and another from the fossil fuel sector felt that the Administrator should not be responsible for approving verifiers and this should be left to accreditation bodies, in line with how the Renewable Transport Fuel Obligation (RTFO) operates.
- 2.36 One respondent from the renewable energy sector and another from the fossil fuel sector felt that the issue of verifying and validating UERs should be addressed in guidance.
- 2.37 One respondent from the consultancy sector felt that it would be important to ensure that verifiers are truly independent of the oil industry, but fully aware of oil industry practices.
- 2.38 One respondent from the fossil fuel sector felt that the appointment of an accredited verifying organisation with specialist competence should fall to the company claiming the emissions reductions.

Government response

- 2.39 The Government welcomes support expressed for verifiers to be accredited in accordance with ISOs 14065 and 14066. We note concerns that insufficient verifiers may be available, and will continue to engage with industry and other member states to manage this risk.
- 2.40 We note the suggestion that the Administrator could specify which verification and validation bodies would be appropriate. We consider that responsibility for demonstrating that UER projects have been validated, and subsequent verification of UERs themselves, falls to fuel suppliers. We will continue to engage with industry and member states regarding how to ensure UERs meet the requisite standards, and will set this out in guidance.

Avoiding multiple-claiming of UERs

Consultation proposal

- 2.41 In the absence of a central, pan-European scheme or database to administer UERs, the risk of multiple-claiming is increased. We therefore asked for views on whether a specific verification standard such as ISAE 3000 could ensure that the risk of the multiple-claiming of UERs is kept to a minimum.

Question 9 – We would welcome views on our proposal to adopt a specific verification standard (like ISAE 3000) and/or other standards, in the absence of a central UER administrative database. Do you consider that ISAE 3000 would be adequate to minimise the risk of multiple claiming in the event a central database is not available?

Summary of responses

Total	Yes	No	Other
14	1	1	12

- 2.42 One respondent agreed with the proposal, with one against and 11 expressing other views.
- 2.43 One respondent from the renewable energy sector considered that ISAE 3000 could provide an adequate level of assurance that a prior claim had not occurred. A respondent from the fossil fuel sector also took this view, but also flagged a cross-border issue, in that ISAE 3000 may not prevent subsequent claims for the same project by another member state, or future additional reward under a different scheme.
- 2.44 An NGO felt that the use of a verification standard may not be sufficient to tackle all the different elements of the multiple claiming issue.
- 2.45 Eleven respondents from the NGO, fossil fuel and renewable energy sectors, including two industry representative bodies, favoured a single, centralised, pan-European database to administer UERs. Other views in support of a central database from industry representative bodies in both the renewable energy and fossil fuel sectors included its importance in the event the UK moves to a future GHG-only reporting system to comply with domestic legislation; and that a central database increases liquidity, lowers costs and increases ease of compliance.
- 2.46 Two respondents from the fossil fuel sector felt that in the absence of a Commission-hosted central database, Government should pursue low-cost opportunities including the use of an existing, third party registry service. An example organisation offering this service was given.

Government response

- 2.47 The Government notes comments received both in favour of ISAE 3000, and its limitations in applying to an international offset scheme.
- 2.48 We will continue to engage with the Commission and other member states on a single, centralised, pan-European scheme which we favour to administer UERs.

Use of credits generated by existing emissions offset mechanisms

Consultation proposal

- 2.49 To inform our forthcoming guidance on UERs, we requested views on the possibility of accepting credits generated by the Kyoto Protocol flexible mechanisms as UERs. The European Commission guidance on UERs permits the use of such credits, provided they have not already been claimed as units under that mechanism; or if they have been, those units have been cancelled.

Question 10 – We would welcome comments on the possibility of accepting credits generated from the Kyoto Protocol flexible mechanisms, such as the Clean Development Mechanism and Joint Implementation projects, including any advantages and disadvantages.

Summary of responses

Total	Comments
17	17

- 2.50 Sixteen respondents provided comments.
- 2.51 Two respondents from the renewable energy sector, including an industry representative body, felt that credits from CDM and Joint Implementation projects were acceptable provided that project details are transparent and details publicly available.
- 2.52 Four respondents from the fossil fuel sector, including an industry representative body, felt that the use of offsets from all ISO-based offset crediting mechanisms should be considered.
- 2.53 Two respondents from the NGO sector recommended limiting eligible schemes to CDM projects in least developed countries, and to exclude credits from Joint Implementation projects and projects related to oil sands production. One of these respondents also flagged that it seems illogical to reward emissions reductions from unconventional fossil fuels such as tar sands when they are not penalised for their higher carbon emissions.
- 2.54 Further points raised by respondents from the consultancy and renewable energy sectors included the views that:
- Such credits are acceptable provided there are strong mechanisms in place to avoid double claiming;
 - The Commission guidance document implies that CDM credits should not be accepted;
 - CDM projects should be re-registered as UER projects for compliance with the FQD Article 7a GHG reduction target; and
 - Companies should not be doubly incentivised for GHG savings made and that only projects that have been undertaken to meet the UK target should be eligible for UERs.

- 2.55 Three respondents from the fossil fuel industry, including an industry representative body, felt that GHG savings generated in developing countries are likely to provide other benefits associated with reduced emissions and that the value of these credits may be required to support these projects.
- 2.56 Six respondents from the fossil fuel sector, including an industry representative body, felt that there is a risk that there will be insufficient supply of credits from CDM and Joint Implementation to achieve full compliance across the EU.

Government response

- 2.57 The Government welcomes support for the use of credits from other offset mechanisms including the CDM and Joint Implementation. We intend to accept credits from such mechanisms, provided that projects have been validated, and credits verified, to the standards required for UERs. We acknowledge comments regarding credits from specific geographical locations / specific types of crude. However, we consider that such restrictions are unlikely to support a consistent legislative approach to UERs across all member states.
- 2.58 We acknowledge the comment that there is a risk that there will be insufficient supply of credits from CDM and Joint Implementation projects to meet the likely demand for UERs across all member states. We are working with other member states and the CDM Registry to assess the likely availability of CDM credits. We consider it likely that CDM credits will provide a proportion of the required UERs, but that further credits from other mechanisms / new projects may be required. We will keep this under consideration and reflect any additional UER requirements in guidance.

Inclusion of UER credits in UK GHG mechanism

Consultation proposal

- 2.59 We proposed that UERs are converted into GHG credits to be able to count towards fuel suppliers' GHG targets. We proposed that GHG credits could be revoked at a later date if evidence was later found to be incorrect.

Question 11 – Do you agree with the proposal that UER credits should count as GHG credits against a fuel supplier's obligation?

Summary of responses

Total	Yes	No	Other
18	12	2	5

- 2.60 Twelve respondents agreed with this proposal, with five expressing other views and two against.
- 2.61 Four respondents from the consultancy, NGO and fossil fuel sectors supported the proposal provided that there are strong mechanisms in place to avoid double-claiming. One of these felt that it is essential that UERs are not credited towards

domestic targets (carbon budgets) or other international commitments except the FQD.

- 2.62 Two respondents from the renewable energy sector, including an industry representative body, supported the proposal provided that UERs are properly verified.
- 2.63 Four respondents from the fossil fuel sector, including an industry representative body, supported the proposal but expressed concerns with the potential revocation of GHG credits, suggesting that there should be a clearly-defined cut-off point after which UERs cannot be revoked.
- 2.64 Four respondents from the fossil fuel sector, including an industry representative body, supported an opportunity to trade / transfer UER units across obligated parties and member states prior to UERs becoming UK GHG credits, to ensure market liquidity. One of those respondents flagged that acceptance of UERs into the UK GHG scheme should not prevent international trading of UERs.
- 2.65 Two respondents from the consultancy and fossil fuel sectors suggested that a baseline should be agreed for each flaring location no earlier than 1 Jan 2011 to prevent extra emissions being facilitated in order to then show a reduction (and generate a greater quantity of credits).
- 2.66 One respondent from the fossil fuel sector supported the proposal but maintained that UERs are unfit for purpose.
- 2.67 Other comments from two respondents in the NGO sector included the views that:
- A tight set of criteria to ensure additionality is needed;
 - UERs should not be extended beyond 2020 as a GHG abatement option;
 - A weak market mechanism such as UERs is not the best way to reduce emissions from flaring and venting and that flaring and venting would be better tackled through direct regulation; and
 - Priority should go to full and correct carbon accounting of all fuels pathways and use of low-carbon alternative fuels such as sustainable advanced fuels and renewable electricity.
- 2.68 One respondent from the renewable energy sector suggested that the GHG Regulations should only reward GHG savings associated with fuels supplied in the UK and that counting unrelated UER GHG savings against a fuel supplier's obligation will undermine the incentive to reduce emissions from UK road fuels.

Government response

- 2.69 The Government welcomes support for the proposal. We consider that robust administration (e.g. through the use of a single, pan-European registry) will be adequate to minimise the risk of double-claiming of credits and any possibility that credits could be counted towards national GHG abatement requirements (e.g. the carbon budgets).
- 2.70 We consider that UERs should be fully tradeable between obligated suppliers and member states. However, UK GHG credits would not be tradeable internationally, as member states will operate their own national GHG systems.

3. Supporting electric vehicles

Overview of consultation

- 3.1 We proposed that suppliers of electricity used in electric vehicles (EVs) could choose to claim GHG credits, in exchange for data representing electricity used in EVs. Electricity suppliers would need to obtain that data from EV infrastructure operators (for example, charge point operators). GHG credits claimed by electricity suppliers could be traded with fuel suppliers needing GHG credits to meet their GHG targets. This would provide additional support for the electrification of the vehicle fleet.
- 3.2 We also sought views on whether this mechanism, or something similar, might be used to provide support for the electrification of the vehicle fleet post-2020, for example through the inclusion of electricity in the Renewable Transport Fuels Obligation (RTFO).

Enabling electricity to contribute to fuel suppliers' GHG targets

Consultation proposal

- 3.3 We proposed that fuel suppliers account for the GHG savings delivered by fuels they have supplied via a mechanism of tradable GHG credits. We proposed that the simplest way for electricity suppliers to contribute to the GHG reduction obligation is for them to be eligible for GHG credits alongside fuel suppliers.

Question 12 – Do you agree that enabling electricity suppliers to receive GHG credits – which they can trade with fuel suppliers who need them – is the best way that the GHG saving from electricity used in electric vehicles can contribute to other fuel suppliers' GHG obligations?

Summary of responses

Total	Yes	No	Other
27	10	10	7

- 3.4 Opinion was divided, with ten respondents supporting the proposal and ten against it. Another seven respondents provided comments, mainly regarding the nature of the incentive.
- 3.5 An industry representative body felt that the method proposed is a positive step towards ultra-low transport emissions, and that any incentive to make charging provision simpler for operators entering the market is welcome.

- 3.6 Of those broadly supportive in principle, a common view shared by respondents in the fossil fuel, renewable energy and consultancy sectors was that GHG credits should reflect the actual carbon intensity of electricity generation. One respondent took this idea further and suggested that daily GHG intensity data could be used and matched to the time of day EV charging took place, with GHG credits awarded accordingly.
- 3.7 Conversely, a respondent from the fossil fuel sector felt that default GHG intensity values were appropriate because without a dedicated and verifiable renewable supply chain, any increase in electricity for transport should be considered as marginal and therefore requiring fossil-based generation.
- 3.8 One respondent from the renewable energy sector felt that in its current form, the proposal could encourage a method of transport more carbon intensive than conventional transport methods, due to a current grid average GHG intensity of 290g CO₂e/kWh (higher for some suppliers). They considered that it is possible that on this basis, electricity from some suppliers would produce emissions in excess of some new internal combustion engine vehicles.
- 3.9 The same respondent felt that electricity suppliers should be permitted to make their own GHG intensity calculations and challenged Government's assertion that doing so would be complex to administer or disproportionate to the benefit of the policy, on the basis that UK electricity suppliers already calculate the emissions intensity of electricity via the annual Fuel Mix Disclosure.
- 3.10 Similarly, one respondent felt that certificates should only be awarded for the renewable proportion of electricity used to charge EVs, on the basis that the proposed scheme, risks failing to maximise the benefits of a joined-up approach to decarbonising the transport, heat and electricity sectors.
- 3.11 Ten respondents welcomed the flexibility this proposal would bring in meeting the 6% GHG reduction target. However, various reservations were expressed. Five of these from the fossil fuel sector, including an industry representative body, felt that the proposal was burdensome and that an alternative, easier approach would be to adjust fuel suppliers' GHG targets downwards to reflect the GHG saving from electricity without the need to generate GHG credits – in the same way as electricity is treated in the renewable energy target set by the Renewable Energy Directive (RED).
- 3.12 It was also suggested that electricity suppliers should be obligated under the FQD and subject to the same decarbonisation requirement as fuel suppliers.
- 3.13 A respondent from the fossil fuel sector felt the proposal would not encourage the expansion of EV infrastructure. Another respondent recognised that the proposal may be the best option within the constraints of currently-available mechanisms, but flagged that it should do something meaningful for plug-in vehicles and that there is a risk that it provides financial reward to electricity suppliers for business-as-usual.
- 3.14 The time-limited nature of the proposed policy caused concern. One other respondent also shared the view that a longer-term target is important when considering the grid for the use of EVs. One respondent felt that the magnitude of any GHG reduction from EVs will be negligible and that applying the mechanism for one year only will limit the effectiveness of any perceived benefits. One respondent expressed concern that there is no assurance that the scheme will continue after 2020; and further, that although interim targets were proposed for 2018-2019, the required GHG reductions will be met through the supply of biofuels so there will be no demand for GHG credits for electricity until 2020. As such, it will be difficult to

achieve the stated policy objective of supporting EV infrastructure deployment in such a short timeframe. An independent advisory body flagged the need for simplicity and cost-effectiveness for the fuel supplier and to the EV infrastructure operator, which in itself will require a longer-term commitment than the current 2020 proposal.

- 3.15 Another cause for concern was including electricity suppliers in the proposed policy. Opposition was expressed by respondents in the fossil fuel and vehicle manufacturing sectors, and also an industry representative body. A fossil fuel industry representative body felt that enabling electricity suppliers to receive GHG credits will not generate the greatest benefit for transport decarbonisation, flagging that electricity is not a suitable decarbonisation option for all types of vehicle, and that this proposal could impede the development of other renewable fuels such as biogas and hydrogen. Two respondents from the fossil fuel and vehicle manufacturing sectors expressed concern that the present proposal includes electricity suppliers and does not directly support EV infrastructure deployment, increasing administrative complexity, reducing the quantity of GHG certificate revenues allocated to actual charging infrastructure and unduly rewarding electricity suppliers at the expense of charging infrastructure operators. The same respondents felt that this could create a market distortion by incentivising electricity suppliers to deploy charging infrastructure, as opposed to independent charging infrastructure operators doing so. It was also flagged that, if electricity suppliers were included in the mechanism, it is uncertain whether it would result in further development of EV infrastructure.

Government response

- 3.16 The Government welcomes the support expressed for the proposal and the flexibility it would bring. We will make GHG credits available to electricity suppliers in return for the provision of EV charging data sourced from infrastructure operators, as set out in the consultation.
- 3.17 We accept that to allow electricity suppliers to undertake their own GHG intensity calculation based on Fuel Mix Disclosure (FMD) data is not overly burdensome and that per supplier, the GHG intensity of electricity submitted to the Administrator for GHG credits will be more accurately reflected. We therefore intend that all suppliers must report data calculated using their FMD, rather than using a single grid-average GHG intensity value as originally proposed.
- 3.18 We acknowledge the views of those respondents suggesting the reward should be passed straight to the infrastructure operators. In addition, we acknowledge the suggestions of adjusting fuel suppliers' obligations downwards to the value of the GHG saving from electricity. However, both suggestions are beyond the scope of the Directive.
- 3.19 We acknowledge concerns over the limited time period for the reward. At present, we plan to set GHG targets for 2019-2020, but are considering options post-2020 and how best the GHG saving from electricity can be included in ongoing national GHG abatement measures. We also recognise the importance that electric vehicles have in reducing emissions from transport which affect air quality. As set out in the [UK plan for tackling roadside nitrogen dioxide concentrations](#), the Government's ambition for Britain to lead the world in electric vehicle technology and use is central to its objective of tackling emissions of both nitrogen oxides and carbon dioxide. We announced in 2011 our intention that conventional car and van sales would end by 2040, and for almost every car and van on the road to be a zero emission vehicle by 2050. We have committed to investing over £2.7 billion overall in air quality and

cleaner transport. This includes £1 billion in the development, manufacture and use of ultra-low emission vehicles (ULEVs).

Using actual and estimated electric vehicle usage data

Consultation proposal

3.20 Due to uncertainties around how much EV usage it will actually be possible to meter in the proposed timeframe to 2020, we proposed that some (limited) estimated usage data is acceptable. If we accept estimates where actual data is unavailable, a greater reward will be available to electricity suppliers and infrastructure operators.

Question 13 – Do you agree with our proposed approach of using actual and estimated metering data?

Summary of responses

Total	Yes	No	Other
19	9	6	4

- 3.21 Opinion was divided, with around half of respondents supported accepting actual and estimated data.
- 3.22 Three respondents from the NGO and consultancy sectors felt that the estimated usage should be set conservatively, to encourage investment in more accurate metering. On the same theme, an independent advisory body suggested that it is important to reflect that charge point usage can vary widely and that measures must be put in place to ensure operators do not gain incentives to install underutilised charge points.
- 3.23 Three respondents from the NGO, electricity supply and consultancy sectors felt that actual data should be used as much as possible. One of those felt that no more than 10% of data should be estimated, and another proposed a hierarchical approach for data collection which prioritises smart data, then charge point data, then on-board vehicle data and finally estimated data.
- 3.24 A respondent from the NGO sector also commented at question 12 that they felt that the GHG scheme as proposed here should not simply promote the generation of low-carbon and renewable electricity. They proposed also that it should promote investment in infrastructure that will enable electricity to be used more widely in transport (for example, charge points and smart meters), and that therefore electricity suppliers should only be allowed to claim GHG credits if they can demonstrate that electricity they supply has been used in transport. A respondent from the fossil fuel sector flagged that actual metering would allow for the appropriate taxation of energy used for transport.
- 3.25 A respondent from the vehicle manufacturing sector felt that in the majority of cases (both public and private charging) properly metered data will be available. This is because charging infrastructure is connected to a dedicated grid connection point and supplied via a dedicated electricity supply contract, whilst private charging equipment has an electricity meter and can remotely provide charging logs to the equipment supplier or Administrator.

- 3.26 A respondent from the renewable energy sector flagged that usage data may be held by charge point suppliers (domestic, commercial/public), charge point operators (commercial/public) and charge point owners (domestic, commercial/public) and that it will be relatively easy to report from data supplied by the charge point operators. The respondent flagged that in 2020, proportionally, there are likely to be fewer domestic charge points with data logging capacity than now, unless the former requirement for domestic charge points installed with grant funding from the Office for Low Emission Vehicles (OLEV) to report usage data in a meaningful way is reinstated. The same respondent felt that there are various barriers to using actual data from domestic charge points (including difficulty in retrofitting twin-element smart meters, that most new charge points are not fitted with a data log, and challenges of reporting data in remote areas with limited 3G/GPRS connectivity). The same respondent felt estimates will be problematic.
- 3.27 A respondent from the renewable energy sector disagreed with the proposal of using actuals and estimates, and felt a) that only actual data should be allowed, and b) that GHG credits should only be awarded to GHG savings verified by the same criteria as those applied to biofuels.
- 3.28 Reflecting the same view as expressed at question 12, an industry representative body, an independent advisory body and a respondent from the fossil fuel sector all felt that the policy should be extended beyond 2020, one saying that the Administrator should place a limit on the length of time estimates are acceptable to encourage actual data as soon as possible.
- 3.29 An industry representative body suggested we should distinguish between public and home charging. This is on the basis that whilst public charging is suited to the proposed policy and is relatively easy to meter (and provides 100% actual data), home charging should be subject to a different approach. A mechanism should be created to pool the resource, for example through voluntary agreements between participating electricity suppliers, simplifying the data system and allowing monies generated to be appropriately targeted. They also flagged such a system could be used to reduce barriers to charge point installation, such as where electricity supply infrastructure might need upgrading; or used to support load management or smart charging options. The respondent felt that this system would not be open to abuse and would eliminate the need for specific data.
- 3.30 A respondent from the fossil fuel sector also suggested a common fund instead of individual rewards for infrastructure operators, but that electricity suppliers should be obligated to pay into it.
- 3.31 A respondent from the vehicle manufacturing sector commented that the GHG credit scheme for EV charging could be made voluntary where participation is dependent on the ability of the infrastructure operator to provide accurate and reliable data.

Government response

- 3.32 The Government welcomes the support for the proposal, and other views expressed. We will allow the use of actual data, and some estimates but only where actual data is not available. This is due a) to uncertainty around how much actual usage data will be available to electricity suppliers and the need to capture as much of the electrical energy used in transport as possible, and b) to encourage the use of actual data over estimates.
- 3.33 We consider that there may be merit in setting estimated values conservatively.

- 3.34 We consider that setting a lower limit on the use of estimates (e.g. 10%) is inconsistent with how biofuel suppliers are treated. We propose that estimates should only be used where actual data is unavailable.
- 3.35 We acknowledge the suggestion to distinguish between public and private charging, and to create a separate pool of resource for private charging. However, we consider that this is likely to be complex to administer, and that it is beyond the scope of the Directive.
- 3.36 We acknowledge the suggestion to adopt a hierarchical approach to rewarding usage data. We consider that such an approach could be a useful inclusion in a future mechanism (e.g. post-2020) but that to do so at present is beyond the scope of the Directive.
- 3.37 Should a mechanism for supporting electric vehicles through a GHG scheme or under the RTFO be employed post-2020, we will consider implementing options expressed in the consultation, including limiting the length of time that estimates (instead of actual data) are acceptable.

Methodologies to estimate electric vehicles usage

Consultation proposal

- 3.38 We proposed four different methodologies to estimate electric vehicles (EV) usage and asked for preferences. The methodologies were:
 - A. Apply a single default EV usage value applied to all charge points, based on all available data;
 - B. Apply EV usage values specific to individual charge point operators, based on all available data;
 - C. Apply EV usage values specific to charge point type, based on all available data; and
 - D. Any of the above, but based on smaller representative samples rather than all available data.

Question 14 – Which of the proposed methodologies A-D (or combination of methodologies) do you prefer, and why? Do you have a proposal for an alternative methodology?

Summary of responses

Total	Comments
16	16

- 3.39 Sixteen respondents expressed views on the methodologies provided.
- 3.40 Option C was favoured overwhelmingly, on the basis that it offers the most accurate method to estimate EV usage simply. An industry representative body flagged that charge point operators are best able to extrapolate data based on charge point type. Several respondents from the renewable energy, electricity supply and fossil fuel

sectors, and an industry representative body, felt that option D was possible, but based on option C.

- 3.41 A small number of respondents favoured option D on the basis that it allows maximum flexibility in collecting usage data, given the policy proposal is currently not intended to extend beyond 2020. An independent advisory body also flagged that option D would allow the operator to calculate usage data in a manner that is convenient to their operations and use a smaller sample of actual data to calculate the estimate. A respondent from the fossil fuel sector favoured option D on the basis that it lowers the administrative barrier to claiming GHG credits for charge point operators not possessing the same level of operational effectiveness as traditional electricity suppliers.
- 3.42 A respondent from the vehicle manufacturing sector felt that if more simplicity is required, option B would be a workable proxy for actual charging infrastructure usage data. An electricity provider suggested that option A may be the simplest solution and that a variant might be to have three charge point categories, these being domestic, business and public.
- 3.43 An industry representative body felt that estimated consumption would be far better correlated by vehicle than by charging point specification alone.
- 3.44 An industry representative body suggested that industry should work with Government to decide a methodology which, although likely to be a combination of A-D, would need to allow for further adjustments for third parties and other market players, i.e. those who are not covered under 'supplier' or 'infrastructure provider'.
- 3.45 A renewable energy supplier favoured actuals instead of estimates saying estimates would undermine the scheme, whilst an industry representative did not favour estimates at all, suggesting an alternative approach (set out at the 'other comments' section after question 18).

Government response

- 3.46 The Government welcomes the support for methodology C. We will continue to explore how best to provide for the calculation of estimates, and set out the preferred approach in guidance.

Facilitating transference of data and reward between different parties

Consultation proposal

- 3.47 To be able to claim GHG credits, electricity suppliers would need to receive EV charging data from EV infrastructure operators and then pass that data to the Administrator. However, electricity suppliers would not necessarily know whether or not their customers are charging EVs. This applies to both private and commercial / public charging. Therefore, electricity suppliers would need to know whom to contact to request EV charging data. Our suggestion was therefore that electricity suppliers contact their customers to ask.

Question 15 – Do you agree with the proposal that electricity suppliers should contact their customers to ask if they have an EV charge point, and who the infrastructure operator is? Please set out any alternative suggestions for obtaining this data.

Summary of responses

Total	Yes	No	Other
17	5	79	3

- 3.48 Nine respondents opposed the proposal compared to five being in favour of it.
- 3.49 An electricity supplier felt that infrastructure operators could also contact their customer base and request they get in touch with their electricity supplier.
- 3.50 An industry representative body agreed this is an option but doubted a high response-rate without an incentive. The same respondent felt that the Office of Low Emission Vehicles (OLEV) would be better able to determine the location of domestic charging points since OLEV records all grant-supported installations (sub-divided by charge point manufacturer and model number to indicate type and current rating). The same respondent felt also that if this were a blanket communication to customers, it may also detract from responses if customers felt they may be penalised for running an EV from a standard 3-pin plug rather than a dedicated charge point.
- 3.51 The same respondent suggested that the Energy Networks Association (ENA)⁴ should be able to provide data showing the suppliers⁵ that have a charging point associated with them, because the installation of domestic charging points is notifiable to Distribution Network Operators (DNOs).
- 3.52 In conjunction with the ENA – DNO proposal, two industry representative bodies flagged the potential role of a centralised institution to maintain data, and one respondent suggested the national data warehouse being set up following the Each Home Counts review⁶ (although the respondent acknowledged that a change in regulation may be required in this case).
- 3.53 An industry representative body preferred keeping direct contact with the customer from the supplier to a minimum, and that initial contact should be with the infrastructure operators, on the basis that they know which customers have a charge point or are EV users.
- 3.54 Further points noted included:
- The suggestion that the administration would be significant and electricity suppliers should not be required to contact their customers;
 - The view that if a ‘non-universal’ approach is taken to identifying where EVs / charge points are, and in addition if estimates are used over metered data, it

⁴ The respondent stated ‘Electrical Networks Association’, but as there does not appear to be an Electrical Networks Association in the UK we assume they meant Energy Networks Association

⁵ We assume they meant domestic supplies, as there does not appear to be the same level of complexity in determining which electricity suppliers per supplying public / commercial charge points

⁶ Each Home Counts is an independent review of consumer advice, protection, standards and enforcement for energy efficiency and renewable energy published jointly by the Department for Business, Energy and Industrial Strategy (BEIS) and the Department for Communities and Local Government (DCLG) in December 2016. The reviews is accessible here:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/578749/Each_Home_Counts_December_2016_.pdf

would be useful to also establish the vehicle type (full EV or PHEV) as the usage would typically vary greatly;

- The suggestion some charging happens via a 3-pin plug (one response implied this amount could be significant) where there is no infrastructure operator, and that this energy could and should be accounted for - a push from Government to promote EVs could raise awareness of the benefits of metering through a charge point; and
- That electricity suppliers should request that customers confirm the presence of the charge point, its number and type; from domestic and business customers alike.

Government response

- 3.55 The Government considers that electricity suppliers could contact their customers to ask if they have an EV charge point. We also agree that infrastructure operators (e.g. charge point suppliers) could contact their customers to ask who their electricity supplier is.
- 3.56 Electricity suppliers will be able to choose whether they participate in the scheme or not, so they will not be required to contact their customers.
- 3.57 We note that some charging occurs through a standard 3-pin plug, but consider that this amount is likely to be fairly small, and likely to decrease in future as charge points become more widespread.
- 3.58 We note the suggestion that the Office for Low Emission Vehicles (OLEV) and the Energy Networks Association (ENA) hold information on customers who have installed charge points and that this data could be made available to electricity suppliers. For this to be possible, it is likely that a statutory data sharing gateway coupled with a privacy notice would be required, and at present we are uncertain what level of resource this would require to set up, or in what timeframe. Alternatively, it may be possible for data to be shared under the 'legitimate interests' condition of the Data Protection Act.

GHG credits as an incentive to report electric vehicles usage data

Consultation proposal

- 3.59 The mechanism proposed here is new. We would like to know whether stakeholders feel it is likely to be effective in driving EV infrastructure deployment, or not.

Question 16 – Do you consider that GHG credits will provide an incentive for electricity suppliers to obtain data on electricity used in EVs, and that in doing so, some of that reward will be passed to charge point operators?

Summary of responses

Total	Yes	No	Other
23	9	11	3

- 3.60 Opinion was divided, with nine respondents supporting the proposal and eleven against.
- 3.61 A respondent from the fossil fuel sector expressed the view that because residential charging does not involve charge point operators, this is not a viable route to obtaining data and electricity suppliers are likely just to keep the reward for themselves. A respondent from the fossil fuel sector felt that an obligation should be placed on electricity suppliers to contribute to an EV charging infrastructure fund, and that allowing charge point operators directly to claim credits is a better incentive.
- 3.62 An industry representative body felt that, since the vast majority of domestic charge points are sold to the end user, the charge point operators, as currently defined, do not stand to benefit from the revenue from GHG credits. They also felt that this may incentivise demand side reduction and time-shifted charging periods to low-carbon generation if the GHG rate is applied proportionately higher during these periods.
- 3.63 An industry representative body (and by extension four respondents from the fossil fuel sector) flagged that the policy does not continue post-2020 and that there are many entities involved (electricity supplier, distributor, retailer, consumer) in collecting data. They felt it would be simpler therefore to reduce obligated suppliers' overall targets by the estimated GHG saving from electricity. Another industry representative body also flagged that the scheme should continue post-2020 (consistent with views expressed at questions 12 and 13).
- 3.64 Other points made reflected comments received elsewhere in the consultation, including:
- The view that individual supplier GHGi calculations should be permitted;
 - That GHG credits should be passed directly to infrastructure operators without involving electricity suppliers (consistent with comments received at question 18 as described in the section on other comments below);
 - That any incentive provided by the proposed mechanism is likely to be too small and insignificant to encourage uptake of EVs and additional charge points; and
 - That in the case of domestic charge points where there is no ongoing relationship with the infrastructure operator – the customer should be able to benefit from the scheme if they choose to.

Government response

- 3.65 The Government welcomes responses received. We acknowledge comments that the reward available is likely to be too small to drive investment in EV infrastructure. On balance however, we consider that the scheme is likely to generate some reward for infrastructure operators.
- 3.66 The term 'infrastructure operators' does not have a specific definition but, as set out in the consultation, it is intended to refer to charge point suppliers and operators. Residential charging would therefore be covered by the mechanism and in the majority of cases, we consider that some of the value created would be directed

towards the charge point supplier. We will work to ensure that the reward is directed to those entities responsible for the deployment of EV infrastructure and include further detail in guidance.

3.67 Because the mechanism proposed here is intended to support the process of EV infrastructure deployment, we propose that value created by the mechanism should pass to those entities involved in that process (infrastructure operators), rather than the EV customer / user.

Verifying electric vehicles usage data

Consultation proposal

3.68 EV usage data needs to be validated to ensure it is accurate. This is consistent with the approach taken for renewable fuels under the RTFO. We propose that independent assurance be carried out to the same standard required by ISAE 3000, and that it may be possible for the Administrator to validate data directly with another regulator such as Ofgem e-serve.

Question 17 – Do you have alternative suggestions for how data could be verified / validated?

Summary of responses

Total	Yes	No	Other
10	0	4	6

- 3.69 Four respondents did not have suggestions, with five expressing alternative views.
- 3.70 An industry representative body, a respondent from the electricity supply sector and a respondent from the vehicle manufacturing sector felt data monitoring and handling should be as simple as possible at this early stage of the industry’s development. One of these respondents felt the Administrator should accept evidence suppliers can collect from sub-meters and data loggers without requiring these to meet the same certification standards as the registered supply point. A respondent from the electricity supply sector suggested taking a similar approach to external audits used by Ofgem for their support schemes.
- 3.71 An industry representative body suggested an alternative would be closer co-operation with OLEV for existing and new charge point installations, which could provide additional data and more accurate mapping and comparison of estimated data.
- 3.72 An industry representative body and an independent advisory body felt that using a verification process similar to that for sustainability under the RTFO would be appropriate; or, in the case of the independent advisory body, through a regulator such as OFGEM.
- 3.73 An industry representative body referred to their response to question 15 which sets out an alternative method for crediting reward to the home charging network,

negating the need for verification standards for this data. See the supplementary note after question 18.

Government response

- 3.74 The Government acknowledges the suggestion that data monitoring and handling should be as simple as possible. However, in order to ensure a level playing field with other energy products for which support is being claimed under the GHG regulations, we will place a requirement upon the applicant to submit accurate data (which may in this case include estimates where actual data is not known) and a power to the Administrator to require this data to be validated.
- 3.75 In common with the other energy products where there is no other Government data source that can be used to validate suppliers' claims, we will allow the Administrator discretion to require a third party assurance report (to either the reasonable or limited level of the ISAE 3000 assurance standard). Should this approach be adopted, the Administrator will work with industry to develop guidance on the required validation methods. Additionally, we are in discussions with Ofgem to determine whether their expertise in regulating electricity suppliers can be utilised to provide an efficient verification mechanism (acting on the Administrator's behalf).

Driving investment in UK electric vehicles infrastructure in the longer-term

Consultation proposal

- 3.76 We proposed in the consultation that the GHG mechanism should be active in 2018 - 2020 only. However, electricity in road vehicles is essential to decarbonising transport and will need ongoing support in order to grow this market. We are therefore considering how best a GHG reward might support EV infrastructure and whether a similar mechanism could be effective in supporting the development of the EV infrastructure in the longer-term.

Question 18 – Do you agree that continuing to reward electricity used in EVs with GHG credits could be a way to incentivise investment in UK EV infrastructure (for example charge points) in the longer term? We would welcome suggestions as to how the reward could contribute to the development of EV infrastructure, or how future policies might direct support here.

Summary of responses

Total	Yes	No	Other
23	10	7	6

- 3.77 Opinion was divided, with reasonable support for the proposal but with some respondents against / providing other views.

- 3.78 Respondents from the electricity sector, an industry representative body and an independent advisory body all expressed support for the scheme to run beyond 2020.
- 3.79 One of those proposed initially extending the scheme to 2030 and aligning with broader climate and air quality policies to 2050. Respondents from the renewable energy and NGO sectors supported including electricity in the RTFO, with one respondent saying that doing so should provide a fair incentive for EV suppliers, ensuring different energy and fuel types remain on a level playing field regarding how they are rewarded (and the point about a level playing field was also made by a respondent from the renewable energy sector in the consultation on the Renewable Transport Fuel Obligations (RTFO) Order). An independent advisory body flagged that with time-of-use data it may be possible to encourage the use of renewable electricity by allowing GHG intensity to be based on actual data. A respondent from the NGO sector felt that over time, a GHG scheme should potentially replace the RTFO as it offers greater incentive to electricity and high-performing sustainable advanced fuels in transport.
- 3.80 Conversely, a respondent from the fossil fuel sector felt that as there is no requirement for the FQD GHG target to continue beyond 2020, this policy should not be continued in the UK. The same respondent felt that as the RTFO is a mechanism to blend renewable liquid fuels into transport fuels, it is not designed for rewarding electricity.
- 3.81 An industry representative body felt that a range of issues needs to be addressed to promote EV adoption and that – taking this policy proposal in isolation – it is difficult to predict what effect rewarding electricity in this way will have on investment in EV infrastructure.

Government response

- 3.82 The Government welcomes the support expressed for the policy and, as commented in our response to question 12, we use evidence from this scheme to consider whether a similar scheme could run post-2020. This would include the possibility of including electricity in the RTFO.

Other comments received on rewarding electricity

- 3.83 Where we received comments beyond the scope of the consultation questions but which are relevant to the policy, we set them out here.

Incentive driving investment in renewable electricity as well as EV infrastructure

- 3.84 A respondent from the renewable energy sector felt that GHG credits should act as an incentive for electricity suppliers to source more electricity from renewables. A similar point was also made by an industry representative body, who felt that if electricity suppliers are permitted to make this calculation themselves, an economic driver for customers to choose renewable tariffs may be created for those suppliers offering 100% renewable electricity.
- 3.85 A respondent from the consultancy sector proposed that renewable electricity that is destined for EV use could be tracked to receive RTFCs (rather than other support for electricity generation). Investment in the renewable electricity for EVs would be driven purely through RTFCs.

Definition of electricity supplier / infrastructure operator and where the reward is directed

- 3.86 A respondent from the fossil fuel sector felt that a wider definition of electricity supplier, to include the entity that sells the power or service to an EV driver (for example) or charge point operator, would be appropriate and that different parties should be eligible to claim credits in a cascading order of priority. In this case, those providing the associated EV infrastructure and energy service would have the top priority, descending to electricity suppliers which would benefit from any unclaimed credits based on estimates / assumptions of EV numbers and electricity use.
- 3.87 Such an approach would prioritise those able to meter actual data over estimates. This 'smart' setup is generally more expensive than 'dumb' chargers so allowing charging infrastructure operators to claim GHG credits would support the deployment of EV charging infrastructure. In the case of private charge points, infrastructure operators would be unlikely to play a role and so electricity suppliers could claim credits in these cases.
- 3.88 We received comments around the role of the infrastructure operator, including views on which entities should be included under this definition. One respondent suggested that if the stated policy objective is to support EV infrastructure, infrastructure operators must have a role in at least verifying estimates. The same respondent also suggested that if there is no recognised infrastructure operator, then the household or business should be considered as the infrastructure operator.
- 3.89 An industry representative body felt that 'infrastructure operator' is an erroneous term for domestic charging, especially since OLEV removed the requirement for data reporting. The same respondent stated that the vast majority of newly-installed charge points (and an increasing proportion of the population as a whole) do not have data reporting capability, so the 'operator' is more accurately described as 'supplier'.
- 3.90 A respondent from the consultancy sector flagged that home or business owners who generate their own electricity should be eligible for GHG credits.
- 3.91 A respondent from the fossil fuel industry felt that for residential customers, it is unlikely that they would have an infrastructure operator and that in the short term, data required should be whether a customer has an EV charge point. The same respondent felt there should be an obligation on the customer, charge point installer and suppliers of charging equipment to inform relevant electricity suppliers when a charge point is installed. The same respondent felt there should also be an obligation on electricity suppliers to monitor consumption profiles which would highlight cases of additional electricity demand. In this case, fleet / business customers should also be obliged to inform their electricity supplier when charge points are installed. In both cases, data should be shared with the DNO for the purposes of network planning.

Other views

- 3.92 A respondent from the consultancy sector felt that GHG credits should be awarded to all alternative fuels including bio-LPG, biomethane and hydrogen, and if such credits were not required for the FQD they could be counted by companies for their own GHG reporting to Defra.
- 3.93 A respondent from the vehicle manufacturing sector also felt the greater efficiency of an electric motor versus an internal combustion engine should be accounted for (and this view was also noted by a respondent from the NGO sector at question 40). They also felt that electricity should be included in the RTFO as well as the FQD.

- 3.94 A respondent from the vehicle manufacturing sector felt that the price of CO₂ must be sufficiently high to offset the administration costs. They suggested three options to ensure this:
- GHG reduction objectives must be sufficiently ambitious;
 - GHG credits from electricity should be double-counted; and
 - Fuel suppliers should be required to purchase a minimum number of GHG credits from electricity.
- 3.95 A respondent from the renewable energy sector suggested there needs to be a lifecycle analysis (LCA) methodology for electricity used in EVs. The same respondent flagged that an EV that does not use renewable electricity is as polluting as cars running on fossil fuel.

Government response

- 3.96 The Government considers both that placing obligations on a) actors other than electricity suppliers, and b) electricity suppliers to monitor consumption profiles, is beyond the scope of the FQD. However, we recognise the potential merit in these options for a scheme to reward the GHG saving from electricity used in vehicles, and will keep options under consideration for any potential post-2020 scheme.
- 3.97 We acknowledge comments received on expanding the definition of electricity supplier to include the charge point operator. However, a 'supplier' is defined in legislation as: 'the entity responsible for passing fuel or energy through an excise duty point or, if no excise is due, any other relevant entity designated by a member state'. The duty point for electricity occurs between the licenced electricity supplier and the end user. Therefore, electricity suppliers under the GHG regulations will be the same as licenced electricity suppliers administered by Ofgem. It is therefore not possible to extend the definition of electricity supplier to include charge point operators.
- 3.98 The greater efficiency of an electric motor compared to an internal combustion engine is reflected in the electric powertrain efficiency multiplier.
- 3.99 We consider that creating the proposed incentive to account for the GHG saving from electricity used in road vehicles is consistent with the legislation. We acknowledge the suggestions of double-counting GHG credits from electricity and creating a sub-target, but consider that to do so would provide an unwarranted incentive for electricity compared with biofuels. As such we consider that it would be more appropriate to consider such options for a possible post-2020 mechanism, depending on the contribution being made to GHG abatement by electric vehicles.
- 3.100 We consider that the lifecycle GHG emissions associated with electricity usage are already accounted for sufficiently in the Fuel Mix Disclosure.

4. Setting the buy-out level to incentivise greenhouse gas savings whilst minimising costs

Overview of consultation

- 4.1 In Chapter 4 of the consultation the Government proposed the introduction of a buy-out mechanism as part of the GHG obligation so that suppliers can pay a sum rather than redeeming GHG credits. It was explained that this would operate in a similar way to the buy-out under the RTFO and with the expectation that under normal market conditions suppliers would choose to deliver the required GHG reductions rather than pay the buy-out. The aim of the proposal was to offer protection for consumers should the costs of obtaining GHG credits be far higher than expected, thereby preventing very significant increases in fuel prices, whilst at the same time supporting a market for GHG credits.
- 4.2 With these policy aims in mind the Government sought views on the following:
- The proposed GHG buy-out price and the length of implementation of the obligation and buy-out (question 19),
 - Support for a buy-out mechanism or alternate proposals (question 20), and
 - Any other measures that might limit costs whilst ensuring suppliers meet their obligations to reduce the greenhouse gas emissions (question 21).

The responses to these questions are summarised below.

The buy-out price

Question 19 – Do you agree that a medium buy-out price of £74/tCO₂ is the best option (option 2b in the CBA)? This would limit the maximum impact of the GHG targets on 2020 pump prices to 0.42ppl (2015 prices).

Summary of responses

Total	Yes	No	Other
20	7	13	0

- 4.3 There was overall agreement to the principle of having a buy-out price set at a level which protects the consumer, encourages compliance through the redemption of GHG credits, and promotes investment in measures to reduce greenhouse gas

emissions. However, there were a range of views on the appropriate level of the buy-out with stakeholders proposing that it should be both lower and higher than the proposed option.

- 4.4 There were also two responses from fossil fuel suppliers which expressed concern over the availability of GHG credits issued for UERs to suppliers which are not part of an integrated oil company with an upstream (oil/gas exploration and production) forming part of their business.

Support for a lower buy-out

- 4.5 Four fossil fuel suppliers and their industry representative body commented that whilst it is hoped that market mechanisms in place both for the RTFO and GHG obligation will mean that no buy-outs will be necessary, the medium buy-out price of £74/tCO₂ was unrealistically high. This group argued for a lower buy-out price with a preference expressed for option 1a in the consultation. Option 1a was to set the buy-out price at £7/tCO₂ and have an obligation in 2020 only as opposed to over three years. It was suggested that the level of buy-out price in option 1a was consistent with current EU Emission Trading Scheme (ETS) prices to limit potential costs. It was also suggested that a lower buy-out price was needed to reflect the uncertainty over the availability of GHG credits from upstream emissions reductions (UERs). This group also argued that a lower buy-out price would allow for savings from UERs and that given our proximity to 2020 a higher buy-out price with a three year implementation would in any case have no benefit in supporting new UER schemes.

Support for the proposed medium level of buy-out

- 4.6 Support for a lower level of buy-out was not universally shared by all fossil fuel suppliers. Three indicated support for the medium buy-out level proposed and explained that in addition to needing to protect consumers from price spikes the buy-out price must also reflect that abatement costs are higher in the transport sector than in the ETS sector. Further that the aim is to reduce the carbon footprint of fossil fuels, mainly with sustainable biofuels, so a medium buy-out price seemed consistent.

Support for a higher buy-out level

- 4.7 A range of responses from suppliers of renewable fuels and the electricity sector argued that the medium buy-out price of £74/tCO₂ was too low – in total four responses with substantive comments. Concerns expressed by this group were that it would not drive investments in renewable fuels, support UER GHG credits or compensate suppliers, but would at best cover administration costs.
- 4.8 A number of alternative buy-out price options were put forward by this group. These were for a buy-out price:
- At the upper end and equivalent to Germany's valuation of €470/tCO₂e with adjustments made for the fact that the UK scheme is volume based.
 - Mirroring Sweden where there is a proposal to set a penalty at over €700/tCO₂ to ensure we achieve the environmental targets that are the aim of the legislation.
 - At a value of £146/tCO₂ to encourage compliance through acquiring GHG credits: this was the higher option for the buy-out price proposed in the consultation.

4.9 A number of other comments were raised on the functioning of the buy-out mechanism in response to question 19. These are included in the summary of responses to question 20 immediately below, which asked about the buy-out mechanism.

Government response

4.10 The consultation examined six different policy options to introduce a greenhouse gas emissions reduction obligation to support UK fuel suppliers in meeting their 6% GHG reduction target in 2020. As illustrated in Table 2 below the options differ based on the level of buy-out price, and whether a greenhouse gas obligation is set only in 2020 or over three years to 2020.

Table 2: Policy options to introduce a GHG emissions reduction obligation

Option	Buy-out price (nominal prices)	Implementation period	Max pump price impact in 2020 (undiscounted, 2015 prices)	Max policy cost (discounted, 2015 prices)
1a	£7/tCO ₂	1 year	0.03 ppl	£12m
1b	£7/tCO ₂	3 years	0.03 ppl	£13m
2a	£74/tCO ₂	1 year	0.42 ppl	£148m
2b	£74/tCO ₂	3 years	0.42 ppl	£166m
3a	£146/tCO ₂	1 year	0.84 ppl	£293m
3b	£146/tCO ₂	3 years	0.84 ppl	£327m

4.11 In considering these, and other options, our policy aim remains to set the buy-out price at a level that provides a commercial incentive to acquire GHG credits whilst protecting consumers from significant price rises at the pump. The buy-out price must be at a level that is cost effective in promoting the reduction of greenhouse gas emissions required by the a Fuel Quality Directive, whilst mitigating the risk that the 6% reduction in greenhouse gas emissions required by the Directive is missed.

4.12 The Government remains of the view that a £74/tCO₂ mid-range buy-out price achieves the right balance in delivering our policy aims.

4.13 There remains some uncertainty over the availability and price of GHG credits from UERs. Respondents have suggested that a buy-out price of £7/tCO₂ will do little to drive a market for GHG credits from UERs, or cover administrative costs of reporting these savings. No evidence was provided by respondents to suggest that a £7/tCO₂ buy-out price would be sufficient to drive any significant improvement in GHG savings attributable to biofuels.

4.14 It also remains our view that a low buy-out price will likely result in the 6% greenhouse gas emissions reduction target being missed given that the costs of carbon abatement in the transport sector are typically higher than other sectors.

4.15 Respondents suggested that given the lead in times associated with UER projects between now and 2020 the £74/tCO₂ mid-range buy-out price is unlikely to generate new investment in UERs. A higher buy-out price of £146/tCO₂ would not be able to address the issue of lead times. Over a longer period beyond 2020 a higher buy-out

price under the GHG obligation may do more to drive a market for UERs and other sources for GHG credits such as electricity, better biofuels and gaseous fuels. However, we are not at this stage setting targets under the GHG obligation beyond 2020 but propose to review the GHG obligation scheme alongside the RTFO.

- 4.16 Similarly, arguments were put forward that compared to other EU measures a £74/tCO₂ is lower and would provide less support for greenhouse gas reductions thereby increasing the risk that our targets would be missed.
- 4.17 The UK is proposing a different suite of measures from other member states. The UK's GHG obligation will operate in parallel with the RTFO which provides further incentives for renewable fuels. Both schemes will include a buy-out option to act as a cap on prices for the consumer should the costs of meeting the separate obligations be unsustainably high, and compliance with these two separate obligations will be underpinned by civil penalty powers. Any comparison with measures in place in other EU member states, and their valuation of carbon abatement costs, needs to be considered in this context.
- 4.18 Moreover, the Government is confident that setting the buy-out in line with the 'non-traded' carbon value, which is based on UK CO₂ emissions not covered under the EU ETS carbon trading system (e.g. transport sector and household emissions), represents a robust estimate of likely costs of meeting a greenhouse gas reduction obligation in the transport sector. A £74/tCO₂ mid-range buy-out price also better aligns the incentives provided through the GHG obligation mechanism with wider Government climate change policy, and provides assurance that the 6% target in the Fuel Quality Directive will be met cost effectively.
- 4.19 As explained in paragraph 1.33 in response to concerns from fossil fuels suppliers we no longer propose to set a GHG obligation to run for three years 2018-2020. Instead we will set an interim target in 2019 and 6% target in 2020. This will still allow industry to prepare and will mean that there will only be a potential for buy-out in 2019 and 2020.

The buy-out mechanism

Question 20 – Do you have any other comments on the proposed approach for a new separate GHG obligation buy-out mechanism? If you have an alternative proposal please set it out.

Summary of responses

Total	Yes	No	Other
10	8	2	0

- 4.20 Eight respondents had comments and alternative proposals with regards to the proposed approach to applying buy-out in the new GHG reduction obligation.
- 4.21 Five fossil fuel suppliers and one industry representative body expressed a preference for the GHG obligation to be lowered to account for the contribution that may be made nationally from electricity (this is covered in more detail at paragraph 3.18 of this Government response).

- 4.22 The same stakeholders considered that there should not be a ‘double buy-out’ under both the GHG reduction obligation and the RTFO scheme. It was argued there should be a credit to suppliers’ GHG accounts relative to the volume of fuel which has been bought out under the RTFO, and that the GHG credit rewarded for buy-out under the RTFO should be equivalent to a fixed percentage at a typical average level of GHG savings from biofuel within a range of 60-70%.
- 4.23 There were also four individual responses proposing alternate changes to the buy-out mechanism and the wider scheme with a view to either increasing the support for energy products capable of reducing greenhouse gas emissions or reducing costs. In summary these were for:
- A trajectory set to 2030 to mitigate GHG credit price volatility;
 - The inclusion of a mechanism for reviewing and adjusting the buy-out price as the scheme progresses, especially if the Government is to extend the scheme to 2030;
 - A mandatory minimum percentage of GHG credits issued for electricity that suppliers must redeem;
 - Double GHG credits for electricity;
 - A buy-out in 2020 only when the target is mandated by the Fuel Quality Directive, and no requirement to buy-out in 2018 or 2019.

Better ways to reduce costs

Question 21 – Is there a better way we could minimise costs whilst still achieving the policy objective?

Summary of responses

Total	Yes	No	Other
7	6	1	0

- 4.24 The bulk of responses to this question were covered in the summaries of responses to questions 19 and 20.
- 4.25 One further substantive additional response was received from a fossil supplier who urged the Government to ensure that scheme rules for UERs are published as soon as possible so that these alternate compliance mechanisms are available to obligated suppliers.

Government response

- 4.26 The Government does not agree that there should be a credit to a suppliers’ GHG account relative to the volume of fuel which has been bought out under the RTFO, or that the GHG credit rewarded for buy-out under the RTFO should be equivalent to a fixed percentage at a typical average level of GHG savings from biofuel within a range of 60-70%.

- 4.27 It remains our view that the GHG obligation is a separate requirement from a supplier's obligation under the RTFO, and that both must be discharged. Moreover, applying a GHG credit where the RTFO has been discharged through buy-out would put at risk the effectiveness of the GHG obligation, as there would potentially be a much reduced commercial incentive to meet the obligation by acquiring GHG credits.
- 4.28 The RTFO will increasingly be met through the supply of better biofuels. If any GHG credit for buy-out under the RTFO were to be linked to an average level of GHG savings this would also create perverse incentives. It would establish a precedent that suppliers who buy-out under the RTFO, and would not be meeting our targets for increasing renewable energy used in transport or greenhouse gas emissions reductions from the same, should potentially benefit from improvements and investments made and paid for by suppliers who do.
- 4.29 The experience gained from the GHG obligation scheme and the RTFO to 2020 will inform future decisions on the best method and type of scheme to cost-effectively incentivise future reductions in GHG emissions. We will therefore keep under review the possibility of moving fully from a renewable volume based scheme (i.e. the RTFO) to a GHG scheme post-2020. As part of that process we will consider other suggestions advanced by respondents to improve the market for GHG credits and if necessary to review the GHG buy-out price.
- 4.30 The requirements for UERs are set out in chapter 2 and will be reflected in the amended legislation. We will be consulting on draft guidance for suppliers on the GHG obligation mechanism, including rules covering applications for GHG credits for UERs, in advance of introducing the legislative changes proposed in this Government Response. Suppliers may also wish to consult the European Commission guidance note on approaches to quantify, verify, validate, monitor and report upstream emission reductions. This is available on the Commission's website at: https://ec.europa.eu/clima/policies/transport/fuel_en#tab-0-1

5. Civil penalties and revocation of greenhouse gas credits

Overview of consultation

- 5.1 In Chapter 5 of the consultation the Government proposed amendments to civil penalty powers within the GHG Reporting Regulations to allow the Administrator to ensure that the new GHG obligation is met, to deter fraud in respect of applications for GHG credits and to ensure the accuracy of new information to be reported by suppliers. The Government also proposed a revocation mechanism for GHG credits. This would be identical to that in the RTFO and would ensure that any problems with an application which may come to light after GHG credits have been issued can be dealt with by revoking GHG credits issued.
- 5.2 With these policy aims in mind the Government sought views on:
- The proportionality of the proposal to enable the Administrator to issue civil penalties (question 22),
 - A mechanism to withdraw GHG credits where it transpires that they should not have been issued (question 23), and
 - Any suggestions for alternative mechanisms to prevent rewarding UK fuel suppliers where GHG savings were not delivered (question 24).

The responses to these questions are summarised below.

Civil penalties

Question 22 – Do you have any views on the proportionality of the proposal to enable the Administrator to issue civil penalties to ensure the integrity of the proposed GHG obligation?

Summary of responses

Total	Yes	No	Other
12	10	2	0

- 5.3 Of those that provided substantive comments on the question of whether proposed changes to civil penalties powers were proportionate, five fossil fuel suppliers and their industry representative body argued that suppliers should be driven by the non-attractiveness of the buy-out and not by the threat of civil penalties. One fossil fuel supplier from this group also commented that as long as reasonable steps are taken,

the Administrator should be able to rely on third party data and a supplier should not be liable to receive a civil penalty notice (CPN).

- 5.4 Of the remaining three substantive responses, which included an NGO, fossil fuel supplier and representative body of fossil fuel suppliers, there was agreement that CPNs were needed to ensure the GHG obligation is met. They further supported the view that failure to have proper penalties in place would risk non-compliance with the target in the Fuel Quality Directive and that the proposal to mirror CPN powers in the RTFO was proportionate.
- 5.5 A fossil fuel supplier also noted that an upper CPN amount of 10% of turnover may be punitive but the lesser and more likely value of twice the GHG credit value would not be high enough. They suggested a CPN amount of twice the buy-out value.
- 5.6 In the cost benefit analysis that accompanied the consultation we also asked whether respondents had any evidence they would like to provide on the costs and benefits associated with the proposed changes to civil penalties (question 44 in the CBA).
- 5.7 We received no further evidence on potential costs. However, we received responses from five fossil fuel suppliers and their representative body suggesting no double penalty should be applied, so that should there be a failure in the RTFO which then causes a failure under the GHG reporting regulations this should be considered as a single penalty only. A further fossil fuel supplier welcomed the time limit and cut off point for revocation and suggested that if the penalty amount were to be twice the buy-out price then combined with the resulting obligation shortfall, which itself may attract a buy-out payment, this would be a substantial penalty.

Government response

- 5.8 The Government will proceed as proposed in providing the Administrator with powers to ensure the effective enforcement of the new GHG obligation commensurate to those available under the RTFO. These are necessary to ensure that the new GHG obligation is met, to deter fraud in respect of applications for GHG credits, and to ensure the accuracy of new information to be reported by suppliers. This will ensure a level playing field for obligated suppliers.
- 5.9 We would like to clarify that 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 GHG obligation buy-out. In any other case, the maximum civil penalty charge proposed is the lesser of £50,000 or 10% of applicable turnover.
- 5.10 The Government agrees the civil penalty amounts proposed, particularly when combined with buy-out payments, are potentially substantial amounts. The Fuel Quality Directive requires that infringements of national provisions adopted to transpose the Directive must be accompanied by penalties which are effective, proportionate and dissuasive. We believe that the measures proposed in respect of non-compliance meet these aims.
- 5.11 The civil penalty powers available to the Administrator of the scheme are currently used proportionately, and as is the case under the RTFO the use of such powers would continue to be discretionary and exercised on a case by case basis. As the powers are discretionary, and the GHG obligation and RTFO give rise to distinct and separate legal obligations, the Government will not be legislating to provide there can be no double penalty.

- 5.12 We would also like to clarify that the revocation deadline proposed in respect of GHG credits mirrors the approach in the RTFO where there is already a cut-off point that applies to the revocation of RTFCs.

GHG credit revocation

Question 23 – Do you agree that there should be a mechanism to withdraw GHG credits where it transpires that they should not have been issued, and that the mechanism should be the same as that used under the RTFO?

Summary of responses

Total	Yes	No	Other
15	8	7	0

- 5.13 Respondents were divided on whether they considered the Administrator should have powers to withdraw GHG credits in the case that it transpires they should not have been issued.
- 5.14 The seven responses against providing the Administrator with powers to revoke GHG credits came from six fossil suppliers and their industry representative body. These suggested that as obligated suppliers they do not have the knowledge to verify whether or not the GHG credits have been generated in the correct way and are limited by antitrust legislation from performing checks on the validity of GHG credit applications.
- 5.15 As a consequence this group argued they should not carry the financial risk associated with GHG credits potentially being revoked. In addition, one of these suppliers suggested that the Administrator should not be able to revoke GHG credits after the end of the GHG obligation period and that there should be proper checks in place within year to mitigate the need for late revocations.
- 5.16 The responses in favour of the proposals included an NGO, a consultancy, two fossil fuel suppliers, a representative body of fossil fuel suppliers, a supplier of fossil gaseous fuel and two renewable fuel suppliers. One fossil supplier offered a caveat in supporting the proposal that where Renewable Transport Fuel Certificates (RTFCs) are incorrectly issued in the first instance obligated suppliers who purchased these RTFCs should not be penalised where the fault lies with the supplier who initially applied for the RTFC.

Question 24 – If you disagree with this revocation proposal, please set out an alternative mechanism which prevents rewarding UK fuel suppliers where GHG savings were not delivered.

Summary of responses

Total	Yes	No	Other
7	7	0	0

5.17 Responses to question 24 were largely offered under question 23.

5.18 We received one further comment from a fossil fuel supplier that with the exception of deliberate misreporting, the Administrator should rely on the processes of recognised bodies undertaking verification. It was suggested that this would be in accord with paragraph 15 of the recital to the implementing Directive (EU2015/652). This states:

'It is appropriate for member states to allow suppliers to fulfil their reporting requirements by relying on equivalent data being collected pursuant to other Union or national legislation so as to reduce the administrative burden, provided that the reporting is conducted in accordance with the requirements set out in Annex IV and the definitions laid down in Annexes I and III.'

Government response

5.19 We will proceed as proposed in providing the Administrator with proportionate powers to revoke GHG credits. The powers are necessary to ensure the integrity of the new GHG obligation and effective enforcement of the scheme. As set out in the consultation we intend that the revocation mechanism will be identical to that used under the RTFO, so will include a similar two stage appeal process and the use of civil penalties will be targeted at instances where inaccurate information is provided.

5.20 The Government notes the concerns of six fossil suppliers and their industry representative body that they will assume some financial risk associated with GHG credits they acquire to meet the obligation, and that some have suggested they lack the capability to check the validity of GHG credit applications. We would expect that fossil suppliers will mitigate such risks in the contractual arrangements they make with those from whom they acquire GHG credits.

5.21 Whilst the Administrator will need to be able to revoke GHG credits after the end of the GHG obligation period we will ensure that there are proper and proportionate checks in place within year to reduce the likelihood of such revocations. The timings for discharging the GHG obligation will align with those in the RTFO, there will therefore be a short window of opportunity to acquire surplus GHG credits after the obligation year finishes should GHG credits be revoked later in the year.

6. Eligibility of fuels

Overview of consultation

- 6.1 The consultation outlined proposals to stimulate novel renewable fuel options by supporting aviation fuels, aligning the treatment of hydrotreated vegetable oil (HVO) under the GHG Reporting Regulations with treatment of another form of biodiesel, and extending the scope of the GHG Reporting Regulations to include renewable fuels of non-biological origin (RFNBOs).
- 6.2 The consultation also set out our approach to preventing double reward of the same renewable fuel.

Aviation fuels

Consultation proposal

- 6.3 Aviation is a sector with limited options to decarbonise. The sector is pursuing a range of practical measures to grow sustainably to avoid increases in carbon emissions. The UK supports a global agreement on a market-based measure at the International Civil Aviation Organisation (ICAO) as the most effective way of addressing the growth in aviation emissions. However, other measures, including the use of renewable fuels, are likely to be required if aviation is to make a significant contribution towards reducing emissions.
- 6.4 As a step towards encouraging the use of renewable fuels in aviation, we proposed to reward sustainable renewable aviation fuels under the GHG scheme. Suppliers would be able to claim GHG credits for these fuels. The fuel would be subject to the same sustainability criteria as other renewable fuels, and those which do not meet that sustainability criteria would not receive a reward.
- 6.5 Both types of aviation fuel were proposed for inclusion:
 - Aviation turbine fuel (avtur) used in jet and turboprop aircraft; and
 - Aviation gasoline (avgas) also known as aviation spirit in the UK, used in spark-ignited piston engines.

Question 25 – Do you agree that renewable aviation fuel should be eligible for reward under the GHG obligation scheme?

Summary of responses

Total	Yes	No	Other
22	18	4	0

- 6.6 The majority of respondents agreed with this proposal, recognising the potential to reduce emissions in a sector that has limited alternatives in the foreseeable future. Those opposed thought that an alternative global scheme was more appropriate and wanted to see the aviation industry bear the costs of decarbonisation in the sector.
- 6.7 Of the 18 responses in support of this proposal these comprised 12 fossil fuel suppliers/producers including representative bodies, five renewables suppliers/producers including representative bodies, and one NGO.
- 6.8 Key reasons for supporting the proposal were that:
 - It would be a key to enabling deployment of renewable fuels in a sector with no other alternatives in the foreseeable future;
 - Eligibility could widen the pool of potential investors in sustainable advanced fuels to deliver increased energy security, industrial growth, skills and jobs.
- 6.9 We received three responses opposing the inclusion of sustainable renewable aviation fuel in the GHG scheme, one each from the renewables sector, fossil fuel supplier/producer and an NGO. The reasons for opposing inclusion were that:
 - Aviation fuel is not included in the target set by the Directive;
 - As the industry is not on a level playing field compared to road transport with regards to taxation, it should not benefit from multiple rewards compared to other modes under the scheme; and
 - The cost should fall directly on the aviation sector.
- 6.10 Whilst supporting the proposal, concerns were raised by an NGO regarding accounting for the fuel. These were that:
 - Savings from international flights should not be eligible under the Climate Change Act without triggering the relevant provisions in the Act;
 - There is a risk of multiple counting across different emission saving schemes, such as the EU’s Emission Trading Scheme.
- 6.11 Although responses from fossil fuel sector supported the proposal, most of the respondents expressed the view that marine fuel should also be included, and one also requested that low carbon fossil fuels for aviation be made eligible.
- 6.12 Support from the renewables sector noted the potential support to enable development of fuels in a sector that has few alternatives to reduce emissions in the foreseeable future.

Government response

- 6.13 The Government welcomes support for this proposal and sustainable renewable aviation fuels will be eligible for reward under the GHG scheme when the changes are implemented.
- 6.14 The Government's view is that only sustainable fuels should be rewarded and fuels will have to meet the same sustainability criteria as other fuels eligible under the scheme. Note that any unsustainable renewable aviation fuels will incur an obligation under the parallel RTFO scheme and we consider that this will be effective in discouraging the supply of such fuels.
- 6.15 The Government will keep the suitability of the certification point under review to ensure it remains appropriate in the light of experience and developments with international methods, particularly the ICAO process.
- 6.16 At this point we do not intend to bring maritime fuels into scope of the RTFO. This is because there is not yet international agreement on how the shipping sector should decarbonise and there may be better alternatives for decarbonising shipping. There is a finite resource of biofuel feedstock and we need to make sure that it is allocated most effectively. As with the inclusion of aviation fuel, specific administrative measures would also need to be developed as maritime fuel is not subject to the road fuel duty system which the RTFO/GHG Reporting systems utilise to minimise the regulatory burden on industry. We will however keep this under review as the International Maritime Organisation develops its carbon reduction strategy.
- 6.17 We note the potential for low carbon fossil fuels in aviation. Whilst these are outside the scope of the GHG target (in line with the FQD) they are eligible for support under the Future Fuels for Flight and Freight Competition.
- 6.18 The issue of taxation is beyond the scope of this consultation. We expect support to lead to investment by the aviation industry in the production of renewable aviation fuels and to directly contribute to decarbonisation.
- 6.19 The Government considers international agreements essential in reducing emissions from aviation, and is working with international partners, such as ICAO, to address this global issue. However, there is no reason to wait for them to be finalised before providing support at a national level as the fuels are available and other countries have already begun to support them.

Inclusion of non-biological renewables, including hydrogen

Consultation proposal

- 6.20 We proposed bringing renewable fuels of non-biological origin (RFNBOs) – such as renewable hydrogen – into the scope of the GHG Reporting Regulations, making them eligible for GHG credits and subject to the reporting requirements. This is because:
- RFNBOs can provide a contribution towards decarbonisation of the transport sector and therefore suppliers' GHG targets;
 - This contribution can be done sustainably given the potential for these fuels to deliver high GHG savings with a low risk of ILUC or competition with food; and

- Policy support is needed now to help bring them to market and encourage investment and further development.

6.21 In line with all other fuels, we proposed to allow GHG credits for RFNBOs where GHG savings are delivered that are below the GHG target level. These savings will need to be verified. If the savings cannot be verified we will assign the RFNBO a GHG intensity of the equivalent fossil fuel.

Question 26 – Do you agree that we should include renewable fuels of non-biological origin, including hydrogen, under the GHG Reporting Regulations thereby making them eligible for GHG credits and subject to the reporting requirements?

Summary of responses

Total	Yes	No	Other
18	18	0	0

6.22 Eight fossil fuel suppliers and two related industry associations affirmed that RFNBOs are allowed by the FQD implementing measure. Furthermore, one of these added that the inclusion of RFNBOs was functional to maintaining consistency with the RTFO Order.

6.23 A gas industry representative body highlighted that it is important that Government does not ‘pick winners’ amongst renewable transport fuels, but instead supports the development of many different types of fuels.

6.24 A series of points were raised concerning the checks that Government should put in place throughout the validation process:

- **For renewable hydrogen** – Clear validation procedures should be set out to allow the Administrator to identify the manufacturing pathway of the rewarded RFNBO, satisfying themselves that it is from a non-biological (but renewable) source throughout. Moreover, double counting should be avoided if the hydrogen is produced using renewable electricity from a biological source – which may already benefit from Government support or have received GHG credits.
- **For fossil hydrogen** – Appropriate checks and systems should be in place to ensure that hydrogen suppliers do not claim more GHG credits than they are entitled to.

6.25 An independent advisory body supported the inclusion of RFNBOs in the GHG scheme, subject to reporting requirements and sustainability requirements.

6.26 One consultancy affirmed that it would be better if hydrogen was subject to a small, symbolic fuel duty rate, so that it would be aligned to existing schemes and practices of reporting and also set up for future fuel duty provisions. This respondent considered that this small duty rate would not affect sales.

6.27 Finally, one NGO recognised that, in limited circumstances, fossil fuels can be combined with advanced technologies to deliver environmental benefits, and affirmed that these should be supported via the GHG scheme. This respondent also added that support for such technologies should be proportionally increased in the GHG scheme if these are not already rewarded under the RTFO.

Government response

- 6.28 Given that all respondents supported the inclusion of RFNBOs in the GHG Regulations we will proceed to do so.
- 6.29 RFNBOs will be subject to the same level of verification as biofuels to ensure they receive the appropriate number of GHG credits when they deliver GHG savings below the target. The verification should ensure that the energy input is renewable (or that volumes are adjusted accordingly for partially renewable fuels) – further detail will be covered in guidance.
- 6.30 Matters related to fuel duty are the responsibility of HMT.
- 6.31 Further detail on RFNBOs is provided in the Government response to the parallel RTFO consultation.

7. Supplier reporting requirements

Overview of consultation

- 7.1 The consultation outlined proposals to implement new supplier reporting requirements. For fossil fuel, new information is required on the origin of the crude and the place of purchase of the fuel, and GHG reporting by fuel type. For biofuel derived from crops, data is now required on ILUC emissions. These data will improve transparency on GHG emissions from the UK fuel mix.
- 7.2 We asked for views on:
- Our proposed reporting requirements including whether there are examples of situations where origin and place of purchase data are not available;
 - The proposed enforcement powers;
 - Simplified reporting requirements for small and medium enterprises (SMEs); and
 - Aligning the reporting deadlines for the GHG reporting obligation with those in the RTFO.

Reporting origin and place of purchase and origin data

- 7.3 We proposed to require fuel suppliers to report on:
- The origin or source of the crude oils used to make their fuels (i.e. the feedstock trade name (FTN) or marketable crude oil name); and
 - The place of purchase of the fuel being supplied (i.e. the country and name of the processing facility where the fuel was refined).
- 7.4 Reporting this information will improve transparency on sources of oil used to make fuel supplied in the UK and the EU. The combination of this information with existing data on greenhouse gas emissions associated with the production of the different crude oils will allow for better monitoring of the carbon intensity of fuels consumed in the UK and the EU.
- 7.5 Please note, for biofuel suppliers 'origin' means the biofuel production pathway, and 'place of purchase' means the country where the feedstock originated from. This data is already collected through the current RTFO and GHG Regulations.

The overall approach to capturing place of purchase and origin data

Consultation proposal

7.6 We proposed to provide an exemption from reporting requirements where suppliers are not in possession of certain data and are unable to obtain it. These data include the FTN, the knowledge of the EU / non-EU origin of the crude, and/or data on the place of purchase.

Question 27 – Do you agree with our proposed proportionate approach underpinning the GHG reporting requirements? This means that suppliers are exempt from the requirements if they do not have data on the FTN, whether the crude is of EU/non-EU origin, and/or the place of purchase.

Summary of responses

Total	Yes	No	Other
15	12	3	0

Support for the proposed exemptions

- 7.7 Of the fifteen respondents, twelve supported our approach to exempt suppliers from GHG reporting requirements where data is not available. These comprised eight fossil fuel suppliers and two of their related industry associations, a gas industry representative body and a consultancy.
- 7.8 However, four of these were of the opinion that where an obligated supplier chooses to report 'unknown' they should demonstrate that they have tried to obtain the relevant information.
- 7.9 Furthermore, one fossil fuel supplier asked the Department to clarify expectations regarding sourcing the data; i.e. if reasonable endeavour would be sufficient for reporting purposes. They suggested that such guidance can then be included in relevant contracts when purchasing products.

Support for no exemptions

- 7.10 An NGO was concerned about the proposed exemptions, as it is unclear as to how the Government could ensure that obligated suppliers comply with the reporting requirements. Furthermore, a renewable fuel supplier argued that there should be parity of treatment for biofuel and fossil fuel suppliers alike, and therefore the proposed exemptions to reporting requirements are unacceptable.
- 7.11 Finally, whilst agreeing with our overall approach, a consultancy specified that this should not be exploited by obligated suppliers in order to prevent transparency on the GHG emissions of their fuels.

Other comments

- 7.12 Three respondents in the fossil fuel sector had concerns related to the release of the information due to commercial sensitivity of the data. Two of these recommended that strict confidentiality on this data is established by the Administrator, and that public reporting at member state level should be avoided, limiting it instead to the EU level. One commented that if confidentiality is not assured, the mandatory release of these information might have a negative impact on the attractiveness of the UK fuel market, leading to increases in the pump price.
- 7.13 A fossil fuel supplier asked for further clarification on the methodology for allocation of data to crudes and fuels supplied, a practice based on the mass-balance system currently adopted for biofuels. In particular, regarding whether reporting should cover the crudes *processed* by the refinery at a particular year, or the crudes *imported* by the refinery during the same year. As a solution, the supplier suggested to adopt the latter approach as it avoids a complex reporting burden on refiners.
- 7.14 Some respondents suggested other ways to ensure full traceability while minimising burdens. Five fossil fuel suppliers affirmed that the only way the Government will increase visibility on crude oil carbon emissions will be if these reporting requirements are imposed on refiners and not on suppliers. One fossil fuel supplier referred to existing legislation which already places reporting requirements on refiners, to examine how to best improve the collection and transparency of the oil supply chain in a way that minimises burdens on suppliers.

Government response

- 7.15 We are pleased that a majority of respondents supported our approach.
- 7.16 The Government noted the concerns raised on the proposed exemptions by respondents affirming that these may reduce compliance. However, as proposed in the consultation document, obligated suppliers will only be exempt from the reporting requirements if they cannot access information on origin and/or place of purchase: not being in possession of the relevant information is not enough, in itself, to be exempted.
- 7.17 Therefore, we will also require suppliers to take reasonable steps to access the information to be reported. Guidance on which reasonable endeavours obligated suppliers need to undertake to satisfy this requirement will be provided in due course.
- 7.18 We note the concern that our proposed exemptions hinder the parity of treatment amid renewable and fossil fuel suppliers and we consider that fossil fuel suppliers should make efforts to obtain this data. However, the oil supply chain is complex, oil is often mixed along the supply chain and/or traded between economic operators, and information on origin and place of purchase may not be available or may not be passed down the supply chain because of commercial confidentiality.
- 7.19 Clarification on the other points raised by stakeholders is set out below.
- 7.20 In relation to concerns raised on the commercial sensitivity of the requested data, the Government wishes to clarify that it will ensure confidentiality in the reporting process. The Government may publish anonymised aggregated data as is already done with the RTFO statistics.
- 7.21 We recognise that a system of allocation of data to crudes and fuel supplied will be necessary and further details on how this will operate will be set out in guidance.

7.22 We note the suggestion from fossil fuel stakeholders to impose the reporting requirements on refiners instead of suppliers. Furthermore, the Government is aware that the Commission intend to move these requirements to refiners and that they have undertaken the first steps in this direction.⁷ However, at this stage this is only a proposal and is therefore subject to change. We are legally obliged to transpose the current supplier reporting requirements as originally outlined in Directive 2015/652. Nonetheless, we hope to use the evidence gathered as a part of this consultation to inform our thinking as to whether any future changes to the supplier reporting provisions will be needed after we have left the European Union.

Origin and place of purchase data availability

Question 28 – Do you envisage any situations where origin data will not be available and/or cannot be reported? If yes, please provide details about these situations and why the data could not be reported.

Summary of responses

Total	Yes	No	Other
14	12	2	0

7.23 Seven fossil fuel suppliers and two of their industry associations, one fossil gas supplier and one related industry representative body, and one consultancy provided examples of situations where origin data will not be obtainable. However, one respondent – a renewable fuel supplier – did not envisage origin data being unobtainable.

Instances in which origin data may not be accessible

7.24 Seven fossil fuel suppliers and one of their industry representative bodies agreed that the main reason for which the origin data cannot be established is because it is often not disclosed due to its commercial value. These respondents affirmed that, where they can report it, origin data will be available to the RTFO Unit in confidence and on the basis that it will be not publicly disclosed except on a UK aggregated basis only.

7.25 Fossil fuel suppliers and producers provided examples of where origin data will not be available and/or cannot be reported:

- When the information is not divulged in cases where petroleum cargoes are bought and sold whilst the ship is in transit;
- In the event of crude arriving from source ports, such as Primorsk, Russia, where products are stored together, or blended with products from multiple refineries. These crudes are bought on specification and quantity only, with no reference to the source refinery;
- In some cases FTNs will not be included in the list of FTNs in Annex I of the Directive i.e. in the event of suppliers processing ‘pre-production’ fuels, on which

⁷ Please see the Commission proposal for a Regulation on the Governance of the Energy Union (COM (2016) 759 final, Article 49 and Article 40).

well-testing is being undertaken, and when new crudes enter the market. In this instance respondents suggested that the Government adopts a process to capture new crudes as soon as possible after the production start-up.

- When blended crude is exported as part of a contingency plan because of refinery disruption, and not a planned commercial operation, in which case the FTN may not be traceable.
- In the case of local UK crude sources, such as truck-supplied crude from small inland sources, these may not be captured in the FTN list.
- When crudes are purchased against an assay,⁸ which may be taken from UK or non-UK storage facilities, and may be a blend of various crudes which may not be reported to the buyer.
- Some importing refineries run atmospheric residues (ATR)⁹ on their crude distillation unit, blending it with other crudes. This ATR would not be captured in the FTN list.
- Finally, in the case of LPG fuel suppliers, one gas industry representative body commented that reporters will not have data on the FTN, nor whether the origin is EU/non EU, because the majority of LPG in the UK is sourced from UK refineries. This respondent requested specific clarification for these downstream reporters in the Government response.

Other responses

- 7.26 One renewable fuel supplier was of the opinion that there should be parity of treatment for biofuel and fossil fuel suppliers, and therefore no exemption to reporting requirements should be provided.
- 7.27 A fossil fuel supplier also underlined the importance of adopting consistent, industry-wide methodology to support effective reporting.

Government response

- 7.28 Please see Government response to question 29 below.

Question 29 – Do you envisage any situation where data on the place of purchase will not be available and/or cannot be reported? If yes, please provide details about these situations and why the data could not be reported.

Summary of responses

Total	Yes	No	Other
15	11	4	0

⁸ Crude oils are different: each one has its own unique molecular and chemical characteristics. Crude oil assay testing consist of chemical analysis of FTNs by petroleum testing laboratories, and providing hydrocarbon analysis data for refiners, oil traders and producers on particular crude oils.

⁹ Atmospheric distillation is performed under atmospheric pressure to separate various cuts of hydrocarbons. The petroleum products obtained from the distillation process are light, medium, and heavy naphtha, kerosene, diesel, and oil residue.

- 7.29 Those envisaging situations where place of purchase data cannot be reported included seven fossil fuel suppliers, a fossil fuel industry representative body, one fossil gas supplier and a related industry association, and a consultancy. These respondents thought that information on the place of purchase (the name of the processing facility where the fuel underwent the last substantial transformation, i.e. was refined) is largely unknown for products imported into the UK.
- 7.30 However, another fossil fuel industry representative body, a fossil fuel supplier and a renewable fuel supplier are of the opinion that data on the place of purchase should always be available.

Instances where place of purchase data may not be accessible

- 7.31 Compliance with the place of purchase requirement is, in particular, considered challenging. Respondents raised commercial confidentiality as one of the reasons for which place of purchase data may not be disclosed. In addition, the intrinsic operational and structural complexities of the major hubs where oil products are bought make transfer of this data difficult. Examples include:
- **Diesel purchased from Primorsk, Russia:**

Primorsk hosts a complex system of pipelines and storage facilities, and is serviced by a common pipeline used by all refiners to transport their products into storage for onward dispatch by sea. Respondents argued that as each refinery dispatches their product into a common pipeline, there is no means of separation. Traders operating at the port will then transport the diesel by sea with their own vessels, or sell directly to other traders who use their own vessels, with the consequence that a UK refiner/importer may purchase the product from a trader further along the supply chain, reducing the likelihood that place of purchase information is available.
 - **Diesel purchased from ARA (Amsterdam – Rotterdam – Antwerp):**

The ports in this region receive and store oil products from the EU and across the world including the Far East, Middle East, Russia, South America and the US. This area is, respondents argue, a 'blending pot' of global refined products, which are then sold by traders for destinations around Europe. Respondents maintain that a UK supplier/refiner would be able to comply with the place of purchase requirements only if they are able to buy directly from a refiner who has shipped and stored their own products there, or from a trader who has purchased products from one refiner. In all other cases products are blended in the trader's storage prior to onward sale.
- 7.32 Concerning LPG, one fossil gas supplier and one related industry association thought that if place of purchase means the entity with which the contract to supply the fuel is made, then in the vast majority of cases this would be UK refineries. However, these LPG stakeholders argued that they should be formally exempted from reporting requirement since:
- Different sources of LPG are generally mixed in the supply chain;
 - Road fuel gases offer environmental benefits;
 - The proportion of LPG used in road transport and NRMM is small relative to its other uses.

Other responses

- 7.33 A fossil fuel supplier suggested that full coverage may be achievable if the provision of certificates of origin for non-CSO¹⁰ (Compulsory Stocking Obligation) obligated component products is included in the GHG Regulation. This respondent also underlined that CSO obligated imports of fossil fuel are accompanied with certificates of origin confirming point of refinery, and affirmed that this information is already reported to the Department for Business, Energy and Industrial Strategy (BEIS).
- 7.34 Furthermore, a fossil fuel industry representative body argued that information on place of purchase should always be available:
- In the case of cargoes bought in the open sea, the vessel should still be carrying a bill of lading from the loading point; and
 - In all other cases the load port is transparent on any direct deals.
- 7.35 Finally, one renewable fuel supplier repeated comments already reported at paragraph 7.30.

Government response

- 7.36 Our policy aim is to obtain as much information as possible on GHG emissions from road fuels, and we expect suppliers to take reasonable steps to access this information. However, we are aware of the complexities of the oil supply chain, and a significant number of respondents provided examples of where origin and place of purchase data may not be available and therefore cannot be reported. This is why, as set out in the response to question 27, the Government will introduce exemptions for suppliers who do not have access to the required information.
- 7.37 Clarification regarding other points raised by stakeholders is set out below.
- 7.38 The Government highlights that suppliers of non-CSO obligated products will be included in the GHG Regulations if they meet the relevant legislative requirements. We do not consider that the existing reporting to BEIS for CSO obligated imports of fossil fuels fulfils the reporting requirements of Directive 2015/652.

Verification of the information supplied

Consultation proposal

- 7.39 To ensure that the data reported by suppliers is accurate, direct examination of evidence by the Administrator may be sufficient. However, in some instances it may be necessary to require independent assurance (verification) of this data to ensure its accuracy. We therefore proposed to extend the powers of the Administrator to include the ability to require independent assurance of the data submitted by a supplier.
- 7.40 We envisaged that this independent assurance would be as similar as possible to the verification of sustainability information already required under the RTFO, and

¹⁰ The UK holds emergency stocks of oil and refined products to release to the international market in the event of a supply disruption that requires a market intervention to bridge the gap in supply. Currently, the UK is party to two international oil stocking agreements, one from the International Energy Agency (IEA) and one from the European Union (EU). For further information please see: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301957/Government_Response_to_CS0_consultation_FINAL_08042014.pdf

therefore that it would be carried out using the assurance standard ISAE 3000. As the data being submitted is independent of, and therefore does not affect, a supplier’s obligation, we believe that the lower limited level of assurance is sufficient.

Question 30 – With regards to the verification of the information supplied, do you have any comments on our proposal to provide the Administrator with powers to require independent assurance (verification) of the data, where necessary?

Summary of responses

Total	Comments
15	15

7.41 Fifteen stakeholders provided comments. Of these respondents, five agreed with our proposal. However, six stakeholders highlighted that data already provided to BEIS should be used as part of the verification of the information supplied. Four other respondents made alternative proposals.

Support for the introduction of independent assurance (our proposal)

7.42 Two renewable fuel suppliers and one related industry association, alongside one NGO and one consultancy, agreed with our proposal to introduce new powers of verification for the Administrator. These respondents affirmed that these powers are essential and that they will ensure that the right level of verification is applied.

Support for lower level of verification and other proposals

- 7.43 Six fossil fuel suppliers and one related industry representative body did not agree with our proposal since they already supply information on the origin of imported crude oil to the Department for Business, Energy and Industrial Strategy (BEIS).
- 7.44 One fossil fuel supplier argued that direct examination of evidence will be sufficient in all cases. Another fossil fuel supplier argued that, instead of independent assurance, it would be better if the Administrator has the right to audit records held by suppliers and to require suppliers to retain all records for a set period.
- 7.45 One fossil fuel supplier suggested that if the Administrator intends to verify the place of purchase against fuel supply into the UK road market, then a similar mass balance reporting model to biofuels will be necessary. Nonetheless – they argued – as there is no incentive to increase the reporting of actual data this is unlikely to be supported by suppliers as it would increase costs and resources without competitive advantage.
- 7.46 Finally, whilst not disagreeing in principle with our proposal, another fossil fuel industry association asked for clear guidelines.

Government response

7.47 The Government is pleased that there was support for the proposed powers for the Administrator to require independent assurance (verification) of the reported data. It

will therefore implement the proposal for requiring a limited level of assurance as outlined in the consultation document.

- 7.48 We have carefully analysed the consultation responses, and we remain of the opinion that direct examination of data may not be sufficient for all cases. Furthermore, whilst the Administrator would have the power to check records we do not consider it proportionate to do so in all cases and will adopt a risk-based approach.
- 7.49 Finally, we agree with the suggestion to introduce a methodology for allocation of data. As set out in the response to question 27, an explanation of the system of allocation of data to crudes and fuel supplied will be detailed in the guidance, to be published in due course.

Simplified requirements for small and medium-sized enterprises (SMEs)

Consultation proposal

- 7.50 In order to help reduce administrative burden, Article 3(4) of the FQD 7a implementing measure provides a simplified method for SMEs reporting data on origin and place of purchase. SMEs are only required to report on whether the fuels being supplied are either 'EU' or 'non-EU' irrespective of whether they import crude oils or they supply petroleum oils and oils obtained from bituminous materials.

Question 31 – Do you have any comments on the proposed application of the simplified reporting requirements for small and medium-sized enterprises?

Summary of responses

Total	Comments
8	8

- 7.51 We received comments from seven fossil fuel suppliers and one related industry representative body.
- 7.52 Seven of these respondents (six fossil fuel suppliers and one industry association) were of the opinion that the principles to be adopted by the reporting regulations should be the same for all suppliers, regardless of their size. One respondent argued that where this data is reported to the Government by SMEs for other purposes, the requirement to report on origin should be at the same level as that imposed on larger suppliers, to ensure consistency for suppliers into the UK.
- 7.53 Another fossil fuel supplier agreed that the proposed requirements should apply equally across the duty point to ensure consistency for suppliers into the UK.
- 7.54 One fossil fuel supplier, however, commented that the proposed simplified reporting requirements for SMEs appear reasonable and in line with the requirements of FQD 7a.

Government response

7.55 We consider that the introduction of simplified reporting requirements for SMEs will be necessary to ensure a level playing field in the UK fuel market, and avoid the new administrative obligation placing smaller businesses to a comparative disadvantage.

Aligning the RTFO and Greenhouse Gas Reporting Regulations deadlines

Consultation proposal

- 7.56 We proposed to align as far as possible the deadlines for supplier reporting and those related to the discharge of the new GHG obligation with those in the RTFO. Our aim is to prevent any additional administrative burden on suppliers from having to report data on two non-aligned obligation periods. We proposed to run both schemes on a calendar year basis.
- 7.57 In the RTFO consultation – which ran in parallel to this consultation – we asked for views on moving the RTFO from the current April to April obligation period to one that operates on a calendar year. This proposed change means that some of the reporting deadlines for the RTFO move to an earlier date (without shortening the time period for suppliers to report information or comply with the legislation). It therefore makes sense to move some of the reporting deadlines in the GHG Regulations.

Question 32 – Do you agree that the reporting deadlines proposed for the GHG obligation should align with those in the RTFO?

Summary of responses

Total	Yes	No	Other comments
14	13	1	0

- 7.58 All respondents except one supported our proposal to align the reporting deadlines for the GHG obligation with those in the RTFO.
- 7.59 Seven fossil fuel suppliers, two of their industry representative bodies and one gas industry association were of the opinion that our proposal will simplify the administration for obligated fuel suppliers and reduce administrative burdens.
- 7.60 The gas industry representative body also affirmed that our proposal would make the linkage between the two schemes clearer.
- 7.61 However, four fossil fuel suppliers and one of their industry associations argued that this proposal would not resolve the issue of aligning the duty period reporting which runs mid-month to mid-month. These respondents noted that volumes reported in December/January should be allocated to the appropriate calendar year by the RTFO Unit rather than the obligated supplier.

Government response

7.62 We are pleased that the majority of respondents supported our proposal, and will therefore implement it. We will adopt the pragmatic approach of regarding a proportional (50:50) split of the volume as accurate unless evidence is submitted to the contrary. Such approach is currently applied every year for calendar month/calendar quarter duty payers where HMRC reporting periods straddle the end of an obligation period (on the 14th of April) and for mid-month reporters where a change to the RTFO criteria has occurred mid-HMRC reporting period (for example with the change in GHG saving threshold on 01/01/2017). We will also consider whether IT system developments can be made to facilitate this process.

8. Reviewing the Greenhouse Gas Reporting Regulations

Overview of this parallel consultation

- 8.1 Regulation 26 of the GHG Reporting Regulations requires the Secretary of State to review the Regulations, assess the extent to which they have achieved their objective and publish a report of the findings no more than five years after they have come into force. As the Regulations came into force on 1 January 2013, this report is due by 31 December 2017.
- 8.2 As we proposed significant amendments to the Regulations we chose to discharge the current duty on the Secretary of State under Regulation 26 through the consultation. Questions 33–40 sought the views of, and evidence from, stakeholders in order to complete this review.
- 8.3 The questions were about the impact on suppliers of the Regulations, i.e. the costs and burdens placed on suppliers, the operational changes made as a result of the Regulations, and the uses made of the data collected on the greenhouse gas intensity of fuel supplied.
- 8.4 We will conduct the next review within five years of the revised Regulations coming into force.

Government response to this consultation

- 8.5 The responses to this separate parallel consultation are still under review, and our response will be published in due course on GOV.UK.

9. Next steps

- 9.1 The Government thanks stakeholders for their responses to this consultation, as well as for their engagement during the development of it. The evidence provided during this consultation has been beneficial in helping us to finalise our policy proposals across the areas consulted on for this legislation.
- 9.2 We will introduce legislation to amend the Motor Fuel (Road Vehicles and Mobile Machinery) Greenhouse Gas Reporting Regulations 2012 at the earliest opportunity.
- 9.3 We will continue to engage with stakeholders as we take the legislation through Parliament and finalise guidance on its operation to support its implementation and their preparation for it.



Department
for Transport

Annex A

Cost Benefit Analysis

Amendments to the Motor Fuel Greenhouse Gas Emissions Reporting Regulations

Moving Britain Ahead

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1. Executive summary

- 1.1 Article 7a of the Fuel Quality Directive (FQD) requires transport¹ sector fuel suppliers in EU member states to reduce the average lifecycle GHG intensity of transport fuels by 6% in 2020 (which equates to a GHG reduction of 9.9 MtCO_{2e} per year in 2020). Fuel suppliers have a number of options for meeting this target including biofuels, low carbon fossil fuels and emissions reduction in 'upstream' oil production (e.g. reduced flaring and venting of methane which is often released as a co-product alongside oil).
- 1.2 In order to comply with the requirements of the Fuel Quality Directive, the Government consulted on options for the introduction of a GHG reduction obligation on transport fuel suppliers, with a certificate trading mechanism.
- 1.3 The public consultation, which ran from 29 November 2016 to 22 January 2017, considered a range of potential policy options of which the key considerations for the cost-benefit analysis were the buy-out price level and GHG target implementation period. Following consideration of stakeholder responses the Government has opted to implement a GHG target over two years (2019 and 2020) with a buy-out price of £74/tCO_{2e}.
- 1.4 The buy-out is a charge fuel suppliers can opt to pay as an alternative means of compliance. This has been set at £74/tCO_{2e} and is intended to cap-fuel prices and protect consumers should the cost of delivering the GHG reductions become unsustainable. This level is considered sufficient to support a wide range of compliance measures including GHG credits from existing upstream emissions reduction (UER) projects and improved biofuel GHG savings. £74/tCO_{2e} is the central 2020 'non-traded' carbon value (in 2020 prices) which should also ensure consistency with wider Government climate policy.
- 1.5 A two year implementation period for the GHG target, with an interim target in 2019, would allow industry to prepare, encourage investments in producing and/or sourcing low carbon fuels, and provide sufficient time to resolve any issues with the scheme, ahead of the binding 2020 target. It would also provide evidence for officials to assess whether it would be beneficial to extend targets beyond 2020.

Table 1: cost-benefit analysis summary (central RTFO scenario, 2015 prices)

Net present cost (£m)	Maximum 2019 pump price impact (ppl)	Maximum 2020 pump price impact (ppl)	GHG savings (MtCO _{2e})	Net present benefits (£m)	NPV (£m)
0.3 to 177	0.05 (0.04 excluding VAT)	0.44 (0.37 excluding VAT)	0 to 3.0	0 to 176	-177 to 162

¹ Fuels used to propel road vehicles, non-road mobile machinery (including inland waterway vessels when not at sea), agricultural and forestry tractors, recreational craft when not at sea and electricity for use in road vehicles are included in the scope of the FQD.

- 1.6 The costs and benefits associated with this policy are highly uncertain due to uncertainty around what measures suppliers will use to meet their obligations and the cost of these measures. Therefore, wide ranges of costs and benefits have been presented in this analysis.
- 1.7 The maximum potential cost of the policy is determined by the buy-out price. Under our central scenario, a £74/tCO_{2e} buy-out price implies a maximum policy cost of £177m (spread over 2019 and 2020). Any cost is expected to be passed through to fuel consumers with a maximum potential pump price impact of 0.44 pence per litre (0.37ppl excluding VAT) in 2020. However, compliance costs could be significantly lower if there is high availability of GHG reduction credits. The lower cost boundary, therefore, reflects a scenario where there is a certificate oversupply and only administrative costs are incurred.
- 1.8 Similarly, a wide range of potential GHG outcomes have been assessed. The 'low additionality' scenarios assume zero GHG savings result from the policy (i.e. the GHG savings attributed to the policy would occur in any case) and the 'high additionality' scenario assumes that the policy is 100% effective in delivering GHG savings.

2. Introduction

Problem under consideration

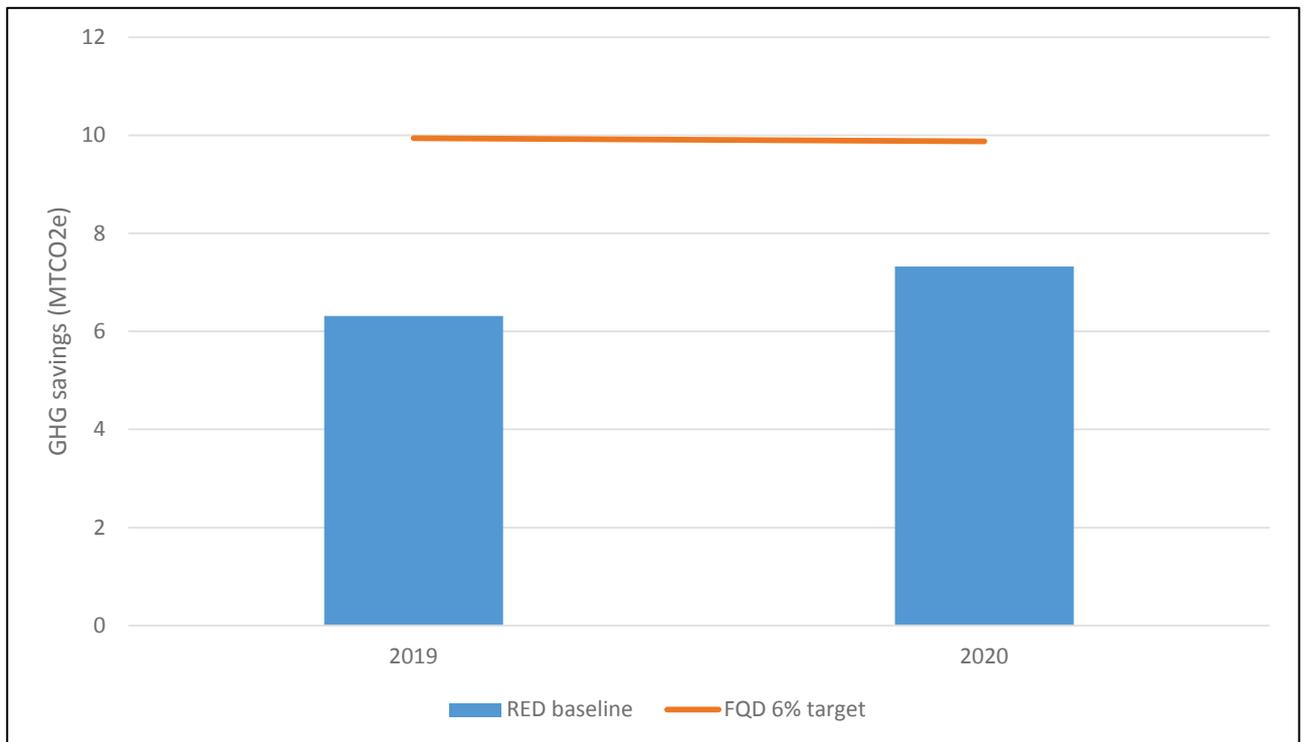
- 2.1 Article 7a of the Fuel Quality Directive requires transport² sector fuel suppliers in EU member states to reduce the average GHG intensity of transport fuels by 6% in 2020 (relative to a 2010 baseline average transport fuel GHG intensity of 94.1 gCO₂e/MJ). This equates to a transport sector GHG reduction of 9.9 MtCO₂e in 2020 (or a reduction in average transport fuel GHG intensity of 5.6 gCO₂e/MJ).
- 2.2 Fuel suppliers have a number of options for meeting the GHG reduction target. In general, these options can be split into the following categories:
- **Switching to lower GHG energy sources** – alternative transport energy fuels such as biofuels, electricity, natural gas, and LPG have lower GHG emissions per unit of energy relative to fossil fuels.
 - **Improving biofuel GHG savings** – significant volumes of biofuels are already supplied due to blending targets set under the Renewable Transport Fuel Obligation. These biofuels deliver GHG savings which can be counted towards the FQD target. Improving the GHG saving characteristics of these biofuels (e.g. using less fertiliser on crops, improving efficiency of refining processes, capturing refinery CO₂ emissions, switching feedstocks) can increase the contribution made by biofuels towards meeting the FQD target.
 - **Upstream emission reductions (UERs)** – GHG emissions from upstream production of fossil fuels such as flaring and venting of methane are a significant component of the emissions associated with transport fossil fuel use. If suppliers are able to demonstrate that they have been responsible for reducing these emissions (e.g. through investments in gas grid infrastructure or liquefaction facilities) they can use this to demonstrate compliance with their FQD GHG reduction targets.
- 2.3 Article 7a of the Fuel Quality Directive also requires transport sector fuel suppliers in EU member states to report information on the characteristics of the fossil fuel which they supply into the UK transport fuel market, and requires member states to lay down the rules on penalties applicable to infringements of national provisions adopted to transpose the Directive. These measures and associated impact on fuel suppliers are considered in chapter 6.

² Fuels used to propel road vehicles, non-road mobile machinery (including inland waterway vessels when not at sea), agricultural and forestry tractors, recreational craft when not at sea and electricity for use in road vehicles are included in the scope of the FQD.

Renewable Transport Fuel Obligation (baseline)

- 2.4 The Renewable Transport Fuel Obligation (RTFO) requires transport fossil fuel suppliers to supply a given proportion (specified by the RTFO target) of transport energy from renewable sources. Under the preferred option for amending the RTFO (a separate cost benefit analysis on the RTFO is also included as part of this Government response), the RTFO is estimated to deliver 7.2 MtCO_{2e} of GHG savings towards the FQD target leaving a remainder of 2.7 MtCO_{2e} which will need to be delivered through additional measures.

Chart 1: projected FQD GHG target contribution from biofuels supplied under the Renewable Transport Fuel Obligation (RTFO) baseline



GHG obligation design

- 2.5 In order to comply with the requirements of the Fuel Quality Directive, a **GHG obligation** with a **buy-out price** and **certificate trading mechanism** for transport fuel suppliers will be put in place.
- **GHG obligation** – under the GHG obligation each fuel supplier will be required to demonstrate that they had delivered a given volume of GHG savings proportional to the quantity of fuel which they supply. Suppliers will receive a certificate for each unit (in kilograms) of carbon saved, which they can use to demonstrate compliance with the obligation.
 - **Buy-out price** – the buy-out price is a charge which suppliers can opt to pay as an alternative means of compliance. This has been set at £74/tCO_{2e} and is intended to cap-fuel prices and protect consumers should the cost of delivering the GHG reductions become unsustainable. If the cost of delivering the GHG reduction target exceeds the buy-out price, suppliers would be expected to buy-

out of their obligation. The buy-out price performs two functions: (1) it serves as a compliance enforcement mechanism by effectively acting as a financial penalty for failing to comply with the GHG obligation; and (2) it limits the overall cost of the obligation as suppliers will opt to pay the buy-out price if the cost of compliance rises above that level.

- **Certificate trading scheme** – a certificate trading scheme will give suppliers flexibility to meet their obligation (i.e. they can buy certificates from other suppliers if cost effective). Increasing supplier flexibility in this way should minimise the overall costs of the scheme as individual suppliers facing relatively high compliance costs will be able to reduce costs by buying certificates from those able to reduce emissions at relatively low costs.

3. Policy options

- 3.1 The consultation published on 29 November 2016 looked at a range of FQD compliance options which varied by buy-out price and implementation period. The 'preferred option' put forward in the consultation was for a three year obligation (with targets running from 2018 to 2020) and a £74/tCO_{2e} buy-out price.

Table 2: consultation options

Option	1a	1b	2a	2b	3a	3b
Buy-out price	£7/tCO _{2e}	£7/tCO _{2e}	£74/tCO _{2e}	£74/tCO _{2e}	£146/tCO _{2e}	£146/tCO _{2e}
Duration	1 year	3 years	1 year	3 years	1 year	3 years

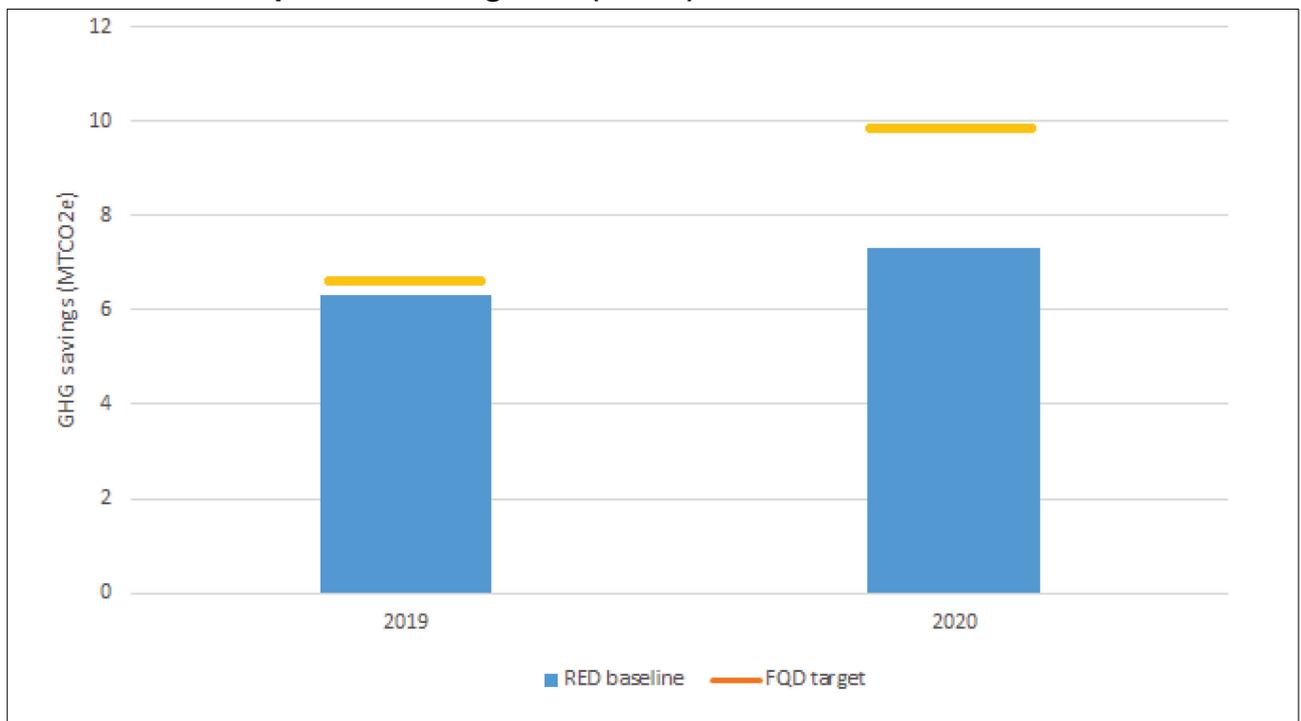
- 3.2 Following assessment of stakeholder consultation responses a two-year obligation with a £74/tCO_{2e} buy-out price has been chosen as the final option for implementation.
- 3.3 A £74/tCO_{2e} buy-out price has been chosen because this level is considered sufficient to support a wide range of compliance measures including GHG credits from existing upstream emissions reduction (UER) projects and improved biofuel GHG savings. £74/tCO_{2e} is the central 2020 'non-traded' carbon value (in 2020 prices) which should also ensure consistency with wider Government climate policy.
- 3.4 A two-year implementation period has been chosen as it was felt that an interim target in 2019 would allow industry to prepare, encourage investments made to produce and/or source lower carbon fuels, and provide sufficient time to resolve any issues with the scheme, ahead of the binding 2020 target. It would also provide evidence for officials to assess whether it would be beneficial to extend targets beyond 2020.

4. Analytical approach and evidence

RTFO-FQD target 'gap'

- 4.1 The key input in determining the potential costs and benefits of implementing a GHG obligation for transport fuels is the gap between the GHG savings required by the FQD target (9.9 MtCO_{2e} in 2020) and baseline GHG savings which are expected to be delivered by the underlying Renewable Transport Fuels Obligation (RTFO) biofuels target.
- 4.2 In 2019, our best estimate of RTFO GHG savings is 6.3 MtCO_{2e}. There is a 4% GHG target in 2019 which equates to 6.6 MtCO_{2e} of GHG savings, so it is estimated that an additional 0.3 MtCO_{2e} would be required to meet the GHG target for these options.
- 4.3 In 2020, our best estimate of RTFO GHG savings is 7.2 MtCO_{2e}. There is a 6% GHG target in 2020 which equates to 9.9 MtCO_{2e} of GHG savings, so an additional 2.7 MtCO_{2e} is required to meet the GHG target for these options.

Chart 2: projected FQD target contribution from biofuels supplied under the Renewable Transport Fuel Obligation (RTFO) baseline



- 4.4 Fuel suppliers have a number of options for complying with a transport fuel GHG obligation under the FQD. Options covered in the cost benefit analysis are:
- **existing UERs** - these are upstream emissions reduction measures which are already in place prior to the implementation of this policy;
 - **new UERs** - new upstream emission reduction measures (e.g. investments in new methane capture technology in oilfields);
 - **improved biofuel GHG savings** - increasing the GHG savings reported for biofuels which are supplied under the RTFO baseline. For example, biofuel GHG savings can be improved by switching feedstocks, using less fertiliser and using cleaner energy in the refining process;
 - **alternative fossil fuels** - displacing petrol and diesel with less carbon-intensive fossil fuels (e.g. methane); and
 - **additional biofuels** - supplying biofuels over and above the biofuels which are supplied in the RTFO baseline.

Upstream emission reductions and 'additionality' scenarios

- 4.5 GHG savings from upstream emissions reduction (UER) projects (i.e. GHG savings from avoided flaring and venting of methane which is a co-product of oil extraction processes) are a major potential source of GHG savings for suppliers looking to comply with FQD targets. However, proving that a UER project is additional and has led to genuine GHG savings (i.e. the investment in GHG saving process occurred as a direct result of the financial incentive made available through the policy and would not have occurred otherwise) typically relies on economic/financial assumptions which may be open to debate.
- 4.6 To take account of the inherent uncertainty around additionality we have carried out a 'high additionality' scenario and a 'low additionality' scenario when evaluating carbon benefits in this cost-benefit analysis. The 'low additionality' scenario looks at a case where the policy leads to no additional GHG savings (i.e. all the savings would have occurred in absence of the policy) and the 'high additionality' scenario looks at a case where the policy leads to 100% additional GHG savings.

Costs methodology

- 4.7 As there is significant uncertainty around the options available to suppliers to reduce emissions and the associated costs, a wide range of potential costs have been modelled.
- 4.8 For each option the maximum potential cost has been calculated using the buy-out price. For example, a 6% target in 2020 implies that suppliers will have to deliver 2.7 MtCO₂e savings. If the buy-out price is £10/tCO₂e, then the maximum potential cost would be £27 million (i.e. £10 * 2,700,000).
- 4.9 Minimum policy costs vary with assumptions on additionality. Under the 'low additionality' scenario (where we assume the policy does not generate any additional GHG savings), we assume that the minimum potential compliance cost is determined

by the administrative cost of generating a certificate. Under the 'high additionality' scenario (where we assume the policy generates a high level of additional GHG savings), we assume that the minimum potential compliance cost is determined by the cost of purchasing an EU ETS certificate (which we use to proxy the minimum cost of purchasing savings from an additional GHG credit).

- 4.10 There may also be some familiarisation and compliance costs associated with the implementation of new regulation. Evidence received from stakeholders during the consultation indicate that administrative costs for suppliers are likely to be relatively small - perhaps in the range of £50,000 per year for a large fuel supplier.

Benefits methodology

- 4.11 The only benefits that we have sought to quantify are the reduced greenhouse gas emissions associated with the option relative to the baseline. The change in greenhouse gas emissions in each year has been valued using the non-traded sector carbon values published in the Green Book supplementary guidance on valuing energy use and greenhouse gas emissions for appraisal.³
- 4.12 As noted in the section above on upstream emission reductions and 'additionality' scenarios, we have looked at two different 'additionality' scenarios, to reflect the significant uncertainty around the additionality of GHG savings associated with upstream emissions reduction projects.
- 4.13 Potential benefits have only been assessed for the period 2018 to 2020. It is possible (in the case of capital investment in new upstream emission reduction projects) that GHG saving benefits could run further into the future. However, given the significant uncertainty in how suppliers will choose to comply with a GHG obligation we have not been able to quantify these potential benefits.

Key economic variables

- 4.14 All costs, prices and benefits are given in a 2015 price base, excepting buy-out prices, which are given as the nominal values which form the basis of revisions to UK legislation. Present value calculations have been discounted to 2016 using the standard 3.5% discount factor given in HM Treasury's Green Book appraisal guidance.⁴

³ <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

5. Policy impacts

Final option

Put in place a two year GHG target trajectory (4% in 2019 and 6% in 2020) with a £74/tCO_{2e} (nominal prices) buy-out price

Table 3: CBA summary (central RTFO scenario)

	Net present cost (£m)	Maximum 2019 pump price impact (ppl)	Maximum 2020 pump price impact (ppl)	Total GHG savings 2018-20 (MtCO _{2e})	Net present benefits (£m)	NPV (£m)
High additionality	14 to 177	0.05 (0.04 exc VAT)	0.44 (0.37 exc VAT)	3.0	176	-1 to 162
Low additionality	0.3 to 177	0.05 (0.04 exc VAT)	0.44 (0.37 exc VAT)	0.0	0	-177 to -0.3

Table 4: expected market impact

	Existing UERs	New UERs	Biofuel GHG savings	Alt fossil fuels	More biofuels
Impact	+++	0	++	0	0

- 5.1 It is likely that significant volumes of credits for existing UER projects could be available at a £74/tCO_{2e} buy-out price level as there is essentially no cost in generating these credits as the investment has already taken place. It is thought possible that suppliers would be able to deliver increased GHG savings from biofuels supplied at this buy-out price level. Anecdotal evidence from the GHG obligation in Germany indicates that the additional cost of purchasing biofuels with higher GHG savings falls below £74/tCO_{2e}.
- 5.2 It is thought unlikely that a two-year GHG obligation with a £74/tCO_{2e} buy-out price would be sufficient to incentivise investment in new UER projects, incentivise the supply of additional biofuels (over and above those supplied in the RTFO baseline) or incentivise a significant increase in the volume of alternative fossil fuels (e.g. LPG, CNG, LNG) supplied.

Estimated cost

- 5.3 Our central estimate of the additional GHG saving requirement needed to meet the FQD target (over and above the GHG savings which are delivered in the baseline by the RTFO) is 2.7 MtCO_{2e} in 2020.

- 5.4 At a £74/tCO_{2e} buy-out price, this implies a maximum annual cost of £181m (undiscounted) in 2020, which equates to an additional 0.44 ppl (0.37 excluding VAT) on the pump price. The (discounted) net present cost estimated for this option is £177m over 2019 and 2020. It is important to note that these cost estimates represent a maximum potential cost for a £74/tCO_{2e} buy-out price and that actual costs could come at a lower level if suppliers are able to acquire GHG credits which cost less than £74/tCO_{2e}.
- 5.5 For the 'low additionality' scenario, we assume that the minimum potential compliance cost is determined by the administrative cost of generating a certificate. We estimate this to be £0.12/tCO_{2e}. This implies a minimum (undiscounted) cost of £0.3m in 2020, which has a negligible impact on pump prices. The minimum present value (i.e. discounted) cost under the 'low additionality' scenario estimated for this option is £0.3m.
- 5.6 For the 'high additionality' scenario, we assume that the minimum potential compliance cost is determined by the cost of purchasing an EU ETS certificate (which we use to proxy the minimum cost of purchasing GHG credits savings from CDM-accredited UER projects). This implies a minimum (undiscounted) cost of £14m in 2020, which equates to an additional 0.04 ppl (including VAT) on the pump price. The minimum present value (i.e. discounted) cost under the 'high additionality' scenario estimated for this option is £14m.

Estimated benefits

- 5.7 As there is significant uncertainty over how suppliers will choose to meet the obligation and to what extent GHG savings will be additional we have modelled a wide range of potential benefits. For the 'high additionality' scenario we assume that 100% of the savings are additional and for the 'low additionality' scenario we assume that 0% of the emissions reductions are additional (i.e. all credits come from existing UER projects which are not accredited under the CDM). This gives a GHG saving range of 0-3.0 MtCO_{2e} over 2019 and 2020.

RTFO buy-out (maximum cost) sensitivity

- 5.8 The analysis in the central scenario assumes that the majority of GHG savings required by the GHG obligation are provided by biofuels supplied under the RTFO. It is possible (although unlikely) that fuel suppliers may choose to 'buy-out' of their obligation under the RTFO. If this were to happen then the cost of meeting the GHG obligation would rise as more GHG savings would be required to meet the target. At a £74/tCO_{2e} buy-out price the maximum possible cost (assuming 100% RTFO buy-out) of meeting the GHG obligation would be £991m over 2019 and 2020 (nominal prices), with a maximum potential pump price impact of 1.6 ppl (including vat). It should be noted that to date there has been virtually no buy-out under the RTFO (apart from some small instances necessitated by fuel supplier administrative error).

6. Fuel Quality Directive, GHG Reporting Regulations and non-compliance

New supplier reporting requirements

- 6.1 Article 7a of the FQD requires fuel suppliers to report information on the characteristics of the fossil fuel which they supply into the UK transport fuel⁵ market. The information requested consists of:
- Origin (feedstock trade name) - The feedstock trade name tells us what type of crude oil has been used to produce the petrol/diesel supplied (e.g. whether the fuel is from conventional or more polluting non-conventional crudes); and/or
 - Place of purchase - the country and name of the processing facility where the fuel or energy underwent the last substantial transformation.
- (Source: Directive 2015/652: Annex I, Part 2)*
- 6.2 See chapter 7 of the main Government response to the consultation for further information on the requirements and on exceptions to what needs to be reported in certain circumstances e.g. for SMEs.

Cost impact on UK fuel suppliers

- 6.3 Discussion with industry stakeholders indicates that many UK fossil fuel suppliers envisage situations where data on origin and place of purchase may not be available and cannot be reported. Whilst the Directive provides an exception for suppliers to report simply 'EU / non-EU' where they are not in possession of the detailed origin data, the Government recognises that information on both EU / non-EU origin of the crude as well as the place of purchase of refined fuel may not be passed along the supply chain. This is why the Government will exempt those suppliers that cannot reasonably obtain such information. Hence, we do not expect these requirements to place any significant additional burden on fuel suppliers.
- 6.4 Some responses received during the consultation expressed concern that if the origin and/or place of purchase reporting becomes too constrained, there is a possible unintended consequence in that imports to the UK may be restricted and this may add cost to the consumer. However, as suppliers designated to report under the GHG obligation should be able to access the data required – or can report 'unknown' where they cannot reasonably access it – there is assumed to be no additional cost beyond the administrative cost of reporting this data to the regulator. One major fuel supplier estimated the total administrative cost of complying with GHG obligation and reporting requirements at around £50,000 per year.

⁵ Fuels used to propel road vehicles, non-road mobile machinery (including inland waterway vessels when not at sea), agricultural and forestry tractors, recreational craft when not at sea and electricity for use in road vehicles are included in the scope of the FQD.

Non-compliance and civil penalties

- 6.5 Member states must, under article 7a of the FQD, lay down the rules on penalties applicable to infringements of national provisions adopted to transpose the Directive. These penalties must be effective, proportionate and dissuasive.
- 6.6 We intend to introduce a GHG credit trading scheme, and in support of effective enforcement of that scheme, widen the circumstances in which the Administrator may issue a civil penalty. Specifically this would be where:
- A supplier fails to provide accurate information in applying for GHG credits;
 - A supplier fails to provide, as required by the Administrator, data and verification, of the origin and place of purchase of fossil fuel; and/or
 - A supplier fails to discharge their obligation.

Cost impact on suppliers

- 6.7 We have considered the proportionality of the level of civil penalties, including at a stakeholder workshop in August 2015, and consider that penalties for similar types of breach under the RTFO would be appropriate and proportionate.
- 6.8 Assuming that there is 100% compliance with the GHG Reporting Regulations, no civil penalties are issued and there are no impacts arising from the enforcement of civil penalties as civil debts. Therefore there would be no costs associated with the intended changes.
- 6.9 We have also considered non-compliance against the available evidence. As set out in table below to date there have been a very small number of civil penalties issued by the Administrator over the last nine years.

Table 5: civil penalties issued to date under the RTFO and GHG Reporting Regulations

Amount	Date imposed	Discharged
£5,000	17/12/2010	Yes
£5,000	17/12/2010	Yes
£50,000	17/12/2010	Yes
£50,000	01/02/2012	No
£50,000	06/03/2013	No
£5,000	30/07/2013	Yes

Source: DfT Biofuels Statistics Report 6 for Year 8

- 6.10 This is not expected to increase the volume of civil penalties issued and therefore is unlikely to increase costs or burdens associated with compliance with the GHG Regulations as amended. It is not anticipated that the changes will lead to an increase in the likelihood of civil penalties being issued, for two main reasons:
- The Administrator of the GHG Reporting Regulations proactively identifies suppliers that may be obligated under the scheme and provides advice and guidance to those suppliers to ensure they meet the requirements of the scheme; and

- The GHG obligation buy-out price will be set at a moderate level, but one which will act as a consumer protection mechanism should the cost of acquiring GHG credits be unsustainable.

7. Consultation questions and responses

- 7.1 In the consultation stage cost-benefit analysis we asked a number of questions to assist with our analysis of this policy. The questions and a summary of responses are set out in this chapter.

Question 41: Do you agree with our assessment of 'additionality' of GHG savings from upstream emission reduction projects?

Summary of responses

Total	Yes	No
10	2	8

- 7.2 A number of fuel suppliers and upstream oil producers disagreed with the assessment of additionality used in the cost benefit analysis. An argument was put forward that the concept of additionality is not solely based on economic or financial arguments and can rely on a range of other obstacles, including technological or social barriers.
- 7.3 The wide range of parameters that can affect the outputs ensures that reaching definitive answers is unlikely to be reflective of reality.

Government response

- 7.4 Given the uncertainty around additionality we have retained the 'high additionality' and 'low additionality' scenarios (for assessing GHG impacts of the GHG obligation) in the cost-benefit analysis. However, we have been less prescriptive in our assessment of what sources of upstream emissions reduction should be considered additional and which sources should not.

Question 42: Are you able to provide any evidence relevant to the assessment of costs, including any evidence on the administrative costs for fuel supplier familiarisation with the requirements of meeting the 6% GHG target required under FQD?

Summary of responses

Total
8

- 7.5 A number of fuel suppliers suggested that without knowing the detail of the mechanism to claim credits from the UER projects and also without full details of the UK GHG credit trading scheme, it is difficult to answer this question at this time.
- 7.6 It was also suggested that additional reporting requirements will potentially create resourcing costs of £50,000 per annum.

Government response

- 7.7 Supplier estimates of compliance costs have been reflected in this version of the CBA.

Question 43: Can you provide evidence on the cost of reporting fossil fuel 'origin' and 'place of purchase' data to the regulator?

Summary of responses

Total
9

- 7.8 A major fuel supplier suggested that additional reporting requirements will potentially create resourcing costs of £50,000 per annum.
- 7.9 It was noted that fuel suppliers already make returns to the Government on the origin of its crude oils. However given the complexity of the supply chains it will be very difficult to supply information on the origin of feedstocks or components, other than to say where they were purchased from.
- 7.10 Fuel suppliers also expressed concern that if the 'origin' and /or 'place of purchase' reporting becomes too constrained, there is a possible unintended consequence in that imports to the UK may be restricted and this may add cost to the consumer.
- 7.11 A consultancy research study - <https://www.transportenvironment.org/publications/lower-carbon-fossil-fuels-big-benefits-low-administrative-costs> - and EU impact assessment - https://ec.europa.eu/clima/sites/clima/files/transport/fuel/docs/swd_2014_296_en.pdf - were suggested as sources of evidence.

Government response

- 7.12 Supplier estimates of compliance costs have been reflected in this version of the CBA.

Question 44: Do you have any evidence you would like to provide on the costs and benefits associated with the proposed changes to civil penalties?

Summary of responses

Total
<hr/>
8
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7.13 Fuel suppliers requested that penalties for failure to comply the GHG obligation should not be additional to penalties for failure to comply with the RTFO. Concerns were also expressed that restrictive 'additionality' requirements could create a shortage of GHG credits which would increase the likelihood of non-compliance.

Government response

7.14 Fuel suppliers concerns around penalties for failure to comply with the obligation and restrictive 'additionality' requirements have been taken into consideration in developing the final policy position.

Annex B: Consultation principles

The consultation has been conducted in line with the Government's key consultation principles which are listed at the link below.

<https://www.gov.uk/government/publications/consultation-principles-guidance>

If you have any comments about the consultation process please contact:

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ISBN 978-1-5286-0014-9

CCS0817817596