

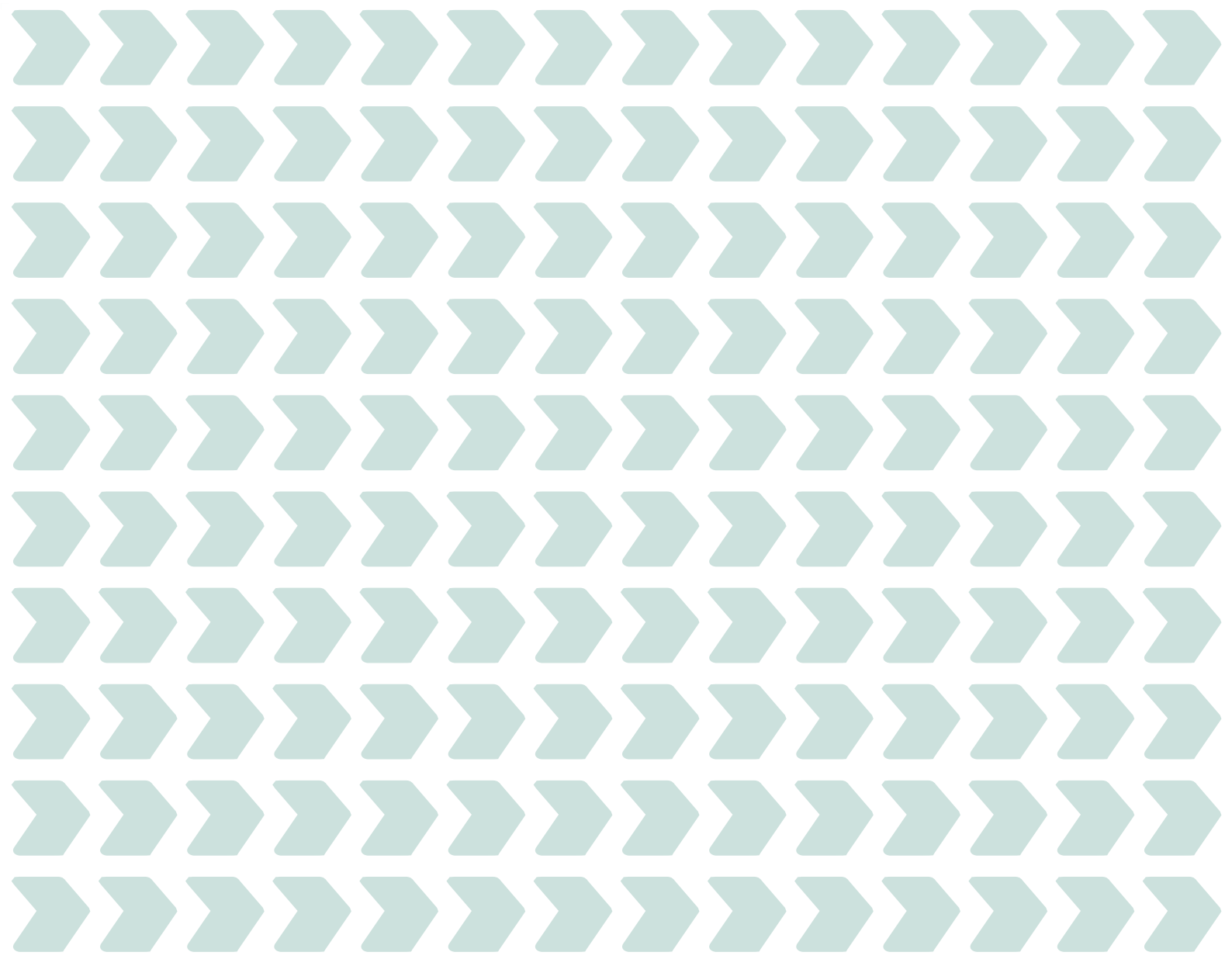


Department
for Transport

Introducing E10 Petrol: consultation

Annex D: Response form

UK Petroleum Industry Association Response



1. Introduction and data protection

The consultation period begins on 4 March 2020 and will run until 23:45 on 3 May 2020. Please ensure that your response reaches us at the following email or postal address **on or before** the closing date.

Please send consultation responses by, ideally by email, to:

LowCarbonFuel.Consultation@dft.gov.uk

Name: Tim Simon
Address: Department for Transport
Great Minster House
33 Horseferry Road
London
SW1P 4DR.

If you would like further copies of this consultation document you can contact Tim Simon - details above - who can also help if you need alternative formats (Braille, audio, CD):

When responding, please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of a larger organisation, please make it clear who the organisation represents and, where applicable, how the views of members were assembled. If you have any suggestions of others who may wish to be involved in this process please contact us or forward the document to them.

The responses to this consultation are likely to be discussed with representatives of the sector, as well as within the Department. Therefore the points you raise may be shared. If you are not content for this to happen please let us know. Subject to the outcome of the consultation the amendments to the legislation will be introduced as soon as practicable.

Confidentiality and data protection

The Department for Transport (DfT) is carrying out this consultation to gather views on E10 policy. This consultation and the processing of personal data that it entails is necessary for the exercise of our functions as a government department. If your answers contain any information that allows you to be identified, DfT will, under data protection law, be the Controller for this information.

As part of this consultation we're asking for your name and email address. This is in case we need to ask you follow-up questions about any of your responses. You do not have to give us this personal information. If you do provide it, we will use it only for the purpose of asking follow-up questions.

[DfT's privacy policy](#) has more information about your rights in relation to your personal data, how to complain and how to contact the Data Protection Officer.

Your information will be kept securely and destroyed within 12 months after the consultation has been completed.

2. Responding

1. Your name and email address. We will only use this if we need to contact you to ask about any of your responses and to update you when we publish our response.

Name	Sebastian Hirsz
Email	seb.hirsz@ukpia.com

2. Are you responding: *

<input checked="" type="checkbox"/>	On behalf of an organisation? Go to question 3
<input type="checkbox"/>	As an individual? Begin consultation response (section 2)

3. Organisation details: *

Company/Organisation Name	UK Petroleum Industry Association
Address	6 th Floor, 37-39 High Holborn, London
Postcode	WC1V 6AA
Email	seb.hirsz@ukpia.com
Your Role / Position	Fuels Specialist
Please tick one box below that best describes your company or organisation.	
<input type="checkbox"/>	Micro business (0-9 employees)
<input type="checkbox"/>	Small business (10-49 employees)
<input type="checkbox"/>	Medium business (50-249 employees)
<input type="checkbox"/>	Large Company (250+ employees)
<input checked="" type="checkbox"/>	Representative Organisation
<input type="checkbox"/>	Trade Union
<input type="checkbox"/>	Interest Group
<input type="checkbox"/>	Local Government
<input type="checkbox"/>	Central Government
<input type="checkbox"/>	Other (please describe):

If you are responding on behalf of an organisation or interest group how many members do you have and how did you obtain the views of your members:

The UK Petroleum Industry Association (UKPIA) represents the eight main oil refining and marketing companies operating in the UK¹ responsible for supplying 84% of fuel demand in the UK² and branding the majority of the UK's 8,390 petrol filling stations.³ Our members play a vital role in the manufacture and supply of petroleum products used as road transport, aviation and heating fuels as well as for many non-energy applications such as in petrochemical feedstocks. As the economy continues to decarbonise, the need for our members' products and supply chain expertise will continue and the benefits the sector brings in terms of jobs, trade, tax receipts and security of supply will remain significant.

UKPIA's 2019 publication – 'The UKPIA Future Vision: The Downstream Oil Sector in a Low-Carbon World' – stated there should be a large role for lowering the carbon emissions of liquid fuels in meeting decarbonisation ambitions: "Low-carbon liquid fuels will be of vital importance in the drive to reduce emissions in the transport system, not only during the transition period, where liquid fuels will continue to be required to provide energy for transport and smooth and efficient operation of the economy and society, but also in the longer term."⁴

The UKPIA membership are supportive of the mandated introduction of E10 in the UK and welcome an enhanced route for the adoption of low carbon fuels. Of course, as with any modification to the UK fungible fuel mix, there are practical considerations to consider. However, UKPIA is confident that, done properly, E10 can be introduced in the UK with minimal impact on the consumer. Our detailed responses outlining how this may be achieved are featured in this document.

This consultation response document represents the agreed view of UKPIA as representative of the sector, notwithstanding that, companies may also respond individually. Many UKPIA members have considerable experience with the manufacture and marketing of E10 in a number of different countries and therefore not only have a strong interest in the consultation, but are able to provide first-hand, authoritative input on the matter.

UKPIA is grateful for the opportunity to comment on the Introducing E10 Petrol consultation and would welcome continued engagement with the Department for Transport regarding the decarbonisation of mobility in future.

¹ <https://www.ukpia.com/>

² Digest of UK Energy Statistics, BEIS, 2019

³ Energy Institute Retail Marketing Survey 2020

⁴ The UKPIA Future Vision: The Downstream Oil Sector in a Low-Carbon World, 2019

3. Consultation questions

The questions below may not apply to all respondents. Please answer as many as are applicable to you or your business. In each case please set out the reasons for your answer and if applicable, alternative proposals.

Consultation proposals - Introducing E10 and keeping E5 available

Q 1 - Do you agree that the best way to introduce E10 petrol is as a direct replacement for the current 95 E5 premium grade? If not, please provide further information.

Yes

No

Additional information:

Key Points:

- Mass consumer uptake of E10 will only be successful if it is mandated and effectively communicated to the consumer by government.
- In almost all markets offering E10 petrol, this was as a result of government intervention. There is no precedent for a sufficiently successful industry-led introduction (for the reasons stated in the Impact Assessment⁵).
- The majority of the UK petrol infrastructure is unable to support a third petrol grade⁶ and such an approach in other markets has resulted in 95 E5 continuing as the primary petrol consumed.
- By 2021, more than 97% of the UK petrol vehicle parc will be compatible with E10 (according to DfT analysis)⁵. Therefore, a direct replacement of the premium grade, with suitable provision of the super grade as an E5 “protection grade”, is appropriate.

UKPIA agrees that the 95 E5 premium grade petrol must be replaced by 95 E10, via government mandate, to ensure a practicable and successfully adopted introduction of E10 in the UK. This view has been shared with the DfT previously in the 2018 E10 Call for Evidence⁷ and a letter to the DfT Secretary of State in 2018.⁸

European countries which have had the most success in introducing E10 (Finland, Belgium, Netherlands) all adopted the route by which their premium (or Euro/Regular)

⁵ Impact Assessment: Measures for introduction of E10 fuel stream, DfT, 03/20

⁶ E10 Petrol and Consumer Protection: Response to 2018 Call for Evidence, DfT, 04/03/20

⁷ UKPIA Response to E10 petrol, consumer protection, and fuel pump labelling consultation, 09/18

⁸ Introduction of E10 Petrol into the UK market, UKPIA letter to Jesse Norman MP, 15/11/18

95 Research Octane Number (RON) grade was mandated as 95 E10, replacing 95 E5.^{9,10} It has been demonstrated that where a choice has been offered to consumers (France, Germany), E10 adoption has remained below half of the petrol market share.⁹

As well as not realising the full environmental benefits identified in the policy objectives, proceeding without a mandate and trusting that enough petrol stations will offer three petrol grades is not possible in the UK as, unlike in France and Germany, fuel infrastructure is unable to widely adopt a third petrol grade without significant cost and implementation time (as reflected in the government's response to the E10 Call for Evidence⁶). Therefore, a replacement of the existing 95 E5 premium grade is the most practicable option for introducing E10 in the UK.

Replacement of the premium grade is technically feasible in the UK from a vehicle operation perspective because the vast majority of vehicles in the UK are compatible with E10. The DfT's Impact Assessment⁵ and the RAC¹¹ estimate that approximately 600,000 E10-incompatible petrol vehicles will remain in the UK vehicle parc at introduction. Therefore, a mandated introduction of E10 as the premium grade, alongside suitable provision of 97+ E5 as a protection grade and 95 E5 in qualifying rural areas (see response to question 3), is an appropriate course of action for the UK motorist.

For clarity, UKPIA confirms the following definitions used in this document:

Premium (grade)	Unleaded petrol with an ethanol content of no more than 10% by volume and oxygen content of no more than 3.7% by mass unless specified as E5, and a RON of not less than 95 and MON of not less than 85.
Super (grade)	Unleaded petrol with an ethanol content of no more than 5% by volume, an oxygen content of no more than 2.7% by mass, a RON of not less than 97 and a MON of not less than 86. ¹²
Protection Grade	Super grade petrol
E5	Petrol with an ethanol content of no more than 5% by volume and oxygen content of no more than 2.7% by mass. ^{14,15}
E10	Petrol with an ethanol content of no more than 10% by volume and oxygen content of no more than 3.7% by mass. ^{14,15}
Research Octane Number (RON)	RON value as measured by test method EN ISO 5164. ^{14,15}
Motor Octane Number (MON)	MON value as measured by test method EN ISO 5163. ^{14,15}
Ethanol Content	Ethanol content by volume as measured by test methods EN 1601, EN 13132, or EN ISO 22854. ^{14,15}
Oxygen Content	Oxygen content by mass as measured by test methods EN 1601, EN 13132, or EN ISO 22854. ^{14,15}
BS EN 228	BS EN 228:2012+A1:2017

⁹ https://epure.org/media/1886/190509-def-pr-revised-epure-e10-leaflet_en_web.pdf

¹⁰ <https://epure.org/news-and-media/news/the-netherlands-turns-to-e10-ethanol-blend-to-reduce-auto-emissions/>

¹¹ <https://www.rac.co.uk/drive/advice/emissions/what-is-e10-fuel-and-how-could-it-affect-you/>

¹² Motor Fuel (Composition and Content) Regulations 1999 or MFCC Regulations

MFCC Regulations	Motor Fuel (Composition and Content) Regulations 1999 (as amended)
FQD	Directive 98/70/EC as amended by Directive 2009/30/EC (also known as the Fuel Quality Directive)
RTFO	Renewable Transport Fuel Obligations Order 2007
CEN	European Committee for Standardisation
BSI	British Standards Institution
(WTT) GHG	(Well to Tank) Greenhouse Gas
ILUC	Indirect Land Use Change
BOB	Blendstock for Oxygenate Blending

Q 2 - Do you agree that introducing a minimum ethanol content of 5.5% in the 95 grade is the best way to ensure E10 is introduced across the UK? If not, what alternative would you propose?

Yes

No

Additional information:

Key Points:

- The RTFO is the main regulatory mechanism that drives renewable fuel uptake in the UK road fuel mix and should continue to do so. The MFCC Regulations should continue to act as the fuel quality and supply legislative instrument.
- With any E10 introduction, consistency with definitions by CEN and the EC's FQD, Directive 98/70/EC, should be ensured.
- Minimum oxygenate content incentivised to be renewable by the RTFO provides assurance to consumers that they are purchasing a petrol product with lower WTT GHG emissions than the incumbent 95 E5.
- On the other hand, the labelling option offers introduction of E10 would be the most straightforward option with the lowest net GHG emissions of the mix of UK road fuels in the short-term. It also maintains current levels of supply resilience with a lower administrative burden.

As identified in the consultation document, the RTFO is the principal regulatory instrument by which lower WTT GHG fuels are incentivised in the UK. The RTFO has proven successful in introducing increasing levels of renewable fuel into the UK's fungible road fuel mix¹³ and therefore lowering the net GHG emissions of the UK's road fuels.

The majority of UKPIA's members view the most appropriate means of introducing E10 in the UK with the least detrimental impact on net GHG savings from road fuels (when accounting for ILUC), is to relabel the premium grade to E10. The DfT Impact Assessment conclusion that a minimum ethanol mandate could displace lower WTT GHG fuels such as used-cooking oil (UCO) derived biodiesel under the current RTFO

¹³ <https://www.gov.uk/government/collections/renewable-fuel-statistics>

annual obligations is plausible,⁵ but would be subject to commercial and strategic decisions taken by suppliers.

Based on historic renewable fuel availabilities, and current RTFO targets and buy-out price, mandatory pump relabelling to E10 would be the most straightforward option and, at least in the short-term, offer the lowest net WTT GHG emissions from the mix of UK road fuels with E10. However, as the UK renewable fuel supply chain develops, and increased RTFO obligated amounts are considered, the UK's fungible petrol landscape will likely evolve. Therefore, such an approach has the additional benefits of policy flexibility as volumetric and GHG based targets are considered, and maintaining supply resilience with the lowest administrative burden – particularly in the early stages after launch.

The DfT's concerns outlined in the consultation document regarding the possibility for marketing low ethanol fuels under this approach are understood. However, as blendstocks for oxygenate blending (BOB) optimise for the addition of higher concentrations of oxygenate, the commercial viability of deviating from a fungible BOB combined with the likelihood of buying-out from a renewable transport fuel obligation is likely to reduce. UKPIA's members recognise that the deliberate and ongoing marketing of low oxygenate fuel following the mandated introduction of E10 would not be in the spirit of the policy. A non-content-based mechanism to prevent such a product offering may be suitable.

UKPIA recognises the benefits of the DfT's preferred option from a consumer perspective, with some members favouring this option. A minimum content requirement provides assurance to the consumer that the product they are purchasing will have a minimum level of oxygenate content and, therefore, likely lower WTT GHG emissions than the incumbent 95 E5 product. In addition, when considering historic bio-component availability, RTFO targets and buy-out price, and excluding ILUC factors, introducing minimum oxygenate content is unlikely to increase the net GHG savings of UK road fuels. New, commercially viable availability of petrol bio-components with greater WTT GHG savings will offer improved net GHG savings.

UKPIA also recognises that the 5.5% ethanol by volume minimum content is designed to provide suitable remaining volume for other petrol oxygenate components to be blended. However, should a minimum content be added to the Motor Fuel Regulations 1999, UKPIA suggests the DfT continue adopting "EX" definitions consistent with those defined by the European Committee for Standardisation (CEN)¹⁴ and the European Commission's Fuel Quality Directive (FQD)¹⁵. UKPIA has consistently advocated the UK's continued involvement in CEN standards development and close alignment with EU directives post-Brexit.¹⁶

"EX" fuels are defined by both ethanol content by volume and oxygen content by mass. This definition was recently re-clarified by CEN Technical Committee 19 (the committee responsible for fuels) for the avoidance of doubt¹⁷. The MFCC Regulations currently correctly state an ethanol and oxygen content definition for protection grade super unleaded petrol (albeit with an error as stated in our response to the Call for Evidence⁷). In addition, countries that have introduced E10 such as Finland, France, and the USA, have adopted the consistent and technology neutral definition. More

¹⁴ EN 228:2012+A1:2017

¹⁵ Directive 98/70/EC as amended by Directive 2009/30/EC.

¹⁶ UKPIA Brexit Preferred Negotiation Position Briefing, 12/18

¹⁷ CEN-TC19-WG21_N0374_Letter_20180622_E5_labelling

detail may be found in the information document provided to the DfT by UKPIA on 6th June 2019.¹⁸

Therefore, should a minimum content approach be adopted for the introduction of E10, UKPIA proposes a definition of >5.5% ethanol by volume (v/v) or greater than 2% oxygen content by mass (m/m). Fulfilling either requirement (whilst remaining equal to or below 10% ethanol v/v and 3.7% oxygen m/m) would constitute an E10 petrol product.

Currently, one of the renewable, non-crop-derived oxygenates with greatest availability in Europe is methanol¹⁹. For example, Netherlands-based BioMCN have production capacity of almost 0.5 million tonnes of green hydrogen-derived methanol.²⁰ This highlights that there may be opportunities to retail E10 comprised of bio-oxygenates other than ethanol, with potentially greater WTT GHG savings than some bioethanol sources, providing a compelling case for oxygenate neutrality in addition to CEN and EC consistency.

Please note that UKPIA is also hopeful that further renewable fuels, such as development fuels, should also become viable to deploy in UK petrol in the near future as these are incentivised in the RTFO.

As identified in the consultation document, a minimum content approach of any kind will require suitable mechanisms to maintain supply resilience (particularly in the short-term) in the event of petrol oxygenate shortages. Any derogation system should be as fit for purpose and efficient as possible, and minimise the additional administrative burden on fuel suppliers. These considerations are discussed in the following questions.

Q 3 - Do you agree that the minimum ethanol content requirements should apply to filling stations that sell more than one million litres of fuel per year and that this would only allow certain specialist retailers to continue to sell 95 E5? If not, please provide further information and alternative suggestions.

Yes

No

Additional information:

Key Points:

- Ensuring a broad introduction of E10 is likely to require a decrease to the MFCC Regulations throughput threshold.
- Whilst the throughput threshold predominantly concerns the supply of protection grade, UKPIA recognises the need for consistency. (See more detailed response protection grade requirements in question 6).

Whilst 3 million litres per year fuel throughput has existed in the MFCC Regulations for many years, UKPIA recognises the need to ensure a uniform introduction of E10. Experian Catalist data indicates that retaining the current 3 million litres per year

¹⁸ Compositional Conditions of E10 and its Precedence

¹⁹ Renewable Methanol Report, Methanol Institute, January 2019

²⁰ <https://www.oci.nl/media/1652/oci-nv-investor-presentation-october-2019-vf.pdf>

threshold would mean that approximately 45% of UK retail forecourts would not be required to retail 95 E10 and decreasing the threshold to 1 million litres per year would result in approximately 15% of UK retail forecourts not being required to retail 95 E10.²¹ Therefore, the lower threshold should ensure 95 E10 availability at approximately 85% or more of retail forecourts.

On this basis, the lower throughput threshold would still permit smaller (predominantly rural) retail forecourts to retail 95 E5 if available. As raised in the consultation document, these sites may be challenged to find suitable 95 E5 availability as the UK transitions to a 95 E10 premium grade.

It should be noted that rural areas with qualifying low throughput retail forecourts are unlikely to offer a super grade and likely to feature older vehicle parcs with a greater proportion of non-E10 compatible petrol vehicles. Therefore, these sites may be highly dependent on availability of 95 E5. UKPIA encourages the DfT to develop supply risk profiles for rural regions that may only be able to provide 95 E10.

Q 4 – Do you agree that there should be an exemption for filling stations supplied from fuel terminals that are in turn supplied by ship? Is this definition suitable? Should other terminals be included or should a different or no exemption be applied?

Yes subject to requirements as currently articulated in the MFCC Regulations and enhanced as described below.

No

Additional information:

Key Points:

- Suitable exemptions to the requirement to supply 95 E10 must be made for remote and rural retail sites – the UK’s islands are particularly vulnerable and require suitable exemption from the 95 E10 requirement.
- The existing wording in the MFCC Regulations exempting certain filling stations from the need to retail summer grade provides some suitable definition for sites that should be exempted from exclusively retailing 95 E10.
- The Rural Fuel Duty Relief Scheme should also provide definition of areas suitable for exemption to exclusively retail 95 E10.
- For clarity, the exemption should not apply to filling stations supplied by major import terminals on mainland UK that are supplied by ship.

Clauses (4) of Section 5 of the MFCC Regulations (restrictions on the sale of petrol and diesel fuel) states that:

“a filling station which is supplied from a facility (in this regulation referred to as “the supplying facility”)—
 (a) which is only supplied by sea-going vessels, and
 (b) whose total annual throughput of petrol is not more than 8,000 metric tonnes”

is exempted from the requirement to provide <70 kPa (summer) petrol subject to two further supply criteria being met in clause (5). The intention of this clause is to define

²¹ Experian Catalyst Market Summary Report, V4, Feb 2020

logistically complex remote island filling stations and UKPIA agrees that these sites should be exempted from the requirement to retail 95 E10 for the whole year. For clarity, UKPIA suggests that all islands within United Kingdom Sovereign and Territorial waters should be considered applicable.

Furthermore, UKPIA suggests that areas defined under the Rural Fuel Duty Relief Scheme²² should be exempted from the requirement to retail 95 E10. These areas are granted a 5 ppl relief to petrol and diesel Excise Duty as their remoteness leads to high fuel transportation costs to the filling station. This is an indication of limited supply options whose risks are mitigated against via greater flexibility of product supply.

In addition, these areas are often correlated with smaller filling stations, older vehicle parcs, and greater dependency on private vehicles for work and leisure. For example, in 2008, the Highlands and Islands Transport Partnership (HITRANS) published reports regarding road fuel supply in the Highlands and Islands (H&I)²³. These reports and working papers concluded:

- There was an average of 2.7 pumps per site. Excluding supermarkets and large sites, this indicates that smaller sites have only two pumps, one for petrol and one for diesel – representative of sites in rural areas.
- One in three households in the H&I own a car which is 10 years older or more compared to one in five across Scotland as a whole. An older vehicle parc indicates a greater proportion of E10 incompatible petrol vehicles.
- Rural residents in the H&I are more dependent on private vehicles to travel to work.

Therefore, supply feasibility permitting, these areas should continue to supply 95 E5. As the DfT has identified, opportunity to retail 95 E5 is likely to be limited in many areas post-introduction of E10, highlighting the importance of developing the aforementioned rural supply risk profiles. It may be prudent to adapt the Rural Fuel Duty relief scheme to increase the subsidy for high risk areas and enable the continued provision of 95 E5 without cost to the resident consumers. UKPIA urges the DfT to carefully consider suitable exemptions for the islands and high risk rural areas (such as areas covered by the Rural Fuel Duty Relief Scheme).

Q 5 – Do you agree that introducing E10 in 2021 and providing industry and motorists with at least six months’ notice and a two months’ implementation period is sufficient to prepare for the change in fuel grades? If not, what alternative timelines would you suggest and why?

Yes

No

Additional information:

Key Points:

- The implementation date should be driven by a combination of what is legislatively practicable, operationally practicable, and technically justified. The principal consideration for the latter is the impact of higher ethanol content on vapour pressure.

²² Excise Notice 2001: Rural Fuel Duty Relief Scheme, HMRC, 30/10/15

²³ Road Fuel Supply in the Highlands and Islands Papers 1-3 & Report, HITRANS, 2008

- The combination of the above suggests 1st September to 1st November 2021 as a suitable implementation window – subject to legislation being published by early 2021.
- UKPIA requests the DfT confirm an implementation timetable as part of its response to this consultation including suitable provision for COVID-19 pandemic recovery time.

The timing of this consultation and subsequent response and legislative activity suggests 2021 as an appropriate year for the introduction of E10. It is essential that both the introduction period and date be driven by operational and technical requirements to support a smooth, successful, and practicable introduction.

Technical – Vapour Pressure

Ethanol and petrol blends form an azeotropic mixture resulting in non-linear distillation behaviour. This behaviour is particularly pronounced in the 0-10% ethanol by volume region where resultant vapour pressure is particularly sensitive to deviations in ethanol volume and the vapour pressure of the base petrol.

In 2009, the EC published a report investigating petrol/ethanol blends and their volatility characteristics.²⁴ Figure 2 of this report highlights the increase in vapour pressure (Dry Vapour Pressure Equivalent) that occurs when an ethanol-containing petrol is added to an ethanol-free petrol. During the implementation period of E10, there is the possibility that petrol existing in-tank features less than 3% ethanol v/v and is mixed with petrol containing 5-10% ethanol v/v. Such a mixture could result in a bulk petrol vapour pressure higher than either of the contributing blends and risks non-compliance with the MFCC Regulations.

Therefore, it is most appropriate to introduce E10 when there is an increase in the vapour pressure limit of petrol – during the transition from summer grade petrol (<70 kPa) to winter grade petrol (<100 kPa). This increase in the permitted vapour pressure of petrol takes place on 1st September every year.

In addition, should a minimum content approach be adopted, sufficient time will be required to completely turnover product such that the new minimum requirement is met. UKPIA considers two months to be sufficient time to turnover product under normal levels of product throughput. It should be noted that sufficient time must be provided to recover to normal demand levels following the COVID-19 pandemic before a new petrol grade is introduced in the UK.

Operational – Ethanol Transport

The increased demand for ethanol following the introduction of E10 may result in some transport operators for ethanol distribution requiring up to 9 months' notice to expand and/or upgrade their fleet. Transport operators will need this time to plan for increased use of existing supply routes, ensuring a compatible fleet, and incorporating suitable contingency measures should an ethanol/oxygenate minimum be introduced.

By considering the above factors, UKPIA strongly urges the DfT to consider 1st September 2021 as a suitable date to commence the introduction of E10. UKPIA agrees that two months is a suitable implementation period during normal levels of product throughput* and, therefore, an appropriate deadline for the introduction of E10 should be 1st November 2021.

²⁴ Ethanol/Petrol Blends: Volatility Characterisation in the Range 5-25 Vol% (BEP525), EC, 31/12/09

*If throughput is decreased due to unforeseen external factors (for example, in the case of a new or ongoing pandemic), more than two months may be required for product turnover.

Q 6 – Do you agree that the protection grade should apply to the 97+ octane super petrol grade at filling stations that supply at least one million litres of fuel in the last calendar year and supply at least two grades of petrol? If not, please explain why and provide any alternative suggestions.

Yes

No

Additional information:

Key Points:

- In light of a small but significant proportion of the UK petrol vehicle parc remaining incompatible with E10, UKPIA agrees with the need to broaden the availability of the $\leq 5\%$ ethanol v/v and $\leq 2.7\%$ oxygen m/m protection grade.
- Decreasing the protection grade requirement threshold to one million litres of fuel per year will increase availability of protection grade.
- As stated in the consultation document, the criterion of only applying to sites which also retail at least two grades of petrol is essential. Otherwise there would be a significant and disruptive infrastructure burden on fuel retailers.

As stated in our response to question 3, the decreased 1 million litres per year threshold will increase the applicability of the E10 regulations. Please note that a corresponding increase in the availability of the super grade is unlikely to occur as there will be sites in the 1-3 million litres per year throughput bracket that do not offer two petrol grades and/or sit in exemption-considered areas.

UKPIA agrees that the super grade should continue as the protection grade with the requirements as currently stated in the MFCC Regulations:

- an oxygen content of no more than 2.7% by [mass] ~~volume~~ (erroneously stated as volume);
- an ethanol content of no more than 5% by volume;
- a research octane number of not less than 97 measured in accordance with the test method specified in Annex I of the FQD; and
- a motor octane number of not less than 86 measured in accordance with the test method specified in Annex I of the FQD.

At the end of this document, under question 18, UKPIA has drafted a summary petrol grade offer matrix for clarity.

Q 7 – Do you agree that the protection grade should apply for the maximum period of five years after the introduction of E10 before being reviewed for any further extension? If not, please explain why and provide any alternative suggestions.

Yes

No

Additional information:

UKPIA recognises that the maximum period before review following such a significant legislative change is 5 years. UKPIA agrees that the requirements for the provision of the protection grade should be applicable for the maximum 5 years. However, there must remain the possibility for earlier review should it be warranted by extraordinary or unforeseen circumstances.

Upon review, the ongoing required availability of E5 should be considered on the basis of UK vehicle parc E10 compatibility. If HMG were to consider relaxation of the requirement to retail the protection grade as a result of the post-implementation review, ongoing regulation should ensure flexibility for individual companies to determine whether a protection grade is offered.

As identified in the Impact Assessment, the vehicle manufacturers (SMMT, ACEA, and ACEM) are the most appropriate source of data for E10 vehicle compatibility.⁵

Q 8 - Do you agree that short term derogations are required to ensure fuel supply resilience can be maintained. If you do not agree, please set out the reasons why?

Yes

No

Additional information:

Any mandate for a specific set of fuel components in the UK's road fuels increases a fuel supplier's risk of non-compliance as it becomes reliant on a narrower range of supply options. The importance of diversity of supply with respect to supply resilience and compliance is highlighted in the original RTFO Impact Assessment.²⁵

Therefore, if a minimum content is mandated as part of the introduction of E10 in the UK, provision of suitable derogations in case of unforeseen and unpreventable supply shortages is essential. UKPIA suggests that, independent of any derogation system, the legislation contains provision for the DfT Secretary of State to exempt requirements in extreme and unforeseen circumstances.

²⁵ Explanatory Memorandum to the Renewable Transport Fuel Obligations Order 2007

Q 9 - What are likely scenarios in which a derogation may be required?

Response:

If a minimum content requirement for E10 is introduced, disruptions and/or shortages in ethanol or other bio-oxygenate supply could result in the need for swift derogation otherwise there is a risk of non-compliance with the regulations. UKPIA's members, with their considerable experience in the supply of both fossil-derived and renewable fuels, have highlighted the following scenarios under which a derogation may be required. This list is not intended to be exhaustive but highlights a range of scenarios requiring a derogation:

- Bio-oxygenate production restrictions due to issues such as unforeseen equipment failure, quality issues, feedstock supply disruption, insufficient production capacity could all disrupt ethanol or other bio-oxygenate supply.
- Unforeseen conditions disrupting ethanol or other bio-oxygenate import such as shipping delayed by poor weather conditions, operator delays, equipment or resource issues at the import terminal.
- Unforeseen conditions disrupting domestic ethanol or other bio-oxygenate supply such as equipment or resource issues at terminals, driver and tanker availability, rail line disruption, tanker breakdown.
- Import of ethanol or other bio-oxygenate into refineries and terminals sometimes relies on a dedicated logistics chain. A catastrophic failure in that logistics chain could prevent ethanol or other bio-oxygenate being blended into petrol for a prolonged period, maybe many months.
- Finished product restrictions due to issues such as ethanol or other bio-oxygenate quality, failure of dosing equipment, ethanol or other bio-oxygenate tank failure.
- As a net importer of ethanol, the UK is heavily reliant on international ethanol markets. The introduction of E10 will increase UK ethanol demand and therefore increase the UK's ethanol supply exposure to global events. It is imperative that the frictionless import of ethanol continue to prevent increased exposure.

(It should be noted that a minimum content approach that is technology neutral with respect to petrol oxygenates offers a means of spreading the import exposure across multiple petrol components.)

- Geopolitical events such as a pandemic or disruptive tariff regime could cause significant shortage or reallocation of product.
- Natural disasters impacting any aspect of the fuel supply chain.

Q 10 - Are the duration, process and reporting elements of the derogations appropriate, and if not, what changes would you like to see and why?

Yes

No

Additional information:

Key Points:

- Administrative burden must remain as low as possible with derogations valid from point of notification to the DfT or with an instant acknowledgment issued.
- A derogation may need to be longer than 10 days depending on the nature of the disruption.
- More than 3 derogations per year may be required depending on the ethanol and other bio-oxygenate supply landscape of that year.
- Allocating permitted number of derogations by fuel supplier unfairly disadvantages fuel suppliers with larger or more distributed supply operations. Allocating derogation by distribution location is more appropriate.

The derogation process proposed by the DfT is as low an administrative burden as is practicable, however further clarification is required regarding the point of validity. Given derogations may be required at short notice, UKPIA suggests that the DfT provide all fuel suppliers with a checklist of information required to support/fulfil a derogation request. Once the derogation request is submitted, provided all of the information in the checklist is provided, the derogation can then be valid from the point of notification. This would provide confidence in the process and would allow the DfT to flexibly resource the review of requests.

The required duration of a derogation will depend on the nature of the supply shortage/disruption. UKPIA suggests that 14 days be provided as a minimum (subject to the aforementioned completed checklist), and further supporting information/a more formal report be provided to the DfT during the derogation period should a longer derogation be required.

Whilst UKPIA understands the DfT's intent of allocating a finite number of derogations per fuel supplier per year, the proposed approach may unfairly disadvantage some fuel suppliers and may not be sustainable in a year of significant ethanol or other bio-oxygenate supply disruption. The distribution footprint of fuel suppliers in the UK varies to a large extent meaning fuel suppliers with a broader distribution network are disadvantaged compared to smaller suppliers with respect to the allocation of 3 derogations per year. UKPIA proposes that derogations be allocated by distribution site, consistent with the definition of distribution as stated in the MFCC Regulations (refinery or import terminal), thus more fairly distributing the allocation of derogations.

In addition, many fuel suppliers enter into exchange agreements potentially resulting in multiple fuel supplier compliance liabilities from a single distribution site. In order to avoid a compounded administrative burden on DfT (where each fuel supplier sourcing from a site fully articulates justification for a supply derogation), UKPIA suggests that a distribution site derogation may be applied to sourcing suppliers with a lower justification threshold.

Given the many permutations of ethanol and other bio-oxygenate supply disruptions with regional supply chain specificities, UKPIA suggests that a derogation process review be conducted after implementation to ensure the process is suitable and efficient.

Q 11 - Is the classification of a fuel supplier appropriate for the application of derogations and if not, what would you suggest?

Yes

No

Additional information:

UKPIA has no comments regarding the definition of fuel supplier as stated in paragraph 3.54 of the consultation document. However, as stated in the response to question 10, UKPIA does not believe allocating derogations by fuel supplier is a reasonable approach as the distribution footprint of fuel suppliers in the UK varies greatly.

Q 12 - Do you agree with the proposed wording for the E10 labelling? If not, why not and what alternative would you suggest?

Yes contingent on HMG-led, widespread consumer communications campaign and under the assumption that any change from existing labelling requirements will be mandated in legislation to ensure that there is a consistent approach.

No

Additional Information:

Key Points:

- UKPIA's view is that the DfT's proposed wording is succinct, however is contingent on a widespread consumer communications campaign requiring that no consumer be in doubt on where to "check before use".
- Consumers must be encouraged to confirm their vehicle's E10 compatibility before arrival at the retail forecourt. It is essential that the inadvertent encouragement of use of mobile phones at retail forecourts and disruption of retail forecourt operations is prevented when DfT devises its consumer communications campaign.
- UKPIA suggests that the primary method to inform the consumer of their vehicle's compatibility is a registration checker portal. This should be accessible via an app, webpage, or QR code.
- As a last resort, in cases where the label message is the first E10 information noticed by a consumer, pithy and unambiguous government information must be available at the retail forecourt.

UKPIA believes that without guaranteed consumer awareness of the introduction of E10 and associated requirement to confirm their vehicle's compatibility, the proposed wording is too ambiguous. The risk is that if read for the first time at the pump, it is not clear to the consumer where and how they should check if their vehicle is compatible with E10.

Therefore, it is essential that the consumer be suitably informed on the topic in advance of their arrival at the retail forecourt. The most appropriate means of achieving

this is through a government-led, widespread communications campaign across multiple media. The consumer must be able to swiftly confirm their vehicle's compatibility with E10 as quickly as possible – through a registration checker portal accessed via an app, webpage, or QR code.

The provision of information at the retail forecourt should be considered a last resort where previous communications have not succeeded. In this case, such information should be succinct, unambiguous, and not inadvertently encourage:

- the use of mobile phones at the pump as people research whether their vehicle is compatible with E10;
- consumers to seek guidance from staff at the forecourt as to whether their vehicle is compatible with E10 as this may present operational disruption;
- an unsupportable market share of 97+ E5 as uncertain consumers opt for the protection grade and reject 95 E10.

UKPIA believes it would help provide confidence to the consumer if the DfT provides simple and certain messaging regarding vehicle compatibility. For example, if 2011 is the year from which all petrol vehicles registered are compatible with E10 as stated in the Impact Assessment⁵, this should be prominent in all E10 information materials.

As the average age of a petrol car in the UK is 9.1 years,²⁶ guaranteed compatibility from 2011 would mean that the majority of petrol cars in the UK would be compatible with E10 by the time of proposed introduction in 2021. Therefore, a single piece of information – a year of registration – could provide suitable confidence to the majority of motorists to use the new 95 E10 grade.

Q 13 - Do you have further comments or suggestions for communicating the E10 compatibility message?

Additional information:

Key Points:

- Communication campaign must be widespread, led by HMG, and supported by fuels retailers and vehicle manufacturers.
- Information for the consumer must be simple and readily accessible. The primary resource should be a government registration check portal to confirm vehicle E10 compatibility via an app, web address, or QR code.
- UKPIA recommends that E10 consumer communications be agreed in a suitable cross-industry forum such as the DfT's Road Transport Emissions Advice Group (RTEAG) or re-establishment of the LowCVP E10 Working Group.

Average consumer awareness of fuel products in the UK is low and must be considered during the introduction of E10. The "Know Your Fuel" campaign will have elevated fuels in the public consciousness to a limited extent, however this did not require a behavioural change from consumers. Therefore, an even more sustained and impactful consumer information campaign will be required for the introduction of E10.

An effective information campaign will need to be led by HMG and supported by fuel retailers and vehicle manufacturers. Information for the consumer must be readily

²⁶ DfT Vehicle Licensing Statistics: Annual 2018, 11/04/19

accessible and cater for the most probable avenues of inquiry. HMG's coordinated information provision must include (but not be limited to):

- Static, radio, television, and internet marketing campaign.
- Vehicle registration E10 compatibility checker.
- Manufacturer feedback at all points of communication with consumer (e.g. purchase/lease, service, marketing materials).
- Leaflets providing all relevant information available at every forecourt.

It is essential that the UK conduct the most effective consumer communications campaign regarding E10 in Europe to ensure consumer adoption of 95 E10 is high from the outset. For example, Finland is widely regarded as having executed a successful 95 E5 to 95 E10 grade replacement. However, in the first three months of deployment, 25% of petrol sales shifted from the 95 E10 premium grade to the 98 E5 super grade.²⁷ Such a shift in market share could not be supported in the UK by the super grade infrastructure. Therefore, the UK needs to effectively inform the consumer and instil confidence to ensure the premium grade is utilised.

The Netherlands, Belgium, and Luxembourg offer vehicle compatibility checkers^{28,29} by searching vehicle marque. Such databases are based on E10 compatibility information provided by the European Automobile Manufacturers Association (ACEA)³⁰ and European Association of Motorcycle Manufacturers (ACEM).³¹ Whilst these are helpful tools to help inform the consumer on whether their vehicle is compatible, there is still a degree of interpretation and deviation in language that may not enable the consumer to make a swift and clear decision.

UKPIA strongly urges the DfT to develop a registration checker, based on ACEA and ACEM information, to provide a simple compatible/not compatible message to the consumer. If this is not practicable, the DfT should work with the SMMT to ensure the message style and structure across the OEMs is consistent and unambiguous.

At retail forecourts, leaflets and posters containing simple messaging regarding E10 compatibility should be featured to inform the consumer as swiftly as possible on their product choice and prevent questions regarding vehicle compatibility falling to the retail forecourt staff.

²⁷ 95 E10 Petrol in Finland, FPF (<https://www.lowcvp.org.uk/assets/other/E10%20in%20Finland.pdf>)

²⁸ <https://www.e10check.nl>

²⁹ <https://e10.febiac.be/public/e10.aspx?lang=FR>

³⁰ <https://www.acea.be/publications/article/e10-petrol-fuel-vehicle-compatibility-list>

³¹ <https://www.acem.eu/component/content/article/2-non-categorise/33-e10>

Call for Evidence - Implications of an E10 introduction for other policy mechanisms

Q 14 - Would an increase in RTFO targets, alongside or subsequent to an introduction of E10, deliver additional GHG savings from the scheme?

Yes if a consultation process subsequent to the introduction of E10 concludes feasibility.

No

Reasoning/ supporting evidence:

Net WTT GHG savings of UK transport fuel regulations are a complex area requiring rigorous analysis to quantify with confidence. At this stage, without confirmation of how else the RTFO might be adapted,³² UKPIA is unable to answer this definitively.

There is no doubt that thus far, the RTFO has delivered product lifecycle GHG reduction benefits.¹³ It is reasonable to deduce that, with abundant quantity and reliability of a range of fit for purpose renewable fuels in future, the introduction of E10 could enable elevated RTFO targets that could deliver additional WTT GHG savings versus the current implementation of the RTFO.

However, the introduction of E10 presents a significant perturbation to the UK renewable fuel mix and other factors such as product demand and differences in the supply chains for individual biofuels are essential and varying factors. Therefore, UKPIA suggests that this is carefully assessed and considered following a successful introduction of E10 in the UK.

Q 15 - Would you be supportive of such a change?

You may wish to consider the level of any increase and the timing of it within your answers. Please provide any evidence you may have to support your response.

~~Yes~~

No as it is premature to reach a conclusion on this at this stage. A consultation process subsequent to the introduction of E10 would enable consideration of support based on available data.

Additional information:

The introduction of E10 would offer an enhanced supply route for RTFC-eligible fuel and therefore presents a significant perturbation to the UK renewable fuel mix. Once the UK renewable fuel landscape has adapted, following a successful introduction of E10, UKPIA would encourage a rigorous review of the evidence to determine whether an increase in the annual RTFO obligated amount could feasibly deliver additional WTT GHG savings. Any changes to the RTFO obligated amount pre-empting or coinciding with E10, especially in light of likely fuel eligibility updates,³² could prove to be premature.

³² RTFO 2021 project update, Low Carbon Fuels Quarterly Stakeholder Workshop, 27/02/20

The RTFO obligated amounts were set to 2032 to provide investor certainty in the transport fuels sector and can present challenges to meet without buying-out at their current levels. Therefore, any changes to the RTFO must be rigorously impact assessed and justified with a robust evidence base. UKPIA suggests that any such review should also include the efficacy of existing mechanisms, such as the development fuel targets, in meeting the RTFO policy objectives.

Any increase in the RTFO obligated amounts must be contingent on continued technology neutrality and suitable consideration of the fuel standard requirements.^{33,34,35}

Q 16 – Do you expect any other risks or potential impacts of such a change other than the ones listed in this call for evidence?

<u>Yes</u>	<u>No</u>
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Additional information:

The crop cap stipulated in the RTFO relies on suitable second generation or waste-derived renewable petrol becoming available at sufficient quantities. Currently, the main second generation petrol component available in Europe is methanol in limited quantities,¹⁹ with ethanol derived from waste (food or starch slurry) accounting for only one tenth of UK bioethanol supply.³⁶ With an increasingly stringent crop cap up to 2032, and many European countries also restricting crop-derived biofuels, in future the UK will be competing for an increasingly limited supply of second generation and waste-derived biofuels globally. This may significantly impact the feasibility of meeting higher RTFO obligated amounts in future without buying-out.

In addition, higher obligated amounts will necessitate more prolific blending of renewable fuels. This is likely to include novel renewable fuel combinations and applications that may yield challenges in extreme conditions. For example, observations of agricultural vehicle fuel filter blocking have been linked to the biofuel content of gas oil.³⁷ Whilst there is a role for the British Standards Institution to develop fuel standards that protect the consumer as much as possible, it is essential that the DfT do not implement targets that cannot be met due to the limitations of renewable fuel chemistry and availability.

Any ongoing gap between blended volumes and the RTFO obligated amount indicates a failure to meet the policy objectives and an effective tax on consumers.

³³ BS EN 228 2012+A1:2017

³⁴ BS EN 590:2013+A1:2017

³⁵ BS 2869:2017

³⁶ Third Provisional Tables, Renewable Fuel Statistics, DfT, 2019

³⁷ <https://hansard.parliament.uk/Commons/2020-04-21/debates/2004217000047/RedDiesel>

Q 17 - Please provide any evidence you have on the potential impacts of continuing the GHG saving obligation beyond 2020. We are interested in evidence relating to costs and GHG savings as well as wider impacts on the industry.

If the targets were to continue, do you have any views on:

- a. Which measures should be rewarded with GHG credits? For example, should UERs continue to be included?**
- b. The level of the obligation, i.e. should it remain at 6%?**
- c. Any other changes to the system you would like to propose.**

Summary response:

UKPIA supports continuation of the GHG reduction target into 2021 and urges the DfT to conduct a holistic review of the RTFO and Motor Fuel (Road Vehicle and Mobile Machinery) Greenhouse Gas Emissions Reporting Regulations 2012 to ensure UK transport fuel regulation is ends-focused, viable, and stable from the late-2020s onwards.

Several EU member states adopt a GHG focused approach and there should be a regulatory framework in place in the UK that allows such an approach to be taken forward long-term if appropriate.

Overall, UKPIA's members view the issuing of GHG credits when RTFCs are claimed as a reasonably effective system.

Point a –

All mechanisms currently eligible to be included in GHG reduction calculations for transport within EU legislation should be eligible to receive GHG credits. This includes:

- Biofuels
- Lower WTT GHG fossil fuels
- Recycled carbon fuels
- Electricity
- RFNBOs
- UERs

UERs may continue to play a role in incentivising long-term, non-UK emission reductions. UKPIA requests that the DfT provide a checklist for the required criteria to be satisfied in order to simplify the UER verification process.

For biofuels, the carbon intensity as provided on a Proof of Sustainability should continue to be sufficient demonstration of delivery of a GHG saving. There should be no minimum limit on the carbon intensity of biofuels, as ongoing advances in technology and agricultural practices can enable further reduced carbon intensities. These values are heavily audited and accounted for by the Voluntary Schemes, and such improvements should be appropriately rewarded with GHG credits.

Additionally, UKPIA strongly urges the DfT to align fossil fuel comparators for GHG reductions as defined in the EU regulations.

Point b –

UKPIA supports continuation of the GHG reduction target at 6%, consistent with the FQD, for at least 2021. UKPIA considers continuation of the 6% target as an interim measure whilst the EC considers and publishes its position on the following:

- Additionality
- Hydrogen in the refinery
- Coprocessing

Once published, HMG is then able to consider national adoption of these GHG saving approaches in the context of the EU approach, while bearing in mind the UK not being part of the EU any longer. The Netherlands has already extended its legislation to allow the EC sufficient time to clarify its position.

Point c –

UKPIA encourages the DfT to consolidate the renewable fuel landscape from a UK perspective following the introduction of E10, updates to the RTFO, and clarification from the EC regarding new/updated transport fuel GHG reduction positions. At this point, a holistic view can be taken as to how the Motor Fuel (Road Vehicle and Mobile Machinery) Greenhouse Gas Emissions Reporting Regulations 2012 should evolve/continue.

Q 18 – Please use this space to add any additional comments, including questions raised in the Impact Assessment.

Additional comments:**Infrastructure Compatibility**

UKPIA would like to highlight to the DfT that some retail forecourts may feature infrastructure challenges with regards to elevated (>5% v/v) ethanol concentration compatibility. Whilst likely to impact a small number of sites in the UK, the consideration that these sites may be required to conduct replacement or pre-emptive maintenance activity is noteworthy. Examples of compatibility challenges include:

- Older Scheidt & Bachmann pumps use a Bakelite-type material that loses integrity when in permanent contact with >5% ethanol v/v petrol. This was observed by a member company when E10 was introduced in Germany - approximately 5% of the member's retail forecourts were affected.³⁸ UKPIA is not aware of retail forecourts in the UK featuring affected pumps, but DfT should remain cognisant of this for particularly old, rural sites.
- Some tank gasket materials can be sensitive to ethanol vapour, and elevated ethanol concentrations in petrol may accelerate the process. This may require some sites to conduct pre-emptive or more frequent maintenance.

³⁸ UKPIA member company data.

Unfortunately, UKPIA does not possess any data to confirm which sites (if any) in the UK may be affected by the above or other compatibility considerations, but would welcome working with government and industry to help understand the challenge.

The aforementioned HITRANS reports²³ concluded that the average age of many tanks in H&I retail forecourts is approximately 40 years. This provides an indication that H&I retail forecourts feature older infrastructure and therefore may not be as suitable for the retail of 95 E10 or require significant investment to do so.

Volumetric Lower Heating Value (VLHV) of E10

UKPIA would like to flag to the DfT that it considers the E10 vs E5 VLHV decrease calculated in Annex C of the Impact Assessment⁵ to be an oversimplification and, as a result, a possible overestimate of fuel economy decrease from the introduction of E10.

The calculation is based on a linear splash blend of 5% additional ethanol, effectively:

$$VLHV(E10) = 0.95 * (0.95 * VLHV(BOB) + 0.05 * VLHV(EtOH)) + 0.05 * VLHV(EtOH)$$

This assumes that the VLHV of the blendstock for oxygenate blending (BOB) is the same whether supplying E5 or E10 but, due to the blending octane and distillation characteristics of ethanol, an E10 BOB is likely to differ in composition from an E5 BOB.

How the E10 BOB composition varies will differ depending on manufacture, however, *overall* one might expect a small uplift in the VLHV of an E10 BOB as lower octane, more aliphatic components can be blended. This would result in a lower decrease to fuel economy. Please note that this principle would not apply to every batch from every refinery – it is a macro blending principle to support with overall UK calculations.

Introducing E10 Petrol Grade Offer Matrix

Overleaf, UKPIA has prepared a summary table of petrol grades offered at retail forecourts based on the above discussed criteria. (P.T.O.)

Introducing E10 Petrol Grade Offer Matrix

Retail Forecourt Provenance	Location	E5 Premium	E10 Premium	E5 Super	E10 Super
<1 million l/yr throughput	RFDR area ³⁹	Recommended	Permitted	Optional ⁴⁰	<p>Not permitted</p> <p>In the MFCC Regulations, super unleaded petrol is required to be E5; this requirement is expected to continue following the introduction of E10.</p> <p>In addition, offering E10 Super may cause consumer confusion and is not recommended.</p>
	Non-RFDR area	Permitted	Recommended	Optional	
Supplied from a terminal only supplied by a sea-going vessel and throughput <8000 tonnes/year ⁴¹	All	Recommended	Permitted	Optional	
>1 million l/yr throughput retailing one petrol grade ⁴²	RFDR area	Recommended	Permitted		
	Non-RFDR area	Not permitted	Mandatory		
>1 million l/yr throughput retailing two (or more) petrol grades	RFDR area ³	Recommended	Permitted	Optional	
	Non-RFDR area	Not permitted	Mandatory	Mandatory	

Definitions

Recommended

Most suitable product given correlation between qualifying site region and its vehicle parc. Regions in scope of RFDR generally feature populations with older vehicles (lower probability of E10 compatibility) and greater reliance on private vehicles. Such a recommendation does not imply a suitable supply chain being in place to support reliable provision of E5 Premium. Post-introduction, E10 Premium may be the primary viable supply option for many regions.

Permitted

Product can be retailed in case of supply restrictions with alternative recommended product.

Optional

Product technically as suitable as recommended option but unlikely to be as commercially suitable.

Mandatory

Product must be retailed under revised MFCC Regulations.

³⁹ Rural Fuel Duty Relief (RFDR) areas are defined under Excise Notice 2001: Rural Fuel Duty Relief Scheme, HMRC, 30/10/15.

⁴⁰ Possible instances where E5 Super is the most appropriate grade to source. This may still be retailed as E5 Premium if the sole grade offering.

⁴¹ Definition consistent with clause 5(4) of the Motor Fuel (Composition and Content) Regulations 1999.

⁴² Sites retailing only one petrol grade only have capacity to retail a premium grade.