

Consultation response form on increasing the Renewable Transport Fuel Obligation buy- out price to ensure continued greenhouse gas savings RTFO buyout increase

Moving Britain Ahead

UK Petroleum Industry Association Response

1. Responding to the consultation

The consultation period begins on 28th July 2020 and will run until 11th August 2020. Please ensure that your response reaches us at the following email address **on or before** the closing date.

Please send consultation responses by email to:

LowCarbonFuel.Consultation@dft.gov.uk

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.

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Company Name or Organisation	UK Petroleum Industry Association
Please tick one box from the list below that best describes you /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"/>	<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"/> Police
	<input type="checkbox"/> Member of the public
	<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:	<p>UKPIA represents the eight main refining and fuel marketing companies in the UK – BP, Essar, ExxonMobil, Petroineos, Phillips 66, Shell, Total, and Valero. UKPIA also consists of five associate members.</p> <p>This consultation response document represents the agreed view of UKPIA as representative of the sector, notwithstanding that, companies may also respond individually. UKPIA members have considerable experience with the trading and blending of renewable fuels in the UK and therefore not only have a strong interest in this consultation, but are able to provide first-hand, authoritative input on the matter.</p>
If you would like your response or personal details to be treated confidentially please explain why:	

2. Consultation response

Q 1 – Do you agree that we should increase the buy-out price under the RTFO as soon as possible?

Please provide reasoning for your answers and any evidence you may have to support your position.

Agree

Disagree

Supporting evidence:

UKPIA is supportive of an increase to the buy-out price of the RTFO effective from 1st January 2021 in light of the ending of the motor fuels GHG emissions reduction target on 31st December 2020. Such a modification to the RTFO should be monitored until government conducts a holistic review of UK renewable transport fuels regulations focusing on the best means to achieve further decarbonisation of transport fuels, such as via a well-to-wheel GHG emissions reduction approach.

As outlined in UKPIA's 2019 *Future Vision* publication¹, our sector believes there is an essential and growing role for low carbon fuels in decarbonising UK transport. UKPIA's members unanimously support the increase of the RTFO buy-out price as a measure to maintain consistent biofuel blending in the UK.

The GHG emissions reduction target for motor fuels has provided an additional driver for the blending of renewable fuels in UK motor fuels as fuel suppliers are obliged to meet a well-to-tank (WTT) GHG emissions reduction target in addition to the volume target mandated by the RTFO for a given year. The Motor Fuel GHG Emissions Reporting Regulations require a buy-out from the target for GHG emissions savings not achieved in addition to any RTFO buy-out.^{2,3}

Prior to discussing the buy-out price economics, it should be noted that there are several key additional factors that influence renewable fuel blending:

- The first is regarding limitations in responsiveness and flexibility in the UK supply chain whilst meeting suitable fuel quality. This is particularly relevant for petrol supply, where UK petrol fuel quality requirements are normally met via the blending of a set volume of ethanol into a petrol blendstock for oxygenate blending (BOB). Should bioethanol become more costly to blend than the combination of buy-out prices, ethanol would still need to be blended to achieve compliance with product standards. Therefore, there are practical and technical supply reasons as to why an obligation buy-out could not be triggered in response to the renewable fuels market without causing significant product quality issues.

¹ The UKPIA Future Vision: The Downstream Oil Sector in a Low-Carbon World, 2019

² Renewable Transport Fuel Obligations Order 2007

³ Motor Fuel (Road Vehicle and Mobile Machinery) Greenhouse Gas Emissions Reporting Regulations 2012

- The introduction of a minimum fuel component content requirement, such as the minimum ethanol volume requirement the DfT is considering, could place an additional requirement for renewable fuel blending beyond obligations under the RTFO and Motor Fuel GHG Emissions Reporting Regulations if the supply of the mandated component is predominantly renewable-derived.
- UKPIA and its members are committed to working with government to progress with the challenge of meeting net zero and contribute to this by lowering the carbon intensity of UK transport fuels. UKPIA's members have demonstrably delivered to this end⁴ and support a fit-for-purpose regulatory framework to continue the blending of high WTT GHG emission saving fuels. UKPIA agrees with the DfT that an obligation buy-out is a last resort, but important to prevent unnecessary additional societal cost in cases of significantly disrupted renewable fuel supply.

These are factors as to why, even when the blend cost of renewable fuel has approached the current buy-out price⁵, fuel suppliers have cost-effectively blended renewable fuel into UK motor fuels to meet their obligation rather than buying-out.⁴

The combination of the RTFO and Motor Fuel GHG Emissions Reporting Regulations, whilst arguably overly complex, has provided a suitable policy structure to ensure increased blending of renewable fuels in UK and incentivised the blending of fuels offering the highest WTT GHG emissions savings. UKPIA understands from DfT stakeholder engagement that a continuation of the motor fuels GHG emissions reduction target cannot be legally implemented by 31st December 2020 and agrees with DfT's conclusion that the absence of the GHG emissions reduction target does suggest the need for a buy-out price increase to help ensure continued levels of biofuel blending.

The UK sources its renewable fuels from a finite supply pool that other European countries with dedicated renewable fuels regulations (including buy-outs/incentives) and fuel quality standards (including cold temperature requirements and compositional restrictions) are also reliant on. Therefore, the UK must compete not only for fuels with suitable sustainability criteria, but also suitable quality for use in UK petrol and diesel.

Given any buy-out price is an essential balance of being high enough to encourage economic renewable fuel blending whilst low enough to ensure any necessary use does not carry unnecessarily significant societal cost, UKPIA suggests that DfT monitor any increase closely following implementation and introduce a mechanism to adjust the buy-out price more readily if needed. For example, by granting the Secretary of State powers to change the buy-out price in emergency situations such as in the Motor Fuel (Composition and Content) Regulations.⁶

It is important to note that whilst an increased volume obligation buy-out price may incentivise continued blending of renewable fuels, and even increase UK competitiveness for a finite pool of high WTT GHG emission saving fuels, it provides no requirement or target to blend with these high WTT GHG emissions saving fuels – in effect, a volumetric-only approach to renewable transport fuel blending does not provide a guarantee of the WTT GHG emissions saving *per litre* of the blend component used. Therefore, an

⁴ Renewable Fuel Statistics, Department for Transport

⁵ Biofuel supply costs as stated in Increasing the Renewable Transport Fuel Obligation buy-out price to ensure continued greenhouse gas savings, DfT, July 2020

⁶ Motor Fuel (Composition and Content) Regulations 1999 (as amended)

increase in the RTFO buy-out price in the absence of a motor fuels GHG reduction target must be considered a stop-gap measure until a holistic review of UK transport fuel regulation takes place.

This request is consistent with our input into the Transport Decarbonisation Plan and our response to the call for evidence section of the Introducing E10 Petrol consultation. UKPIA urges government to conduct such a review in the near-term, with a view to consolidating current renewable transport fuel regulations into one well-designed, well-to-wheel (WTW) GHG emissions focused policy and applying similar net GHG emissions principles to all UK transport policy as far as practicable. Such a policy approach is ends-focused and technology neutral with applications beyond road transport. More detailed explanation and a viable pathway can be found in FuelsEurope's Clean Fuels for All publication.⁷ UKPIA looks forward to inputting more broadly on this topic in the upcoming RTFO consultation.

Please note that whilst UKPIA is unanimous in its agreement that an increase in the RTFO buy-out price is needed in the absence of a motor fuels GHG emissions reduction target, and the need for a holistic review of transport fuels policy, members have mixed views as to the most appropriate price for this presumed-temporary measure. Therefore, UKPIA's response articulates the key arguments for both prices with equal support, with some members agnostic as to which of these two buy-out prices is adopted contingent on DfT conducting a holistic, technology neutral transport fuels policy review.

Q 2 - If you agree that we should increase the buy-out price under the RTFO, do you agree that it should be 50p/litre?

Please provide reasoning for your answers and any evidence you may have to support your position.

Some UKPIA members agree

Disagree

Supporting evidence:

The primary reasoning supporting an increase to 50p/l is:

- **To ensure the UK remains sufficiently economically competitive to be able to blend renewable fuels in an environment where neighbouring markets may also be increasing their renewable fuel targets.**
- **To provide the greatest disincentive to fuel suppliers to buy-out and displace would-be renewable fuel content with fossil-derived fuel.**
- **Signal long-term commitment to the decarbonisation of the UK's road fuels and therefore provide some investor assurance.**
- **Reduces the likelihood of repeated interventions to adjust the buyout price in response to the realities of the international supply market for biofuels.**

The RTFO buy-out price needs to be sufficiently high to incentivise blending to reliably meet RTFO targets and reduce the net GHG emissions of transport fuels. A higher buy-out price will provide better support to this end, as there are multiple variables that will

⁷ Clean Fuels for All - A Potential Pathway to Climate Neutrality by 2050, FuelsEurope, June 2020

contribute to the renewable fuel market economics. The buy-out price increase must be to a level that is resilient to these potential changes, whilst not risking unnecessarily high costs in the event of a necessary buy-out – an increase to 50p/l arguably achieves this balance.

An alternative perspective is to view the buy-out price as a means to ensuring volume obligation buy-out is economically unattractive. Appended is a calculation UKPIA has conducted, based on 2021 targets, that quantifies the current obligation costs if entirely fossil-derived diesel and petrol were supplied in 2021. This is not included in the body of the response as it represents a hypothetical counterfactual – renewable fuel blending is likely to continue – but provides some limited illustration of the level of costs to ensure buy-out price suitability.

Furthermore, given one outcome of this proposed buy-out price increase is to provide a temporary “fix” for the absence of a motor fuels GHG emissions reduction target, it is important to ensure the UK continues to compete for the blending of renewable fuels and, ideally, the highest WTT GHG emission reduction fuels. The UK will need to achieve this as it implements new tariffs following its exit from the European Union, and neighbouring countries concurrently increase the severity of their combination of targets and buy-outs/penalties. For example, the UK will need to be able to compete with Germany’s €470/tonne CO_{2e} buy-out price for motor fuels at its ongoing 6% GHG emissions reduction target⁸.

The 50p/l buy-out price will provide greater renewable fuel purchase resilience in such an environment, and the optionality to compete for the highest GHG emission reduction fuels, although it should be noted that the blending of such fuels will not be guaranteed – a GHG emissions-focused approach is required for this, and should be considered as part of a holistic transport fuel policy review. Whilst the fundamentals of DfT’s calculations arguably support option 2 (see question 3 below), a ‘typical’ biofuel will evolve as the supply landscape changes and competing countries’ policies evolve; therefore, the 50p/l buy-out price is likely to maintain UK competitiveness for longer.

An increase in the buy-out price to 50p/l will provide some level of investor confidence in the UK biofuel market. Efforts to grow cost-effective domestic manufacturing of the highest WTT GHG reduction fuels are laudable, however, it should be noted that a buy-out price increase of any level will not be able to provide “certainty” as claimed by the DfT⁹. The UK RTFO buy-out price is one variable amongst many in the economic viability of a domestic biofuel facility. UKPIA would welcome further engagement with DfT to discuss policies that could increase the attractiveness of the UK to potential investors in renewable fuel manufacturing.

In conclusion, considering the principle of maximising biofuel support to continue renewable fuel blending, and the broader environment the UK must continue to blend renewable fuel in, there are arguments to suggest the increase of the buy-out price to 50p/l from 1st January 2021 will succeed in its policy objectives.

⁸ Advanced Biofuel Policies In Select EU Member States: 2018 Update, ICCT, November 2018

⁹ DfT communication to RTFO stakeholders on 3rd August 2020

Q 2 3 - Would an increase to the RTFO buy-out price to 40p/litre be acceptable to you?

Please provide reasoning for your answers and any evidence you may have to support your position.

Some UKPIA members consider the 40p/l buy-out price to be more fit for purpose

No

Supporting evidence:

The primary reasoning supporting an increase to 40p/l is:

- **Historic data evidences that fuel suppliers have blended renewable fuel to meet their obligation even when buy-out has been similarly economically attractive.**
- **E10 is likely to be introduced in 2021, possibly resulting for the first time in a mandated minimum fuel component volume requirement that will be met via renewable fuel.**
- **Analysis of a ‘typical’ biofuel at true RTFC cost equivalence indicates that 40p/l more appropriately reflects the current combined and weighted regulation buy-out cost.**
- **40p/l provides the lower cost in the case of supply restrictions necessitating obligation buy-out.**

As Figure 1 of Annex A of the consultation demonstrates, renewable fuels have traded near the RTFO buy-out price (and even the combined RTFO and GHG reduction target buy-out price) in the past, without buy-out being opted for by fuel suppliers (up to the latest published data)⁴. As highlighted in our response to question 1, there are variables beyond buy-out economics that will have contributed to this and are likely to become greater factors in 2021 and beyond.

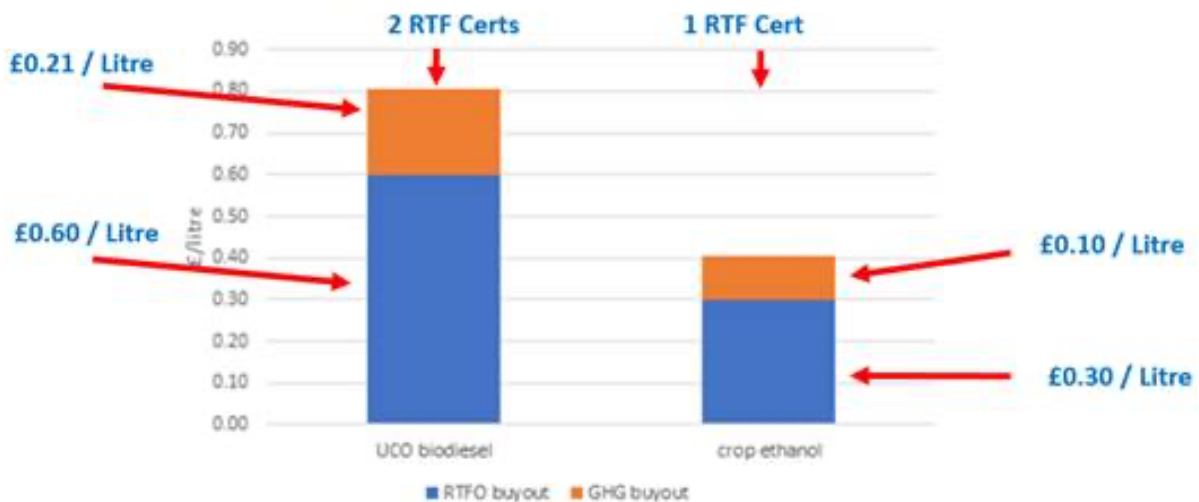
Should a minimum oxygenate content requirement be introduced in the Motor Fuel (Composition and Content) Regulations⁶, this would result in the unprecedented step of mandating a blend component (set) minimum. The most readily available oxygenate, ethanol, is predominantly available as a renewable fuel, therefore introducing E10 in the UK in this manner would, in effect, provide a further renewable fuel blend requirement beyond the RTFO. The introduction of E10 would also increase the permitted ethanol blend limit in the UK premium grade petrol pool – up to 10% by volume.

In the case of introduction in September 2021, 1/3rd of the reporting year could feature an oxygenate minimum and introduce some separation of the UK bioethanol and biodiesel markets. Some of a supplier’s RTFO obligation would be fulfilled by the mandate whilst the remainder is predominantly met by biodiesel and the remaining ethanol blend opportunity. Therefore, there is reduced need for a buy-out price increase beyond 40p/l.

In addition, DfT’s biofuel support methodology supports the case for 40p/l. Although this has not been performed on the published calculation, in order to introduce true GHG buy-out equivalence in terms of renewable transport fuel certificates (RTFCs), the GHG buy-out for used cooking oil (UCO)-derived biodiesel must be halved (as waste derived biodiesel provides two RTFCs per litre). The crop derived ethanol buyout is unchanged as

this fuel provides one RTFC per litre. Therefore, the combined, sales-weighted ‘support’ cost is 40.4p/l. Given the aforementioned factors additionally incentivising the blending of renewable fuels, this methodology therefore highlights that an increase to a 40p/l buy-out price will provide suitable support to incentivise continued renewable fuel blending whilst ensuring the lowest needed buy-out price (assuming similar blend/market conditions).

As with the 50p/l buy-out, a volume-based obligation buy-out only policy will not provide any guarantees of the WTT GHG emissions reduction of the blended fuels. However, measures such as the introduction of E10 will deliver valuable progress as it could enable increased displacement of fossil-derived fuel with renewable fuels.



In conclusion, considering the principle of an enabling buy-out price whilst minimising societal cost in case buy-out is needed, and considering historical blending and the introduction of E10, there are arguments to suggest the increase of the buy-out price to 40p/l from 1st January 2021 will succeed in its policy objectives.

Glossary of Terms

BOB	Blendstock for Oxygenate Blending
GHG	Greenhouse Gas
RTFO	Renewable Transport Fuel Obligation
RTFC	Renewable Transport Fuel Certificate
UCO	Used Cooking Oil
WTT	Well-to-Tank
WTW	Well-to-Wheel

Appendix A

UKPIA has conducted a simplified calculation below, based on 2021 targets, that seeks to quantify the cost in terms of £/% obligation of supplying solely fossil-derived diesel and petrol in 2021. It should be noted that such a calculation represents a scenario that is practically unlikely, and therefore should not be considered hypothetical, but is included here to highlight the possible obligation-only cost of the “extreme” scenario of supplying only fossil fuel in 2021. Please note that this presents a simplified scenario, other costs would be associated with such an approach that could reduce the commercial viability relative to what is indicated below.

RTFO main Obligation / % v/v	GHG Reduction Target / %	Resultant GHG Level / gCO ₂ e/MJ	
10.679 ¹⁰	6 ¹¹	88.454 ¹¹	
GHG Inputs	LHV / MJ/l	CI / gCO ₂ e/MJ	
Fossil Diesel	35.9	95.1	
Fossil Petrol	32.2	93.3	
	GHG Δ to Obligation / kgCO ₂ e/l	RTFO Δ to Obligation / %/l	
Diesel	0.2385914	0.10679	
Petrol	0.1560412	0.10679	
Existing Buy-Out Cost	£/GHG kgCO ₂ e	£/RTFC	
	0.074	0.3	
Diesel Cost / £/l	0.0177	0.0320	0.0497
		Resultant buy-out / £/%	0.465
Petrol Cost / £/l	0.0115	0.0320	0.0436
		Resultant buy-out / £/%	0.408

¹⁰ RTFO Guidance Part One Process Guidance 2020: 01/01/20 to 31/12/20, DfT, January 2020

¹¹ Motor Fuel Greenhouse Gas Emissions Reporting Regulations Guidance From 01/01/2019, DfT, February 2020