



Department
for Transport

Targeting net zero - Next steps for the Renewable Transport Fuels Obligation Consultation response form

UKPIA Response

1. Introduction and data protection

The consultation period begins on 25 March 2021 and will run until 11:45 p.m. on 23 April 2021. Please ensure that your response reaches us **on or before** the closing date. Due to remote working for the foreseeable future and health and safety issues with handling physical mail, we strongly encourage responses by email. Please send consultation responses to: LowCarbonFuel.Consultation@dft.gov.uk. If you are unable to respond by email, we would invite you to respond by asking someone to email on your behalf. If this is not possible, then we invite you to provide responses to:

Low Carbon Fuels Team
Department for Transport
Zone 1/32 Great Minster House
London SW1P 4DR

If you would like further copies of this consultation document you can contact the Low Carbon Fuels team at the details above and they 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 making amendments to the Renewable Transport Fuels Obligation. 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 type="checkbox"/>	On behalf of an organisation? Go to question 3
<input type="checkbox"/>	As an individual? Begin consultation response (section 3)

3. Organisation details: *

Address	UKPIA
	6 th Floor, 37-39 High Holborn, London
Postcode	WC1V 6AA
Email	seb.hirsz@ukpia.com
Your Role / Position	Energy Transition Lead
Please tick one box below that best describes your company or organisation.	
<input type="checkbox"/>	Academic
<input type="checkbox"/>	Consultancy
<input type="checkbox"/>	Fossil fuel supplier/producer
<input type="checkbox"/>	Renewable fuel supplier/producer
<input type="checkbox"/>	Non-governmental organisation
<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:	

UKPIA represents the eight main oil refining and marketing companies operating in the UK.¹ The UKPIA member companies – bp, Essar, Esso Petroleum, Petroineos, Phillips 66, Prax Refining, Shell and Valero – are together responsible for the sourcing and supply of petroleum products meeting over 85% of UK inland demand,² accounting for a third of total primary UK energy, and branding the majority of the UK’s 8,390 petrol filling stations.³

The refining and downstream oil sector currently lies at the heart of the UK economy. It provides a secure supply of affordable energy for road and rail transport, aviation and marine applications, as well as for commercial and domestic heating. It also supplies feedstocks for the petrochemicals sector, along with specialised non-energy products such as lubricants, bitumen for use in road surfacing, and graphite for use in electric vehicle batteries and as electrodes in steel and aluminium manufacture.

UKPIA’s recent publication – ‘The Future of Mobility in the UK’ – concluded there will be a significant role for renewable fuels in decarbonising the heavy duty and legacy light duty fleets with “accelerating the transition or liquid fuels from fossil-derived to biomass- or renewable energy-derived a no regret options for the UK.” The report also highlights the logic of a greenhouse gas (GHG) reduction target approach which UKPIA hopes will be considered by the Department for Transport (DfT) for transport energy in the near future.⁴

Accordingly, UKPIA are supportive of an increase to the main obligation of the Renewable Transport Fuel Obligation (RTFO) and the inclusion of additional well-to-tank (WTT) GHG saving options. Increasing the renewable fuel content of the UK’s transport fuels is a pragmatic means of decarbonising the UK’s transport. It is clear that a 1.5% increase on 1st January 2022 is an important measure to ensure any increased ethanol blending from the introduction of E10 is additional. Beyond this, UKPIA believes a more ambitious target increase than the government’s preference may be possible. Therefore, UKPIA urges the government to consider the UK’s renewable transport fuel landscape in more detail – particularly in the context of its northwest European neighbours – and review the RTFO main obligation in 2023 following the introduction of the 1.5% target increase.

This consultation response document represents the agreed view of UKPIA as representative of the sector, notwithstanding that, companies may also respond individually. All UKPIA members are RTFO obligated suppliers with many years of experience in providing renewable fuels to the consumer. Therefore, our members not only have a strong interest in the consultation, but are able to provide first-hand, authoritative input on the policy.

¹ www.ukpia.com

² Digest of UK Energy Statistics, BEIS, 2020

³ Energy Institute Retail Marketing Survey 2020

⁴ The Future of Mobility in the UK, UKPIA, March 2021

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.

Questions on the main Consultation proposals - Targeting net zero - Next steps for the Renewable Transport Fuels Obligation

Q1. Should we increase, decrease or keep the main obligation at the same level?	<u>Increase</u>	Decrease	Same
Please provide evidence and reasoning for your answer.			
<p>UKPIA supports an increase to the main obligation of the RTFO to increase renewable fuel blending in the UK and therefore more rapidly decarbonise the UK transport sector utilising existing infrastructure and expertise.</p>			
<p>An increase will be required to ensure the forthcoming introduction of E10 in September 2021 does not result in the displacement of renewable diesel or FAME, although the level of increase should be balanced against the need to maintain a viable and resilient fuel supply chain.</p>			
<p>A further increase trajectory will then be required to increase renewable transport fuel blending to 2032 and beyond.</p>			
For clarity, UKPIA confirms the following definitions used in this document:			
CCS	Carbon Capture and Storage		
CfD	Contracts for Difference		
CI	Carbon Intensity		
DLT	Distributed Ledger Technology		
E10	Road petrol containing up to 10% ethanol by volume and up to 3.7% oxygen content by mass		
EC	European Commission		
ETS	Emissions Trading Scheme		
FQD	Fuel Quality Directive 2009/30/EC		
HBRF	High Blend Renewable Fuel		
ICE	Internal Combustion Engine		
ILUC	Indirect Land Use Change		

(PEM)FC	(Proton Exchange Membrane) Fuel Cell
PPA	Power Purchase Agreement
REDII	Renewable Energy Directive (EU) 2018/2001
RFNBO	Renewable Fuels of Non-Biological Origin
ROO	Rules of Origin
RTFO	Renewable Transport Fuel Obligations Order 2007 (as amended)
TPO	Tyre Pyrolysis Oil
WFD	Waste Framework Directive 2008/98/EC
WTO	World Trade Organisation
(WTT) GHG	(Well to Tank) Greenhouse Gas

Q2. If you agree that we should increase the RTFO obligation, what level should it be increased by; 1.5%, 2.5% or 5%?	1.5% <i>On 1st January 2022</i>	2.5% <i>As a minimum commitment based on existing DfT analysis and preference</i>	5% <i>Or greater based on further DfT analysis of UK renewable transport fuels reviewed in 2023</i>
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Please provide evidence and reasoning for your answer.
Please note that this answer is provided in three sections.

1. 1.5% Increase on 1st January 2022

UKPIA supports the proposed increase to the RTFO main obligation by 1.5% on 1st January 2022 to ensure the forthcoming introduction of E10 in September 2021 does not result in the displacement of renewable diesel or FAME. UKPIA believes this level of increase is a pragmatic balance with the need to maintain a viable and resilient fuel supply chain (in combination with ethanol supply derogations provided by the 2021 amendment of the Motor Fuel (Composition and Content) Regulations 1999).⁵

2. Further Increase to 2032

UKPIA believes a greater increase than that preferred by the government and outlined by its option 3 should be feasible subject to more conclusive understanding of:

- Evolving petrol, diesel, and gas oil demand in the coming 15 years;
- UK biomass availability prioritised by sector decarbonisation potential;
- Resilience of UK renewable fuels policy amongst countries competing for finite feedstocks;
- Transparent and suitably resourced sustainability policing.

In the absence of this information, it is impossible to ascertain the suitable main obligation trajectory that most appropriately balances the need for maximising decarbonisation with what can be feasibly blended (i.e. minimise buy-out which would not be in line with the policy objectives). The anticipated decrease in petrol and diesel/gas oil demand in the next 15 years as the electrification of the light vehicle fleet increases and new production

⁵ Motor Fuel (Composition and Content) and the Biofuel (Labelling) (Amendment) Regulations 2021

for renewable fuels becoming available, may mean that higher levels of obligation than even the government's proposed option 3 would become possible.

Therefore, UKPIA proposes that the aforementioned analysis be conducted – in parallel with implementing the 1.5% target increase on 1st January 2022 – and the main obligation be reviewed in 2023. UKPIA stands ready to support the DfT with its analysis as the UK seeks to maintain an ambitious yet pragmatic renewable transport fuels policy.

Utilising existing information, UKPIA supports the government's preferred option to increase the RTFO main obligation by 2.5%, effectively resulting in a 1% increase from 2022 to 2032. However, should such an approach be adopted, UKPIA still strongly urges review of the main obligation in 2023 with the aforementioned analysis.

3. Key Considerations

RTFO obligations need to be aligned with available renewable fuel supply and the compositional requirements stated in the BS EN 228, BS EN 590 and BS 2869 Class A2 fuel standards. UKPIA is supportive of the EN standards being updated to support renewable fuel blending but notes that there is unlikely to be progress in this area until the EU updates the Fuel Quality Directive (FQD)⁶. Effective representation by BSI at CEN level will be needed for timely updates to standards and UKPIA's members stand ready to support progress in this area as far as they are able. It should be noted that any renewable fuel availability analysis should also include the implications of fuel quality issues in the UK field.

Indeed, alignment with EU policies should continue as far as possible as the UK seeks to decarbonise its transport sector. The UK remains a key trading partner with Europe and its energy system is deeply integrated with that of northwest Europe. Deviations in policy may have unintended consequences on the commercial viability of low carbon energy options and risk slowing the pace of the UK's decarbonisation.

UKPIA notes that higher blend biofuels for captive fleets would not necessarily be stimulated via a higher overall target, due to the presence of other barriers, in particular vehicle compatibility and logistics constraints. However, UKPIA is supportive of incentives for fleet operators to use higher blend biofuels, for example, fuel duty scaled with WTT GHG emissions to encourage demand. This, and other approaches on how to support low carbon fuel adoption in heavy duty vehicles is outlined in our Future of Mobility in the UK report.⁴ Additional benefits of higher blend renewable fuel usage on UK roads is that it can provide valuable information on deployment and use of these fuels to better inform future ratcheting up of the RTFO in future years as well as incentivising decarbonisation of difficult to decarbonise HGV fleets.

Both the DfT and Zemo project a significant increase in the demand for biomethane for transport.^{Error! Bookmark not defined.,7} Such growth may offer significant WTT GHG emissions savings, however, grows from a low base with limited infrastructure – as highlighted in the Zemo report. UKPIA would advise closely monitoring biomethane adoption as this is likely to influence the main obligation level when next reviewed (such as 2023). Biomethane should continue to be supported under the RTFO with equivalent certificate reward to liquid fuels and hydrogen.

⁶ Fuel Quality Directive 2009/30/EC

⁷ Market opportunities to decarbonise heavy duty vehicles using high blend renewable fuels, Zemo Partnership, March 2021

Q3. Do you agree or disagree that recycled carbon fuels should be eligible for support under the RTFO given their potential to deliver GHG savings?	<u>Yes (Agree)</u>	No
<p>Please explain your reasons:</p> <p>UKPIA believe that inclusion of support for recycled carbon fuels (RCFs) may offer additional routes for “low carbon” fuel deployment, provided such support ensures lower WTT GHG emissions and/or an alternative quantitative environmental benefit compared to alternative end-of-life fates.</p> <p>Implementation of circular economy policies may provide alternative opportunities for RCF feedstocks such as waste oil, plastics and tyres, with some of these opportunities being preferred if they recycle materials for their original use or an alternative use other than energy recovery as represented by their use in waste incinerators, cement kiln firing or as RCF feedstocks.</p> <p>In this regard, the high capital investment required for stand-alone RCF production and decreasing feedstock suggests that RCFs have limited long-term viability at scale. However, UKPIA refinery operators are developing opportunities for potential co-processing RCF feedstocks with crude oil or other refinery streams – this should be eligible for support under the RTFO if the fuels produced deliver lower WTT GHG emissions (see also response to Question 4 below).</p>		

Q4. Do you agree or disagree that only RCFs derived from refuse derived fuel and industrial wastes gases should be eligible for RTFO support?	Agree	<u>Disagree</u>
<p>Please explain your reasons, and if you disagree please provide an alternative approach and set out why.</p> <p>RCF eligibility under the RTFO should be consistent with definitions outlined by the Renewable Energy Directive (EU) 2018/2001 (RED II) and follow GHG-based criteria as far as possible. This would include refuse-derived fuel and industrial waste gases – which UKPIA is supportive of – but also other non-recoverable waste sources.⁸</p> <p>As both the RED II and Waste Framework Directive 2008/98/EC (WFD) have been adopted in UK law via the European Union (Withdrawal) Act 2018, the RTFO should include definitions consistent with these directives, including the waste hierarchy set-out under Article 4(1) of the WFD.⁹ UKPIA is supportive of embedding circular economy systems as far as is practicable possible with energy recovery normally a last resort as outlined in the waste hierarchy.</p> <p>UKPIA recognises that the DfT has conducted counterfactual analysis to identify the most suitable RCF feedstocks and opted to exclude tyre pyrolysis oil (TPO) support as a result of this analysis. However, it is UKPIA’s view that an input-prescriptive approach may prove to limit innovation and fuel development and therefore the RTFO will better meet its policy objectives via a broader, EU-consistent definition with clear GHG saving criteria stipulating what RCFs may qualify for support/certification.</p>		

⁸ Article 2(35) of the Renewable Energy Directive (EU) 2018/2001

⁹ Article 4(1) of the Waste Framework Directive 2008/98/EC

For example, UKPIA understands that tyre pyrolysis oil (TPO) obtained from the processing of waste tyre to recover carbon black and steel for recycling does not meet the specifications for transport fuels, for example BS EN 228 and BS EN 590, and has a very different chemical composition to crude oil derived petrol and diesel. However, TPO can be used as a feedstock for refinery production of fuels meeting these specifications via co-processing with crude oil or other refinery streams. In this situation, the fuels produced can deliver lower WTT GHG emissions than disposal. If there are no opportunities for recycling of the TPO in tyre manufacture or alternative uses other than energy recovery, they should be eligible for support under the RTFO and not unnecessarily excluded. Pyrolysis oils obtained from mixed plastics waste should be eligible on the same basis.

Therefore, UKPIA proposes that the DfT provide clear criteria for RCFs including the minimum GHG benefit vs the counterfactual that must be achieved and qualification requirements in an analogous manner to development fuels.

Q5. Do you agree or disagree that RCFs produced from solid feedstocks should contain at least 25% biogenic content, by energy?

Agree

Disagree

Please explain your reasons, and if you disagree please set out an alternative approach with evidence as to why.

The DfT's reasoning for 25% biogenic content as the threshold is unclear. UKPIA suggests the qualifying criteria is kept bound to GHG savings vs the counterfactual outcome. Biogenic content itself is not necessarily an indicator of GHG savings relative to a counterfactual disposal scenario.

Such a restriction without obvious benefit may inadvertently limit plant/process development options and therefore investment in future supply. RCF qualification should be as flexible as possible to support innovative developments whilst subject to clear GHG saving criteria to ensure meaningful decarbonisation.

Q6. Do you agree or disagree that support for RCFs should focus on those RCFs which can meet the UK's future strategic needs? That is, that only RCF types which are equivalent to current development fuels should be eligible for support. As such they would be eligible for development fuel certificates and to count towards the development fuel sub-target under the RTFO.

Agree

Disagree

Please explain your reasons.

UKPIA disagrees that support for RCFs should be limited to types which are equivalent to current development fuels, as the latter include types such as sustainable aviation fuels (SAFs) which are being considered for alternative form of support (e.g. the Jet Zero SAF mandate). At the same time, new RCFs or RCF feedstocks that are different to current development fuels may be developed and fully justifiable as being eligible for support under the RTFO.

The RTFO was originally designed to stimulate the deployment of renewable fuels in the UK fungible road petrol and diesel pools and has been successful in meeting this objective. More recently, the RTFO has added NRMM gas oil as an obligated fuel and optional provision for aviation fuel. DfT's efforts to decarbonise more transport modes via low carbon fuels is welcome, however, the RTFO's road-focused structure does have limitations when seeking to support transport modes with different supply and regulatory regimes. Therefore, the DfT should ensure that policy support for these modes is fit for purpose – if falling under the RTFO, dedicated targets/policy frameworks should be considered with a focus on WTT GHG emissions reduction.

UKPIA welcomes the Prime Minister's announcement in the Ten Point Plan for a Green Industrial Revolution to consult on a dedicated SAF mandate¹⁰ and is an active participant in the Jet Zero Council SAF Delivery Group. UKPIA's members are already looking at ways to deliver SAF and looks forward to working with the DfT to increase this in future.

The longer-term focus on SAF scale-up in the UK highlights the need to ensure RTFO support is not limited to deployment mode or technology type. Most current routes to SAFs involve hydrogenation of glycerides or a Fischer-Tropsch middle distillate synthesis route. Both produce outputs with a range of hydrocarbons, which must then be separated into streams of different molecular weight ranges, such as kerosene and diesel and some lighter components. The product mix may be further optimised by catalyst selection and further development, however a SAF producer is likely to need to deploy output product to applications such as heavy-duty road vehicles as well as aviation to optimise the plant economics. Therefore, should a SAF plant produce RCF product, it is important that these are eligible beyond dRTFC applications only.

Q7. Do you agree or disagree with the proposed GHG minimum thresholds and the timeline for increasing GHG emission saving criteria for RCFs?

Agree

Disagree

¹⁰ The Ten Point Plan for a Green Industrial Revolution, HM Government, November 2020

Please provide an explanation as to why.

UKPIA agrees with the GHG saving minimum thresholds as these are consistent with the RED II.

It should be noted that the stepwise increase in the threshold proposed by the DfT is unlikely to provide support beyond adopting the maximum 65% in one step. A new plant or process to manufacture RCFs is a significant, multi-year investment and would be assessed for commercial viability including long-term feasibility. Such an assessment will look to the long-term threshold enshrined in the policy with earlier stepped thresholds having greatly reduced significance in an investment decision.

A threshold approach to WTT GHG savings, as proposed by the DfT, does not incentivise chasing WTT GHG savings beyond the threshold level as no further certificates would be granted. Given overall GHG savings are the priority of any decarbonisation policy, this further highlights the logic and need for UK renewable fuels policy to adopt a GHG reduction reward approach. It is hoped that DfT's need to amend primary legislation for RCFs may also provide opportunity to reconsider a GHG reduction approach.

Q8. Do you agree or disagree with the proposed GHG emissions methodology to assess the GHG savings for recycled carbon fuels?

Agree

Disagree

Please provide an explanation as to why.

UKPIA agrees with the DfT's GHG emissions methodology to assess the GHG savings which is consistent with the WFD (see Q4).

Q9. Do you agree or disagree with our proposal that RCFs from solid feedstocks are eligible for two x 0.25 dRTFCs per litre, and RCFs produced from gaseous feedstocks are eligible for two x 0.5 dRTFCs per litre?

Agree

Disagree

Please explain your reasons.

UKPIA appreciates the DfT's objective in seeking to quantify an appropriate level of reward for RCFs, however, in UKPIA's view, the approach outlined in the consultation document is overly complex for a novel – and therefore commercially unestablished – feedstock type. UKPIA suggests that the reward be equivalent to other qualifying development fuels contingent on meeting suitable WTT GHG saving criteria.

In addition, dRTFC reward should not favour any particular technology – there should be equivalence whether derived from solid or gaseous feedstocks. It is unclear as to why gaseous feedstock-derived RCFs are eligible for greater reward.

Crucially, whatever reward level is provided under the RTFO for RCFs, it is essential that this is maintained to offer investors certainty in their commercial feasibility

assessments. UKPIA believes that in future reviews of the RTFO, the DfT may wish to have the option to increase the level of reward for certain feedstocks but should not consider reducing reward an option for this reason.

Overall, as RCF supply is likely to be limited (as aforementioned and discussed in the consultation document), there is likely to be limited risk of “over-incentivising” RCFs and so the level of reward should be equivalent to other fuels to support this emerging area.

Q10. RCFs from industrial waste gases have the benefit of avoiding release of the industrial gases to the atmosphere. Do you have evidence as to how it can be demonstrated that avoided GHG emissions have not been claimed elsewhere (e.g. under the Emission Trading Scheme), and that they have been attributed to the final fuel?

Yes

No

Please provide evidence.

RCF production from industrial waste gases should be considered separately alongside liquid fuel production from captured CO₂. UKPIA notes that contracts-for-difference (CfD) models are under development by BEIS to support carbon capture, utilisation and transport and storage and hydrogen production and use. The current proposal for the CCUS CfD model includes forfeiture of free allowances allocated under the UK Emissions Trading Scheme (ETS) in proportion to the amount of CO₂ captured. This proposal has potential to undermine policy provisions intended to guard against carbon leakage and loss of competitiveness. Cross policy interactions must be considered carefully to avoid unintended consequences and UKPIA encourages the DfT to engage with BEIS on this policy area.

Care must be taken when classifying industrial gases as ‘waste’ – the principles of the waste hierarchy stated in the WFD still apply.

Q11. Is “renewable energy that would not have been available to the grid in the absence of power demand from the RFNBO plant in question” an appropriate definition of additional renewable energy?

Yes

No

Please provide your reasons.

UKPIA suggests a minor revision of the definition to:

“renewable energy that is not and would not have been available to the grid in the absence of power demand from the RFNBO plant in question”

In order to ensure immediate viability is also covered. UKPIA believes this was the DfT’s intent with the definition and suggests this revision to reduce ambiguity.

UKPIA also suggests that the DfT may wish to clarify the meaning of “available” in this context in new guidance to minimise ambiguity.

UKPIA welcomes the addition of provision of Renewable Fuels of Non-Biological Origin (RFNBO) production via grid connected plants to the RTFO and is supportive of the DfT’s efforts in seeking to ensure any RFNBO production is contingent on *additional* renewable energy generation to support broader system decarbonisation.

It should be noted that BEIS is planning to launch a review of the Renewable Energy Guarantee of Origin (REGO) system in 2021¹¹ which is likely to include additionality considerations. UKPIA encourages the DfT to engage with BEIS (and Ofgem) on this policy area and ensure an aligned approach.

Q12. Should the Administrator be able to take into account the use of power purchase agreements (PPAs) as evidence that suppliers have purchased additional renewable energy in order to allow the renewable power generation to be located in a separate location from the RFNBO production facility?

<u>Yes</u>	No
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Please provide your reasons.

Remote provision under a power purchase agreement (PPA) should be supported provided renewable energy demand of manufacture can be demonstrated to be additional. Assessment of additionality and ongoing verification for PPA renewable electricity must be fit for purpose, whilst still ensuring that environmental benefits are achieved.

UKPIA acknowledges the DfT’s concerns regarding the sufficiency of REGOs in demonstrating additionality, however, REGOs are the primary mechanism by which additional renewable energy is demonstrated in the Great Britain electricity market with essential principles that should continue to be adopted, namely:

1. Generation data
2. Government support scheme support to generator
3. Independent verification and auditing by Ofgem

Such an approach is effective at reducing scope for fraud and double-counting. Therefore, UKPIA would encourage the DfT to work closely with BEIS and Ofgem in the upcoming review of the REGO system to ensure a consistent approach.

¹¹ <https://www.ofgem.gov.uk/environmental-programmes/rego/about-rego-scheme>

Whilst UKPIA agrees with the principle that the RTFO should include provision for PPAs being used as evidence for additional renewable energy generation, the qualifying criteria for such an approach should be clearly and transparently set-out by the DfT. The Administrator being able to “take into account” the use of PPAs suggests a level of ambiguous discretion for qualification and this must be avoided to maximise confidence in the policy and investor certainty to have the best chance of achieving the policy objectives.

Q13. A consequence of allowing the use of PPAs to demonstrate renewability, in combination with also permitting other suppliers to use a grid average renewability, is that the same renewable energy could be accounted for more than once. We consider this to be low risk when hydrogen energy and other RFNBO demand is small compared to the total renewable energy available on the grid. We are seeking views on whether this risk is acceptable. Is this risk acceptable?	Yes	No
	<u>Unsure</u>	

Please provide your reasons.

UKPIA acknowledges the DfT’s assessment that RFNBO demand is likely to be small relative to total renewable energy on the grid, however, this does not necessarily present acceptable risk for double-counting. Rigorous carbon accounting and transparently catalogued GHG emissions savings is at the core of the UK’s decarbonisation journey, and therefore UKPIA considers new provisions – in what is ultimately a decarbonisation policy – offering scope for double-counting of renewable energy an absolute last resort.

UKPIA encourages the DfT to engage with BEIS and Ofgem as part of their review of the REGO system to minimise such scope via PPAs (and other mechanisms such as a potential REGO replacement) and ensure a consistent approach across the electricity market. UKPIA would also encourage the government to proactively explore the role of distributed ledger technology (DLT) in authenticating supplied energy is renewable under a PPA. Blockchain can be used to guarantee the transparency and security of such a transaction and therefore minimise scope for double-counting under a PPA. Such an approach has been proven under a pilot programme by Iberdrola.¹²

Q14. Should appropriate adjustments be made to the amount of renewable energy supplied to a RFNBO production facility to account for transmission losses where renewable energy is transferred over the electricity grid?	<u>Yes</u>	No
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Please provide your reasons.

¹² <https://www.iberdrola.com/innovation/blockchain-energy>

UKPIA agrees that quantification of the amount of renewable energy supplied to a RFNBO production facility should account for transmission losses where renewable energy is transferred over the electricity grid. This mirrors accounting practices under the UK ETS.

However, this also raises a further potential issue. UKPIA believe that scale up of RFNBO production (in particular for low carbon/renewable hydrogen), will initially be achieved through a combination of hub or cluster-based large-scale production (such as that envisaged under the HyNet and Gigastack projects), with smaller dispersed local hydrogen production using on-site electrolysis. For large-scale projects producing hydrogen for industrial use or injection into the gas networks, the best options appear to be direct connection to renewable energy sources such as offshore wind, although a back-up electricity supply would be required due to the intermittency associated with some forms of renewable electricity.

For smaller scale dispersed hydrogen production, grid-sourced electricity is likely to be a more resilient supply, although steps will be required to ensure the additional electricity required is matched by increased renewable electricity generation elsewhere if the hydrogen produced is to be regarded as low carbon. In both cases, accounting for the amount of renewable electricity used will be complex, with transmission losses and GHG intensity at the RFNBO production site being dependent on where the electricity is sourced.

Support provided for RFNBOs must also consider the interaction between different policy areas and regulatory regimes, in particular, any changes proposed under the Ofgem Reform of network access and forward-looking charges¹³ and Targeted Charging Review: Significant Code Review¹⁴.

UKPIA notes the DfT’s intention to consult and develop guidance on this area and is supportive of a dedicated consultation to support the subsequent development of robust guidance.

Q15. Do you have any comments on the proposal to use a 30-minute time period for temporal correlation of renewable energy production and use?	<u>Yes</u>	No
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Please provide your comments.

UKPIA notes that shorter temporal correlation intervals may incentivise plant shut-down and start-up relative to longer periods to maximise rewarded operation. An unintended consequence of this could be reduced plant efficiency, increased maintenance, and/or increased non-GHG emissions at start-up. UKPIA would also seek clarification from the DfT on how renewable energy storage would be considered under such a paradigm. For example, if energy stored from renewable generation is deployed during a time period of low renewable generation, would such energy be considered renewable.

¹³ <https://www.ofgem.gov.uk/electricity/transmission-networks/charging/reform-network-access-and-forward-looking-charges>

¹⁴ <https://www.ofgem.gov.uk/electricity/transmission-networks/charging/targeted-charging-review-significant-code-review>

<p>Q16. Should the Administrator be able to permit fuel suppliers to use local grid GHG emissions factors in RFNBO GHG emission calculations? Circumstances in which this might be appropriate include where there are local grid constraints or other local conditions which mean that the local grid GHG intensity differs substantially from that of the national grid.</p>	<u>Yes</u>	<u>No</u>
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Please provide your reasons.

UKPIA agrees that the Administrator should permit the use of local grid GHG emissions factors in RFNBO GHG emission calculations with the circumstances under which this is appropriate in the RTFO set out clearly and transparently. Permission should not be granted on an ambiguous, discretionary basis by the Administrator.

The principle value in such an approach is offering opportunity for innovative RFNBO production as the UK grid rapidly decarbonises. Local grid accounting may incentivise local generation decarbonisation which, in turn, supports the UK's broader system decarbonisation.

As aforementioned, UKPIA welcomes the opportunity to support a dedicated consultation on this topic to support the subsequent development of robust guidance.

<p>Q17. A consequence of allowing local grid GHG emissions to be used in calculating the GHG intensity for a RFNBO is that GHG savings may be claimed by a production facility on a low GHG emission regional/local grid which have also been accounted for in the average national grid GHG intensity. Is this risk acceptable?</p>	<u>Yes</u>	<u>No</u>
	<u>Unsure</u>	

Please provide your reasons.

As per question 13, UKPIA is not in a position to comment on whether the level of risk is acceptable but would encourage that all feasible carbon accounting options are exhausted to minimise double-counting. Close partnership with BEIS and Ofgem to ensure a robust, consistent approach (such as an improved REGO system) and leveraging the use of technology such as blockchain should minimise scope for double-counting of renewable generation.

<p>Q18. Have we captured all the additional scenarios as set out in the proposals in the chapter and in the decision tree (Figure 13)? Please suggest alternatives with evidence</p>	<u>Yes</u>	<u>No</u>
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Please provide your reasons.

Figure 13 of the consultation document raises queries/areas needing clarification from the DfT:

1. What evidence would the DfT require to consider RFNBO production “inherent to the business plan of the renewable plant”? UKPIA would suggest that the intentions of a business are not relevant in confirming the GHG savings of a supplied RFNBO. Would a plant converted or modified to produce RFNBOs be less eligible to claim RFNBO RTFCs than a new, dedicated plant?
2. How would the DfT expect “excess power” to be demonstrated to claim additional use? UKPIA considers “excess power” to be complex to reliably demonstrate in a traded electricity market – even at points of distribution bottlenecks.
3. How does the DfT consider power generated by biomass (with and without carbon capture and storage (CCS)) in the context of RFNBO generation?

It should be noted that BEIS is planning to launch a review of the Renewable Energy Guarantee of Origin (REGO) system in 2021¹⁵ which is likely to include additionality considerations. UKPIA encourages the DfT to engage with BEIS (and Ofgem) on this policy area and ensure an aligned approach.

Q19. Do you agree or disagree that biohydrogen produced from biomethane reformation should be eligible for standard RTFCs rather than development fuel RTFCs?

Agree

Disagree

Please suggest alternatives with evidence.

Reclassifying the qualification of a technology type sets a challenging precedent for the RTFO that may undermine investor confidence. Almost all renewable fuel projects are multi-year and therefore reliant on a stable long-term policy environment. If the DfT reserves the right to reclassify dRTFC qualification, the long-term stability business cases are reliant upon is potentially undermined. UKPIA would suggest the DfT adopt an ‘addition only’ approach to dRTFC qualification similar to that employed by the European Commission (EC) for Annex IX of the RED II.

The DfT’s reconsideration of hydrogen produced from the reformation of biomethane highlights the challenges of a feedstock/production pathway specific approach to dRTFC qualification. UKPIA would suggest that the development fuel criteria are based on a WTT GHG saving approach to support the most innovative renewable fuels. As the government has made clear the role it sees for low carbon hydrogen in a Net Zero UK,¹⁰ dRTFC qualification for hydrogen produced from the reformation of biomethane provides support to a key strategic area for the UK. However, the approach suggested by the DfT continues to be technology specific – a GHG saving approach could also provide support for such a technology but concurrently encourage further innovation, thus incentivising further decarbonisation (e.g. improved carbon capture from the reformation process – see Q20).

It should be noted that whilst hydrogen produced from the reformation of biomethane does indeed produce CO₂ from the reformation process (offset to some extent at the

¹⁵ <https://www.ofgem.gov.uk/environmental-programmes/rego/about-rego-scheme>

biomethane feedstock growth phase), the pathway's support may extend beyond the use of the hydrogen itself. The UK's hydrogen economy is still in a nascent stage, and support such as dRTFC qualification for one of the earliest low carbon hydrogen production pathways may support broader hydrogen infrastructure – infrastructure that may be utilised by lower WTT GHG emission hydrogen in the coming decades. Therefore, continued qualification of hydrogen produced from the reformation of biomethane may offer decarbonisation benefits beyond simply its gCO₂e/kg saving, and support costs beyond that of solely production.

Should the DfT opt to reclassify hydrogen produced from the reformation of biomethane, it is strongly urged to produce clear, transparent criteria for development fuels with a stated minimum validity term to provide some level of investor confidence.

Q20. Certain advanced production methods for biohydrogen are likely to be of strategic future importance and require new investments, such as addition of CCS. Do you agree or disagree that when these methods are used, biohydrogen produced from biomethane reformation should remain eligible for development fuel RTFCs?

Agree

Disagree

Please provide your reasons.

UKPIA agrees that hydrogen produced from the reformation of biomethane with carbon capture represents a key area of the development for the UK and should be eligible for dRTFC qualification.

Given the essential role of CCS, the DfT should work closely with BEIS to avoid cross-policy interactions providing unintended incentives or consequences. UKPIA notes that CfD models are under development by BEIS to support carbon capture, utilisation and transport and storage and hydrogen production and use. The current proposal for the CCS CfD model includes forfeiture of free allowances allocated under the UK ETS in proportion to the amount of CO₂ captured. This proposal has potential to undermine policy provisions intended to guard against carbon leakage and loss of competitiveness.

In summary, successful support for low carbon hydrogen and carbon capture, utilisation, and storage must be a cross-departmental objective, with the RTFO supporting supply of low carbon hydrogen to transport in an aligned, complementary manner to industrial decarbonisation policies.

Q21. Hydrogen is likely to be an important power source for parts of the railway that are not possible to electrify. Do you agree or disagree that renewable fuel used in trains powered by fuel cells should be eligible for RTFCs?

Agree

Disagree

Please provide your reasons.

UKPIA agrees that hydrogen for fuel cells for rail should be eligible for reward with (d)RTFCs to support the use of low carbon hydrogen in non-electrifiable parts of the rail network. The role of hydrogen in rail is explored in more detail in our Future of Mobility in the UK publication.⁴

As outlined in Q21, such provision under the RTFO should be worked across departments to avoid any unintended cross-policy interactions. Whilst internal combustion engine (ICE) renewable fuels for rail are already included in the RTFO, hydrogen may present additional complexity. Moving forward, it may transpire that renewable fuel support for rail is better served under an alternative paradigm/framework (like the SAF mandate for aviation).

Q22. Hydrogen also has the potential to be an important power source for construction and other non-road vehicles. Do you agree or disagree that renewable fuel used in these vehicles powered by fuel cells should eligible for RTFCs?

Agree

Disagree

Please provide your reasons.

As NRMM is already supported by the RTFO for carbon-based fuels, UKPIA believes qualification for (d)RTFCs for hydrogen in non-road mobile machinery (NRMM) applications is a logical extension to the RTFO. The role of hydrogen in NRMM applications is explored in more detail in our Future of Mobility in the UK publication.⁴

UKPIA is aware of a dedicated work programme at BEIS scoping the decarbonisation of the off-road sector. UKPIA would encourage the DfT to work closely with BEIS to ensure aligned and complementary policies for this difficult to decarbonise sector.

It should be noted that HMRC's recent announcement on the cessation of the rebate of fuel duty for many red diesel applications¹⁶ poses a significant challenge to businesses reliant on red diesel for transport/machinery energy. Whilst hydrogen provision would be duty-free, limited availability of the energy vector and hydrogen fuel cell (FC) or internal combustion engine (ICE) NRMM presents these businesses with limited alternatives to fossil-derived liquid fuels. UKPIA proposes that high blend renewable fuels (HBRFs) incur reduced fuel duty – scaled by their carbon intensity – to support the decarbonisation of the NRMM sector via the use of low carbon fuels. Such an approach is also concluded and proposed by the Zemo Partnership in their latest HBRF study.⁷

Q23. Hydrogen supplied to retail customers is already eligible for RTFCs. Do you agree or disagree that the assessment time for hydrogen should be amended to make clear that fuel supplied to commercial customers can also qualify for RTFCs?

Agree

Disagree

¹⁶ Reform of red diesel and other rebated fuels entitlement, HMRC, March 2021

Please provide your reasons.

UKPIA is supportive of pragmatic steps to broaden possible end-use options/take-up of low carbon hydrogen. Our analysis of the role of hydrogen in transport is explored in more detail in our Future of Mobility in the UK publication.⁴

Q24. Do you agree or disagree that the default and disaggregated default values for calculating renewable fuel CI values under the RTFO should be updated in line with those published in the RED II Annexes?

Agree

Disagree

Please provide your reasons.

UKPIA agrees that default carbon intensity (CI) values in the RTFO should be aligned with those in RED II. Renewable fuels are a globally traded commodity with the UK deeply integrated in northwest Europe product flows. Therefore, UK renewable fuel sustainability criteria should be consistent with those of the EC to ensure as frictionless trade as possible.

Consistency with EC requirements includes no additional requirements over and above those found in the FQD, WFD, and RED II. Efforts to 'gold plate' risk introducing barriers/complexities to the aforementioned product trade. This includes in the policy-forming stage, where GHG comparisons should be modelled without ILUC emissions consistent with EC practice – ILUC can then be layered post-model.

Q25. Do you agree or disagree with our proposal to remove the GHG emissions credit for cogeneration of electricity from the greenhouse gas saving methodology to prevent overstating the GHG emissions savings achieved by the finished fuel?

Agree

Disagree

No view

Please provide your reasons.

UKPIA does not have a view on this question.

Q26. Do you agree or disagree that biomethane suppliers should be able to apply a GHG emissions saving credit for avoided emissions when calculating the carbon intensity of biomethane produced from manure?

Agree

Disagree

No view

Please provide your reasons.

UKPIA does not have a view on this question.

<p>Q27. Do you agree or disagree that when biomethane is created via the codigestion of multiple feedstocks, the supplier should continue to be required to report the CI of each individual consignment? That is, the supplier should not be permitted to average the CIs across feedstocks, in line with the mass balance rules which apply to other biofuels.</p>	<p>Agree</p>	<p><u>Disagree</u></p>
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Please provide your reasons.

UKPIA disagrees that reporting the CI of each individual consignment when biomethane is manufactured via the codigestion of multiple feedstocks should be a requirement as this is inconsistent with the approach outlined under Annex VI of RED II.¹⁷ Voluntary schemes used to certify the sustainability criteria of such products will also adopt an approach consistent with RED II, therefore, such an approach should be permitted under the RTFO.

<p>Q28. Do you agree or disagree with our proposal to update the fossil fuel comparator from 83.8 gCO₂e/MJ to 94 gCO₂e/MJ to better reflect the real world GHG emissions associated with fossil fuels?</p>	<p><u>Agree</u></p>	<p>Disagree</p>
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Please provide your reasons.

UKPIA agrees the fossil fuel comparator of the RTFO should be updated in line with that of RED II.

<p>Q29. Do you agree or disagree that we should update the minimum greenhouse gas saving thresholds to offset the impact of the revised fossil fuel comparator? This would prevent support for renewable fuels which have worse GHG emissions than those supported now.</p>	<p><u>Agree</u></p>	<p>Disagree</p>
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¹⁷ Annex VI of the Renewable Energy Directive (EU) 2018/2001

If you agree - do you agree with the levels of the new proposed GHG savings thresholds? If you disagree - please provide your reasoning.

UKPIA agrees that an update to the fossil fuel comparator must be met with an updated threshold that ensure the UK competes for fuels with at least as good GHG savings as under the current policy framework.

It should be noted that the cessation of the GHG reduction target approach at the end of 2020, leaving a solely GHG threshold-driven volumetric target renewable fuels policy in the UK, means there is no longer a policy incentive to maximise the WTT GHG savings of renewable fuels deployed in the UK. UKPIA would encourage the DfT to consider a competitive GHG reduction target-driven renewable fuels policy for the UK to incentivise the deployment of the highest GHG saving fuels and maximise decarbonisation efforts via transport fuels.

<p>Q30. Do you think we should consider introducing a tighter GHG emission savings threshold for fuels produced in new production facilities in the future? This would be in addition to the existing thresholds that we are proposing and would only apply to installations not yet built.</p>	<p><u>Yes in line with any amended RED post-2026</u></p>	<p><u>No until the RED is amended</u></p>
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Please provide your reasoning.

UKPIA agrees that the RTFO GHG emissions savings threshold should be updated to the minimum 65% threshold articulated under Article 29 of the RED¹⁸ for consistency:

“(c) at least 65% for biofuels, biogas consumed in the transport sector, and bioliquids produced in installations starting operation from 1 January 2021;”

Should the Renewable Energy Directive be updated or amended altering or adding further GHG reduction thresholds, UKPIA proposes that the RTFO continue to mirror its approach. UKPIA is not supportive of a more stringent, UK-specific approach for new plants as this may risk UK competitiveness in the renewable fuels market. Any UK renewable fuels policy should seek to maximise blending of the highest GHG saving fuels in the UK.

As outlined in Q29, a GHG reduction target approach would incentivise the deployment of the highest GHG saving fuels and signal to investors demand in the UK to improve plant GHG performance. UKPIA is supportive of UK renewable fuels policy being driven by a GHG reduction target approach.

<p>Q31. If you answered yes to Q30 - what do you think the minimum GHG emission savings threshold should be and what should the start date be? Do you agree or disagree that we should increase the RFNBO GHG threshold to 65%?</p>	<p><u>Agree</u></p>	<p><u>Disagree</u></p>
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¹⁸ Article 29 of the Renewable Energy Directive (EU) 2018/2001

Please provide supporting evidence.		
See answer to Q30. The RFNBO GHG threshold should be consistent with other renewable fuel GHG savings thresholds in the RTFO.		

Q32. Do you agree or disagree with our proposal to add 'highly biodiverse forest and other wooded land which is species rich and not degraded' to the list of restricted land categories? This will increase existing environmental protections and keep pace with international protections.	<u>Agree</u>	Disagree
Please provide your reasons.		
UKPIA agrees that 'highly biodiverse forest and other wooded land which is species rich and not degraded' should be added to the list of restricted land categories to be aligned with EC protections.		

Q33: Do you agree or disagree that we should continue to allow the production and harvesting of biofuel feedstocks from 'highly biodiverse forest and other wooded land' when it can be demonstrated that the production and harvesting of the feedstock from the land was completed without compromising the land type's nature protection purposes?	<u>Agree</u> <u>contingent</u> <u>upon robust,</u> <u>transparent</u> <u>monitoring</u>	Disagree
Please provide your reasons.		
In principle, UKPIA agrees that the production and harvesting of biofuel feedstocks from 'highly biodiverse forest and other wooded land' should be permitted when it can be demonstrated that the production and harvesting was completed with compromising the nature protection purposes of the land in question. However, UKPIA appreciates this is a complex and sensitive area to guarantee practically. Therefore, the DfT would need to outline a robust, transparent, and suitably-resourced monitoring regime to ensure harvesting on such land is indeed conducted with compromising the land type's nature protection purposes.		
The UK should seek to remain consistent with the EC on this matter and work closely with its international partners to ensure high standards of protection and monitoring for environmentally significant or sensitive land are maintained by all.		

Q34. Do you agree or disagree with our proposal to update the definition of highly biodiverse grasslands to maintain consistency with other land types, international definitions, and to facilitate the continued use of voluntary schemes?	<u>Agree</u>	Disagree
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<p>Please provide your reasons.</p> <p>UKPIA agrees that the definition of highly biodiverse grasslands should be updated to be aligned with EC definitions. UK renewable fuel deployment is reliant upon sustainability certification via voluntary schemes therefore it is critical that RTFO definitions are consistent with those of voluntary schemes (which, in turn, mirror the EC's) for their continued use.</p>		

<p>Q35. Do you agree or disagree with our proposal to require that suppliers of biofuels produced from agricultural residues must demonstrate that monitoring and management plans are in place which address the impact of the removal and processing of the feedstock on the site's soil quality and soil carbon content?</p>	Agree	Disagree
	<u>No view</u>	
<p>Please provide your reasons.</p> <p>UKPIA does not have a view on this question.</p>		

<p>Q36. Do you agree or disagree with our proposal to introduce new sustainability criteria specifically for feedstocks sourced from forest biomass? Note that this would mean that biofuels from forestry feedstocks will no longer be required to meet the land criteria, but instead would be required to meet specific forest criteria.</p>	<u>Agree contingent upon alignment with EC</u>	Disagree
<p>Please provide your reasons.</p> <p>UKPIA is supportive of new sustainability criteria specifically for feedstocks sourced from forest biomass provided they are aligned with RED II and voluntary scheme sustainability requirements.</p>		

<p>Q37. Do you agree or disagree that the proposed criteria better represent the specific environmental impacts associated with forestry?</p>	Agree	Disagree
	<u>No view</u>	
<p>If you disagree, please provide your reasoning.</p> <p>UKPIA does not have a view on this question.</p>		

Q38. Do you agree or disagree that we should remove references to RED II Annex IX Part A from this definition?	<u>Agree</u>	Disagree
<p>If you disagree, please provide your reasoning.</p> <p>Whilst UKPIA would normally advocate for alignment and referencing with RED II, it is mindful that these approaches must be taken in the context of the existing RTFO. Given the importance of continued exclusion of dedicated energy crops from the RTFO crop cap, UKPIA agrees that the references to Annex IX Part A of RED should be removed.</p> <p>Development of dedicated energy crop-derived fuels offers opportunity for continued – or potentially even increased – renewable fuel deployment in the UK as the crop cap continues its decreasing trajectory.</p> <p>For the avoidance of doubt, removal of the reference to Annex IX Part A of the RED should not result in deviation from the Annex’s principles. As aforementioned, the ‘addition only’ principle of Annex IX should be adopted by the RTFO for development and double-rewarded fuels. In addition, the RTFO should review feedstock eligibility at least biennially, as is required by Annex IX, with reviews swiftly following an Annex IX review to maintain consistency. UKPIA notes the DfT have sought to review eligible feedstocks on an annual basis – it appreciates these efforts and supports such frequency continuing.</p> <p>In future, should the RTFO be updated in such a manner that the dedicated energy crop definition complexity is resolved, the DfT may wish to consider reintroducing reference to Annex IX Part A of the RED.</p>		

Q39. Are there any impacts that we have not foreseen?	<u>Yes</u>	No
<u>Not specifically</u>		
<p>If yes, please explain your reasoning and provide evidence.</p> <p>UKPIA has not specific impacts or scenarios to flag but would like to take this opportunity to reiterate the importance of alignment with the EC’s renewable fuels-related directives – principally the Renewable Energy Directive. The deviation or ‘gold plating’ of UK policy – whilst having the best of intentions – can risk inadvertent consequences on trade, supply resilience, and UK investment competitiveness.</p> <p>UKPIA is supportive of the DfT’s broader decarbonisation objective and looks forward to working with the department on improving UK renewable fuels policy for many years to come.</p>		

Q40. Do you agree that the specified amount used in determining civil penalty amounts related to the main obligation, should change to twice the buy-out price? This would be in line with the development fuel obligation and previous obligation periods.	<u>Yes</u>	No
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<p>If yes, please explain the reasons you agree. If you do not agree, please state what you think the multiplier should be, and why.</p> <p>UKPIA is supportive of an update that maintains alignment with the development fuel obligation and previous obligation periods.</p>		

<p>Q41. We propose that RTFCs should not be awarded if the renewable fuel or chemical precursor benefits from other support schemes such as feed-in tariffs and premium payments. Do you agree that we should we further limit multiple reward of renewable energy and chemical precursors?</p>	Yes	No
	<p><u>More information required to comment</u></p>	

Please provide reasoning and evidence for your answer.

As highlighted in the consultation document, “biofuels and renewable fuels are generally more expensive than fossil fuels”, therefore there is an important role for well-designed support schemes in supporting renewable fuel deployment in the UK that should not necessarily preclude the award of RTFCs. However, this is a complex area requiring detailed analysis and cross-departmental engagement – in particular the Department for International Trade (DIT).

By default, the UK should be guided by its obligations under the World Trade Organisation (WTO). The practicalities of enforcement are not outlined in detail in the consultation document and may prove challenging for the DfT to pragmatically and uniformly implement.

UKPIA would suggest that updates in this area are discussed with industry and relevant departments following this consultative period for delayed implementation. Such updates are not urgently required for implementation from 1st January 2022 to increase renewable fuel blending and the economic sensitivities warrant more thorough review. UKPIA would welcome further discussion with the DfT and other stakeholder departments on this topic.

<p>Q42. We have set out some circumstances where support in addition to that offered by the RTFO might be appropriate. These include if the production facility receives investment aid, including government grants or government loans. Should there be other exceptions when limiting multiple reward of renewable energy and chemical precursors?</p>	Yes	No
	<p><u>More information required to comment</u></p>	

If yes, please list them and provide reasoning and evidence for your answer.

UKPIA notes the use of anti-dumping tariffs by DIT as a renewable fuels-related mechanism and would encourage the DfT to further engage with relevant departments on this topic. UKPIA would suggest that updates in this area are discussed with

industry and relevant departments following this consultative period for delayed implementation. Such updates are not urgently required for implementation from 1st January 2022 to increase renewable fuel blending and the economic sensitivities warrant more thorough review. UKPIA would welcome further discussion with the DfT and other stakeholder departments on this topic.

Q43. Do you anticipate any unintended consequences with this change?	<u>Yes</u>	No
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Please provide reasoning and evidence for your answer.

This is a complex area warranting further analysis than outlined in the consultation document. Therefore, inevitably, there are likely to be unintended consequences not outlined in the consultation document that result from such a change.

One item that has been raised with HMRC as a result of the EU-UK Trade and Cooperation Agreement (TCA), is that the Rules of Origin (ROO) which impact on customs tariffs liability now mean that UK exports of fuels can only have a maximum non-originating materials value of 10% in order to benefit from preferential tariffs. As biofuels tend to be more expensive than their fossil equivalent, and with retail petrol and diesel blends having a higher volumetric biofuel content as a result of RTFO and E10 proposals. Exports of finished products may hit this value threshold and become subject to customs tariffs if the bio-content cannot be sourced in the UK (or EU) and therefore claim origin. It should be noted that many exported fuels are not already blended with bio-content, so this is not yet a widespread issue. However, where the UK exports to ROI (and even to NI given the complications of the NI Protocol), tariffs could be incurred in this way and is a potential unintended consequence of two otherwise unrelated policies.

Questions on the Role of the RTFO in Domestic Maritime Deep Dive Consultation (Annex A)

See separate response document.

Questions on the Cost benefit analysis (Annex B)

Q1. Do you think that the marginal fuel is still FAME UCOME biodiesel?	Yes	No
	<u>No comment</u>	

Please provide reasoning and evidence for your answer.

UKPIA believes there is no added value in confirming the marginal fuel of the DfT's cost benefit analysis as the renewable fuels landscape fluctuates significantly with even the short-term validity of any answer impossible to guarantee.

Q2. Do you agree that the assumptions made within our modelling are reasonable?	Agree	<u>Disagree</u>
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Please provide reasoning and evidence for your answer.

In general, the assumptions appear to be fair, however, UKPIA has identified some weaknesses in the DfT's modelling – most notably the absence of some key input variables rather than significantly erroneous assumptions:

- Fuel demand is modelled from the 2019 Energy and Emission Projections (EEP) which, as UKPIA understands, models road transport fuel energy using forecasting functions rather than deriving from a modelled UK vehicle parc. This is a key weakness as UK fuel demand should be modelled based on vehicle demand factoring in powertrain types, efficiencies, and duty cycles as road transport related policies are enacted.
- Biomass availability (segmented by feedstock) is not factored-in as a constraint on fuel availabilities. For example, the UK may be limited by waste-derived ethanol supply as the crop-cap decreases and be forced to blend lower volumes than the 9-10% v/v driven by the updated RTFO target.
- Renewable fuels policies of key neighbouring countries are not accounted for as competition for finite availability. This will also impact what is ultimately available for blending in the UK road fuel pool.
- The impact of ceasing the red diesel rebate for many NRMM sectors is not included in the model – this is likely to impact gas oil/diesel demand and therefore biodiesel and/or distillate-type renewable fuel demand.

In addition, it would appear that the DfT's modelling has assumed more conservative light duty vehicle electrification than suggested by the government. A robust vehicle parc model (linked to point 1 above) is critical to understanding overall road fuel demand and therefore the probable availability of renewable fuels for blending.

UKPIA appreciates the complexity in developing a robust demand model and would welcome working with the DfT to refine its model to inform further policy updates.