Transition reviews of anti-dumping measures and countervailing duties applying to biodiesel originating in the USA and consigned from Canada.

RTFA Comments on the Statement of Essential Facts[1]

TD0004 & TS0005
NON-CONFIDENTIAL
21 January 2022

[1] Note that many of the determinations made by the TRA are identical in the dumping and subsidy SEFs. The paragraph numbers identified below refer to the subsidy SEF but, where the determination is also made in the dumping SEF, RTFA's comments equally apply to the dumping case.

1 Introduction

1.1 US HVO exports are distorted and therefore the decision to remove measures on them is a critical one

In the SEF, the TRA makes clear conclusions on a likely increase in subsidised and dumped imports for biodiesel (both FAME and HVO).

- US FAME and HVO continue to benefit from countervailable subsidy schemes.
- US FAME and HVO are likely to be dumped if the current measures are removed.
- Subsidised and dumped imports of US FAME and HVO are likely to increase if the current measures are removed.
- The US imports of FAME are likely to undercut UK industry prices and thus are likely to cause injury.

In relation to HVO, despite the above findings, the TRA determined that the increased dumped and subsidised US HVO imports would not cause injury to UK producers because there would be no price undercutting.

Most of the conditions to maintain measures on HVO have been met due to the significant distortions to trade and the spare capacity in the US domestic market. The decision to remove the measures on HVO on the basis of no price undercutting is therefore a critical decision. RTFA submits that the TRA should only determine that HVO should be excluded if there is strong evidence that injury will not be caused to UK FAME producers.

1.2 The distortions to trade found in the original investigation are very significant

The current measures are based on dumping margins of 10.1% to 88.4%[2] and subsidy margins of 29.1% to 41.0%. The combined margins range from 34.5% to 127.4%. This means that US imports were found to be between 44% and 74% of the non-subsidised, non-dumped price[3].

[2] One company was found to be dumping at de minimis levels (Cargill Inc) but their exports were still found to be subsidised with a margin of 34.5%.

[3] For a normal market price of, say, 100, a 127.4% combined dumping and subsidy margin means that the distorted price is 44.

The impact of these unfair trade practices on the UK biodiesel industry, therefore, is very significant. This is not about protectionism or restricting UK users and consumers from having access to cheaper biodiesel. It is about very significant distortions to trade that create an unfair advantage for US exporters. The measures, therefore, are about restoring effective competition to the UK biodiesel market which is to the benefit of all other interested parties.

1.3 Non-cooperation by US exporters means the determination has been based on minimal facts available

RTFA is greatly concerned by the decision to terminate measures on HVO because this will cause significant current injury to UK industry as well as intensified likely injury in the future. RTFA does not believe that there is sufficient information on the file to justify excluding HVO given the likely subsidy, dumping and a consequent increase in HVO imports. Further, RTFA submits that, taking into account all of the facts that are actually available, the removal of trade remedies on HVO is highly likely to cause significant current and future injury to UK producers of FAME.

RTFA appreciates that lack of cooperation from exporters meant that the TRA has had to make this critical determination on a relatively small amount of information as the only 'facts available'.

However, the decision that US HVO will not cause injury to UK FAME is a critical one because there is, in fact, competition between HVO and FAME that the TRA has not yet taken into account. This submission identifies that there is competition in terms of a) direct competition between HVO and FAME used in low-carbon transport fuels (where higher proportions of biodiesel are blended with diesel) such as B20, B30 or B100 and b) recent price developments suggesting that HVO can also compete in the B7 market. The TRA has found that HVO imports are likely to be subsidised and dumped and are likely to increase significantly if the measure is removed. This means that, because HVO is competing with FAME as outlined in this submission, injury is going to be caused to the UK biodiesel industry. Given the critical nature of the decision to exclude HVO from the scope of the maintained measures, RTFA requests that the TRA takes another close look at this decision.

RTFA is submitting additional information that casts significant doubt on the information used as the basis of the TRA's determination on HVO. In light of this, RTFA submits that the TRA should change the finding in the final determination to include HVO in the scope of the measures.

2 Status of information submitted by DGD in the investigation

2.1 Information from DGD is not primary, verified information

Information submitted by DGD appears to have been critical in the TRA's determination that increased imports of subsidised and dumped US HVO would not cause injury to UK manufacturers of FAME. However, there are many questions relating to the reliability of the DGD information. RTFA submits that information submitted by DGD does not have the status of primary, verified information. Rather, while the TRA has the discretion to be able to use

the DGD information, the information itself has no higher status than secondary information or facts available. This means that it should be treated with special circumspection and balanced alongside other facts available.

The sequence of events in terms of information provided by DGD appears to be as follows:

- DGD registered as a contributor in the context of making a claim that HVO should be excluded from the investigation on the basis that it is not a like product to FAME. It submitted a contributor questionnaire on this basis.
- DGD also made several submissions on the issue of product scope.
- DGD also submitted an "addendum" to its questionnaire which included information on domestic/export sales, cost of production etc.

There is no indication on the confidential file or in the SEF of exactly what happened during this process. However, several points can be made in relation to the information from DGD and these are provided in sections 2.2 to 2.7.

2.2 DGD is an exporter of the goods subject to review

DGD is a US manufacturing exporter of HVO. HVO is included in the product scope in the notice of initiation. DGD should, therefore, have registered as an exporter and completed an exporter's questionnaire. Although DGD did request the exclusion of HVO from the final measures, until the TRA ruled on whether HVO should be included or not, DGD should have been treated as an exporter of the goods subject to review.

In the end, the TRA ruled that HVO is covered by the investigation and, thus, it was definitively confirmed that DGD should have been treated as an exporter. Given that DGD is an exporter of the product concerned, all DGD's domestic and export sales would be critical information in assessing the likely export price of HVO if the measure is removed.

2.3 DGD did not cooperate as an exporter in the investigation

DGD incorrectly designated itself as a contributor in its initial response to the TRA. No context for the TRA's additional request for information in the DGD addendum to the questionnaire is apparent on the non-confidential file. However, it does appear that the TRA decided to seek further information on DGD's production in the US as well as their domestic and export sales.

Despite this, it is absolutely apparent that DGD chose not to complete the full exporter questionnaire. For example, the information that was provided in the addendum did not include domestic and export transaction listings. Only data aggregated by customer is provided.

2.4 The information on export prices provided by DGD is incomplete

In addition, only selective information on export prices appears to have been provided. For example, it appears that DGD provided some information on export prices to third countries.

The addendum to the questionnaire requests that they provide sales to EFTA countries. It is not clear why all DGD export sales were not requested in order to have the most complete facts available to determine the likely export price in the absence of the measures.

The TRA does make reference to DGD's export prices to third markets but, given the importance of this data, very little information is given on it and it is not clear how robust this analysis is.

2.5 It does not appear that DGD underwent a formal verification

On the basis that any verification of data is indicated by the existence of a verification report on the non-confidential file, no information from DGD was formally verified. Thus, all data provided by DGD must fall into the category of secondary information or facts available and must be treated with special circumspection.

2.6 DGD and Valero should have been collectively treated as a US exporters

In addition to the above issues related to DGD, additional issues arise in relation to the fact that the importer Valero is related to DGD. DGD and Valero registered separately but, in fact, they should collectively have been treated as a US exporter with a related UK importing company. Valero owns 50% of DGD[4]. This means that DGD's export prices to Valero are related sales and are potentially not reliable. There is no indication that the TRA determined whether the prices are reliable and whether there was a need to construct export prices from the Valero sales.

2.7 Implications for the treatment of DGD data

The consequences of the above are straightforward. Although there was an opportunity for DGD to be a cooperating exporter, at least in relation to the HVO section of the analysis, this was not realised. In terms of the request for the exclusion of HVO, in principle, there was no problem in DGD registering as a contributor. However, in terms of the other price evidence provided by DGD, this must have the status of secondary information and facts available. This must be seen in the context of other information available and the required burden of proof in determining that injury caused by US HVO is unlikely. The measures on HVO should only be excluded from the measure if there is definitive evidence that HVO imports will not cause injury to UK FAME producers. The data provided by DGD does not meet this standard and, in the context of additional evidence submitted by RTFA, this is further explored below.

3 TRA's decision to conduct separate analysis of HVO and FAME

3.1 First opportunity to submit comments on the separate analysis of HVO and FAME

The possibility of HVO being excluded from the measure on the grounds that it is not a like product was specifically raised by the TRA with all interested parties. This gave all interested

[4] "Valero owns 50% of Diamond Green Diesel ("DGD"), a joint venture whose facility in Louisiana…". Section A2.1 Valero Combined Questionnaire

parties the chance to submit detailed comments and RTFA fully engaged with TRA on the issue.

The TRA's decision to separate the analysis of FAME and HVO is another critical decision, as outlined above, but this was unexpected. RTFA submits strong evidence below showing that higher blend FAME and HVO are substitutable and in direct competition with each other. It is also submitting information on key issues that need to be taken into account when comparing FAME and HVO prices.

Of course, the SEF does give interested parties the first opportunity to make submissions on the issue of the separate analysis. In this context, RTFA would urge the TRA to re-open this issue and seriously consider whether the data actually suggests that the final determination in relation to HVO should be changed.

3.2 There is insufficient evidence to justify the separate analysis of FAME and HVO

Given the lack of cooperation from exporters and use of facts available, there is insufficient evidence to justify separating the analysis. The TRA has clearly concluded that the products are in the same market and that there would be a likely increase in imports of dumped/subsidised FAME & HVO if the measures are removed. RTFA argues that, only in the face of strong primary, verified evidence would it be possible to conclude that the products should be analysed separately.

The information provided by DGD does not appear to meet this standard. RTFA urges the TRA to take another look at this issue, particularly in light of additional information provided below.

The TRA satisfied itself, in the case of verification of Greenergy and Argent, that it could treat the data relied on as "complete, relevant, and accurate for the purposes of this review" (SEF paragraph 62). Given the critical nature of the determination of likely injury, DGD data does not have this status. Yet it appears that the TRA has relied on it as the basis of its decision on likely HVO injury.

RTFA submits that, given the non-cooperation, the DGD evidence is not sufficient in itself to establish such a critical decision. Further, there is other information available which is submitted below. RTFA suggests that, when the TRA takes into account the other available information, it will realise that, in fact, HVO is likely to cause injury whether it is included with FAME or treated separately.

3.3 There is significant overlap in terms of FAME and HVO end-use

RTFA agrees that HVO and FAME are not perfectly substitutable with each other for all end-uses. However, the information gathered by the TRA up to this point in the investigation has not been sufficient to analyse the different end-uses of HVO and FAME adequately. Also, the key information used to determine that separate analysis was required appears to have been provided by DGD which, by itself, is not necessarily reliable and needs to be treated with special circumspection (see section 2 above).

The critical points here are a) that there is an overlap between the markets for the two product groupings that has so far not been considered in the investigation (higher blend biodiesel) and b) recent price developments suggesting that HVO can compete in the B7 market.

3.4 DGD made several statements which are not true and which misled the TRA

DGD has not presented the full picture in relation to the extent to which FAME and HVO compete. Below are several examples of statements made by DGD in the DGD addendum to the questionnaire that only present a partial picture.

DGD Statement	RTFA Comment
"The market for FAME in the UK is saturated due to the blend limit of 7% for FAME"	DGD is referring here to the B7 market. There is a niche and new market developing in higher blend FAME biodiesel that is not mentioned by DGD. While the B7 market may be close to being saturated, higher blend biodiesel is a growth area of the market (see section 4 for more details).
"….there is a unique market for renewable diesel for clients who out of preference, or compliance, desire to have a larger share of renewable fuels in their fuel blends"	This implies that customers who want higher blends of biodiesel will only use HVO and, as such, the HVO market is unique. RTFA provides definitive evidence below that this is not true. Higher blend FAME biodiesel does compete in that market.
"…there is no competition between FAME biodiesel and renewable diesel because renewable diesel will always be more expensive".	DGD presents an over-simplistic approach to the comparison of FAME and HVO prices. As outlined below, there are adjustments that need to be considered in comparing FAME and HVO prices. Also, there is evidence that prices fluctuate and that the price gap between the two is not always as big as DGD suggests. It is not true that there is "no competition" between FAME and HVO as definitive evidence provided below shows. In fact, more recent data suggests that during 2021 the price gap between HVO and FAME was significantly reduced. There is even some evidence that HVO prices may have been lower than FAME suggesting that there may be competition even in the B7 market.
"Renewable diesel could replace FAME, but FAME, due to blend level restrictions and inferior quality, could not replace renewable diesel."	Again, this is only partially true. It is true that HVO can always replace FAME and that the reverse is not true. However, as shown

	below, there are end-uses where FAME can replace HVO.
"In essence, renewable diesel is used to produce a finished fuel product with a higher component of renewable inputs, whereas FAME is used as a cost effective blend stock."	Again this implies that FAME is only sold in the B7 as a "cost effective blend stock". DGD neglects to recognise that FAME is also used to produce finished products with a higher component of renewable inputs.
"From a price-point perspective, renewable diesel cannot compete with FAME biodiesel. Up to the blend limit of 7%, renewable diesel will never replace FAME biodiesel because FAME biodiesel is cheaper".	Again this presents a misleading picture. First, there is evidence that prices fluctuate and the price gap may have been much smaller in 2021 taking into account market developments. In fact, US HVO prices may have gone lower than FAME during 2021 as outlined in section 5. Second, adjustments are necessary for FAME and HVO prices to be comparable. There are factors other than price that can make HVO attractive, even though more expensive, for example, costs of vehicle modifications and increased maintenance in using higher blend biodiesel. (See section 5.5 for more details on price comparison). Third, this neglects to acknowledge the existence of the market segment for higher FAME blends that can replace HVO for some end users.

This submission provides additional evidence to the TRA on the extent to which the product markets overlap and how it is highly likely that increased imports of subsidised/dumped HVO will cause injury to UK manufacturers of FAME.

4 Competition between higher blend FAME and HVO

4.1 The TRA does not consider the extent to which FAME used in low carbon transport fuels sold directly to fleet operators as B20, B30 or B100 may compete with HVO

Without prejudice to the points made in section 3, RTFA submits that, if HVO is analysed separately, the TRA has made the wrong conclusion on end-use, interchangeability and direct competition between FAME and HVO.

The TRA rightly recognises that "HVO has uses for which FAME is not appropriate". There are end-uses of HVO where FAME could not be used as a substitute. However, what the TRA has failed to identify so far in the investigation is the fact that there are some HVO end-uses where higher-blend biodiesel can be substituted.

In paragraph 155 of the SEF, the TRA identifies that there are end-uses from bus & coach operations and the haulage industry "who consume biodiesel for a variety of purposes at higher blend rates of B10 to B100". This statement is made in the context of the TRA's analysis

of the market size and likely growth in consumption. However, this higher blend FAME is not considered anywhere else in the TRA's analysis.

4.2 All of the like products do not have to be identical or compete directly with each other

Within the definition of product scope in trade remedy investigations, designation of 'like products' does not mean that all products are identical. It is very common for the product definition to include groups of products that do not compete directly with each other. It is certainly the case that, for FAME biodiesel, not all of the products that fall within this category could be used in exactly the same end-uses. However, there is enough overlap between the different products that all can be affected by changes in market conditions in relation to one of the products. This also applies to HVO. Whilst it is true that FAME could not be substituted for all HVO end-uses, there are end-uses where FAME and HVO are in direct competition with each other.

The fact that there is a segment of the market where HVO and higher-blend FAME directly compete has significant implications for the price undercutting analysis as outlined in section 5.

4.3 Higher blend FAME is still a niche market but is the part of the market presenting future opportunities

Higher blends of FAME are perhaps still a relatively small part of the overall biodiesel market. However, this is a part of the market that has incredible growth opportunity as it is the most promising route to achieving GHG savings. This contributes to the UK Government's environmental objectives, in particular compliance with Carbon Budget 4. HGVs account for around 18% CO_2 emissions but only 1% of road vehicles. This equates to 5% of total UK GHG emissions. Other decarbonisation options are either not available (battery vehicles/ hydrogen) and or, in the case of biomethane requires new infrastructure (both vehicles and fuelling). This is in contrast to retail blend of FAME (B7) which is already close to being saturated (i.e. there is little scope for more FAME to be blended as it is already blended at around the maximum permitted by the EN590 fuel standard) and diesel car sales (and the volume of fuel they consume) are falling rapidly.

4.4 End-uses where HVO and higher-blend FAME compete

HVO is a relatively new technology and there is not, as yet, very much publicly available information on the extent to which HVO and higher-blend FAME compete. However, there are several sources that do provide definitive evidence that competition exists between HVO and higher-blend FAME.

A recent report[5] by the Zemo Partnership[6] confirms the existence of this market where HVO and higher blend FAME compete. Throughout the Zemo Partnership report, high blend biodiesel and HVO are presented together as solutions for particular end-uses.

> *The Renewable Transport Fuel Obligation (RTFO) has set the UK a road transport renewable fuels target of 12.4% by volume by 2032. More wide-scale adoption of high blend renewable fuels (HBRF) in heavy duty vehicles fleets could provide a technology-ready solution for helping to achieve the RTFO target. (page 6)*
>
> *Key opportunities for high blend biodiesel and HVO arise in logistics, road haulage, construction, and quarrying/mining. HVO was considered to offer the widest deployment options due to it being a drop-in diesel replacement, lacking in vehicle engine compatibility constraints. HBRF offer coach operators with high mileage journey profiles attractive GHG savings given their large fuel usage. High blend biodiesel and HVO could offer cost effective decarbonisation solutions for small bus operators with long vehicle replacement cycles and those that serve rural routes, given the high upfront costs of BEV and HFC buses. Stakeholders also mentioned roles for high blend liquid biofuels in decarbonising non-road mobile machinery and in stimulating investment in sustainable aviation fuel production. Particular interest was raised for drop-in diesel replacements such as HVO. (page 7)*
>
> *The UK's leading producers of biodiesel are Argent Energy, Greenergy Fuels and Olleco. These companies bulk supply a range of RTFO-approved high biodiesel blends - B20, B30 and B100. High blend biodiesel is produced from a variety of sustainable feedstocks such as used cooking oil, tallow oil, fats, and greases. (page 14)*
>
> *High blend biodiesel has been deployed in HDV fleets for over a decade, with the greatest adoption in buses. B20 and B30 is more common in HDV fleets than B100. In more recent years an increasing number of HGVs fleets have been using high blend biodiesel, in particular logistics and haulage companies. The coach industry has the lowest adoption rate, with limited take-up identified in local authority fleets. Table 3 presents a summary of high blend biodiesel adoption across UK HDV fleets in 2020. (page 14)*
>
> *The European fuel quality standard for diesel, EN590, limits the blend of biodiesel (FAME) to a maximum 7% volume. A number of HDV manufacturers approve their engines to run on higher blends of biodiesel and warranty the vehicle engine and various components. A key condition for manufacturers is that the biodiesel supplied*

[5] *Market opportunities to decarbonise heavy duty vehicles using high blend renewable fuels – Zemo Partnership, March 2021.*

[6] The Zemo Partnership is an independent membership organisation working closely with government and industry to influence the transition to net zero emission mobility in the UK. Zemo is conducting detailed and extensive research on the actual FAME and HVO markets in the UK. Over the last three years Zemo's Renewable Fuels Working Group has led several work streams to influence the wider adoption of renewable fuels in commercial vehicle fleets (buses, coaches and trucks). This specifically relates to biomethane, HVO and biodiesel, including blends of biodiesel above the normal retail blend of 7% (B7), i.e. B20, B30 and B100 – collectively known as higher blend biodiesels. See Appendix 1 and http://www.zemo.org.uk for more information.

meets European Fuel Quality Standards specific to higher biodiesel blends such as EN16709 (for B30) and EN141214 (for B100). Conditions can additionally be set by manufacturers related to vehicle maintenance and modifications plus fuel storage. (page 15)

When looking at the entire HDV fleet it is estimated that approximately 60% would be approved to operate on high blend biodiesel, mainly B20 and B30. (page 16)

When building vehicles some manufacturers fit parts which enable them to run on high blend biodiesels. These can also be retrofitted after sale. Such modifications need to be requested by the fleet operator. For B30 this can entail a small price premium on the vehicle for some manufacturers in the order of a few hundred pounds. In the case of B100 various vehicle modifications are required incurring an on-cost of several thousand pounds. The modifications include seals, a heated fuel tank, lagged or trace-heated fuel lines. A heated fuel storage tank is also necessary to ensure cold flow requirements are fulfilled especially in the winter months. The additional vehicle and infrastructure modifications incur higher costs for a fleet operator compared with a standard diesel vehicle; approximately 10-15 pence more per litre of fuel. (page 16)

Heavy-duty vehicle manufacturers approve many of their engine ranges to run on HVO, and other renewable paraffinic diesels such as BTL12. There are no restrictions on blending HVO with diesel, EN590 allows blending of HVO without any limit. HVO is fully compatible with Euro VI engines, and those approved to earlier Euro Standards. No modifications are required to the vehicle or fuelling infrastructure. HVO is commonly referred to as a 'drop in' diesel replacement, although it does have slightly lower energy density than diesel. A condition that manufacturers set for using HVO is that it meets the European Fuel Quality Standard EN15940. Manufacturers' engine warranty typically covers HVO if the fuel meets EN15940. (Page 17)

HVO suppliers provide bunkered storage and refuelling facilities at fleet depots and at locations like construction and demotion sites. HVO is currently more expensive than diesel, in the region of 15 pence per litre higher. (page 17)

Opportunities for deploying high blend liquid biofuels in HDVs - HGV fleets which have depot-based refuelling were considered the most suitable candidates for high blend liquid biofuels. Examples mentioned by stakeholders included logistics, construction, haulage, and quarry industry fleets. Stakeholders mentioned that heavy payload HGVs, and those with regional and long-haul duty cycles, are the more challenging to decarbonise in the near to medium term using battery electric and HFC technologies. High blend liquid biofuels could provide a readily deployable low carbon solution. The use of 'drop-in' renewable diesel, such as HVO, was considered to offer the widest range of opportunities given the absence of engine compatibility challenges. (page 24)

One bus operator stakeholder was open to undertaking further trials of high blend biodiesel and was considering HVO. (page 24)

> *Recommendations for national policy interventions - Fuel duty rebate for higher blend renewable diesel (biodiesel and HVO). This could work by allocating a pence-per-litre rebate based on the volume of renewable diesel, supplied above the current 7% biodiesel mandate. The rebate could be time limited. This would translate into lower priced renewable diesel for fleet operators. The process would require a fully audited administrative process from the biofuel suppliers to ensure RTFO verified renewable fuel was being supplied to fleet operators at different blends (Zemo Partnership's forthcoming Renewable Fuels Assurance Scheme could provide this evidence).*
> *This intervention was perceived as being a very effective near-term intervention that could achieve quick reaction rates with fleet operators, both small and large. Countries such as Austria and Germany have introduced renewable diesel fuel rebates which are driving the adopting for both biodiesel (up to B100) and HVO. (page 30)*
>
> *The High blend renewable fuel scenario covers partial displacement of diesel-powered vehicles with gas powered vehicles running on biomethane, and partial displacement of diesel in existing and new HGVs with FAME and HVO. (page 38)*
>
> *Renewable fuels use ramps up in the 2020s so that by 2030, 30% of the diesel fuel demand is met by some combination of biodiesel and drop-in fuel such as HVO. The exact mix is not relevant to the modelling (it can be all diesel trucks running on B30, or 30% running on HVO, or any combination in between). (page 38)*

The yellow highlights indicate examples of the numerous situations where Zemo makes explicit references to higher blend biodiesel and HVO interchangeably.

Another report[7] includes a case study on the use of HVO by London Borough of Hackney. This includes the following statement:

> *LBH used FAME biodiesel in blends of up to 100% for several years, saving significant quantities of CO2. More recently, it has trialled and deployed HVO across its commercial vehicle fleet. (page 13)*

This confirms definitively that HVO can be used as a substitute for FAME biodiesel despite the price difference apparent on a simple price comparison.

In addition to the above publicly available sources, Zemo Partnership has also prepared a short paper attached as Appendix 2.

This paper confirms, for example, that B20 and B30 stand alongside HVO in terms of UK fleet operators' routes to decarbonization.

> "*Higher blends of biodiesel, mainly B20 and B30, and HVO (100%) are concurrently being deployed by fleet operators across the UK as a route to decarbonization. These fuels (higher blend biodiesel and HVO) comprise the main opportunity for further*

[7] *The Renewable Fuels Guide – Helping fleet operators cut carbon emissions. Produced by the Low Carbon Vehicle Partnership and CENEX. March 2020.*

> *increasing the renewable proportion of transport fuel consumed in UK, which is an important Government objective*".

The niche nature of the market is also confirmed by Zemo.

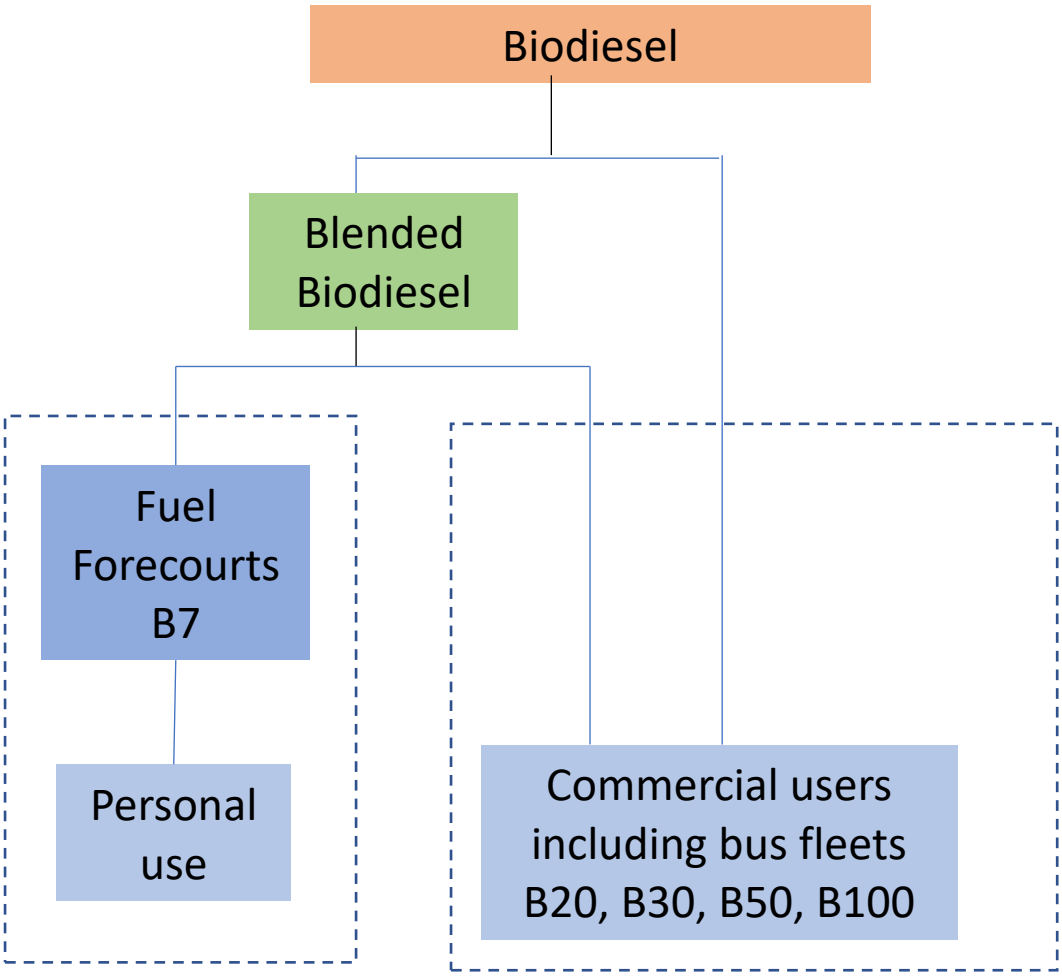
> *"The market is however quite niche; Zemo estimates circa 4000 heavy-duty vehicles are running on higher blends of biodiesel and HVO. B20 for has had the most exposure in the bus market, with B30 more prevalent in freight/logistic fleet sectors. HVO is increasingly being adopted by freight operators, and in the off-highway sector to power construction equipment."*

Zemo also confirms concrete examples of substitution from biodiesel to HVO:

> *"HVO entered the UK market as a low carbon commercial vehicle fuel later than biodiesel. This has resulted in some companies that were using pure biodiesel (B100) switching to HVO, Zemo is aware of two examples, the London Borough of Hackney and Wolseley UK."*

In figure I.1 of the SEF, the TRA does correctly identify the biodiesel supply chain. However, DGD gave the TRA the misleading impression that the 'commercial use' segment was a unique market exclusively supplied by HVO. It implied that the only market for FAME was the B7 segment. This point is emphasised in a re-presentation of the TRA's graphic presentation below.

Re-presentation of Figure I.1 from the SEF



This is only one segment of the FAME market

Note that the price information provided in section 5.3 suggests that US HVO can compete in this market

This segment of the FAME market is where competition with HVO can take place and has not been considered by the TRA

In conclusion, therefore, HVO already does compete with domestic UK biodiesel producers in 'High-Blend' Transport Biofuel markets such as B20, B30, B50 and B100. On a level playing field, consumers must choose between HVO and higher blend biodiesel based on the convenience of the fact that HVO provides benefits in terms of better cold filter plugging point and storage properties, with the fact that it is generally a premium price product. More information on this comparison is provided in section 5 below.

All 3 of the UK biodiesel manufacturers produce significant volumes of higher blend biodiesel. The proportion of higher blend does vary but in some cases may be as much as 20% of their biodiesel sales.

5 HVO price analysis

5.1 Problems with the TRA's HVO price analysis

There are two major problems with the TRA's price analysis:

- The likely US export price of HVO is based on the US domestic price which is not a reliable indicator of likely export price.
- The comparison of US HVO prices and UK FAME prices is too simplistic and does not reflect the more complex position in the market, most particularly the need to make adjustments, as shown in section 5.3.1.

Additional information has emerged since the period of investigation showing that, in 2021, HVO prices may actually have been competitive with FAME prices (even on a simple comparison not taking into account necessary adjustments).

All of these points are further explored below.

5.2 Analysis of likely export price based on US domestic price is fundamentally flawed

5.2.1 Different approach to likely export price for FAME and HVO

Section H3 of the SEF assesses whether undercutting of UK industry is likely to occur if the measure is removed based on the likely US export price.

For FAME, the TRA uses 'facts available' in the form of volume and value data for US exports from the USITC. The analysis takes the actual export prices implied by the USITC data as an indication of the likely export price of US FAME should the measure be removed and exports to the UK were to increase. RTFA agrees that this is a reasonable methodology in the absence of more reliable data from cooperating exporters.

For HVO, in section H3.2 of the SEF the TRA states that "In considering the market price for HVO entering the UK from the US, the same approach has been taken" (paragraph 234). In fact, the same approach as FAME has not been taken for the identification of a likely US export

price. Instead of using the USITC data based on actual US exports, the TRA has used a US domestic HVO price to calculate the likely export price. RTFA assumes that the TRA did not use USITC data because the 6 digit tariff heading includes a high proportion of non-product concerned at a much lower value than HVO. Thus, the unit value calculation data does not provide a reliable indicator of the HVO export price. However, the use of a domestic price to indicate likely export price in a trade remedy investigation is highly flawed as set out below.

5.2.2 The only information on the file is facts available

Given that US exporters did not cooperate, no detailed domestic price information on FAME or HVO was collected. This includes DGD who, although some information was provided, they only partially cooperated as set out in section 2 above.

Any information that the TRA received on domestic prices falls into the category of secondary information/facts available and thus should be treated with special circumspection.

If the domestic price was based on information provided by DGD as the basis of facts available, RTFA has raised concerns about this in section 2.

5.2.3 The US domestic price is not a reliable indicator of likely export price

There is no logic to the assumption made by the TRA that a US domestic price is a reliable indicator of likely export prices. In the analysis of FAME prices provided in table G.2 of the SEF, the TRA provides USITC data which indicates that most US export prices of FAME are below the US domestic price. The TRA reasonably uses the export prices as the basis of calculating the likely US export price if the UK measures were removed. The TRA does not use the US domestic price as a guide to the export price for FAME because this would give a totally unrealistic picture of what the actual export prices are. In itself this highlights the potential flaws in starting with a domestic price to calculate likely export price.

It is often the case that companies that export do not charge the same price in all markets that they sell in. In cases where distortions exist, such as subsidies and unfair pricing practices, this is particularly the case. Often, the possibility to practice unfair export pricing stems from the ability to differentiate prices between domestic markets and different export markets. The biodiesel trade remedies are based on a finding of very significant US price distortions and unfair pricing practices, both in relation to subsidy and dumping. The current measures are based on a previous finding of a combined dumping and subsidy margin for US exporters of biodiesel in a range of 34.5% to 127.4%. The fact that significant dumping was previously found for the US biodiesel industry is a strong indicator that a domestic price would not be a reliable indicator of likely export price. This, in itself, is evidence that historically the US biodiesel industry has price differentiated between domestic and export markets. It is confirmed by the TRA that this is likely continuing, based on the information provided in table G.2 of the SEF.

5.2.4 It is not clear what actual HVO export prices were available to the TRA

The TRA provides no indication as to whether it considered alternatives to the US domestic price as an indicator of likely HVO export price. It merely states that "we have not been able to obtain sufficient information on US HVO exports to conduct an analysis as part of the likelihood assessment" (paragraph 148).

In the DGD addendum questionnaire, the TRA requested information on export prices to EFTA countries[8]. It appears that DGD has provided some information in response to this question (section B6.1) but there is no indication of what this information is as it was submitted on a confidential basis. Appendix 8 to the DGD addendum questionnaire indicates that an 'extract of DGD SAP system with regard to export sales during the POI' was provided but again no information on this is provided in the non-confidential version of the questionnaire.

At face value, the actual DGD HVO export price information to all markets would provide a better indicator of the likely export price than the US domestic price. Perhaps there is a reason why the DGD export data could not be used. If this is the case, this should be explained by the TRA in the SEF.

5.3 Comparison of FAME and HVO prices

5.3.1 Comparability issues when comparing FAME and HVO prices

In order to ensure comparability between FAME and HVO prices, the additional costs associated with using higher blend FAME should be taken into account. A straightforward price comparison is not comparing like with like. Higher blend biodiesel (B30, B100) can be used with modifications, however not all OEMs warrant these fuels for all models. B20 can be used without modifications, but its use may not be covered by the OEM's warranty. The warranty issue is not straightforward. Some vehicles may operate perfectly well with a higher blend biodiesel, but were never tested for it and therefore the warranty would not have covered it. Others would have been tested for it and found not to be compatible. Many vehicles would have fallen out of warranty by virtue of their age. However, fleet operators may have a proportion of newer vehicles which are still covered by warranty, and the desire not to invalidate the warranty for these vehicles may influence their decision on whether to use higher blends of biodiesel at their depots. Ultimately the decision on which fuel to use is a commercial one. If not warrantied, then any higher costs of servicing (e.g. servicing at more frequent intervals) as well as the potential for repairs or replacements not being covered by warranty may be worth paying. All of the above indicates that there is an additional cost over and above the cost of the fuel and this cost must be taken into account when comparing FAME and HVO prices.

In terms of forecourt B7, the TRA's price undercutting analysis is correct. Although HVO could be blended instead of FAME, to produce a fuel meeting the EN590 fuel standard (i.e. B7), the only reason an economic operator would do this would be if it was cheaper than FAME.

[8] It is not clear why the TRA only requested information on exports to EFTA countries. All export information would be useful in assessing the likely export price.

However, in terms of the higher-blend FAME products, such a simple price analysis is not appropriate.

When comparing higher blend FAME and HVO, it is necessary to adjust the FAME price to reflect the additional costs for the end-user in terms of modifications and warranty adaptations. This is a relatively new market and the way in which end users can use the products is in a process of rapid evolution. As noted by the Zemo paper in Appendix 1, "*These fuels (higher blend biodiesel and HVO) comprise the main opportunity for further increasing the renewable proportion of transport fuel consumed in the UK*". This segment of the market is potentially going to grow significantly which means that higher blends of biodiesel and HVO are likely to be in competition with each other more in the future.

Identifying the precise adjustment that needs to be made in order to make this price comparison is not necessarily straightforward. However, it is likely that a large proportion of the price difference between HVO and FAME, if not all, is accounted for by these additional costs.

It is also necessary, when making this price comparison, to take account of the lower density of HVO in relation to FAME. The TRA acknowledges this point but takes no further account in the price analysis that is based on weight. The price gap between HVO and FAME is smaller when based on litre prices.

As part of its existing work, Zemo Partnership has made estimates of the whole life cost of using higher biodiesel blends and HVO blends (see Appendix 2). The following table presents Zemo's calculations of the additional costs associated with using both FAME and HVO compared to diesel.

> *Illustrative examples of the additional whole life costs for a truck running on different biodiesel and HVO blends. This includes both fuel cost and maintenance and conversion in the case of B100, B30.*

B100	**B30**	**B20**
£46,430	£16,846	£3,227

HVO 100	**HVO 30**	**HVO 20**
£16,307	£4,769	£3,187

This analysis suggests that, taking into account additional costs, B20 and HVO 20 (i.e. HVO blended at a rate of 20% with diesel) prices would be very close to each other. As stated above, this is an evolving market, and the precise position will vary as new technologies emerge in relation to the use of FAME and HVO. However, this establishes definitive evidence that higher HVO prices in themselves do not mean that HVO and FAME are not in competition with each other, at least for some end uses.

5.3.2 Survey evidence on the HVO/FAME UK price difference suggests that it is small

In the SEF, the TRA has determined that the price difference between FAME and HVO is around 38% to 45% (paragraph 239). However, RTFA acknowledges that the TRA has only had limited data on which to calculate this. Given that this calculation is only based on secondary information and facts available, RTFA is able to provide better information on the actual price difference between FAME and HVO.

The Zemo partnership has calculated 2021 prices based on actual data collected during an extensive survey of UK market participants (see appendix 2). Zemo has provided the following table of prices actually being paid by fleet operators in 2021.

	Higher Blend Biodiesel (B20/B30/B100)	**HVO (100%)**
Range	£108 – £115ppl (£51-£58)	£110 – £120ppl (£53-£63)
Mid value	£111ppl (£54)	£115ppl (£58)

Parenthesis value excludes fuel duty.

Based on the mid-values, this suggests that actual UK HVO market prices were only 3.6% higher than higher blend biodiesel in 2021. Note that this price comparison is before making any adjustments to prices to account for the additional costs in using higher blend biodiesel compared to HVO.

Zemo expects that a slightly more significant price difference will re-emerge in 2022. Again, from the paper in appendix 2, Zemo states:

> *The price differential between HVO and biodiesel found in Zemo's latest research (2021) is less than it has historically been. Several renewable fuel suppliers have indicated that the price of HVO is likely to increase during 2022; suggesting in the order of 15%-20%. The elevated cost of certain biomass feedstocks was given as the reason behind this price rise. This is also likely to materialise for biodiesel, as FAME production involves similar feedbacks. Pricing forecasts from one renewable fuel supplier indicates the wholesale costs of both biodiesel and HVO will rise in 2022.*

However, the analysis in the next sub-sections suggest that it is not certain that the HVO/FAME price gap will significantly increase in 2022 due to the increasing capacities coming on line in the US (see section 6).

5.3.3 Indicative prices for HVO in the US compared with UK FAME

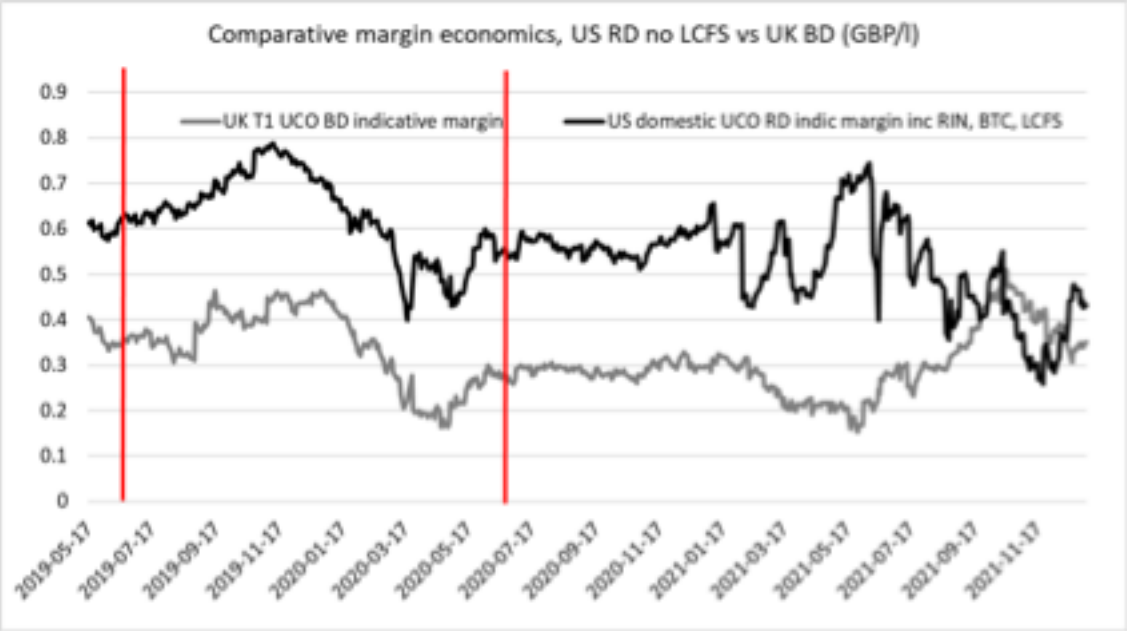
Whilst HVO and FAME price information is not in the public domain, it is possible to calculate indicative prices based on the fossil diesel price and the premiums available through incentive schemes such as the RTFO and the US equivalents. Appendix 1 explains a methodology that allows calculation of such indicative prices.

Appendices 3 and 4 provide price analyses based on similar methodologies. RTFA does not claim that these analyses are necessarily definitive in themselves. However, they are based

on methodologies which use publicly available information (subject to the necessary subscriptions) and which logically provide a reasonable indicator of actual market prices.

It is interesting to note that both analyses suggest that UK FAME and US HVO prices converged in 2021. One of the analyses evens suggests that such convergence also occurred during the period of investigation.

Evidence on the US price gap between UK FAME and US HVO is provided in the paper prepared by Olleco (see Appendix 3). Olleco's report is based on data it has access to as part of its subscription to PRIMA. This confirms the Zemo findings that the prices of FAME and HVO converged in 2021.

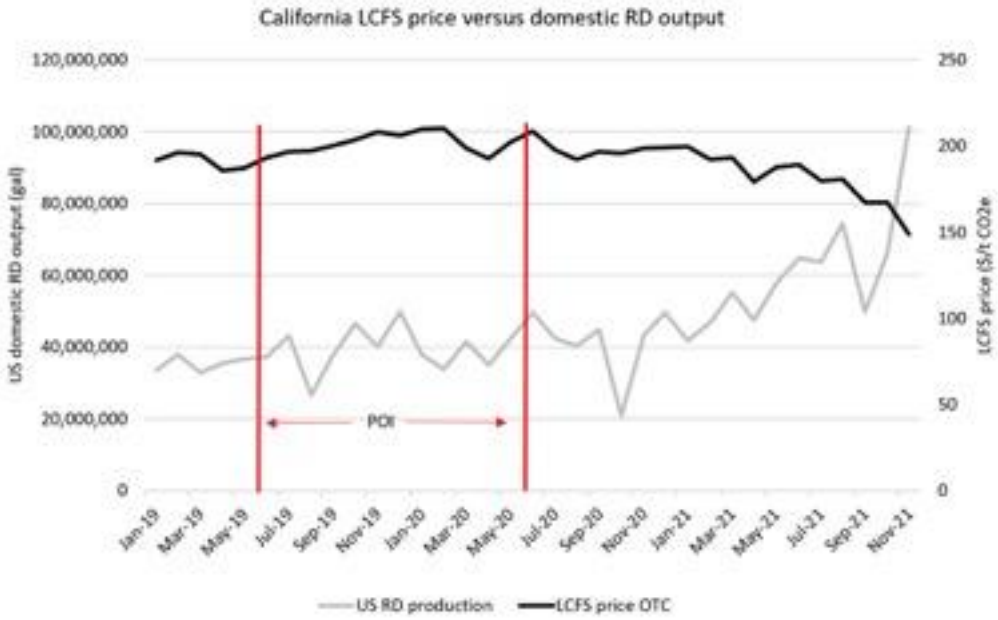


The Olleco paper states:

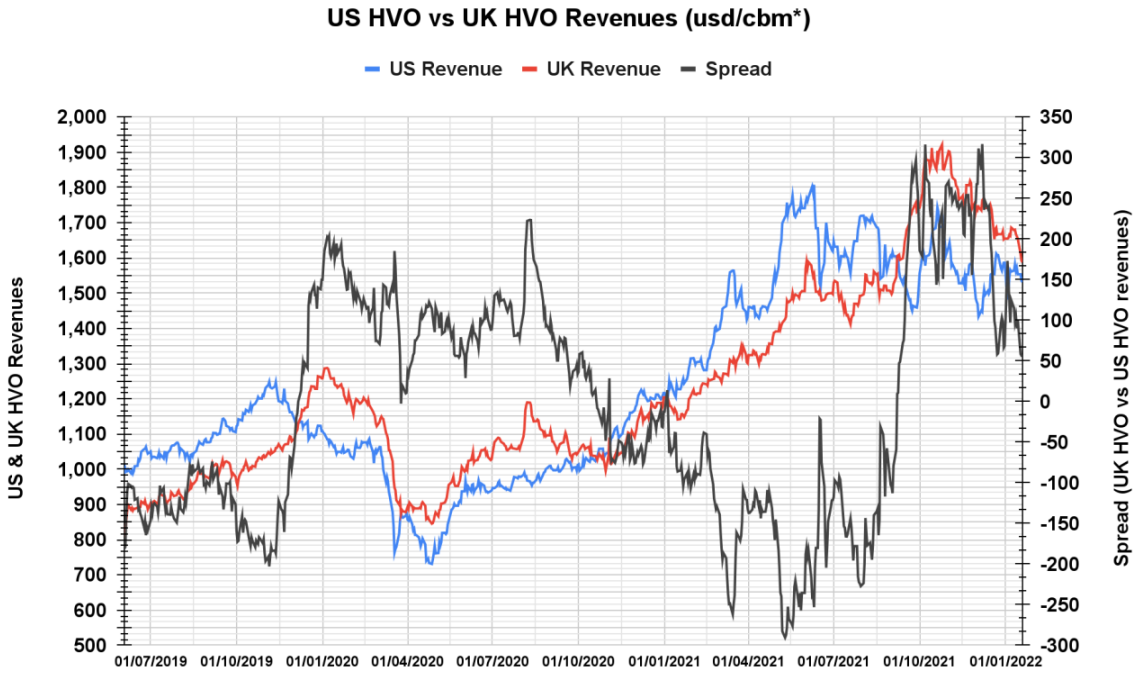
> *The data indicates a US HVO supply side running in effective equilibrium versus demand through mid-2021 as shown in Figure 2. With the addition of 1mn t/yr of new HVO capacity in the first half of 2021, the graph shows that the indicative margins of HVO fell significantly. Another 1.3mn t/yr of new HVO capacity opened in October 2021, again showing a fall in renewable diesel profitability in the US. The figure also shows an increase in the indicative margin for UK FAME through the same period. It is therefore a fair assumption to make that in the period from June 2020 to January 2022, the prices of US HVO and UK FAME have converged.*

Further, the Olleco paper provides evidence that HVO prices in California have fallen significantly in 2021 as a result of additional US HVO capacity coming on line.

> *LCFS ticket prices in California have been under sustained pressure since new HVO capacity opened.*



Likewise, similar evidence provided by an expert in the HVO market (confidentially) is provided in Appendix 4. This analysis is credible because they have significant experience of global HVO markets. This analysis shows that towards the end of 2021 exporters would receive a higher price exporting to the UK than if they sold on the domestic US market. Further, this analysis actually suggests that, for a significant part of the investigation period, the same incentive to export applied.



It is reiterated that this is not submitted as a definitive analysis. However, it is clear that more detailed analysis of US and UK HVO markets shows a very different picture than that based on the information that has been received by the TRA until now.

5.4 Conclusion on HVO price analysis

Adjustments are necessary when comparing prices - The TRA's conclusion in paragraph 240 of the CVD SEF that "US exporters would need to reduce the US HVO market price by GBP 304mT to compete with the UK market price of GBP 810mT" is not correct. Even taking that price gap at face value, it is necessary to take into account additional costs in using FAME in higher blends. Evidence from Zemo suggests, for example, that HVO20 would be cheaper than B20 taking into account whole life costs. See section 5.3.1.

Price gap between HVO and FAME - Survey evidence and indicative price analysis suggests that there is not a consistent price gap between FAME and HVO. There is strong evidence that HVO and FAME prices have converged in 2021. Further, there is evidence that the likely US export price of HVO will undercut UK FAME prices. This shows that the UK is an attractive export market for US exporters of HVO not just in relation to higher biodiesel blends but also in relation to the B7 market.

Taking into account these issues it is apparent that the likely increase in UK imports of dumped and subsidised HVO if the measure is removed will result in very significant injury to the UK FAME producers.

6 Increase in US capacity will exacerbate the likely increase in imports

The TRA determined that imports of US FAME and HVO would increase if the UK measure was removed. Recent developments in the US, outside the period analysed by the TRA, will mean that additional spare capacity will become available in the US.

In December 2021, the Biden administration proposed scaling back the amount of biofuels that US oil refiners were required to blend into their fuel mix[9]. The initiative will have retroactive effect to take account of Covid-19.

This will reduce demand for biofuels in the US including FAME and HVO. It will thus exacerbate the availability of capacity to increase exports to the UK if the ADD and CVD are removed.

See the papers provided in appendices 3 and 4 for additional analysis of US production capacity.

A recent report by the International Council on Clean Transport (ICCT)[10] also indicates the dramatic increases expected in US production capacity.

It can be noted that the EU has maintained the EU measures on FAME and HVO for a further 5 years. This further emphasises the threat of massive quantities of HVO being directed to the UK market.

[9] U.S. EPA proposes biofuel mandate cuts, a boost to pandemic-hit refiners, 7th December 2021. https://www.reuters.com/markets/commodities/us-epa-unveil-biofuel-mandate-cuts-boost-pandemic-hit-refiners-sources-say-2021-12-07/

[10] https://www.greencarcongress.com/2022/01/20220119-malins.html

7 UK production of HVO

The TRA has not been able to establish that HVO is actually produced in the UK. RTFA knows that there have been rumours of HVO production facilities planned in the UK but no concrete announcements.

That said, a DEFRA report[11] states that 6% of 2019 UK production of biofuels was HVO.

Table 3: RTFO Year 12 (2019) provisional figures [a] for biofuel (million litres or Kg [b]) from UK feedstocks

Fuel Type	Volume UK sourced biofuels 2019	Total volume biofuels supplied to UK 2019[c]	Total volume of road transport fossil fuels supplied to UK 2019	UK sourced biofuels as a proportion of total biofuels supplied to UK	Biofuels as a proportion of total road transport fuels supplied to UK
Biodiesel of which:	168	1452	28 451	12%	5.10%
Brown grease[d]	3.0				
Food waste	28				
Tallow (by-product)	15				
Used cooking oil (by-product)	118				
Other[e]	2.2				
Bioethanol of which:	99	654	16 008	15%	4.24%
Maize	0				
Sugar beet	64				
Wheat	35				
Biomethane	5.4	17		33%	
Biomethanol	0.3	32		1.1%	
Biopetrol	0.0	25		0.0%	
HVO	0.5	7.1		6%	
Off road biodiesel	7.6	78		10%	
Total		2 265	49 497	24%	4.58%[f]
Annual target[g]					4.75%

(a) 2019 figures (Year 12) are as of 14th October 2020 and are not final.

(b) Biodiesel, bioethanol and pure vegetable oil volumes are reported in litres and biogas volumes are reported in kilograms.

(c) Includes volumes of biofuel from other feedstocks in addition to those listed here e.g. palm oil.

Additionally, RTFA submits that the TRA should consider whether increased imports of significantly dumped and subsidised US HVO imports could materially retard the establishment of a UK HVO industry. In the legislation on transition reviews, the TRA must consider "whether injury to the UK industry in the relevant goods would occur if the anti-dumping amount of the countervailing amount were no longer applied to those goods." Further, injury is defined as "material injury" or "threat of material injury" or "material retardation of the establishment of the industry".

Thus, in establishing whether there is likely injury, the TRA can also consider material retardation. HVO is a relatively young technology. It is not inconceivable that production facilities will be built in the UK if the market is not distorted by unfairly subsidised and dumped US imports of HVO. For example, the RTFA creates a very high incentive for the production of development fuels. As HVO is made out of non-segregated oils and fats, it is an eligible development fuel.

[11] Crops grown for bioenergy in the UK: 2019 – Department for Environment, Food & Rural Affairs. 10 December 2020.

However, nothing concrete has been announced so RTFA is not able to provide any firm evidence on likely future UK HVO production.

The distortions created by unfairly traded US HVO are significant. The combined dumping and subsidy margins that form the basis of the current measures are in the range of 34.5% to 127.4% depending on the company. This means that some US exports were distorted by up to 127.4%. In practical terms, this means that the US exports were priced at around 44% of what would be an undistorted price. Even in the case of the company with the lowest margin of 34.5%, the US exports were priced at around 74% of an undistorted price. The TRA has concluded that it is likely that the subsidy and dumping would continue which means that the normal commercial incentives for UK production of HVO to start are highly distorted.

It is established in sections 4 and 5 that FAME and HVO do compete and, therefore, US HVO imports will cause injury to the UK FAME industry. However, this injury is, in fact, potentially made worse through the material retardation of the establishment of UK HVO production.

8 Appendix 1 – Explanation of HVO indicative price calculation methodology

Whilst HVO and FAME price information is not in the public domain, it is possible to calculate it on a daily basis from an analysis of the fossil diesel price and the premium(s) available through incentive schemes such as the RTFO, and the US equivalents. These prices are available to traders on a daily basis.

In the UK the premium is represented by the value of RTFCs (Renewable Transport Fuel Certificates) issued under the RTFO, which is a volume-based obligation.

In the US, the premium can comprise two value streams, RINs[12] (based on volumes of renewable fuel) and LCFS[13] "tickets", (relating to the greenhouse gas savings). In California, both are available, and thus the Californian market commands the highest incentives.
Obligated / mandated parties, i.e. the Oil majors have a choice with respect to how to meet volume-based targets (i.e. the RTFO or RFS). They can either:

- blend in renewable fuel themselves and supply the blend to the market (i.e. they create the "tickets" or "certificates" themselves, and surrender them to the regulator as proof they have met the obligation/mandate)
- purchase tickets "tickets" or "certificates" from non-obligated parties, who earn them when they produce and sell renewable fuels into the market. This enables them to sell non renewable fuel, but meet their obligation by surrendering the purchased tickets.

Obligated parties do whichever of the above is cheaper. They will therefore only purchase tickets produced by non-obligated parties if the cost of the premium (i.e. tickets / certificates) + fossil equivalent is lower than what it would cost them to blend it.

Obligated parties will also meet their obligation in the cheapest way with respect to the different renewable fuels available to them, taking into account the limitations of blend walls. Blending bioethanol into petrol is usually the cheapest option, so the first preference is to blend in 10% bioethanol. The next cheapest option is blending biodiesel up to 7% (to make B7). As waste-based biodiesel is double counted under the RTFO, blending this delivers twice the number of certificates than non-waste-based biodiesel. Once this opportunity is maximised then fuels that are not limited by blend wall considerations come in to play, i.e. HVO. The ticket price will therefore tend towards a level just under that of the most expensive option that obligated parties have available to them.

[12] The Renewable Fuel Standard (RFS) is a volume-based policy mechanism [*check which applies across the whole US*] RINs – short for Renewable Identification Numbers are the credits that are generated each time a gallon of renewable fuel (ethanol, biodiesel, etc) is produced and these are redeemed by companies obligated under the RFS in the same manner as RTFCs are used by obligated parties to prove their compliance with the RTFO.

[13] Low Carbon Fuel Standards (LCFS) are performance based regulations aiming to reduce the lifecycle carbon intensity of the transport fuel supply. By imposing minimum carbon reductions on fuel suppliers that increase over time, they force some combination of the adoption of low carbon alternative fuels and reductions in the carbon intensity of conventional fossil fuel supplies.

In the US the value of 1 litre of HVO / biodiesel can therefore be derived from:

1litre ULSD + RINs + LCFS

In the UK the value of 1 litre of waste based HVO / biodiesel can therefore be derived from

1litre ULSD + RTFC

In summary: It is not possible to establish a reliable source of pricing for HVO. However, by examining the daily reported diesel prices, RIN's, LCFC and tax credits it is possible to make some sound assumptions as to the value of biofuels and in particular HVO in the US. This is because the total of the various ticket values and tax credits will trade at the difference between the biofuels price and diesel (gasoil) prices in order to persuade obligated parties to buy a ticket rather than use the physical biofuel. In the same way it is possible to do the same in the UK and calculate the biodiesel price which will be more or less equal to the price of diesel (gasoil) plus the RTFC (* 2 due to double counting). Comparing these values to the daily quoted UCO price will then give a good indication of the gross margin for producing biodiesel in the UK and HVO in the US.

9 Appendix 2 – Overview of higher blend biodiesel and HVO markets in the UK by Zemo

Provided as a separate attachment

10 Appendix 3 – Paper prepared by Olleco on US market analysis

Provided as a separate attachment

11 Appendix 4 – Price analysis prepared by a third party on US market analysis

As RTFA does not have access to information on HVO price it made a request to an expert in the HVO market to provide views on issues raised in this case. This is provided below. Please note that this third party has only been able to provide this provide this on the condition that their involvement in the case remains confidential due to commercial sensitivities. Thus, their name has been removed from this non-confidential version of our submission.

UK Anti - Dumping Duties – views of a third party

The purpose of this document is to show that the removal of Anti - Dumping Duties on US HVO would generate significant and unfair competition to UCOME producers in the UK for the mandate fulfilment.

1. US HVO will compete with UCOME for the mandate fulfilment thanks to the Blender Tax Credit (BTC) incentive

The removal of Anti-Dumping Duties on US HVO would generate significant competition to UK UCOME within the B7 blend wall for the mandate fulfilment because those HVO volumes would be supported by the BTC in the US (~338 $/mt).

Until today, US HVO volumes have been penalized with Anti - Dumping duties to avoid unfair competition. However, ousting those duties would enable US HVO players to sell their volumes in the UK at a price competing with UCOME on top of collecting the BTC and hence generate a better margin than in their domestic US market.

Such measures would displace significant HVO volumes from the US to the UK and force local UK biodiesel producers to sell away their UCOME volumes to other European countries or to significantly decrease their price (which could lead to negative margins) in order to be competitive with US HVO players.

Overall, UK UCOME producers would be negatively affected by the removal of the Anti - Dumping Duties on US HVO.

2. Graph and calculations during the period of investigation

USA - California:

The transparent ticket systems of RINs & LCFS in the US enabled us to calculate at what price US producers are able to sell HVO in their major US market, California (CA). Also, the estimated logistical cost of sending HVO from the USGC (the main HVO refineries are located in the USGC) to CA by vessel is ~70 usd/cbm.

- HVO US price = LA Carb No2 + LCFS + RINs

Where:

- RINs = "US RIN D4 Biomass based diesel" from Argus US products (US HVO producers would collect these RINs if the volumes were sold in the US market)
- LCFS = "California Carbon Credit" from OPIS - Carbon Report (US HVO producers would collect these LCFS if the volumes were sold in the US market)
- LA Carb No.2 = Diesel quotation in California from OPIS - West Coast Report Daily

United Kingdom:

In the UK, to compete within the B7 blend wall for the mandate fulfilment, US HVO producers need to sell HVO at a similar price than the local biodiesel (mainly UCOME). Also, the estimated logistical cost of sending HVO from the USGC to the UK by vessel is ~30 usd/cbm.

- HVO UK price = UCOME

Where:

- UCOME = UCOME fob ARA range from Argus (see Argus Biofuels methodology for the details of this quotation)

Price comparison

In order to efficiently monitor what would be the US HVO producers' revenue in both options, we need to compare prices and logistic costs in the US vs the UK. The comparison is then:

- HVO US Revenue = HVO US price - US logistical cost

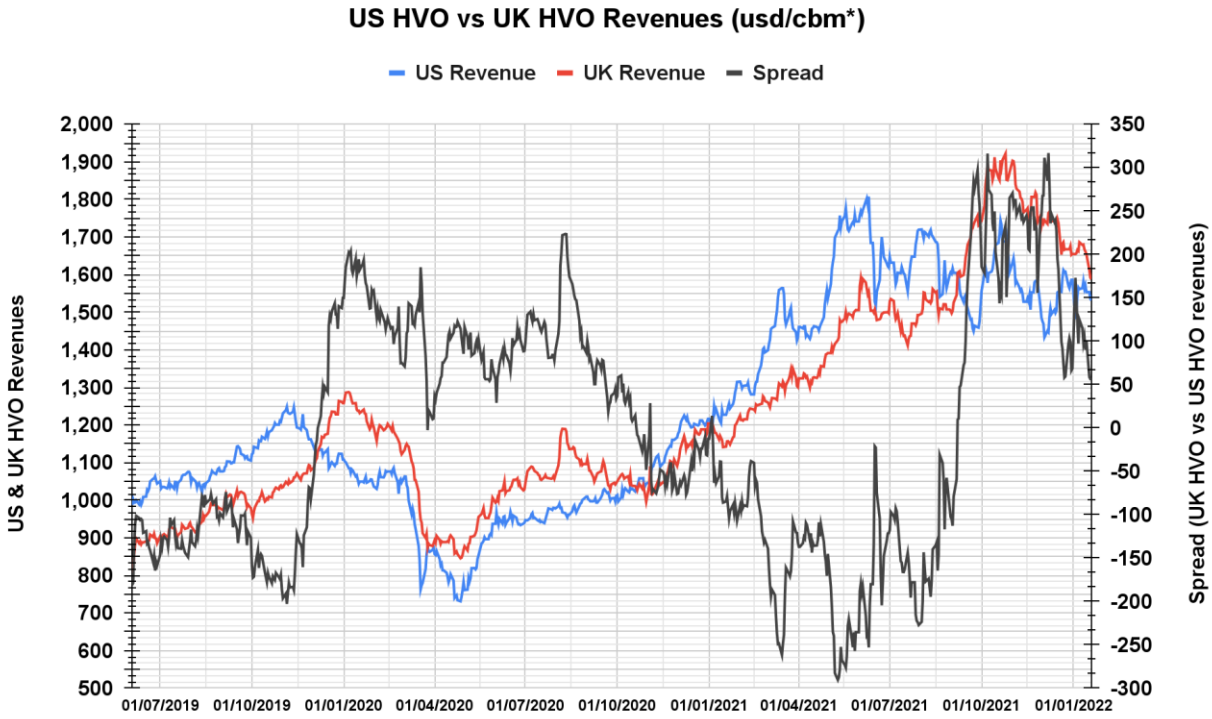
VS

- HVO UK Revenue = HVO UK price - UK logistical cost

The US HVO producers would have a logistic incentive of shipping the volumes from the USGC (where the main US HVO refineries are located) to the UK instead of CA (30 usd/cbm vs 70 usd/cbm). This is mainly due to two elements, the additional costs of crossing the Panama Canal, and the Jones Act in the US. The Jones Act mandates that any shipping between two US ports has to use a US-flagged vessel. The cost associated with being a US-flagged vessel is significant. The second logistical option to deliver the product would be to use rail freight from the USGC to CA, which is even more expensive. Hence, shipping the volumes through a 30kt vessel to the UK is actually an economical option in terms of logistics compared to pushing the volumes to CA. Those details have been provided by the chartering department of a major oil company.

The US BTC (Blender Tax Credit) is not mentioned in the formula above because it is collected in both cases, whether the volumes go into the US or to the UK.

The graph below shows the historical evolution across 2021 of the US Revenue vs the UK Revenue and the spread between the two variables.



**** All the variables have been converted into $/cbm***

This graph clearly shows that the "UK Revenue" would have been higher than the "US Revenue" (or the "spread" higher than zero) during several phases of the investigation period. It would have been the case from December 2019 to November 2020 and from September 2021 to December 2021, which represents most of the investigation period.

During those periods, the US producers could have sold their HVO at a lower price than UCOME in the UK and still generate a better margin than if they were selling their volumes in CA. For example, in average across Q4 2021 the "UK Revenue" was +210 usd/cbm above the "US Revenue", which generates a significant discount and highlights the fact that removing the Anti - Dumping Duties to US HVO would be a significant threat for the local UK UCOME producers.

3. <u>US HVO production is going to increase significantly in 2022 (+2.4 mio mt) and will push US producers to find new attractive markets for their HVO</u>

US HVO production capacity is going to increase by +2.4mio mt in 2022 (DGD and Holly Frontier being the two main actors generating the growth), which represents a massive rise. This additional supply is likely to pull down the RINs & LCFS and negatively weigh on the US margins.

US HVO players would then be looking for other markets in order to diversify their sales and maintain attractive margins, which should support the US HVO flows to the UK and replace UCOME.

The removal of Anti-Dumping Duties in the UK would create a unique opportunity for the US HVO producers to secure and diversify their sales abroad while keeping attractive margins. UCOME producers in the UK would face a heavy competition from HVO and their margin would be negatively affected.