

Introduction

This report has been prepared in response to the statement of essential facts (SEF) documents published by the UK Trade Remedies Authority on 15th December 2021.

Olleco have used data from independent sources to evaluate the impact of the proposed removal of anti-dumping and countervailing measures on Hydrotreated vegetable oil (HVO) /Renewable Diesel (RD) from the United States (US).

There are some inaccuracies that have been identified related to facts used and analysis completed by the TRA which will be discussed in each section of this response.

Background to UK biofuel industry

The UK's renewable transport fuel obligation was launched by the Department for Transport (DfT) in 2008.¹ Under the RTFO Order, fuel suppliers have an obligation to blend a proportion of biofuel into fuel supplied for use in road vehicles and non-road mobile machinery. The aim of this policy is to reduce the emissions from road transport to support the wider sustainability objectives for the UK.

As the scheme was launched in 2008, the UK biofuel industry is still a relatively young but important sector which has been growing since the schemes inception. In 2019 UK production of biodiesel reached 573m litres.²

There are two main markets that renewable fuel is sold into:

1. **B7 market** – fuel with up to 7% biodiesel blended into diesel by volume, which meets the requirements of the European diesel standard EN590. B7 is the blend that is sold into the market to be sold to the public at forecourts.
2. **Higher blend markets** – B20, B30, B100 etc. Blends of higher percentages of biodiesel (or indeed pure 100% biodiesel) which is typically sold to commercial fleets.

There is already considerable competition between higher blend markets and HVO (*See RTFA SEF response for more detail*).

This analysis is aimed to demonstrate that the removal of anti-dumping and countervailing measures presents a considerable risk that HVO produced in the US will compete unfairly and cause injury to UK domestic biodiesel production made for commodity blends i.e. B7 in the UK.

1. Changes in biofuel market conditions since the Period of Investigation (POI)

Olleco understand that the period of investigation was set for a fixed period, however, there have been several changes in market conditions since this period which significantly impact the evaluation made by the TRA. The TRA transition review³ analysed trade data for the period between 1 July 2019 and 30 June 2020.

1.1 Increasing Capacity of North American Renewable Diesel since June 2020

¹ <https://www.gov.uk/government/consultations/increasing-the-renewable-transport-fuel-obligation-buy-out-price-for-biofuels-suppliers/increasing-the-renewable-transport-fuel-obligation-buy-out-price-to-ensure-continued-greenhouse-gas-savings>

² <https://www.statista.com/statistics/791692/biodiesel-production-united-kingdom-uk/>

³ <https://www.trade-remedies.service.gov.uk/public/case/TD0004/submission/a8fa1a1e-4ba7-433e-b358-edcbf0d17450/>, published 15 December 2021

The production of HVO is a relatively new industry which has only come into commercial existence in the last decade, and it is expected to grow significantly around the world over the next 10 years. The North American renewable diesel production capacity is growing with new capacity coming online each year. The view presented by the TRA does not consider the growth in the North American renewable diesel production segment in 2021, a trend which is already demonstrably affecting North American renewable diesel production economics in favour of opening a potential flow of trade into the B7 UK market if existing trade remedies are removed.

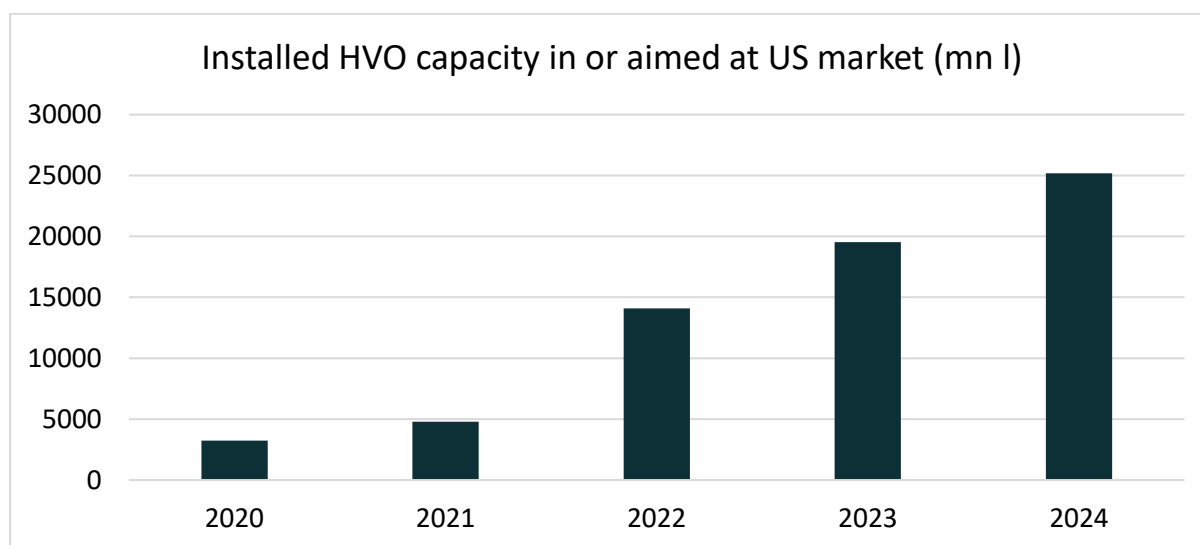


Figure 1: Capacity Growth in US HVO capacity (PRIMA)

The North American HVO buildout trend will more than double in 2022 as between 7-8bn l⁴ of new North American HVO production assets join the market, delivering in aggregate significantly more volume than the domestic US market looks able to consume in the short to medium term at least. Public statements by North American producers⁵ demonstrate that HVO plants are actively considering ways to find new markets that they can sell into.

The likelihood has already risen that some North American HVO operations will be unable to sell all their output domestically. If the opportunity arises at it is likely will look to sell into the UK at levels undercutting domestic FAME producers with a view to at least covering costs across their wider production portfolio. Continuation of current anti-dumping and anti-subsidy remedies across EU member states would expose the UK as the only large international market left open to North American sellers outside Norway (See Section 2.0: Case Study Norway), putting the operational viability of UK FAME plants at unique risk in a European context given the direct substitutability of HVO for FAME with respect to EN590 standard public retail outlet diesel.

1.2 Lower than forecasted demand for renewable diesel in US market

1.2.1 US HVO production and demand fundamentals

The demand for biofuel in the US is driven by the Environmental Protection Agency's (EPA) Renewable Fuel Standard program. In December 2021 the EPA proposed to make cuts to the 2020 renewable volume obligations

⁴ PRIMA Weekly US Biodiesel Report January 3 2022: figures based on aggregate review of US HVO developer public statements on new capacity operating timelines

⁵ Darling management speaks on market outlook at : <https://bmo.qumuccloud.com/view/2021-esg-darling-ingredients#/>

(RVOs) keeping the overall blending mandate for 2021 below the previously set 2020 levels.⁶ This is a considerable change in the situation since last year.

US HVO production support and economics currently rest on three pillars of de facto federal and state revenue streams.

- Renewable Identification numbers (RINs) - credits that are generated each time a gallon of renewable fuel (ethanol, biodiesel, etc) is produced and are used to demonstrate compliance with the renewable fuels mandates set by the Renewable Fuels Standard in the US.
- Blenders Tax Credit (BTC)
- Californian Low Carbon Fuel Standard (LCFS)

The US renewable diesel market is an oligopoly market with only 3 major biofuel producers: Diamond Green Diesel (DGD), REG and Neste. It is therefore not possible to obtain wholesale market pricing for the market given the small number of players.

Each of the US federal support factors have a value which can be used to calculate indicative production margins versus the cost of feedstock. Informed assumptions about how these revenue streams will behave because of the TRA proposal can be used to inform a view of the likely development of transatlantic HVO arbitrage economics.

US HVO producers selling their product domestically generate D4 RINs, the equivalent US mandate ticketing system to UK RTFCs. Each gallon of HVO produced generates 1.7 D4 RINs⁷. In addition, HVO producers benefit from whatever share of a federal tax credit worth \$1/gal⁸ (\$338.7/MT⁹) they can negotiate with their buyers. Fuel blenders are awarded the credit in full under the current tax system, and US HVO exporters would be able to claim the full value of the credit for “splash” blending their HVO with a small percentage of diesel. Without remedy, this subsidy mechanism replicates the “B99” system of subsidised blending¹⁰ which drove transatlantic trade in subsidised biodiesel in the early 2000s to the detriment of UK and European biodiesel plants.

The third pillar of support equates to the value that HVO fetches if sold into low carbon fuel standard markets which are currently only in operation on the US West Coast. California is the largest and most lucrative of these markets under a clean fuel standard operated by state regulator California Air Resources Board¹¹. Other North American LCFS markets are currently a small fraction of the size of California. New state adopters of LCFS programmes will take some years to mature their programmes into significant demand. US HVO sellers looking at sales openings overseas would still qualify for the federal blenders tax credit worth up to \$338.7/t for any export barrels out of the US being sold as a subsidised “splash” blend.

POI equilibrium changes in late 2021 as new capacity comes online

An analysis of the historical economics of US HVO producers supports the findings of the UK Trade Remedies Authority: namely that arbitrage economics in the Period of Investigation (POI) between 1 July 2019 and 30 June 2020 would have been unworkable.

⁶ S&P Global, <https://www.spglobal.com/platts/en/market-insights/latest-news/oil/120721-us-epa-proposes-cuts-to-2020-biofuel-mandate-with-plans-to-raise-blending-in-2022>

⁷ Federal Register / Vol. 75, No. 58 / Friday, March 26, 2010 / Rules and Regulations, p14709

⁸ <https://www.irs.gov/pub/irs-pdf/f8864.pdf>

⁹ \$1/gal blenders credit converted for assumed HVO density

¹⁰ <http://www.biodieselmagazine.com/articles/1863/the-end-of-splash-and-dash>

¹¹ California Air Resources Board LCFS program detailed at <https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard>

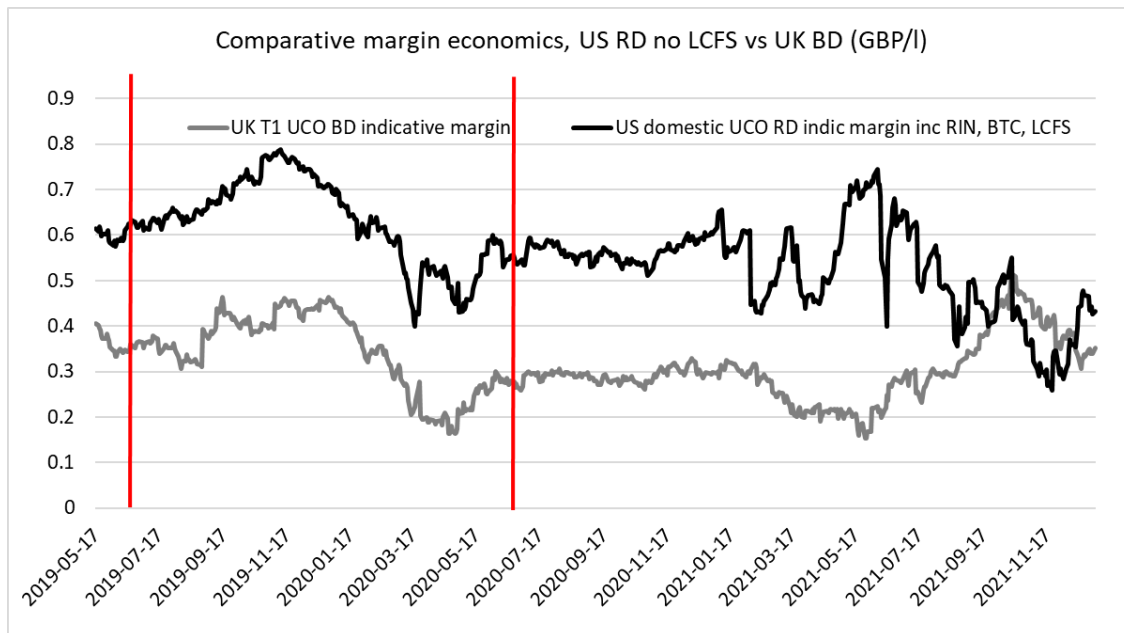


Figure 2: graph showing indicative margins for UK biodiesel BD and US renewable diesel (RD) as capacities come online ¹²

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.

Demand for HVO into Californian LCFS market

To date, US HVO producers have been able to assume access to the West Coast markets, supported by the LCFS, as a supplement to their returns from the Federal market where revenues are supported by RIN values and the BTC tax credit. The volume of HVO set to come into production in North America this year alone, however, is far in excess of medium-term West Coast requirements. This means that production economics for new entrants cannot rely on the third pillar of US revenue returns represented by the California LCFS market. Historical comparisons of assumed HVO price arbitrage between the US and Europe, which de facto rest on assumed California sales economics, will thus become increasingly less relevant this year as a larger number of US HVO plants are unable to secure LCFS returns for the gallons they want to sell.

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

¹² PRIMA data, assumes US plant running domestic UCO, UK plant running T1 UCO CIF ARA all duties paid

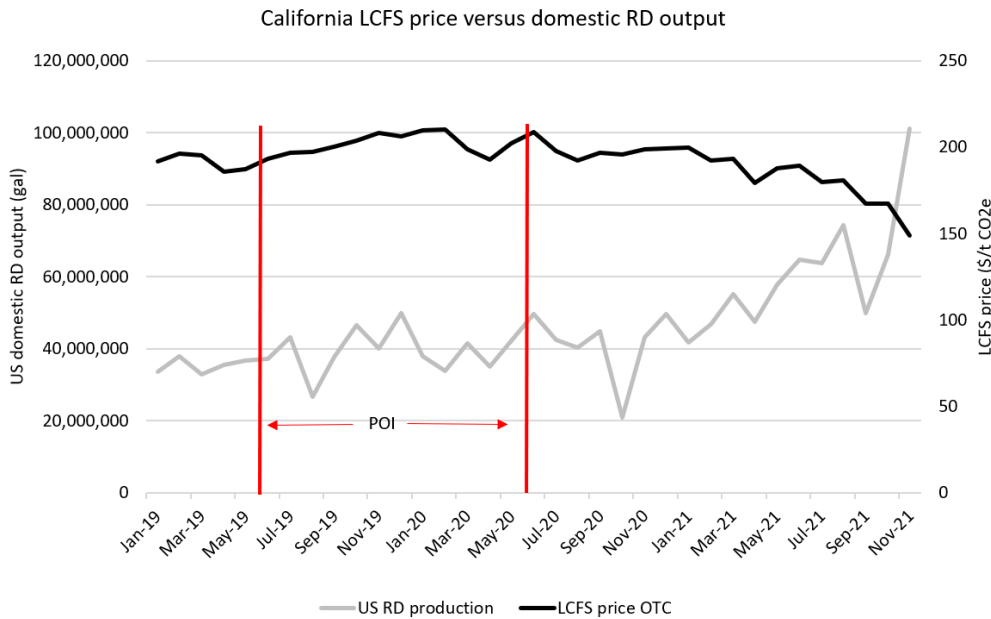


Figure 3: LCFS price vs. US renewable diesel (RD) output¹³

1.2.2 California 2022 LCFS demand outlook

Limited growth in California demand in the next several years versus the much larger growth in the US HVO supply side indicates the downward trend in California LCFS prices may continue. In addition, given the mismatch between growth in California demand and growth in US HVO supply, much of the new capacity is unlikely to be able to find market share in California or other carbon ticketing markets in North America. This implies some US capacity will be unable to access one of the revenue streams which is currently the main component of US producer profitability.

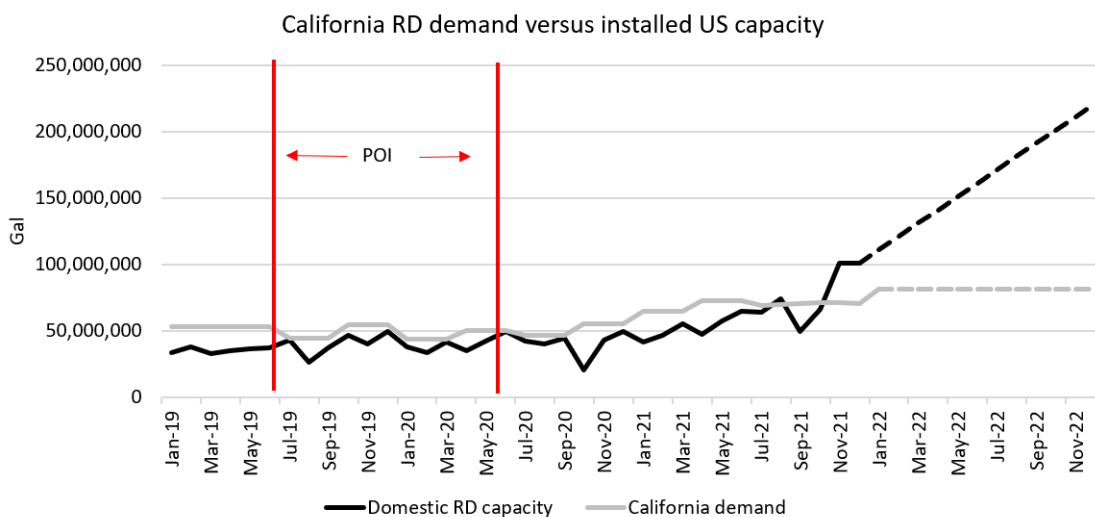


Figure 4: Californian renewable diesel demand vs. US capacity¹⁴

¹³ Sourced from EIA RIN data, PRIMA Daily California LCFS Report

¹⁴ Chart assumes US RD fleet is built out at equivalent of 10mn gal/month increase through 2022 to achieve 1.2bn gal additional capacity by year end, a conservative rate of progress 600mn gal below current full year developer projections. California RD demand, based on California Air Resources Board quarterly consumption data, is moved up 16.7% YoY in line with state carbon intensity mandate schedules. This assumption does not consider any substitution into alternative powertrains eg battery electric vehicles, which could cut renewable diesel demand relative to historical trend

Changing circumstances in the US HVO market therefore make it necessary to consider arbitrage economics for plants which are not able to find market share in carbon ticketing systems such as California. Without remedies, these could dump subsidised HVO into the UK as the next highest pricing market to compete with unsubsidised UK FAME biodiesel.

1.2.3 US 2022 Federal demand outlook

The US EPA's December proposal¹⁵ to raise the 2022 renewable fuels and biomass-based diesel mandates was lower than the industry anticipated.

Table 1: US biofuel capacity 2022, expected vs. announced

	2022 volume (bn gal)	2022 volume (bn gal)
	Industry Expectation	US official EPA proposal in Dec 2021
Cellulosic	0.765	0.77
Biomass-based diesel	5.615	2.76
Advanced Biofuel	6.669	5.77

¹⁶

In total, around 7bn l of new renewable diesel capacity looks set to be added to the North American slate this year on current developer timelines, versus total Renewable Fuel Standard demand growth of around 5.685bn l in renewable diesel gallons equivalent. This equates to another 1.315bn litres of capacity that will require an outlet.

1.3 Conclusion Supply vs. Demand

US renewable diesel capacity in the medium term is projected to outstrip mandated demand. With significant investment having been made by US plant developers there is likely to be pressure to run plants at capacity and find a market for their product. Additional to this, oil majors having environmental, social and governance emissions reduction pledges^{17 18}, US plant developers will be incentivised to produce as much RD as possible to try and establish market share into mandates with profitable revenue streams. This is likely to deliver surplus subsidised output unable to enjoy these full domestic returns, which could find a viable route into the UK on straight arbitrage economics versus UK waste biodiesel prices if remedies are removed. HVO is directly substitutable for biodiesel, and if product arrives into the UK at price parity with, or at a discount to biodiesel, it is highly likely that UK producers will no longer be able to operate and be forced to close their facilities.

2.0 Case Study US biofuel flooding Norwegian market

Norway can be used as a case study to show the potential impact of US material being dumped into markets where there is no protection. Norway is not a member of the European Union (EU) and hence does not comply with the Renewable Energy Directive (RED). As such anti-dumping and countervailing measures in place for EU member states do not apply to Norway.

¹⁵ <https://www.epa.gov/renewable-fuel-standard-program/proposed-volume-standards-2020-2021-and-2022#rule-summary>, accessed 6 January 2021

¹⁶ Sourced from PRIMA Weekly Biodiesel Report. Published 8th December 2021.

¹⁷ Phillips 66 sets reduction targets for greenhouse gas emissions //www.phillips66.com/newsroom/emissions-reduction-targets

¹⁸ Marathon Oil Announces Executive Compensation Changes and GHG Emissions Intensity Reduction Initiatives <https://ir.marathonoil.com/2021-01-27-Marathon-Oil-Announces-Executive-Compensation-Changes-and-GHG-Emissions-Intensity-Reduction-Initiatives>

Norway does however have a biofuels mandate which has similar principles to the UK system – a volumetric based target which supports double counting for biofuels produced from waste-based feedstocks.

In 2020, 66% of biofuels consumed in the Norwegian market had feedstock originating from North America, with only 26% from European sources.¹⁹ Renewable diesel is the only physical biofuel arbitrage which has been traded between the US and Norway.

Norway's biofuel market is significantly smaller than that of the UK with 500m litres of total biofuel demand in 2020²⁰ vs. UK consumption for the same year of 1.9bn litres.²¹

If the same happens in the UK as has happened in Norway the capacity available in the US (*1.315bn litres, see section 1.2.3*) has the potential to be absorbed into the UK, which would account for almost 70% of the consumption volume.

¹⁹ PRIMA Analysis – January 2022

²⁰ <https://www.miljodirektoratet.no/aktuelt/nyheter/2021/mai-2021/mer-avansert-biodrivstoff-pa-norske-veier/>

²¹ <https://www.gov.uk/government/statistics/area-of-crops-grown-for-bioenergy-in-england-and-the-uk-2008-2020/section-1-biofuels>