Future of the UK downstream oil sector: call for evidence

Summary

Logistics UK strongly supports the development of a robust, long-term framework for the downstream oil sector that simultaneously strengthens domestic fuel supply resilience and accelerates the transition to low carbon fuel (LCF). These two objectives are not in contradiction but are mutually reinforcing.

Our response makes three central arguments:

- The UK's almost total import dependence for key LCF – including HVO, creates a structural supply chain vulnerability that undermines operator confidence, distorting investment decisions and exposes logistics businesses to the same geopolitical risks that the government seeks to reduce in its fossil fuel strategy. A domestic LCF production and manufacturing base must be a national priority.
- Decarbonisation, properly managed, is the most effective long-term route to energy security. Domestically generated renewable electricity and biofuels sourced from UK waste feedstocks are inherently less exposed to global commodity price shocks.
- Government must provide a clear, stable and long-term policy framework on LCF – including strengthened demand signals through the Renewable Transport Fuel Obligation (RTFO), fiscal incentives for LCF adoption and capital support for domestic production capacity to attract the investment needed to build a resilient system.

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About Logistics UK

Logistics UK is one of the country's largest business groups, and the only trade association which represents all of logistics. Our mission is to support, shape and stand up for a safe, sustainable and efficient logistics sector. Our membership of more than 22,000 includes global, national and regional businesses and SMEs spanning road, rail, inland waterways, sea and air as well as the customers of freight services, such as retailers and manufacturers. We deliver services, representation and thought leadership, helping members and policymakers to seize new opportunities for the sector and the economy as a whole, right across the country.

The logistics sector

Nothing moves without logistics. The sector employs 8% of the UK workforce in good jobs with strong career progression, contributes £170 billion in GVA each year, and underpins the resilience of the everyday economy.

Logistics plans and coordinates the movement and storage of the goods that businesses, public services and households rely on – using ports, airports, roads, railways, waterways, warehouses and smart digital systems to tie it all together.

With the right policies, logistics can drive up UK growth by £8 billion a year.[1] However, rising costs, red tape and poor infrastructure are holding the sector back – putting firms out of business, fuelling inflation, and undermining productivity and supply chain resilience. As a result, the UK has fallen from 4th to 19th in the World Bank Logistics Performance Index over the decade to 2023.

Consultation response

[1] Logistics Delivering a solution to the UK's productivity puzzle, Oxford Economics, 2023

Executive Summary

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- Decarbonisation, properly managed, is the most effective long-term route to energy security. Domestically generated renewable electricity and biofuels sourced from UK waste feedstocks are inherently less exposed to global commodity price shocks.
- Government must provide a clear, stable and long-term policy framework on LCF – including strengthened demand signals through the Renewable Transport Fuel Obligation (RTFO), fiscal incentives for LCF adoption and capital support for domestic production capacity to attract the investment needed to build a resilient system.

The logistics sector encompasses road, rail, air, and sea, which all remain heavily reliant on liquid fuels to operate. The downstream oil sector remains foundational to the UK logistics industry and therefore, alongside the critical expansion of LCF production, support for diesel refineries should be maintained to provide resilience whilst the decarbonisation transition takes place.

Current fuel mix and future expectations

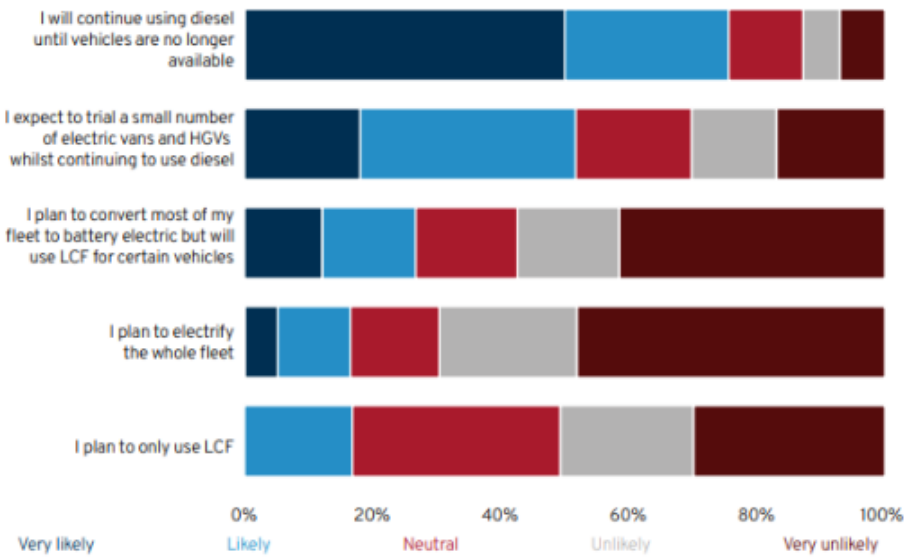
Road freight

Diesel and gas continue to power the majority of the UK's commercial vehicles. To date, the HGV sector mainly relies on diesel and consequently makes up a significant proportion of biodiesel demand. There is also demand from the road freight sector for biodiesel blends higher than the standard B7, as well as for other LCF. Today, 4.8 million light commercial vehicles and over half a million HGVs operate on UK roads, requiring an estimated 52,000,000 litres of petrol and 9,240,000,000 litres of diesel each year to deliver essential goods for consumers and businesses across the UK and beyond[2]. When also considering demand from maritime, aviation and rail, this sum would total significantly more, underscoring how critical oil is for the ability of the logistics sector to deliver goods across the nation.

When looking at near-term plans of road operator member fleets (the next three to five years), the likelihood of using different low emission technologies continues to vary, with many operators clear that they will continue to use diesel vehicles until they are no longer available (**fig 1**). This is not a reflection of a lack of commitment to decarbonisation, but a reflection of the realities of the transition and commercial and operational challenges.

[2] Exploring current and future energy demand from road freight. Logistics UK, June 2025

Figure 1. Future scenario likelihood for logistics fleets



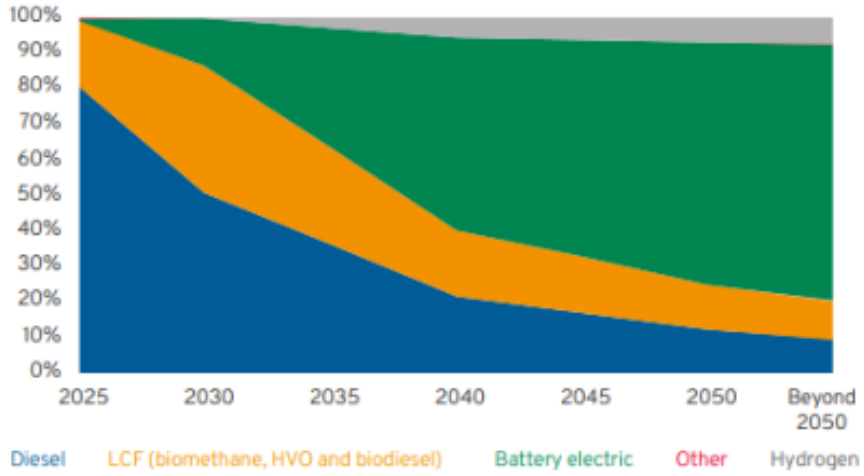
Source: Road Freight Decarbonisation Survey. Logistics UK, 2025

Looking further ahead, like all sectors across the UK economy, the logistics sector is looking to decarbonise. It is generally anticipated that road freight will largely electrify, although there are major barriers around commercial viability in the current market, it not expected for all vehicle weights and use cases. Electrification is particularly challenging for the heaviest vehicles, due to payload loss, range and operational requirements. However, it is the heaviest vehicles that also use the most fuel, driven largely by demanding duty cycles, with 44t artic lorries accounting for an estimated 3,425.4 million litres, or nearly half of all fuel used by HGVs[3]. Therefore, LCF is expected play a key role in assisting with the decarbonisation of road freight in the short term, but also beyond 2050.

As **figure 2** demonstrates, the road freight sector anticipates a diverse range of fuels and technologies being required in the future. Whilst diesel use is projected to decline significantly, most of this decline is offset by LCF use, highlighting the ongoing expected dependency on the downstream oil sector. Battery electric HGVs show the most substantial growth from 2030 onwards. Please note this graph also only shows a snapshot of member perceptions at the time of the survey, and operational and cost realities mean for many, diesel use would be expected to be higher.

[3] Logistics industry position paper on the role of Low Carbon Fuel in decarbonising HGVs. Logistics UK, November 2025

Figure 2. HGV fleet projections for engine types



Source: Road Freight Decarbonisation Survey. Logistics UK, 2025

Rail freight

Rail freight is predominantly powered by diesel-electric locomotives, with conventional diesel being standard. According to the Office of Road and Rail, total traction diesel consumption for freight trains is 159 million litres between April 2023 to March 2024, representing a 2% increase on the previous year.

Looking ahead, the industry is increasingly using HVO, as well as exploring electric, hydrogen and hybrid technologies to reduce its emissions.

Water

The maritime sector is also seeking to decarbonise, however, members have shared that oil-based fuels are expected to remain prevalent due to long vessel lifespans. Currently, retrofitting is extremely expensive and without government support the sector cannot risk/afford to make significant changes, meaning a continued reliance on oil-based fuels.

The Climate Change Committee sets out in its Balanced Pathway that ammonia will meet 22% of shipping energy use and synthetic fuels meet a further 17% of shipping energy use, predominantly from synthetic methanol, by 2040.

Air

For aviation, a hard-to-decarbonise sector, sustainable aviation fuel (SAF) is seen as the most viable route to reduce emissions and this is expected to increase over time. Industry supports the SAF Mandate and opportunities to encourage investment and increase domestic production.

Overall, the logistics sector is expected to remain an intensive user of oil in the future, however ultimately, there is expected to be a shift away from conventional diesel and towards LCF.

Barriers

Cost

The logistics sector typically operates on profit margins of 1-3% and 99.7% of companies are small to medium enterprises. This means that any changes to operations must be done in a commercially viable way. Industry is unable to absorb additional costs.

The recent conflict in the Middle East and subsequent rise in fuel prices highlights the current vulnerabilities of the existing supply chain and exposure to price shocks.

For those looking to decarbonise, LCF is often more expensive than conventional diesel. For maritime, members have shared how LCF can be 60p per litre more expensive than red diesel.

Infrastructure

Across the whole network, with the transition towards electrification, securing grid connections will be essential across all modes. Currently, delays in securing planning and grid connections continue to inhibit progress.

Members working in maritime are also concerned about infrastructure and energy supply for the New Towns that have been announced, as well as the lack of recognition for logistics to support these developments**.**

This highlights that any disruption to refined fuel supply whether from refinery closure, import terminal failure or geopolitical shock directly translates into operational disruption across supply chains on which every sector of the economy depends.

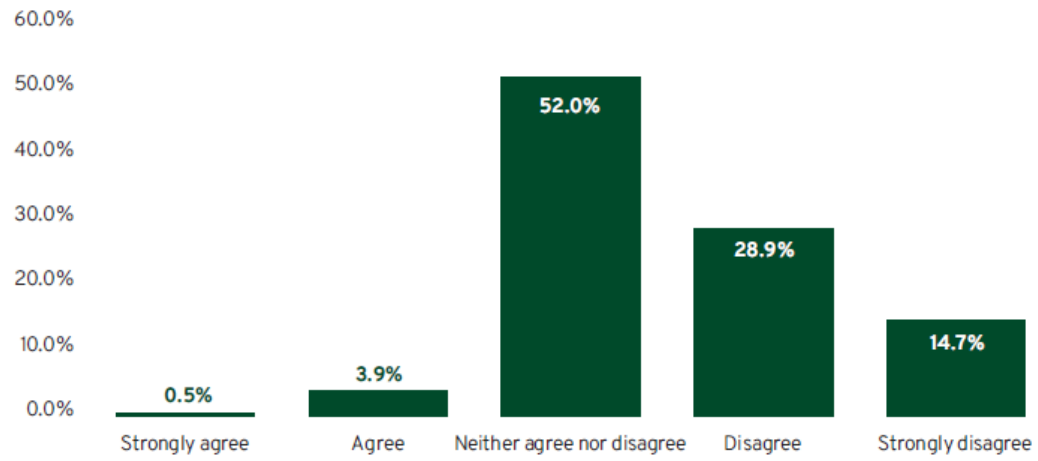
Logistics UK members are also direct end-users of and increasingly transitioning towards LCF. The downstream oil sector including its infrastructure, storage, blending capability and distribution networks are critical for future fuel systems and fleets.

Policy mechanisms

Incentives are required to for operators to transition to LCF.

Industry welcomes government policies to support the transition to net zero, such as the SAF mandate and RTFO, however, overall more support is needed and members have shared that there is general lack of adequacy of existing government mechanisms. Only 0.5% out of industry respondents to a Logistics UK member survey strongly agree that existing policies are sufficient (**fig 3**).

Figure 3. To what extent do you agree that existing government mechanisms (such as the RTFO, ZEV mandate, SAF mandate) are adequate to support sector decarbonisation?



Source: Logistics UK Industry Survey 2024/25. Logistics UK, 2025

Specifically, there are particular challenges around the RTFO. For the maritime sector, members have reported that policies can be a hinderance. Operators have moved away from HVO due to lack of support to use it. The RTFO Order must be amended so that all inland waterways commercial craft are considered ‘non-road transports’, whether operating on tidal or non-tidal water. The current RTFO scheme precludes the use of biofuels in commercial craft used on tidal and coastal waters, although it does permit biofuel use on inland waterways under ‘non-road transports. If the scheme included all commercial craft operating in Category A-Category D waters, with no distinction between tidal and non-tidal, it would enable this sub-sector of maritime to achieve the maximum GHG savings in the shortest amount of time through allowing the use of low emission fuels. Enabling the switch to low emission fuels would deliver significant reductions in GHG emissions from the commercial inland waterways fleet in the short to medium term, until barriers to zero emission propulsion systems are available and suitable for operations.

In addition, a water freight growth target would support the sector and drive business so investment could be made by operators with strong business opportunities.

More broadly, the following policy recommendations would provide better signalling to industry:

- Establish a domestic LCF production target: set an explicit government commitment to a defined share of UK LCF consumption being met from domestically produced feedstocks backed by production support mechanism, similar to the SAF mandates revenue certainty mechanism.
- Strengthen the RTFO: Make the RTFO main obligation target more ambitious and extend it beyond 2032.
- Cost parity with diesel: Introduce a rebate mechanism for renewable liquid fuels, recognising that the price premium is currently prohibitive for many operators, particularly SMEs.
- Support downstream infrastructure investment: Direct capital investment potential via the National Wealth Fund or equivalent mechanism towards terminals, blending and storage.

The renewable fuel industry is confident that increasing the RTFO trajectory beyond 2032 is not only feasible, but required. A Higher Biocontent Fuel Deployment Research paper[4] outlined that whilst there is a perception of finite feedstock availability, UK biofuel producers are confident in having the necessary volume of supplies to satisfy a growing high blend liquid LCF demand. Yet for this to happen, policy support, stability and long-term signalling is essential.

At present there is an oversupply of renewable fuel made from oily feedstocks (ie, biodiesel, HVO and HEFA). Thereafter fuels made from solid biomass feedstocks (advanced SAF or development fuel, as they are referred to in the UK RTFO) are expected to become increasingly essential. Investment is needed in the development of lipid feedstock supply chains, now, through stimulating an increase of their use in road transport, as there is no prospect of them becoming redundant in the future.

For bio-CNG specifically, a common concern is that agricultural land for biomethane production can take away valuable land that could be utilised for growing food or deploying solar panels for renewable energy. Fuel suppliers recognise this and the demand for LCF to be derived from waste, rather than energy crops. Leading suppliers meet this expectation by sourcing fuel from certified waste-based anaerobic digestion. At the same time, industry continues to innovate and evolve highlighting that demands will continue to be met, yet support is needed to help realise this increased production.

Understanding the liquid fuel transition for end users

Logistics UK views the downstream oil sector as having a central and positive role in the delivery of freight decarbonisation, provided the right policy framework is established. The sectors existing infrastructure, including depots networks, storage terminals, pipeline connectivity and skilled workforce represent an asset base that can be repurposed to support the LCF transition rather than be disregarded.

Key opportunities

- Domestic HVO production and increased support for biodiesel: The UK has no commercial scale HVO production capacity. Establishing domestic production using UK waste feedstocks including used cooking oil, tallow, and agricultural residue would simultaneously create jobs, strengthen supply security and reduce import dependency. The government Advanced Fuels Fund provides a foundation, but the investment pipeline requires stronger demand signals to be commercially viable.
- Biomethane scale expansion: The UK has substantial feedstock potential for anaerobic digestion and biomethane production. Projections from the Green Gas Task Force estimate that from the current biomethane capacity of 7TWh, the UK could generate 50TWhrs of biomethane per
- annum by 2030 and 120 TWhrs by 2050[5]. Increasing domestic production and reducing the current 70%+ import share is both technically achievable and strategically important.
- Refinery repurposing for SAF and LCF: Existing refinery assets are well positioned to produce SAF, renewable diesel and other LCF. Government support could enable the remaining refineries to transition and retain domestic production capability while shifting its output to future fuel mix.

Barriers to transition

[4] SPaTS 2-T0543: TTDC3031 – Higher Biocontent Fuel Deployment Research: Final Report. WSP, Zemo Partnership and Low Carbon Truck Consultancy. January 2025

[5] A Green Gas Future. Green Gas Taskforce, September 2025

- Price premium: HVO is currently priced at a significant premium to fossil diesel. For logistics operators – many operating on thin margins and lacking access to capital, this premium is a decisive barrier to voluntary adoption. Without cost parity the economics of LCF adoption remain challenging for much of the sector.
- Supply constraint and import exposure: The absence of domestic HVO production means supply volumes are constrained by international availability and EU market competition. As European and US demand for HVO increases, the UK risks being outcompeted for supply, further driving up prices and reducing availability for domestic operators.
- RTFO trajectory uncertainty: The RTFO is the primary policy instrument driving LCF uptake. However, it should be more ambitious, with the main obligation target continuing to rise beyond 2032 to maximise GHG emission savings.
- Capital access for SME operators: The logistics sector includes a high proportion of SME hauliers (99.7%) who lack the capital to absorb the upfront cost differential of LCF adoption or alternative fuel vehicle procurement. Targeted support mechanisms are required.

Final considerations

Decarbonisation as resilience strategy

The ongoing conflict in the Middle East and energy crisis of 2022 demonstrates that fossil fuel import dependency is itself a supply security risk. A transition to domestically produced LCF and renewable electricity would reduce the UK exposure to the commodity market volatility. Government should position the LCF transition explicitly as a national resilience strategy, not solely as an emission reduction measure.

This framing matters for investment. If domestic LCF production and expansion are understood as critical national infrastructure investments, rather than purely environmental subsidies, this could attract different private capital and carry higher weight in public spending prioritisation.

Alignment with freight decarbonisation policy workstreams

The future fuels framework being developed through this call for evidence must be coordinated with the DfT's forthcoming HGV CO_2 regulatory framework to ensure policy coherence. Logistics UK is concerned that separate departmental processes risk creating inconsistent signals.

Logistics UK recommends DESNZ and DfT establish a joint workstream on freight fuel transition, ensuring that demand side and supply side policy instruments are calibrated to deliver the same outcomes on the same timelines.

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