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Report Highlights:

The United Kingdom (UK) is a significant market for biofuels, for road fuel use of bioethanol, biodiesel and renewable diesel, as well as other uses as the Sustainable Aviation Fuel expands. The UK has maintained a strong connection to the European Union (EU) market and some regulatory similarities since Brexit. UK demand is primarily driven by the government's decarbonization policy, namely the Renewable Transport Fuel Obligation (RTFO) and evolving sustainability standards. The UK remains a significant importer of biofuels, particularly from China, the United States, Southeast Asia, and Brazil. However, these trends may be impacted by UK trade policies and decarbonization goals in the coming years. While the zero-emission vehicle (ZEV) mandate is gradually reducing the role of biofuels in the road transport sector, 2025 marks a turning point as advanced fuels—particularly SAF and renewable diesel—see accelerated growth in aviation and heavy-duty transport, offsetting declines in traditional road fuel use.

Disclaimer:

This report presents the situation and outlook for biofuels in the UK. This report presents the views of the author and does not reflect the official views of the U.S. Department of Agriculture (USDA). The data are not official USDA data. Official government statistics on biofuels are not available in many instances. This report is based on analytical assessments, not official data.

Section I. Executive Summary

The United Kingdom's (UK) biofuel policies and programs have undergone significant transformation since the UK left the European Union (EU) (“Brexit”), reflecting the UK’s commitment to sustainability and decarbonization. Prior to Brexit, the UK adhered to the EU Renewable Energy Directive (EU RED), which set sustainability criteria for biofuels, including minimum greenhouse gas (GHG) emissions savings and land use change requirements. Following Brexit, the UK established its own framework under the Renewable Transport Fuel Obligation (RTFO), which mandates renewable fuel blending, incentivizes use of waste-derived feedstocks, and sets stringent sustainability criteria. The RTFO requires biofuels to achieve a minimum GHG emissions saving of 60 percent compared to fossil fuels, aligning with EU RED standards but tailored to the UK's specific needs. Producers must certify the carbon intensity (CI) of their fuels, measured in grams of CO₂ equivalent per megajoule (gCO₂e/MJ), through third-party verification or self-certification. Many producers opt for third-party certification to enhance credibility and market acceptance.

Since Brexit, the UK has seen notable trends in biofuel consumption, production, and trade. The introduction of E10 gasoline in 2021, which contains up to 10 percent ethanol, marked a significant step in increasing ethanol use in the gasoline market. Ethanol consumption has grown steadily, driven by government blending mandates and the rollout of E10 fuels. In 2025, ethanol consumption continued to rise, supported by the full implementation of E10 gasoline and stable import flows, particularly from the United States, facilitated by the Economic Prosperity Deal’s tariff-free quota. Fluctuations in ethanol consumption have occurred due to external factors such as reduced transportation use during the COVID-19 pandemic. Domestic ethanol production, primarily reliant on wheat, corn, and sugar beet feedstocks, has seen limited capacity expansion. The UK remains heavily reliant on imports to meet ethanol demand, with the United States emerging as the main supplier due to competitive pricing and production capacity. The Economic Prosperity Deal (EPD) with the United States has also facilitated tariff-free quotas for ethanol imports, ensuring stable domestic supply.

Biodiesel consumption has followed a different trajectory, peaking in 2019 before declining due to competition from substitutes and concerns about sustainability. Used cooking oil (UCO) has become the dominant feedstock for biodiesel production, accounting for a significant share of the UK's renewable fuel supply. However, the UK has limited capacity to increase domestic UCO collection and relies on imports, particularly from China, to supplement supply. Biodiesel demand in 2025 remains strong, but the market is increasingly shaped by a shift toward waste-derived feedstocks, especially used cooking oil. Biodiesel imports have been critical to meeting demand, with the EU, China, and Southeast Asia serving as major suppliers. Trade remedies, such as anti-dumping duties, remain in place for biodiesel imports from Argentina, Indonesia, and the United States. Despite these measures, biodiesel imports have fluctuated, reflecting broader market dynamics and changes in trade policies.

In 2025, renewable diesel (HDRD) consumption is forecast to reach a record high, driven by increased demand in the heavy transport and aviation sectors, and supported by RTFO incentives and a growing preference for drop-in fuels. Post-Brexit, renewable diesel (HDRD) has seen steady growth in

consumption, and continues to rise, supported by the RTFO and its incentives for renewable fuel use in heavy transport and aviation sectors. However, domestic production remains limited, with the UK relying heavily on imports to meet renewable diesel demand. The United States and EU countries serve as key suppliers, with import volumes increasing significantly in recent years. The composition of import sources as the UK has taken up its independent trade remedy policies post-Brexit, removing some trade remedies for renewable diesel, and renewing and increasing other trade remedies for biodiesel. Sustainable aviation fuel (SAF) consumption is set to grow by nearly 50 percent in 2025, reflecting the impact of the new SAF mandate and government funding programs, as the UK aviation sector accelerates efforts to decarbonize. While SAF production in the UK is still in its early stages, government incentives and funding programs aim to support its development. Demand is set to scale up over time, as the SAF mandate rises from its initial level of 2 percent of aviation fuel supplied in 2025.

The UK's biofuels market has been shaped by broader domestic decarbonization policies, including the zero-emission vehicle (ZEV) mandate, which phases out the sale of non-ZEVs starting in 2030. This mandate is gradually reducing demand for biofuels in the road fuel pool, but other sources of biofuel demand, such as aviation and maritime, are expected to grow. The RTFO contributes to the UK's climate targets, including a 68 percent reduction in emissions by 2030 (compared to 1990 levels) and net-zero emissions by 2050. The RTFO mandates incremental increases in renewable fuel content, requiring a growing percentage of road and non-road mobile machinery fuel to come from renewable sources over time.

Trade policy changes following Brexit introduced new challenges for biofuels, including tariffs, customs checks, and regulatory divergence. The UK negotiated agreements with the EU, United States, and other countries to mitigate these impacts. Ethanol, biodiesel, renewable diesel, and SAF trade flows have been influenced by these changes, with the UK increasingly sourcing biofuels from a broader group of suppliers than pre-Brexit. Due to its focus on waste-derived feedstocks, such as UCO, the UK has shifted its imports towards biofuels and feedstocks which meet higher sustainability standards.

The UK has also implemented programs to support advanced biofuels, focusing on developing SAF and other advanced biofuels. Regional and local initiatives, such as low-emission zones, further promote biofuel use in public transport and commercial fleets. For example, Scotland's climate change plan includes measures to increase on road biofuel use as part of its broader strategy to achieve net-zero emissions by 2045.

The UK's biofuels policies and programs, centered on the RTFO, have driven significant progress in reducing the carbon footprint of transport fuels. While challenges remain, including reliance on imports and the gradual decline of the road fuel pool, the UK continues to adapt its policies and leverage international partnerships to support its biofuels market and advance its climate goals. Trends indicate growing demand for renewable diesel and SAF, alongside incremental increases in ethanol and biodiesel use, as the UK balances sustainability, trade dynamics, and decarbonization targets.

Section II. Policies and Programs

A. Renewable Energy and GHG Emissions

Before Brexit, the UK adhered to the EU Renewable Energy Directive (EU RED), which set sustainability criteria for biofuels, including GHG emissions savings and land use change requirements. The EU RED mandated that biofuels must achieve a minimum GHG emissions saving of 50 percent compared to fossil fuels, increasing to 60 percent for new installations. Post-Brexit, the UK established its own sustainability criteria under the Renewable Transport Fuel Obligation (RTFO). The RTFO requires biofuels to achieve a minimum GHG emissions saving of 60 percent compared to fossil fuels, aligning with the previous EU RED standards but tailored to the UK's domestic needs.

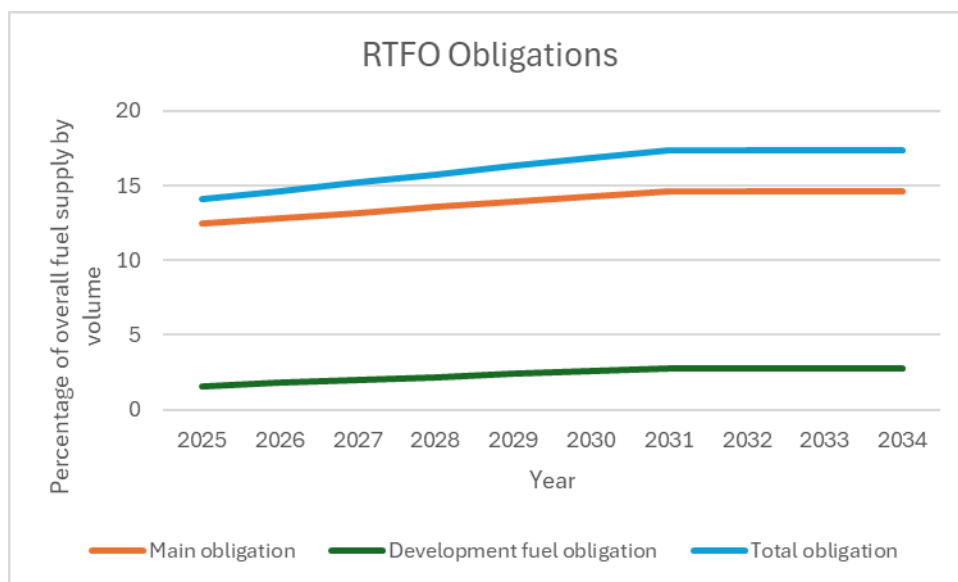
Under the RTFO, biofuel producers are required to certify the carbon intensity (CI) of their fuels, measured in grams of CO₂ equivalent per megajoule (gCO₂e/MJ). This certification can be done through third-party verification or self-certification, provided it meets the standards set by the Department for Transport (DfT). While certification is mandatory for compliance with the RTFO, many biofuel producers voluntarily seek third-party certification to enhance credibility and market acceptance. A significant portion of biofuels produced in the UK are certified through third-party verification. The third-party verifiers have their CI values for various biofuels published by DfT. These values are used to ensure compliance with the UK's sustainability criteria.

The UK government incentivizes existing biofuel producers to lower their CI, principally through producer tax credits and associated minimum GHG reduction factors. Biofuels must meet these minimum GHG reduction factors in order to qualify for these tax credits. Similar to the previously applicable EU Renewable Energy Directive, the UK encourages the use of waste and residue feedstocks, due to their typically lower CI values compared to conventional feedstocks.

The existing policy tools in the UK continue to incentivize the uptake of biofuels, supplanting conventional fuels since leaving the EU. This has been done largely with a view to lowering the carbon footprint of UK and contributing to wider UK sustainability government targets. These targets have not changed following the transition of the UK government from the Conservative's to Labour in July 2024. The RTFO, combined with financial incentives and sustainability criteria, has been the principal driver behind this shift, improving the environmental performance of biofuels.

The UK has wider decarbonization targets include a commitment to achieve net-zero GHG emissions by 2050, with interim targets such as 68 percent reduction in emissions by 2030, compared to 1990 levels. These are guided by the UK's carbon budgets, setting legal limits for the UK's emissions, set by the Climate Change Committee. These span five-year periods, with the UK publishing its seventh carbon budget (for the period 2038-2042) in February 2025. The RTFO, in line with these targets and building on its National Renewable Energy Action Plan in the RED, looks to incrementally increase the renewable fuel content in the UK over time. This mandates that a certain percentage of the fuel they supply comes from renewable sources, including biofuels.

The RTFO requires that 13 percent of all road and non-road mobile machinery fuel must come from renewable sources in 2024, and 13.55 percent in 2025, eventually increasing to 17.4 percent from 2035 onwards.



The UK decarbonization policy, particularly under its zero-emission vehicle (ZEV) mandate, supports the uptake of electric vehicles, lowering demand for biofuels. This phases out the sale of non-ZEVs from 2030 onwards, with some exceptions (e.g., hybrids and second-hand non-ZEVs). This is leading to a continued gradual decline of the demand for biofuels in road vehicles.

The UK has specific programs to support the development and commercialization of advanced biofuels. For example, the Advanced Biofuels Demonstration Competition provides funding for projects that demonstrate the commercial viability of advanced biofuels. The government's Industrial Strategy Challenge Fund includes initiatives to support the development of sustainable aviation fuels (SAFs) and other advanced biofuels. The UK is also part of international collaborations, such as the Biofuture Platform, which aims to accelerate the development and deployment of advanced biofuels globally.

While the RTFO is a national policy, there are regional and local initiatives that support biofuel use and production. For example, some local authorities have introduced low-emission zones and incentivize the use of biofuels in public transport and commercial fleets.

B. Policy & Programs Aimed Specifically at Biofuels or more generally Fuel Pool Size Which Also Impact Biofuel Demand

Ethanol and the Gasoline Market

The RTFO applies to ethanol, which enables fuel suppliers to meet annual obligations under the low carbon fuel mandate. In the UK, the introduction of E10 gasoline, which contains up to 10 percent ethanol, has been a significant step in this direction. E10 gasoline was introduced in Great Britain in

September 2021 and in Northern Ireland in November 2022. This change has roughly doubled the available volume for ethanol blending in UK gasoline. Connected to this increase in ethanol mix in the fuel supply, was a spike in the proportion of UK fuel supply from crop-derived fuels which reached 2.3 percent – the highest level since the cap was introduced in 2018.

Under the RTFO, the UK follows fuel quality standards which enable the blending of ethanol with gasoline e.g. BS EN:228 as well as other standards for diesel, and aviation fuels etc. The introduction of E10 (gasoline with 10 percent ethanol) in 2021 is a significant step towards increasing ethanol use in the gasoline market. This was an increase from the previous E5 mandate. E5 remains as a “protection grade” for older vehicles incompatible with E10 and above, and remains available in some forecourts in the UK. The E10 mandate permits a range of between 5.5 percent and 10 percent ethanol by volume.

Biodiesel/Renewable Diesel and Diesel Markets

The RTFO also mandates the blending of biodiesel and renewable diesel in the diesel fuel pool. The target for biodiesel blending has increased over time, with a current requirement of 12.15 percent renewable content in diesel in 2025. These RTFO targets have tended to be met through obligated suppliers providing sufficient volumes of renewable fuels, with minimal levels of buyouts of certificates needed towards their obligation. This obligation applies to multiple end-uses, including both on-road and off-road use. The UK also maintains fuel quality standards to ensure the compatibility and performance of biodiesel and renewable diesel blended with conventional diesel for diesel engines.

Sustainable Aviation Fuel (SAF)

The UK has set targets for the use of sustainable aviation fuel (SAF) in the aviation sector. The government aims to achieve at least 2 percent SAF usage in 2025, with a goal of rising to 10 percent by 2030. Current SAF usage in 2025 is slightly below 2 percent but trending upwards. The mandate applies nationwide and is part of the broader strategy to decarbonize the aviation sector (for more details see [SAF in the UK report](#)). The jet fuel pool in the UK has been relatively stable and increasing, with fluctuations due to changes in air travel demand more than government policy drivers. The SAF mandate applies to jet fuel suppliers in the UK, thus applying to domestic and outbound international flights.

Other Policies Affecting Total Fuel Demand

The UK’s ZEV mandate, which phases out new non-ZEV sales from 2030, is expected to reduce overall demand for road transport fuels, including biofuels. Increasing adoption of electric vehicles is gradually shrinking the gasoline and diesel fuel pools, limiting demand for biofuels in road transport. Improvements in vehicle fuel efficiency standards are lowering per-vehicle fuel consumption, contributing to a decline in total fuel demand. Additionally, consistent expansions of public transport networks and investment in low-emission zones are encouraging shifts away from private vehicle use, reducing road fuel demand.

C. Environmental Sustainability and Certification Requirements

The UK has established sustainability criteria for biofuels under the RTFO, similar to those under the EU RED. These criteria cover GHG emissions savings, land use change, and other environmental impacts such as biodiversity, air, water, and soil quality. Biofuels must achieve a minimum GHG emissions saving of 60 percent compared to fossil fuels to qualify under the mandate therefore contributing to the Government's GHG emissions reductions for the sector.

Certification of Carbon Intensity

Biofuel producers in the UK are required to certify the CI of their fuels, measured in grams of CO₂ equivalent per megajoule. This is to ensure compliance with the RTFO mandates, to provide assurance that biofuels supplied meet the UK's minimum GHG emissions savings, as required by law. The current CI target under the RTFO requires that biofuels achieve at least a 60 percent GHG emissions saving compared to fossil fuels. This threshold is aligned with, but slightly more stringent than, previous EU RED requirements and is subject to periodic review by the Department for Transport (DfT) to ensure continued progress toward national climate goals, and within the UK's Carbon Budget. The CI target is not static and may be increased over time as part of the UK's commitment to achieving net-zero emissions by 2050. This certification can be done through third-party verification or self-certification, provided it meets the standards set by DfT. Biofuel producers are also required to report the CI values of their fuels, which are then subject to verification by DfT's RTFO administrator. Many biofuel suppliers to the UK, including individual production plants, make use of third-party verification (such as those provided by the International Sustainability and Carbon Certification (ISCC)) for greater transparency and accuracy.

Incentivizes for Waste Feedstocks and Agronomic Practices

The RTFO encourages waste feedstock use by accepting lower CI scores for these feedstocks, allowing them to be eligible under the mandate. Additionally, the RTFO aims to support changes in farming practices that reduce the environmental impact of feedstock production, such as incentivizing no-till farming and cover cropping. The RTFO order defines "relevant crop" feedstocks, which include starch-rich crops, sugars, oil crops, and main crops. However, the crop cap does not apply to dedicated energy crops. Dedicated energy crops are defined as crops that consist of non-food cellulosic material or ligno-cellulosic material, except saw logs and veneer logs, that are grown for the purpose of being used as fuel or energy, are not a residue or a waste, and would not normally be used for food or feed. This is largely in line with the EU's RED.

D. Trade Policy Covering Import Duties/Licenses & Export Taxes/Levies

Over the past decade, the UK's biofuels market has been shaped by significant changes in trade policy and market access requirements, particularly in the context of Brexit, evolving sustainability standards,

and shifting global trade. Ethanol, biodiesel (FAME), renewable diesel (HDRD), and sustainable aviation fuel (SAF) have all been impacted by these shifts, influencing both domestic production and imports.

Brexit and Its Implications - The UK's departure from the European Union in 2020 marked a turning point for biofuels trade policy. Prior to Brexit, the UK benefited from seamless trade with EU member states under the single market framework, which facilitated the import and export of biofuels and feedstocks from EU member states. Post-Brexit, the introduction of tariffs, customs checks, and regulatory divergence created new challenges for biofuels trade between the UK and EU member states. For ethanol and FAME, the UK faced increased costs and logistical hurdles in sourcing from EU suppliers, which had historically been major trade partners. The UK government negotiated trade agreements with the EU and other countries to mitigate these impacts, but the transition period saw disruptions in supply chains and increased focus on non-EU suppliers, such as the United States and Southeast Asia.

Renewable Transport Fuel Obligation (RTFO) Adjustments – The RTFO is the cornerstone of the UK's biofuels policy, mandating the blending of renewable fuels into the transport fuel mix. Over the past decade, the RTFO has undergone several adjustments to align with the UK's climate goals and international commitments. Following Brexit, the UK established its own sustainability criteria under the RTFO, requiring biofuels to achieve a minimum greenhouse gas (GHG) emissions saving of 60 percent compared to fossil fuels—an increase from the previous EU RED requirement of 50 percent for existing installations and 60 percent for new installations. This change, implemented post-Brexit, effectively raised the bar for eligible biofuels and contributed to a shift away from certain feedstocks, such as palm oil-based biodiesel, due to concerns over deforestation and higher GHG emissions. Additionally, the RTFO blending mandate has been incrementally increased, with the renewable fuel obligation for road and non-road mobile machinery fuel set at 13 percent in 2024 and 13.55 percent in 2025, with a target of 17.4 percent by 2035. These policy adjustments have resulted in stricter sustainability criteria for feedstocks and have shifted imports toward waste-derived biofuels, such as those produced from used cooking oil, while reducing imports of biofuels with higher carbon intensity or associated with land use change concerns. Regarding the phasing out of palm oil specifically, rather than imposing an outright ban or higher import duties, the UK has made it increasingly difficult for palm oil-based biodiesel to qualify under the RTFO by introducing more stringent sustainability and traceability requirements. These include mandatory certification of GHG savings and proof that feedstocks are not associated with deforestation or land use change, effectively excluding most palm oil-based biodiesel from eligibility for blending mandates and financial incentives.

Ethanol Trade Dynamics - Ethanol trade has been influenced by both domestic policy changes and global prices. The introduction of E10 gasoline in 2021 boosted domestic demand for ethanol, leading to increased imports, particularly from the United States, which has been a key supplier due to its competitive pricing and supply. Anti-dumping measures were formerly applied to bioethanol originating in the United States, beginning in February 2013 but have not been in place since October 2019.

Domestic UK producers have also faced competition from EU producers, who benefit from economies of scale and proximity to the UK market. The Economic Prosperity Deal (EPD) between the United States and the UK includes a tariff-free quota for U.S. ethanol for 913 million liters in 2025 and 1.4 billion liters quota annually from 2026. This came into effect on June 30, 2025, although it set a pro-rate volume based on the EPD agreement date of May 8.

Biodiesel (FAME) Market Access – Demand for FAME biodiesel has fluctuated over the past decade, driven by changes in feedstock availability and sustainability standards. The UK's focus on waste-derived feedstocks, especially UCO, has led to increased imports from countries with established waste collection systems, including the Netherlands and Malaysia. Following Brexit, additional regulatory requirements for EU exports impacted the cost and efficiency of biodiesel imports as well as feedstocks such as tallow. As a product of animal origin, tallow is subject to greater cross-border checks including additional sanitary and phytosanitary (SPS) controls, import declarations, and border inspections. These new requirements increased administrative burdens, led to longer transit times, and raised costs for importers. As a result, the efficiency of biodiesel and feedstock trade between the UK and EU declined, prompting some UK importers to diversify their sourcing toward non-EU suppliers, such as Southeast Asia and China, particularly for waste-derived feedstocks like used cooking oil.

Renewable Diesel (HDRD) Trade Developments - Renewable diesel has gained prominence in the UK market due to its superior performance characteristics and high GHG-emission savings, as well as its compatibility with existing diesel engines. Domestic production remains limited, making imports critical to meeting demand. The United States and EU countries have been key suppliers of HDRD. Future imports will depend on developments in UK government policies, including support for local biofuel production over imported products. Imports may also be affected by the recent TRA anti-subsidy investigation into U.S. HDRD. The TRA initiated the investigation in 2024, and on November 28, 2025, published a preliminary determination recommending the application of countervailing duties ranging from £257.80 to £303.56 per ton on U.S. HVO. Simultaneously, the TRA terminated its parallel anti-dumping investigation, citing credible evidence that dumping was not occurring.

The TRA's recommendation has been submitted to the Secretary of State for Business and Trade, who is expected to make a final decision by March 31, 2026. If approved, the duties could be applied provisionally and back-dated to July 8, 2025. Sustainable aviation fuel (SAF) is explicitly exempt from these investigations. Historically, the Secretary of State has followed the TRA's recommendations, with only rare exceptions. The possible outcomes include the imposition of countervailing duties on U.S. HVO imports, which could impact future trade flows, or a decision not to apply duties if new evidence emerges. The UK continues to apply both anti-dumping and countervailing duties to U.S. biodiesel (FAME), but this is the first time since Brexit that such measures have been considered for U.S. HVO.

Sustainable Aviation Fuel (SAF) Policy and Trade - Sustainable aviation fuel (SAF) has emerged as a priority for the UK in recent years, driven by the desire to decarbonize the aviation sector. While SAF

production in the UK is still nascent, the government has introduced incentives and funding programs to support its development. In the interim, in order to meet domestic SAF demand the UK has boosted imports from the United States and EU countries with more advanced production capabilities. The UK has also engaged in international collaborations to establish harmonized standards for SAF, ensuring market access and compatibility with global aviation fuel requirements.

Global Trade Agreements and Partnerships - The UK has pursued trade agreements and partnerships to secure access to biofuels and feedstocks from global markets. Agreements with the United States, Australia, New Zealand, and other non-EU countries (including through accession to the Comprehensive and Progressive Trans-Pacific Partnership) have facilitated the import of biofuel feedstocks, ethanol, biodiesel, and renewable diesel, while also opening opportunities for SAF trade. These agreements have been critical in mitigating the impacts of Brexit and ensuring a stable supply of biofuels to meet domestic demand. The agreements with Australia, New Zealand and CPTPP all lead to over 99 percent of goods becoming tariff free, including agricultural products such as biofuel feedstocks.

Section III. Ethanol

Table 1: Ethanol used as Fuel (Million liters)

Calendar Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Production	845	508	905	1,104	911	531	680	654	678	792	603	587
Fuel Production	562	338	595	737	621	362	416	470	547	653	496	480
Imports	797	800	536	563	607	696	361	569	961	1,121	1,440	1,521
Fuel Imports	530	532	352	376	414	474	221	409	775	924	1,185	1,243
>of which is ETBE (a)	10	7	3	0	0	0	0	0	0	0	0	0
Exports	421	113	377	631	447	117	121	97	102	205	290	210
Fuel Exports	280	75	248	421	305	80	74	70	82	169	239	172
Consumption	1,221	1,195	1,064	1,036	1,071	1,110	920	1,126	1,537	1,708	1,753	1,898
Fuel Consumption	812	795	699	692	730	756	563	809	1,240	1,408	1,442	1,551
Refineries Producing First Generation Fuel Ethanol (Million Liters)												
Number of Refineries	3	3	3	3	3	3	3	3	3	3	3	3
Nameplate Capacity	895	895	895	895	895	895	895	895	895	895	895	895
Capacity Use (%)	63%	38%	66%	82%	69%	40%	46%	53%	61%	73%	55%	54%
Co-product Production (1,000 MT)												
DDGs	390	216	345	412	372	240	294	344	379	457	334	330
Corn Oil	13	11	12	12	13	13	13	13	13	14	10	9
Feedstock Use for Fuel Ethanol (1,000 MT)												
Wheat Kernels	801	306	687	904	737	303	507	659	749	988	726	737
Corn	446	386	417	413	452	465	434	440	462	473	341	318
Sugar Beets	469	575	1,422	1,971	1,267	493	253	140	446	452	522	404
Other	26	14	31	32	49	19	32	30	34	40	32	31
Market Penetration (Million Liters)												
Fuel Ethanol	812	795	699	692	730	756	563	809	1,240	1,408	1,442	1,551

Use												
Gasoline Pool 1/	17,474	17,127	16,911	16,692	16,418	16,740	13,011	14,685	16,161	17,125	17,464	18,050
Blend Rate (%)	4.6%	4.6%	4.1%	4.1%	4.4%	4.5%	4.3%	5.5%	7.7%	8.2%	8.3%	8.6%

Note: 1/ Covers gasoline and all additives including any biocomponents (biofuels) when used like ethanol and ETBE. Ethanol content in ETBE assuming ETBE has 45% content ethanol by volume.

Consumption - Ethanol consumption has grown in the UK as blending mandates have increased, and particularly since 2021, when E10 was introduced. Consumption has fluctuated, with a notable dip in 2020 to 563 million liters, as transport usage was impacted by the COVID-19 pandemic. Actual ethanol incorporation may be slightly below 10 percent blend for the total gasoline fuel pool. This is partly due to a 5.5 percent threshold for classification of E10 and partly due to forecourts servicing legacy vehicles. The UK's tariff-free quota for ethanol originating in the United States which took effect on June 30, 2025, has led to tax savings, lowering the price of ethanol relative to gasoline. This in turn has increased the economic advantage of higher blends, pushing the aggregate blend rate above 9 percent towards the end of 2025. The rollout of E10 led to an increase in fuel ethanol demand by around 53 percent between 2021 and 2022 and has since increased further with an estimated fuel demand of 1.6 billion liters in 2025. There is some non-fuel use of ethanol in the UK, including chemical, pharmaceutical and beverage use. This made up around a third of the ethanol market in the UK, prior to the roll-out of E10, and now fluctuates between 15 to 20 percent of total ethanol consumption.

Production - Domestic ethanol production has primarily relied on wheat, as well as corn and sugar beet feedstocks. Production peaked in 2017 at 737 million liters, and has since decreased, while undergoing significant fluctuations such as when it dropped to 362 million liters in 2019. Investments in production efficiency have been made, but capacity expansion has been limited.

Trade – The UK mostly uses imports to meet demand, particularly from the United States, the EU, and Brazil. The UK formerly relied on imports from Brazil but has been increasingly sourcing ethanol from the United States, which is now the main supplier of ethanol to the UK. There are currently third-country duties for ethanol to which ethanol imports from the United States and Brazil have been subject. UK third countries tariffs vary between £8.5 per hectoliter and £16 per hectoliter (approximately 19 percent ad-valorem equivalent). The Economic Prosperity Deal (EPD) between the United States and the UK includes a tariff-free quota for U.S. ethanol for 913 million liters in 2025 and 1.4 billion liters quota annually from 2026. This quota had a utilization rate of 72 percent in 2025. The EU remains a smaller but consistent source of ethanol for the UK, as well as the main export destination for UK ethanol, as two-way trade has remained tariff-free post-Brexit.

Section IV. Biodiesel / Renewable Diesel

Table 2: Biodiesel (FAME), Renewable Diesel (HDRD), Sustainable Aviation Fuel (HEFA-SAF), Million Liters

Calendar Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025f
Biodiesel (Million Liters)												
Production	180	218	503	530	632	718	638	716	737	680	553	648
Imports	520	417	218	215	585	1,061	1,088	852	1,133	1,156	791	854
Exports	10	21	44	40	91	76	68	307	389	377	275	298
Consumption	690	614	677	705	1,126	1,703	1,658	1,261	1,481	1,459	1,069	1,204
Renewable Diesel (Million Liters)												
Production	0	0	0	0	0	45	45	45	128	188	178	143
Imports	2	4	5	1	2	8	0	18	135	330	535	615
Exports	0	0	0	0	0	45	7	0	0	12	14	13
Consumption	2	4	5	1	2	8	38	63	263	506	699	745
Biodiesel + Renewable Diesel (Million Liters)												
Production	180	218	503	530	632	763	683	761	865	868	731	791
Imports	522	421	223	216	587	1,069	1,088	870	1,268	1,486	1,326	1,469
Exports	10	22	44	40	91	121	75	307	389	389	289	311
Consumption	692	617	682	706	1,128	1,711	1,696	1,324	1,744	1,965	1,768	1,949
Sustainable Aviation Fuel (Million Liters)												
Production	0	0	0	0	0	0	0	0	0	0	0	48
Imports	0	0	0	0	0	0	0	0	44	138	195	240
Exports	0	0	0	0	0	0	0	0	0	0	0	0
Consumption	0	0	0	0	0	0	0	0	44	138	195	288
Biodiesel Production Capacity (Million Liters)												
Number of Plants	16	16	16	17	17	17	17	17	17	17	17	17
Nameplate Capacity	1,343	1,343	1,343	1,209	1,323	1,323	1,323	1,323	1,323	1,323	1,323	1,055
Capacity Use (%)	13%	16%	37%	44%	48%	54%	48%	54%	56%	51%	42%	61%
Renewable Diesel + SAF Production Capacity (Million Liters)												
Number of Plants	0	0	0	0	0	1	1	1	1	1	1	1
Nameplate Capacity	0	0	0	0	0	193	193	193	193	193	193	193
Capacity Use (%)	n/a	n/a	n/a	n/a	n/a	23%	23%	23%	66%	97%	92%	99%
Feedstock Use for Biodiesel + Renewable Diesel + SAF (1,000 MT)												
Used Cooking Oil	98	120	329	384	454	534	461	550	622	608	526	592
Animal Fats	48	63	110	90	103	110	108	110	123	133	105	129
Rapeseed Oil	13	14	22	21	32	29	37	24	26	23	19	14
Other	12	12	20	12	14	56	46	43	56	66	49	68
Market Penetration (Million Liters)												
Biodiesel/RD, On/off-road use	692	617	682	706	1,128	1,711	1,696	1,324	1,744	1,965	1,768	1,949
Diesel Pool 1/	27,976	28,842	30,063	30,363	30,518	30,051	25,058	27,156	29,903	31,689	31,829	31,000
Blend Rate (%)	2.5%	2.1%	2.3%	2.3%	3.7%	5.7%	6.8%	4.9%	5.8%	6.2%	5.6%	6.3%
SAF use	0	0	0	0	0	0	0	0	44	138	195	288
Jet Kerosene Pool 1/	18,096	18,244	18,578	19,443	19,732	19,681	10,712	10,141	15,797	17,834	18,980	19,300
Blend Rate (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.8%	1.0%	1.5%

Note: 1/ Covers diesel and all biocomponents (biodiesel) and renewable diesel when used. HDRD (Hydrogenation-derived Renewable Diesel) dominates commercialized renewable diesel worldwide.

Biodiesel

Consumption - Biodiesel consumption has increased by 13% in 2025. This increase is partly due to higher blending mandates under the RTFO, which is the primary driver of demand. The increase from 2024 to 2025 also reflects a low base year level of consumption in 2024, caused by a significant carry-over of Renewable Transport Fuel Certificates (RTFCs) which fuel suppliers used to meet their RTFO. Consumption peaked in 2019 at 1.7 billion liters. It has since dropped, partially due to increased competition from renewable diesel and both government and industry concerns around sustainability.

Production - The UK's biodiesel production has grown modestly, with used cooking oil (UCO) emerging as the dominant feedstock. UK production primarily utilizes UCO and tallow. UCO makes up a significant share of the UK's biodiesel production feedstock at 42 percent in 2022 (down from 80 percent in 2018). The UK has limited ability to increase its domestic collection of UCO and has been sourcing significant volumes from the People's Republic of China (PRC). In 2023, this accounted for 14 percent of the total UK renewable fuel supply, making the PRC the most significant supplier for any individual feedstock.

Trade – In 2025, UK biodiesel imports are forecast at 854 million liters, remaining a critical component of supply and continuing to exceed domestic production to meet robust demand in the renewable fuel sector. While import volumes declined from a peak of 1.2 billion liters in 2023 to 791 million liters in 2024, imports are expected to stabilize as the market adjusts to evolving trade policies and ongoing investigations. The UK has various trade remedies currently applied and under review. On leaving the EU, the UK continued applying the trade remedies it had in place on biodiesel such as anti-dumping duties on Argentina, Indonesia, and the United States. In 2024, following requests from industry, the UK's Trade Remedies Authority (TRA) launched an investigation into biodiesel from the PRC which has now concluded. Accepting the recommendation of the TRA, the UK government now applies anti-dumping duties on biodiesel imports from the PRC.

In 2023, the PRC exported 673 million liters of biofuel produced using UCO to the UK, 506 million liters were biodiesel (Methyl Ester), and 119 million liters were HDRD. Imports from the PRC have also been dropping since late 2024/ 2025 possibly due to changes in China's export tax rebate policy. UK exports of biodiesel are comparatively low and mainly go to EU countries.

Renewable Diesel (HDRD) and SAF

Consumption - Renewable diesel consumption has grown steadily, driven by its superior environmental performance and compatibility with existing diesel engines. The RTFO has incentivized its use, particularly in heavy transport and aviation sectors. In 2025, renewable diesel consumption in the UK is forecast to reach 745 million liters, reflecting continued year-on-year growth as demand rises in both the heavy transport and aviation sectors. In 2024, approximately 700 million liters of HDRD were consumed in the UK. Final determinations by the UK's Trade Remedies Authority into HDRD and other renewable diesel products may hamper future imports.

Production - Domestic production of renewable diesel remains limited, with one co-processing facility becoming operational in 2019, which has also produced some SAF in 2025. There is growing interest in expanding HDRD production capacity, supported by investments in advanced refining technologies. Following the introduction of the Revenue Certainty Mechanism, there may be an increasing number of SAF production facilities in the UK, however these are not operational in 2025.

Trade - The UK relies heavily on imports to meet renewable diesel demand, with major suppliers including the United States and EU countries. In 2025, UK renewable diesel imports are projected to reach 615 million liters, continuing the rapid growth seen in recent years. This follows a significant increase from 535 million liters in 2024, up from just 18 million liters in 2021, as the market has expanded to meet rising demand in the transport and aviation sectors. Post-Brexit, the UK TRA decided not to continue some EU anti-dumping and countervailing duties on Renewable Diesel, or HDRD, owing to the lack of significant production in the UK. In early 2025, the TRA opened a new review into renewable diesel originating in the United States, revisiting its decision to remove countervailing duties and antidumping duties, and is currently deliberating on this.

Renewable diesel exports are negligible, as domestic demand far exceeds production capacity. The UK's focus remains on securing sufficient supply to meet internal needs.

Section V. Notes on Statistical Data

Appendix I. Abbreviations and Definitions

BBD = Biomass-based biodiesels which includes biodiesel (FAME) and hydrogenation derived renewable diesel (HDRD)

Biodiesel = Fatty acid methyl ester (FAME) produced from agricultural feedstock (vegetable oils, animal fat, recycled cooking oils) used as transport fuel to substitute for petroleum diesel

Bioethanol = Ethanol produced from agricultural feedstock used as transport fuel

Bxxx = Blend of mineral diesel and biodiesel with the number indicating the percentage of biodiesel in the blend, e.g. B100 equals 100% biodiesel, while B5 equals 5% biodiesel and 95% conventional diesel.

DDG = distillers dried grains

EU = European Union. "EU" in this report refers to EU27.

Exxx = Blend of mineral gasoline and bioethanol with the number indicating the percentage of bioethanol in the blend, e.g. E10 equals 10% bioethanol and 90% conventional gasoline.

FAME = fatty acid methyl ester

GHG = greenhouse gas

GJ = Gigajoule = 1,000,000,000 Joule or 1 million KJ

HDRD = hydrogenation derived renewable diesel (also known originally as hydrotreated or hydrogenated vegetable oil or HVO)

HS = Harmonized System of tariff codes

ISCC = International Sustainability and Carbon Certification

KTOE = 1000 MT of oil equivalent = 41,868 GJ = 11.63 GWh

MJ = Megajoule

MMT = Million metric tons

MT = Metric ton (1,000 kg)

Mtoe = Million tons of oil equivalent
POME = palm oil mill effluent
PRC = People's Republic of China
PVO = Pure vegetable oil used as transport fuel
RED = EU Renewable Energy Directive 2009/28
RME = Rapeseed methyl ester
SAF = Sustainable aviation fuel
TME = Tallow methyl ester, biodiesel made from animal fat
TOE = Tons of oil equivalent = 41,868 MJ = 11.63 MWh
TRA = Trade Remedies Authority
UCO = Used cooking oil/recycled vegetable oil
UCOME = UCO-based methyl ester biodiesel
US\$ = U.S. Dollar

Appendix II. Energy Content and Conversion Rates

1 MT Gasoline = 1,342 Liters = 1.03 toe

1 MT BtL = 1,316 Liters = 0.80 toe

1 MT of HDRD = 1,282 Liters = 1.00 toe

1 MT Ethanol = 1,267 Liters = 0.64 toe

1 MT Diesel = 1,195 Liters = 1.02 toe

1 MT Biodiesel = 1,136 Liters = 0.90 toe

1 MT Pure veg Oil = 1,087 Liters = 0.83 toe

Feedstock: Ethanol Conversion Rates

Wheat kernels: 1 MT = 393 liters

Corn kernels: 1 MT = 402 to 417 liters (has risen since 2006)

Sugar beets: 1 MT = 95 liters

Other: 1 MT = 241 liters

Feedstock: Biodiesel Conversion Rates

Used cooking oil (UCO): 1 MT = 1,043 liters

Animal fats/grease: 1 MT = 1,043 liters

Rapeseed oil: 1 MT = 1,136 liters

Other: 1 MT = 1,043 liters

Ethanol: Co-product Yield Rates (maximum theoretical yield)

Corn kernels: 1 MT = 313 kg of DDG + up to 29 kg of corn oil

Wheat kernels: 1 MT = 313 kg of DDG (negligible vegetable oil)

Appendix III. Trade Data Codes and Assumptions

Trade figures are based on United Kingdom HM Customs data accessed via Trade Data Monitor (TDM) and the following assumptions:

Methodology for converting ETBE into ethanol liters (both assumptions and trade codes used)

Ethanol Trade

- Total ethanol trade includes the following HS codes: 2207.10 (Undenatured), 2207.20 (Denatured), and 2909.19 (ETBE imports converted to ethanol equivalent volume)
- For the purposes of the ethanol balance table, ETBE volumes are converted to ethanol-equivalent liters. Mass-to-volume conversion: 1 metric ton (MT) of ETBE is converted to liters using the standard density for ETBE and then multiplied by 0.45 to obtain the ethanol-equivalent volume.

Biodiesel Trade

Biodiesel trade volumes are calculated and reported as a B100 equivalent. The following trade codes and biodiesel blend rates are assumed:

- HS 3826.00.10 assumed to be a blend containing 99 percent biodiesel
- HS code 3826.00.90 assumed to be a blend containing 95 percent biodiesel
- HS 2710.20.11 assumed to be a blend containing 5 percent biodiesel

Renewable Diesel Trade

- Renewable diesel trade volumes are calculated and reported as pure HDRD equivalent. The following trade codes and biodiesel blend rates are assumed:
- HS 2710.19.42 assumed for HDRD blend containing 100 percent renewable diesel.
- HS 2710.20.11 assumed to be a blend containing 5 percent renewable diesel.

SAF Trade

SAF trade volumes are calculated and reported as a pure SAF equivalent. The following trade codes and biodiesel blend rates are assumed:

- HS 2710.19 assumed for SAF blend containing 100 percent SAF.

Data sources include United Kingdom HM Customs data, compiled by Trade Data Monitor, LLC, Internation; UK Department for Transport data; International Energy Agency data and FAS Post estimates.

Attachments:

No Attachments