



Department  
for Transport

# UK Low Carbon Fuel Policy Overview

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# Why are low carbon fuels important?

- LCFs are already delivering substantial carbon savings in the UK today, primarily through biofuels supplied to the road sector. Supported by the Renewable Transport Fuel Obligation (RTFO), LCFs have been the backbone of transport emission savings to date.



**7.5%**

of surface transport fuel  
were LCFs in 2023



**66%**

of DfT's GHG savings came from LCFs  
(2008-2022)

- LCFs will continue to play a key role in decarbonisation between now and 2050 as they are able to achieve immediate GHG savings for use cases primarily limited to the use of combustion engines.

# The strategic challenge

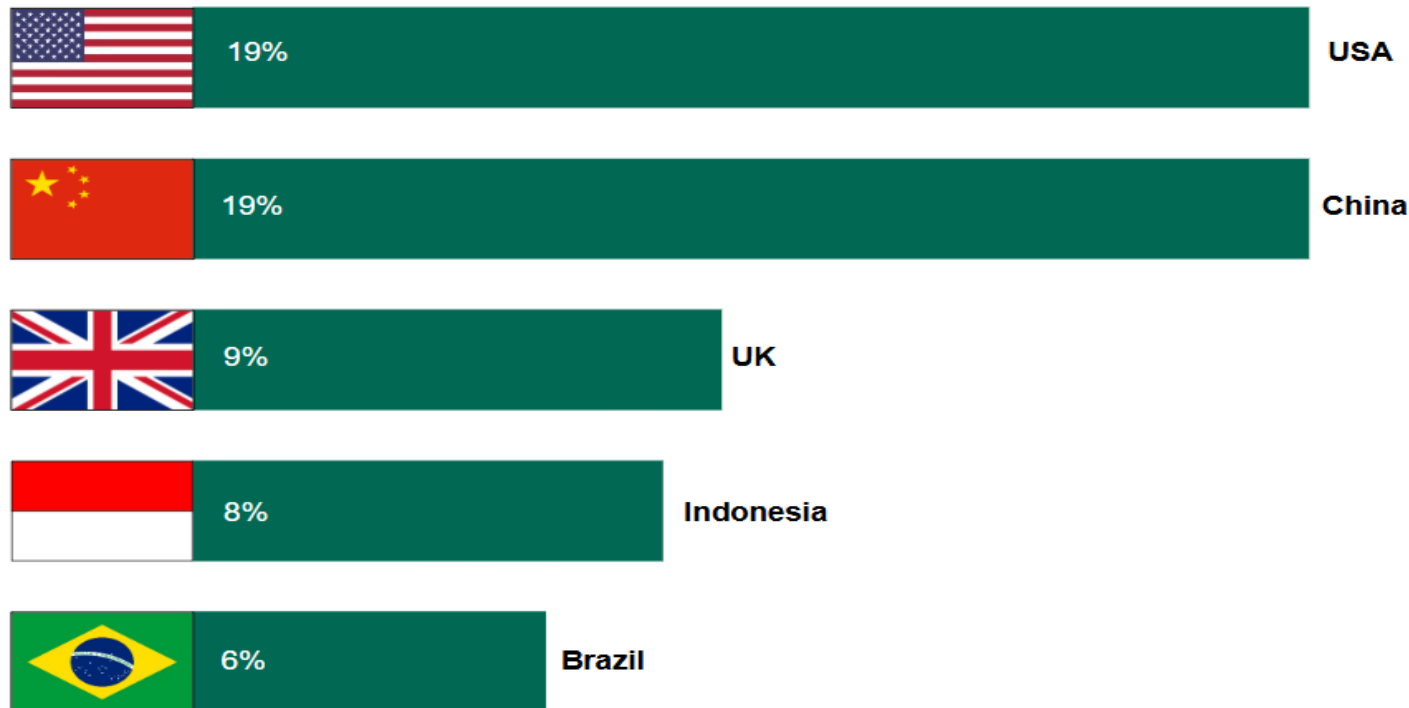


**Competing and growing demand, limited supply of fuels and feedstocks**

**– whilst ensuring sustainability**

# Where our supply comes from?

Figure 14: Top 5 countries of origin for feedstocks which were used in UK renewable fuels in 2023 ([Table RF\\_0105a](#))



Feedstocks come from all over the world!

# Our principles-based approach

We will support the Government's plan for change, helping to *Make Britain a Clean Energy Superpower* by:

- 1. Reducing GHG emissions:** ensuring that low carbon fuels are maximising GHG savings to deliver greener transport, meeting the UK's net zero target and carbon budgets
- 2. Protecting the environment:** ensuring low carbon fuels are deployed in a way that minimises environmental impact in line with wider environmental principles, objectives and targets
- 3. Promoting sustainable supply and use globally:** advocating for high ambition and robust sustainability standards internationally while ensuring a secure and diverse supply of LCFs globally for the UK transport sector.

Additionally, we will deliver wider **socio-economic benefits** by providing cost-effective decarbonisation while helping to *Kickstart Economic Growth*, regionally and nationally, and providing energy security, jobs, and innovation for the UK.

# Low carbon fuels will continue to play a key role in transport decarbonisation

- **Electrification** is generally the most efficient path to decarbonisation where viable. However, low carbon fuels are essential for reducing emissions from combustion engines (ICE and jet) where alternatives are limited or still emerging.
- Due to **sustainability constraints and limited supply**, low carbon fuels must be strategically deployed in sectors where other technologies are not viable—maximising greenhouse gas savings in the most cost-effective way.

## We anticipate the following macro trends between now and 2050:



In **surface transport** (road and rail), where most LCFs are consumed currently, overall fuel demand is expected to reduce from the 2030s onwards as electrification proceeds at pace. LCF use can be more targeted towards remaining combustion engines.



In **aviation and shipping**, where there are less decarbonisation alternatives, LCF demand is expected to grow significantly in the coming decades, at first for biofuels, and then for non-biogenic fuels such as hydrogen and power-to-liquids.

# Our current approach to low carbon fuels

## Stimulating demand for LCFs across the modes:



**Surface transport:** Renewable Transport Fuel Obligation (RTFO)



**Aviation:** Sustainable Aviation Fuel (SAF) Mandate - supported by ETS & CORSIA



**Maritime:** Fuel regulation as part of the Maritime Decarbonisation Strategy

## Diversifying sustainable supply to meet future needs:



### Supply Development:

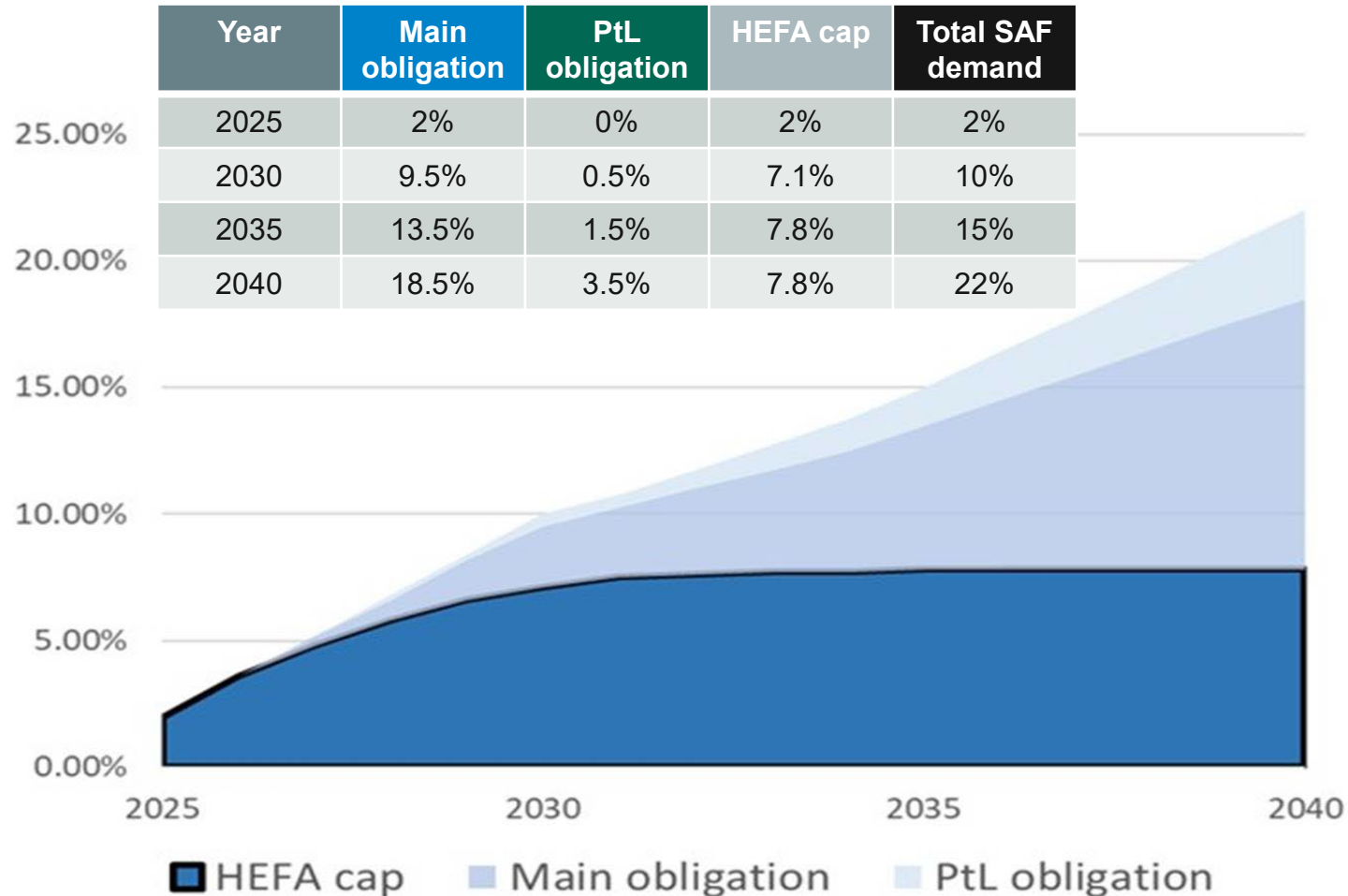
- Advanced Fuels Fund (AFF)
- UK SAF Clearing House
- Revenue Certainty Mechanism (RCM)
- SAF Mandate supports the supply of diverse SAF technology through a sub-target and cap



**Robust Implementation:** Strong compliance, verification and certification of schemes to ensure environmental sustainability

**Working closely with colleagues across government on cross cutting issues**

# Case Study: SAF Mandate - balancing ambition with deliverability



- Fuel suppliers are subject to two obligations:
  - Main obligation – started in 2025
  - Power-to-liquid (PtL) obligation - starts in 2028
- The amount of SAF made from segregated oils and fats (HEFA) to meet the main obligation is capped
- The HEFA cap and PtL obligation are designed to drive **feedstock and technology diversity**

The SAF Mandate could deliver up to 6.3mt of carbon savings per year by 2040

# What's next in DfT?

## Mandates to create demand

- Call for evidence on the eligibility of crops in the SAF Mandate
- RTFO review consultation looking at the future of this scheme

## UK Production side

- AFF winners announced
- Continued RCM policy development