



Department
for Transport

UK support for renewable transport fuels and RED II implementation

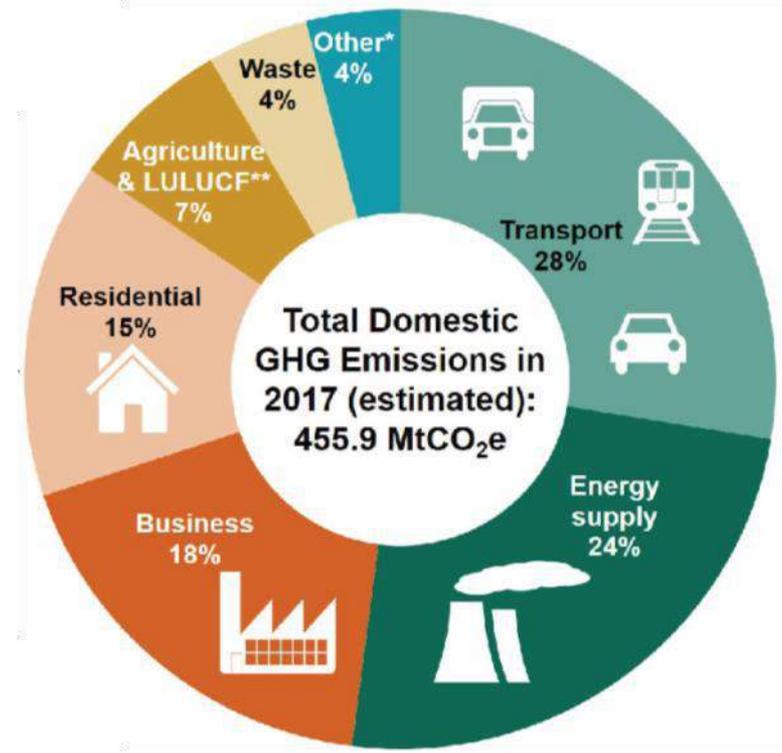
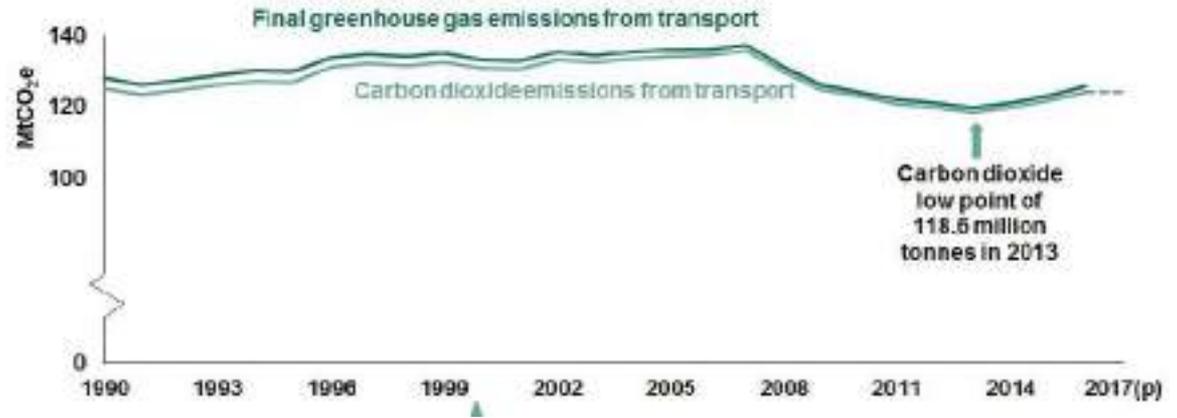
Dr Keeley Bignal Low Carbon Fuels





Context

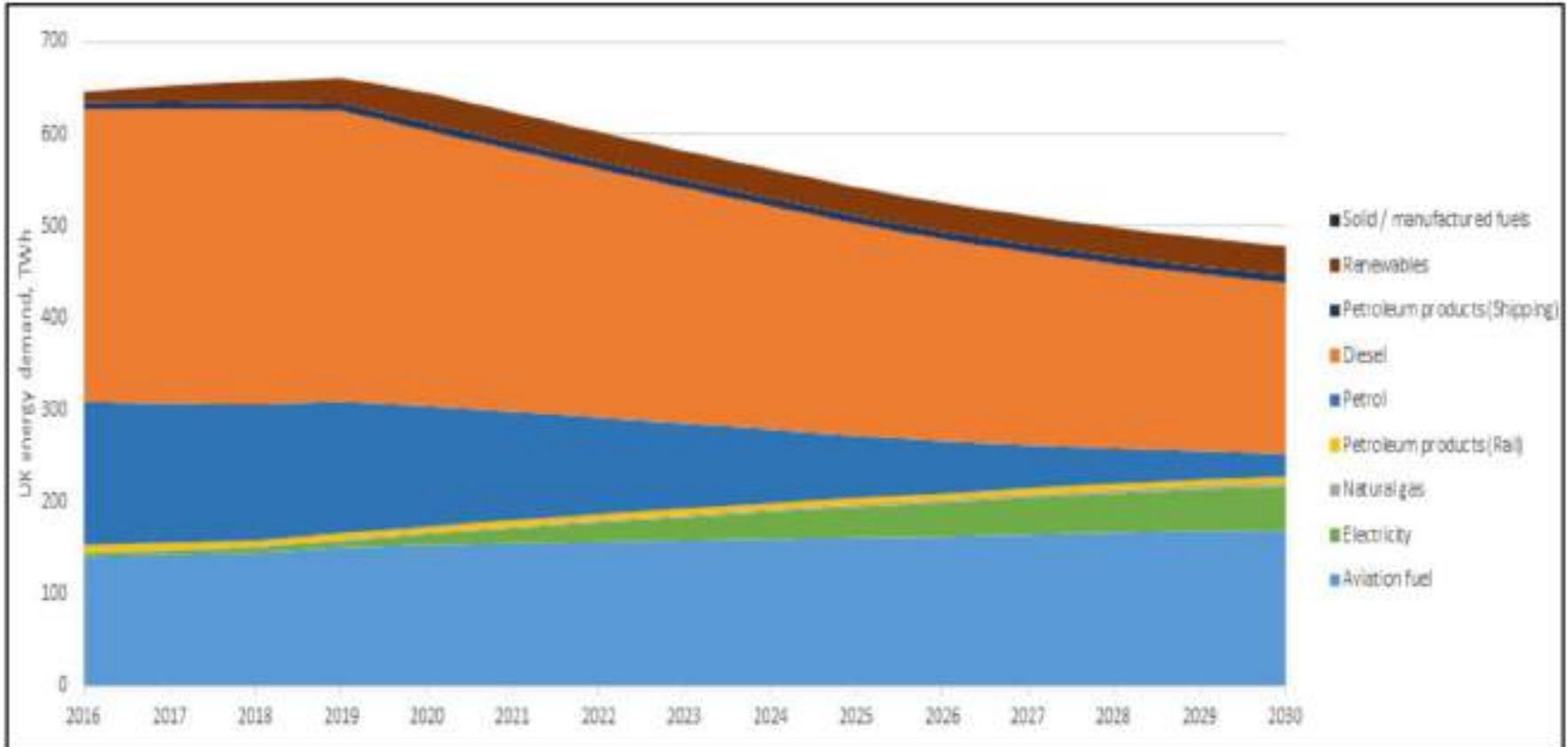
- ▶ Issue: the transport sector contributes significantly to GHG emissions
- ▶ [Partial] Solution: all new cars and vans to be effectively zero emission by 2040





But we'll still need fuels

Even if all new cars and vans are electric by 2020....



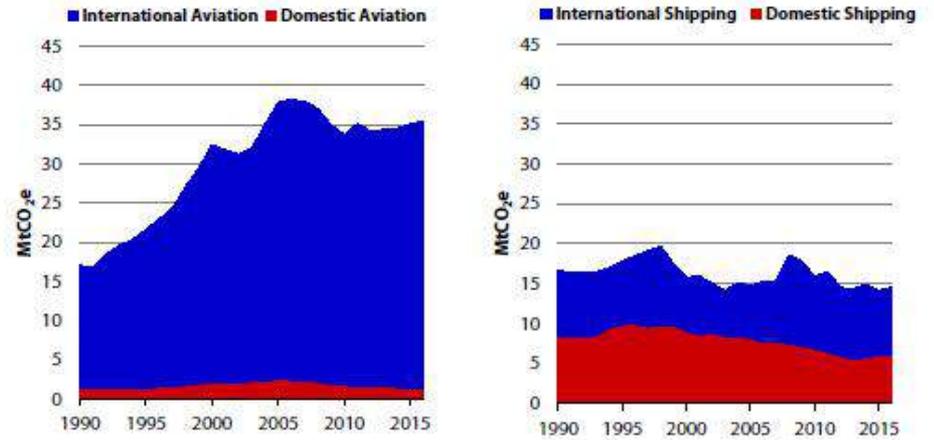
NB – This chart is for illustrative purposes only, and should not be considered a firm projection. It is very unlikely that 100% of new cars will be electric by 2020. Furthermore, it is a largely crude assessment uncalibrated to overall mileage.



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Especially for aviation and HGVs

Figure 5.7. UK aviation (left) and shipping (right) emissions (1990-2016)



Source: BEIS (2018) *Final UK greenhouse gas emissions national statistics 1990-2016*.



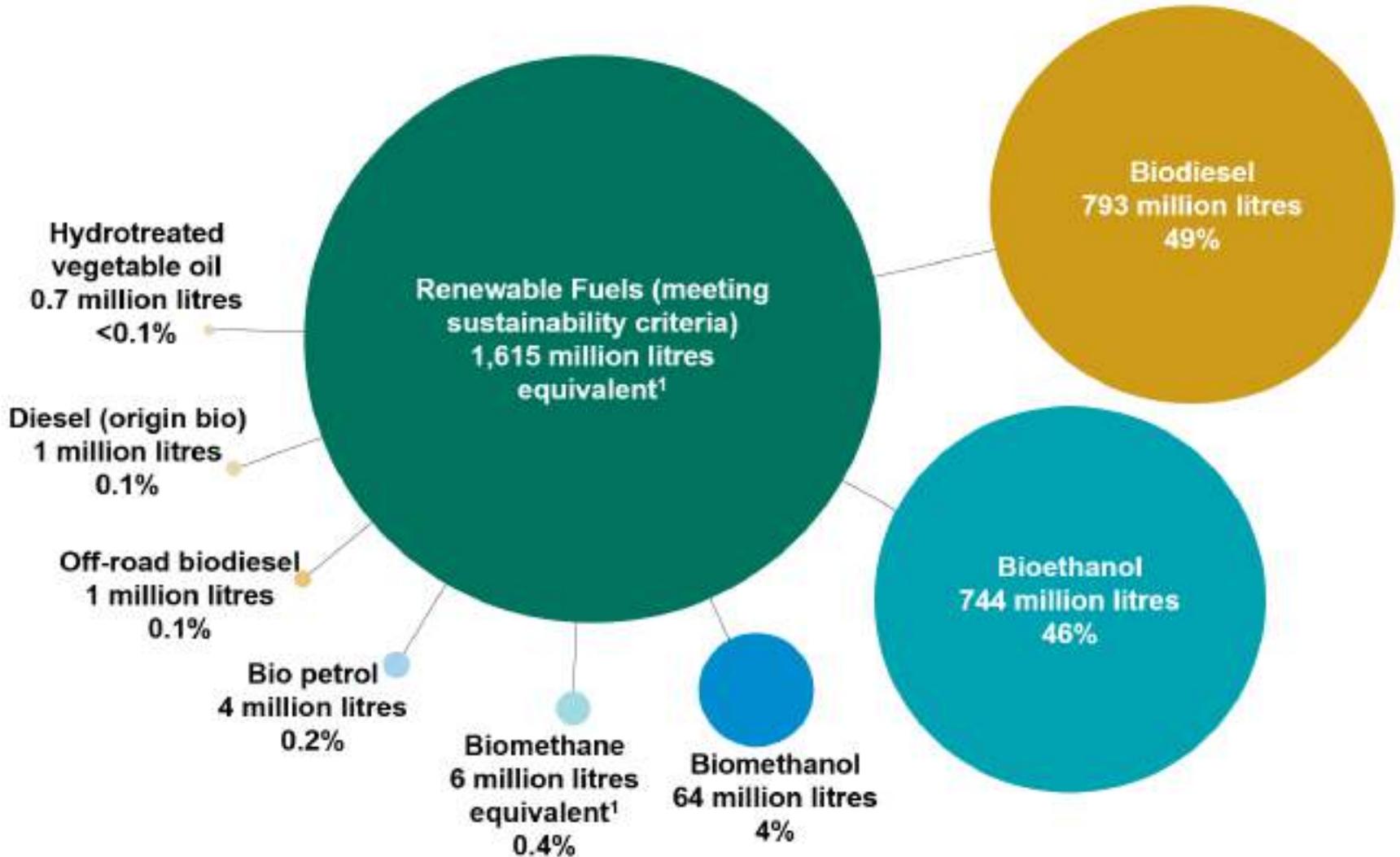


And we need to widen the feedstock base





Today about 3% of UK transport fuel is renewable – supported under the Renewable Transport Fuel Obligation (RTFO)

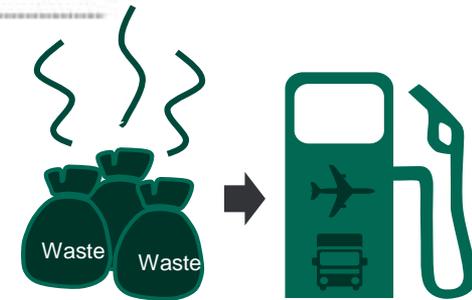
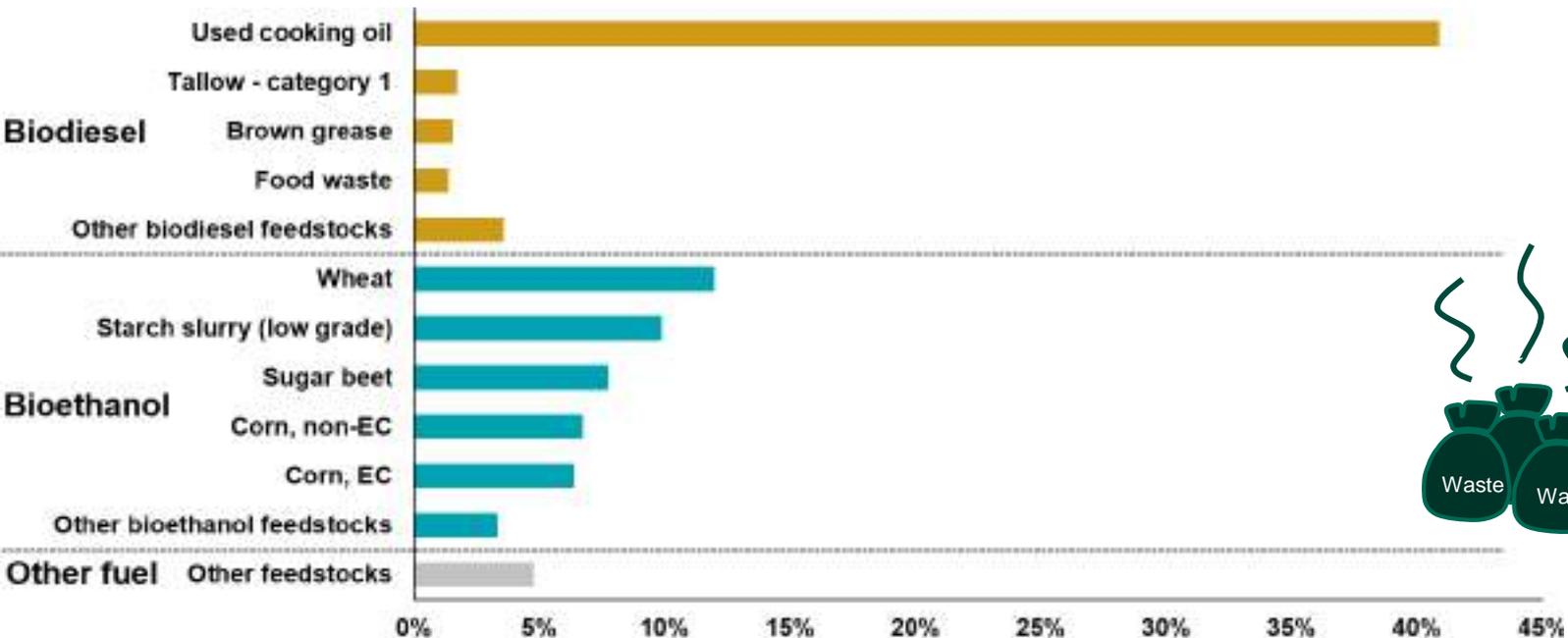
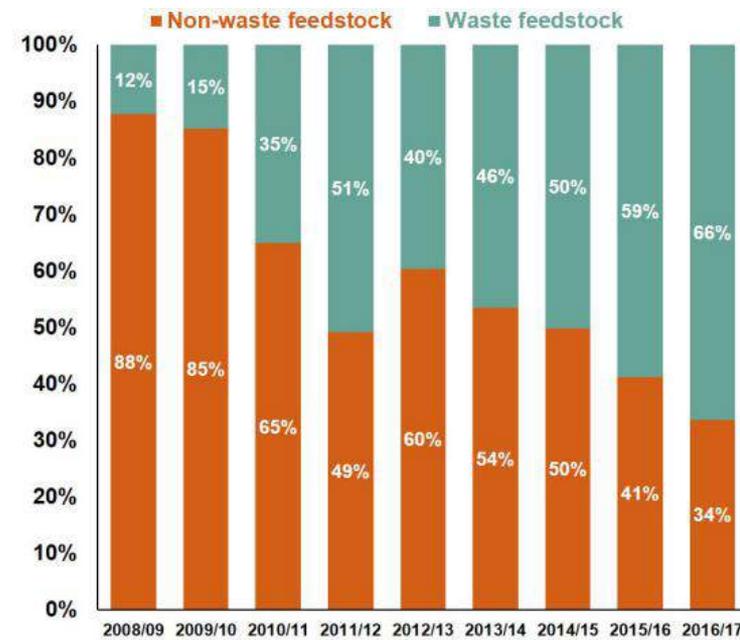




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Two thirds of the biofuel comes from wastes

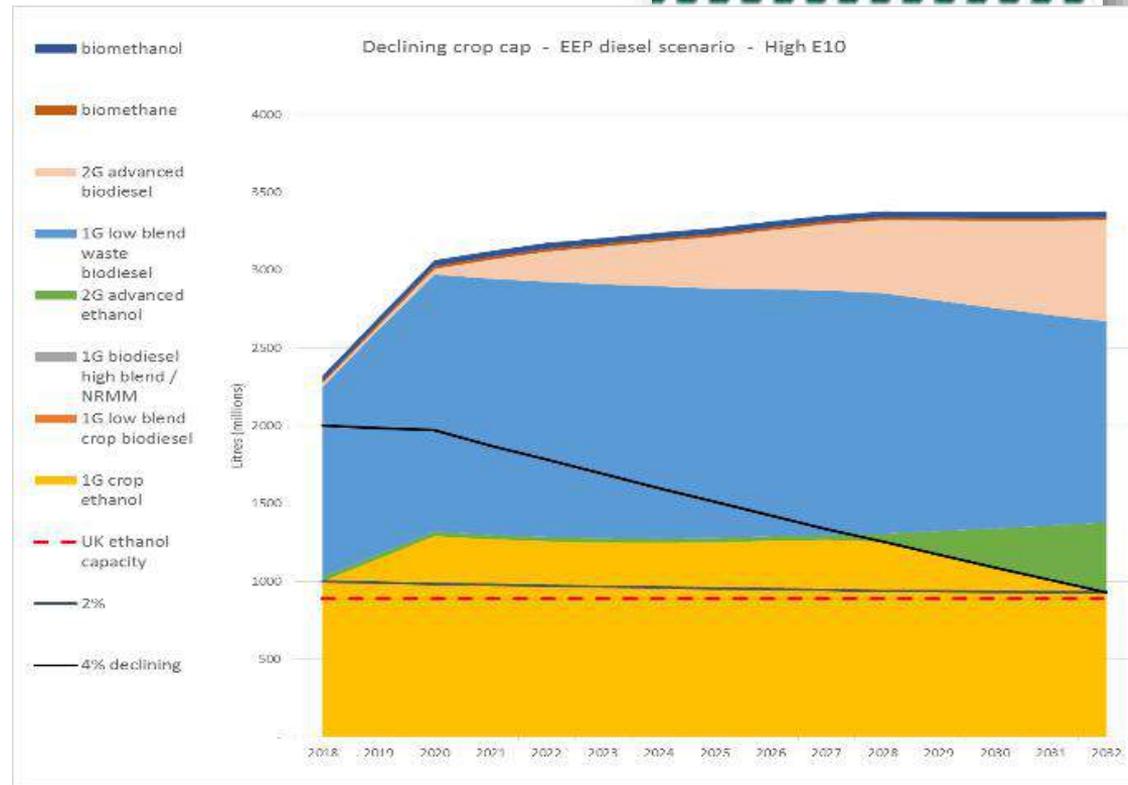
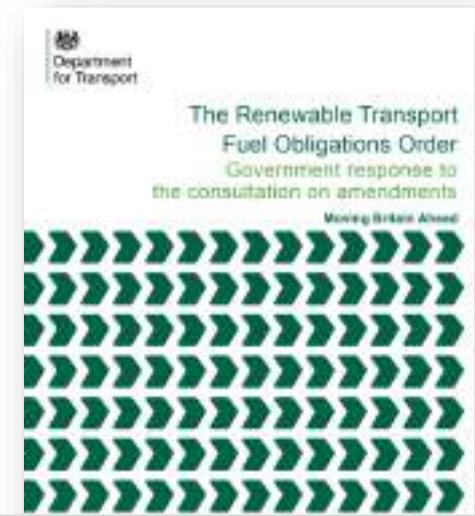
- from around 30 feedstocks
- but mainly used cooking oil





Our 15 year strategy

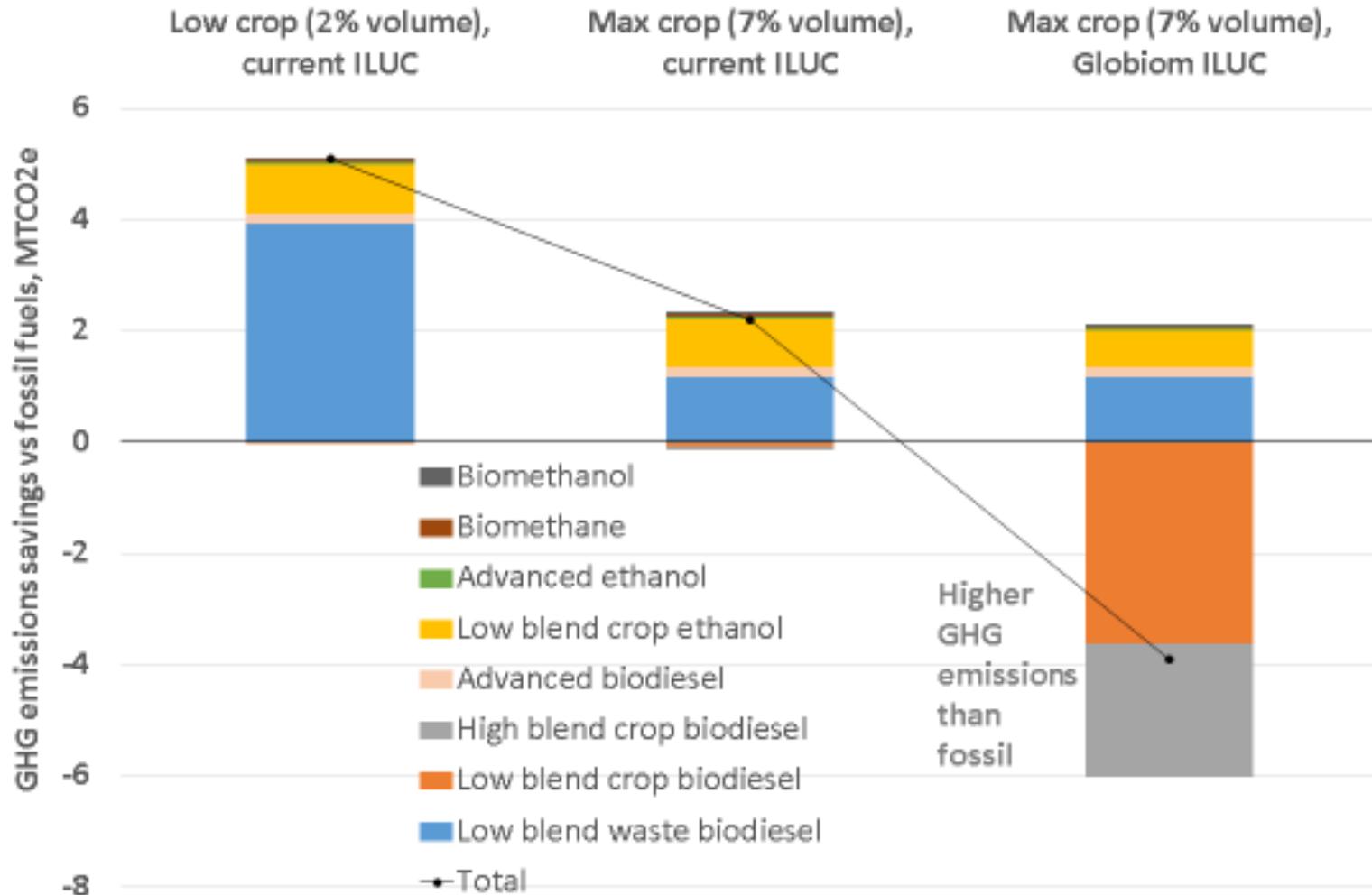
- ▶ Published in 2018
- ▶ Double biofuel supply by 2020
- ▶ Sets targets to 2032 and beyond
- ▶ Focus on waste:
 - ▶ Maintains double reward for wastes
 - ▶ Introduces a 'development fuel' sub-target to encourage advanced fuels made from novel wastes & processes
 - ▶ Sets a limit on crops
- ▶ Builds platform for investment to develop sustainable advanced fuels for automotive, aviation and road freight





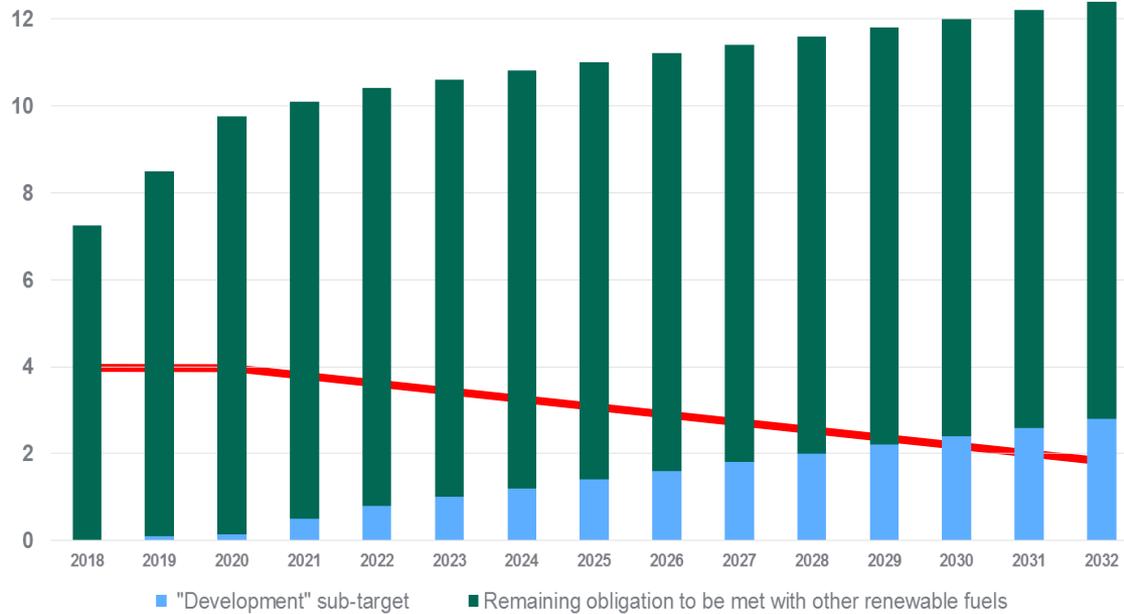
Why a crop cap?

Increase public confidence – genuine and cost effective carbon savings

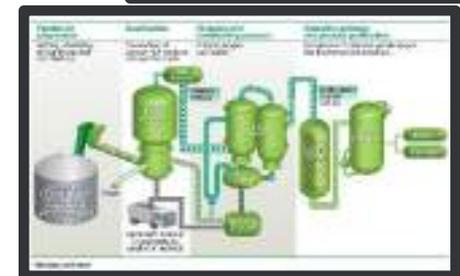




What are development fuels?



— Crop cap



Fuel

A development fuel must be either:

Renewable hydrogen, *BioSNG, or aviation fuel

or:

A petrol or diesel substitute that can be blended at 25% or more

Feedstock

and:

Made from a double counting waste material that is not a segregated oil or fat

or:

A renewable fuel of non-biological origin



Future Fuels for Flight and Freight Competition – provides further support for novel advanced fuels



Stage One – June to November 2018

- F4C is providing up to £2 million of Project Development Funding to support the development of proposals

Stage Two – 2019 to 2021

- F4C will provide up to £20 million in capital grant funding over three years (2019-21) for major demonstration projects providing transformative and innovative solutions



How does RED II fit into our 15 year strategy?

Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the promotion of the use of energy from renewable sources (recast)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee,

Having regard to the opinion of the Committee of the Regions,

Acting in accordance with the ordinary legislative procedure

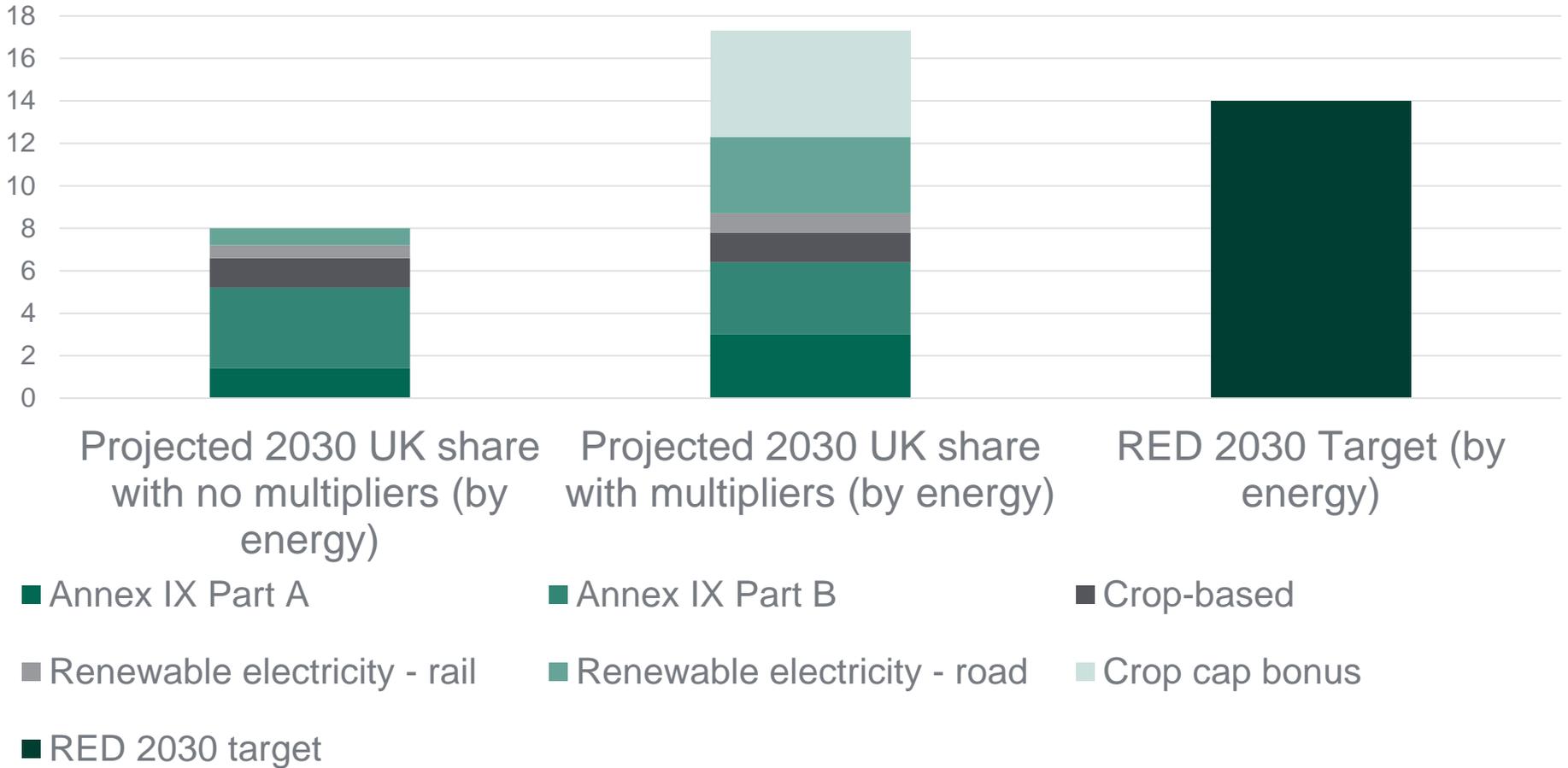
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RED II: UK impact – 2030 target

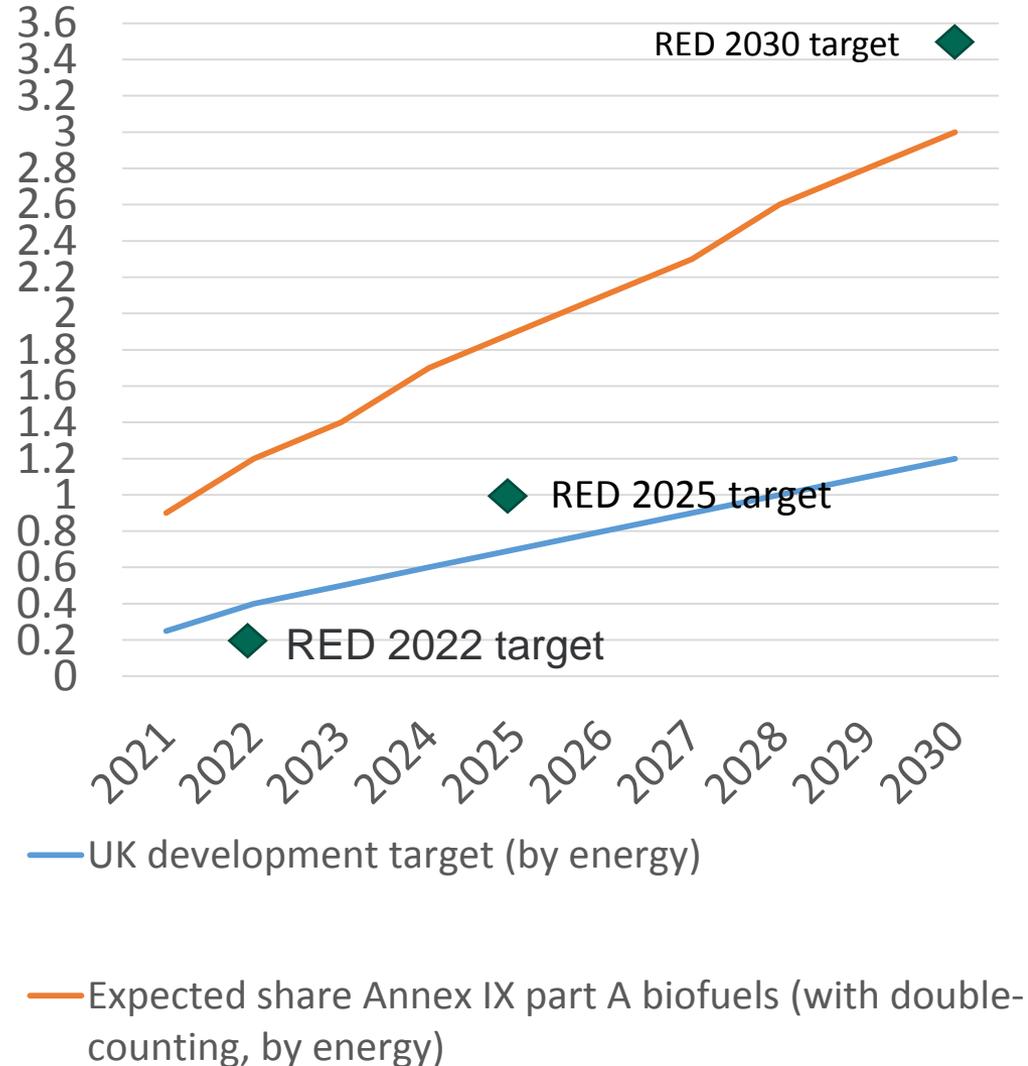
UK targets for 2030 already more ambitious





RED II: UK impact – Annex IX Part A target

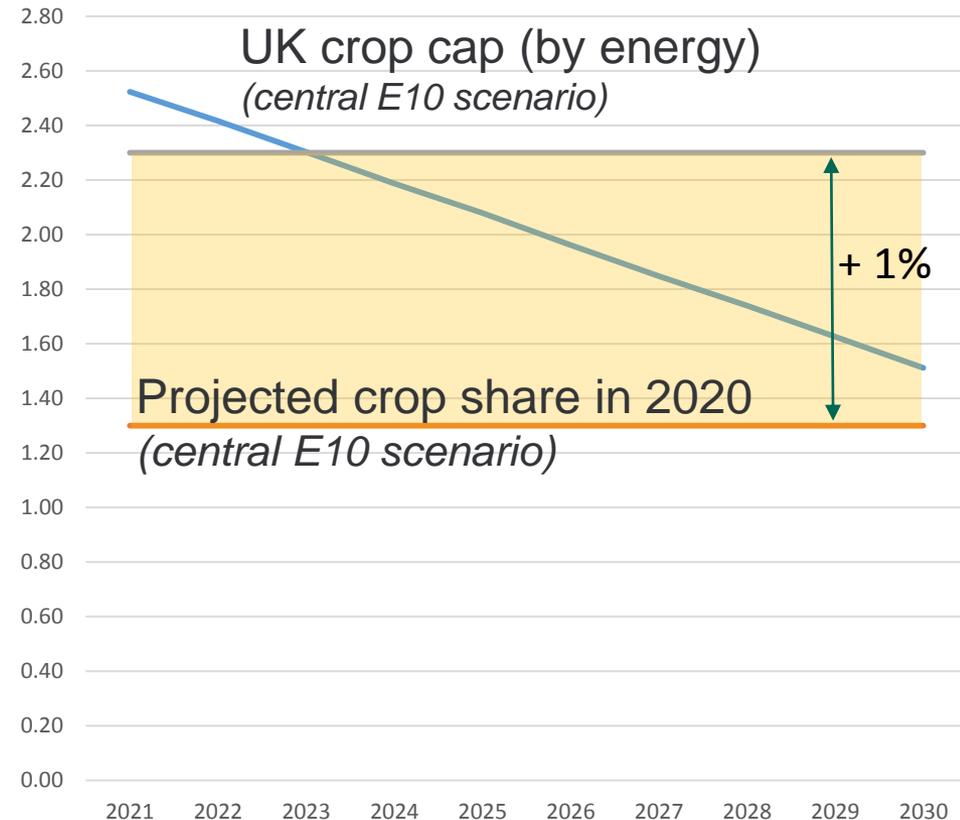
- ▶ **Only Annex IX Part A target for 2030** higher than UK projection
- ▶ UK has a (more narrowly defined) **development target**
 - Focus on biofuels most required in the future
 - Targets reflect uncertainty as to availability and costs
- ▶ **Projection other Annex IX part A biofuels added**
- ▶ Further action required?
 - Uncertainty regarding projections
 - EU review of 2030 target in 2025





RED II: UK impact – crop cap

- ▶ UK crop cap compliant with EU provision
- ▶ **“Freeze” of crop-based biofuels at 2020 level + 1% (maximum 7%)**
 - ▶ Practical relevance for 2030 target only + (non-binding) trajectories
- ▶ *Additional flexibility*: Limit of 2% for any Member State with 2020 crop share below 1%





REDII: UK impact – phase-out high ILUC risk biofuels

Phase-out of high ILUC risk biofuels “for which a significant expansion of the production area into land with high carbon stock is observed”

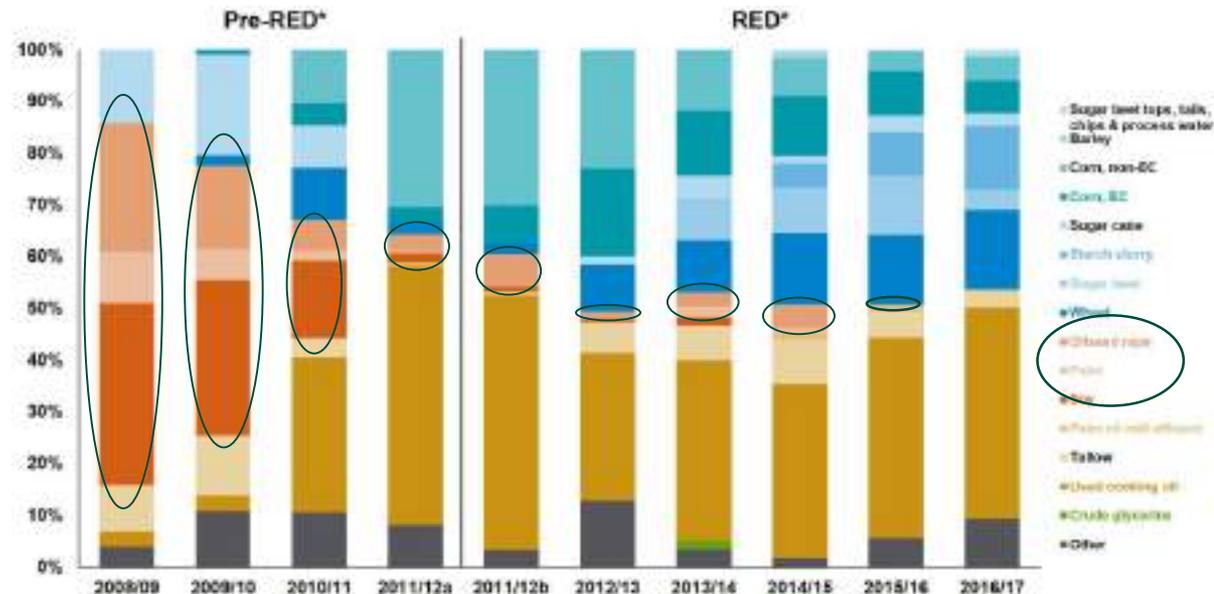
1st phase: Freeze at 2019 levels

2nd phase (from 2023): Phase out to 0% by 2030

→ Exemption for biofuels certified as low ILUC risk biofuels

Commission to define criteria high & low ILUC risk biofuels (draft delegated act now available)

Share of biofuels most likely affected minimal/ non-existent in UK at present





RED II: impact on the UK - summary

No substantive changes to UK policy required

► *Targets*

► UK targets more ambitious

- **Potential challenge:** Share of advanced biofuels in 2030 projected to be lower

► *Fuel supplier obligations*

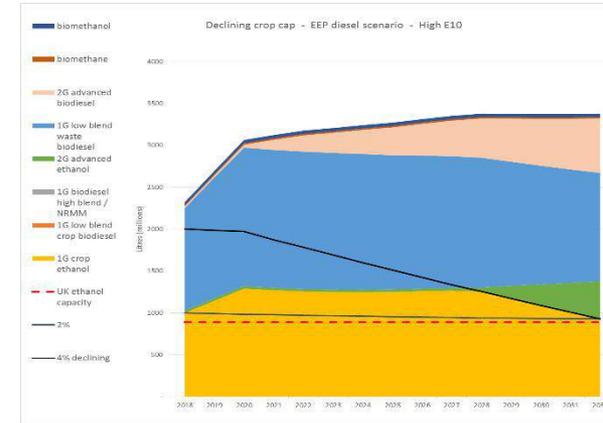
► RTFO (& GHG mechanism) match EU fuel supplier obligation, include RFNBOs and recycled carbon fuels

- **Potential challenge:** Inclusion electricity suppliers

► *Other provisions*

► Further analysis required

► Further information regarding the content of delegated acts required (e.g. on high ILUC risk biofuels, database or GHG methodologies)





Will low carbon fossil fuels be part of our decarbonisation strategy?

- ▶ Could offer further GHG savings in transport

What are they?

- ▶ Fuels made from solid or liquid fossil **wastes** which cannot be re-used or recycled, or from **waste** fossil gases that are unavoidable
 - ▶ E.g. feedstocks could be MSW (fossil portion), end of life plastic, industrial flue gases
- ▶ BUT waste is limited and should be used where it provides most value.
 - ▶ Transport looks a strong contender
- ▶ Economic potential – investment and jobs
- ▶ There would need to be a robust sustainability framework





However, LCFF feedstocks potentially limited long term

- ▶ A drive towards more efficient manufacturing might mean waste availability reduces
- ▶ Govt ambitions of achieving zero avoidable plastic waste by end of 2042, and for zero avoidable waste by 2050
- ▶ It is possible that an increasing proportion of waste generated will be recyclable



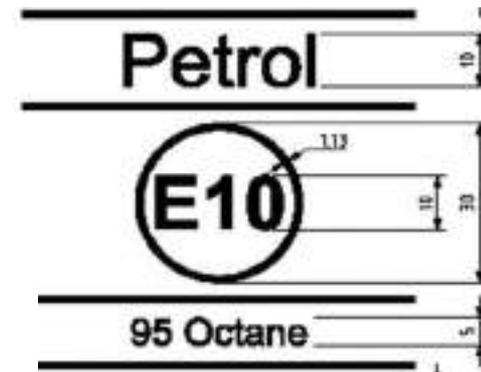


Will E10 be part of the future mix?

Recent consultation:

- ▶ Balance protection and ambition between E5 and E10
- ▶ Proposes E5 95 Protection Grade. Protection via Super Grade also considered.
- ▶ Launches Call for Evidence on whether, and how to best, introduce E10.
- ▶ Preferred option is an additional grade at largest stations. But we need more information to assess impact.
- ▶ Currently analysing responses and aim to publish our response soon

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registered since
2000





Thank you for listening!

RTFO statistics

- ▶ <https://www.gov.uk/government/collections/biofuels-statistics>

UK's 15 year biofuel strategy

- ▶ <https://www.gov.uk/government/publications/renewable-transport-fuel-obligations-order-government-response>

Future Fuels for Flight and Freight competition

- ▶ <https://www.gov.uk/government/consultations/e10-petrol-consumer-protection-and-fuel-pump-labelling>

E10 consultation

- ▶ <https://ee.ricardo.com/transport/case-studies/f4c>

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