



Department
for Transport

UK Biofuels Policy - Overview

Aysha Ahmed, Advanced Biofuels Programme





Background: UK Biofuels Policy

- ▶ UK biofuel policy driven by climate policy & carbon budgets
 - ▶ Transport biggest emitting sector
 - ▶ Focus on GHG savings
 - Promote sustainable biofuels with highest possible GHG savings (including indirect land use change impacts)
 - Transition to waste-based biofuels

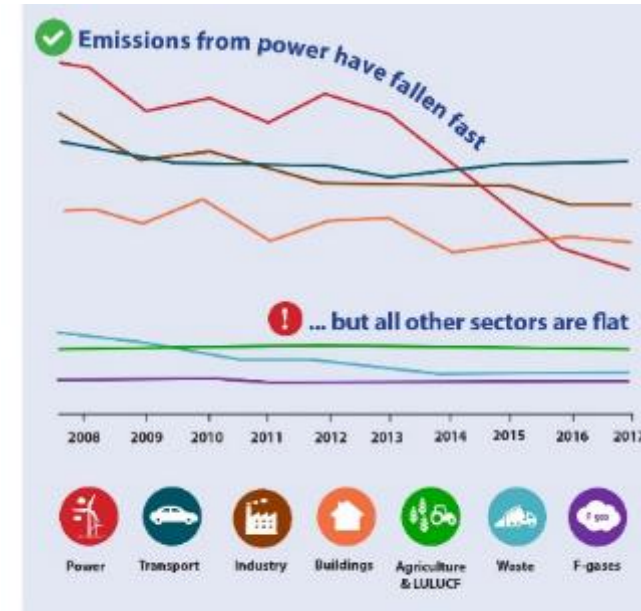
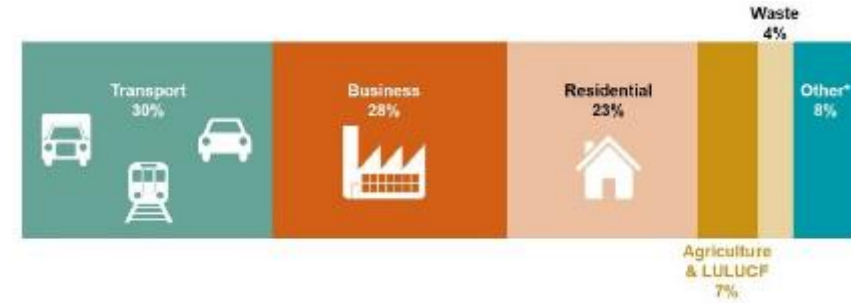
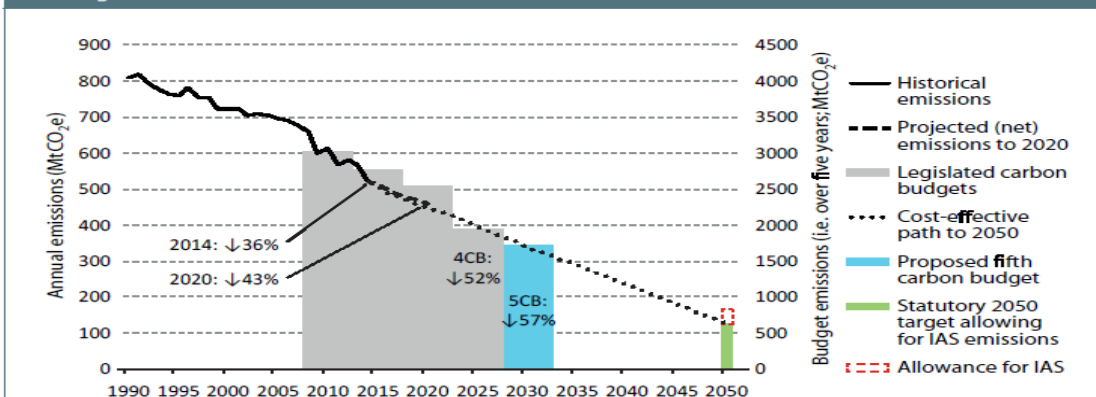


Figure 1: The recommended fifth carbon budget would continue emissions reduction on the path to the UK's 2050 target



Source: DECC (2015) Final UK greenhouse gas emissions national statistics: 1990-2013; DECC (2015) Provisional UK greenhouse gas emissions national statistics; DECC Energy Model; CCC analysis.

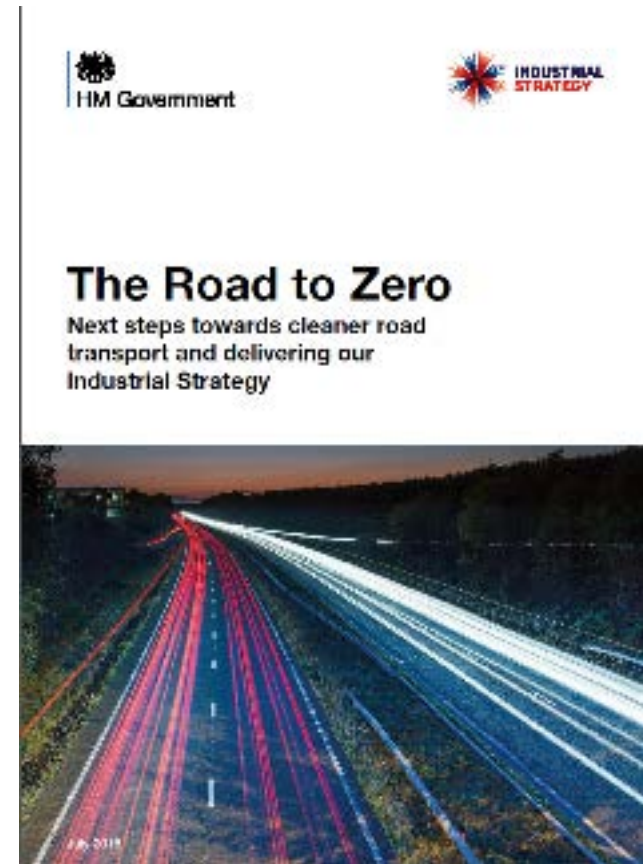
Notes: Data labels show reductions in annual emissions relative to 1990. Historical emissions are on a 'gross' basis (i.e. actual emissions). Projections and carbon budgets are on the current budget accounting basis: net carbon account excluding international aviation and shipping (IAS), but allowing for IAS to be included in the 2050 target.

Source: UK Committee on Climate Change



Background: UK Biofuels Policy

- ▶ Biofuels policy embedded in wider strategies including e.g. **Road to Zero strategy**
 - ▶ Comprehensive plan to support the move to zero emission vehicles and electrification
 - ▶ Despite an increase in electric cars uptake, the demand for **liquid transport fuels** will continue for decades.
 - ▶ There is a need to focus on reducing GHG emissions from modes of transport that are more difficult to electrify (e.g. aviation, heavy goods vehicles)





Department
for Transport

UK Renewable Transport Fuel Obligation (RTFO)



The Renewable Transport Fuel Obligation (RTFO)

- ▶ Main policy instrument in the UK to promote biofuels, in place since 2008
 - ▶ **Volume-based targets** (8.5% in 2019)
 - ▶ Met through **tradeable certificates** (“RTFCs”) per litre
 - ▶ Flexibilities such as “buy-out” and “carry-over”



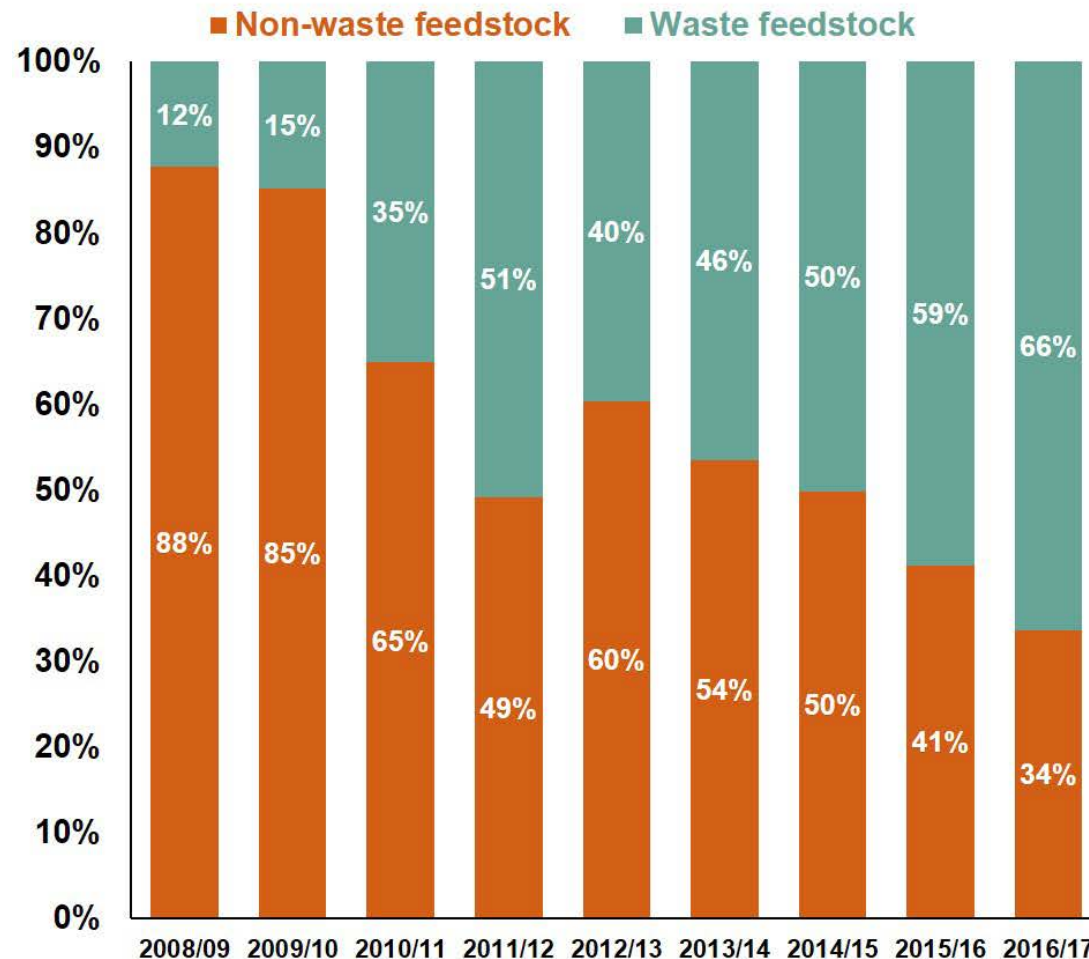
- ▶ Fuels made from wastes and residues (e.g. food waste, used cooking oil, agricultural residues) can receive **double rewards** per litre
- ▶ Fuels need to comply with **sustainability and GHG savings criteria**





UK policy has been successful...

Biofuels supported under the UK Renewable Transport Fuel Obligation (wastes vs non-wastes by %)

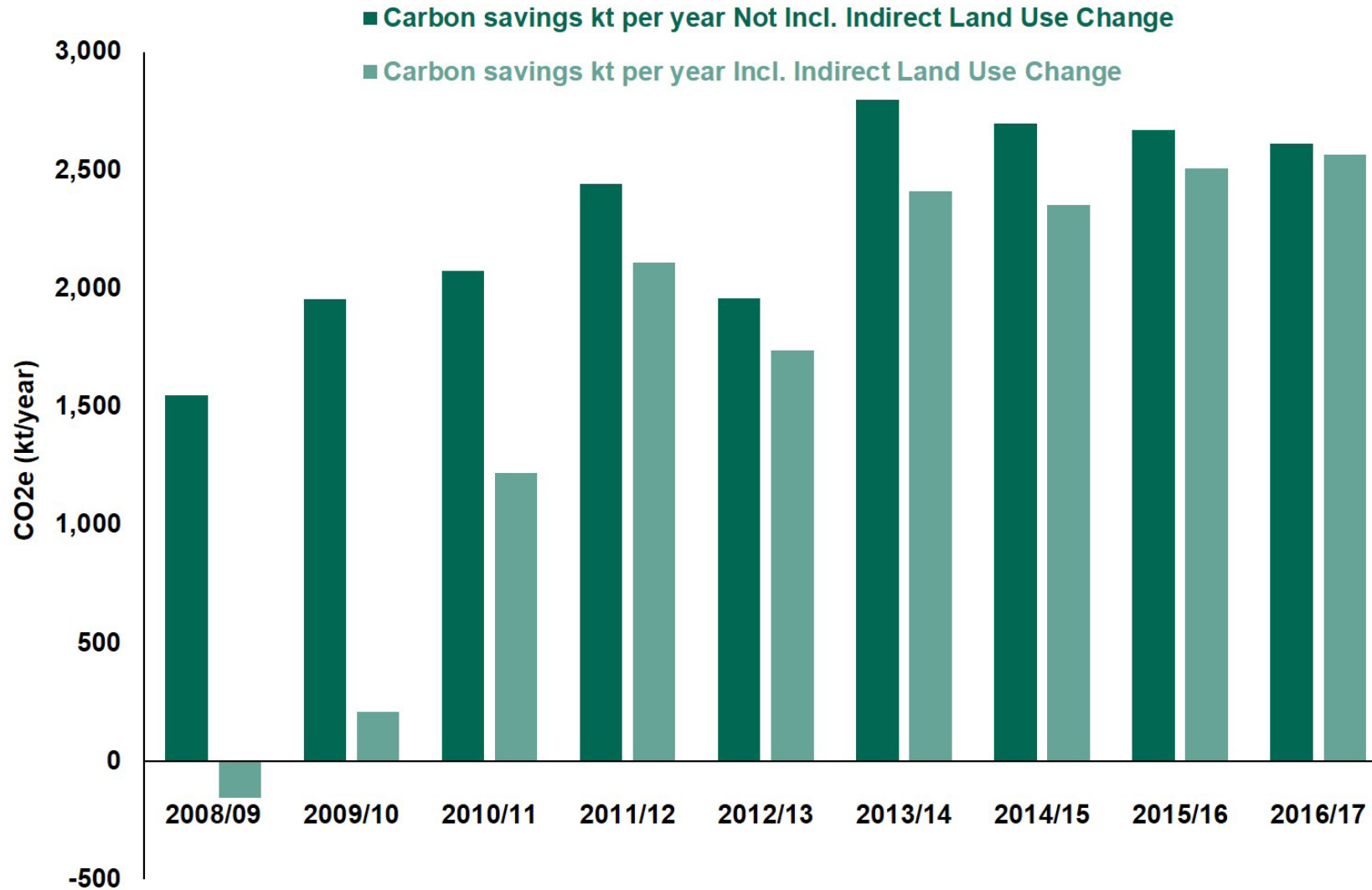


...in promoting
waste-based
biofuels...





... increasing GHG emission savings (including ILUC)



Source: Renewable Transport Fuel Obligation statistics, period 9 2016/17, report 6



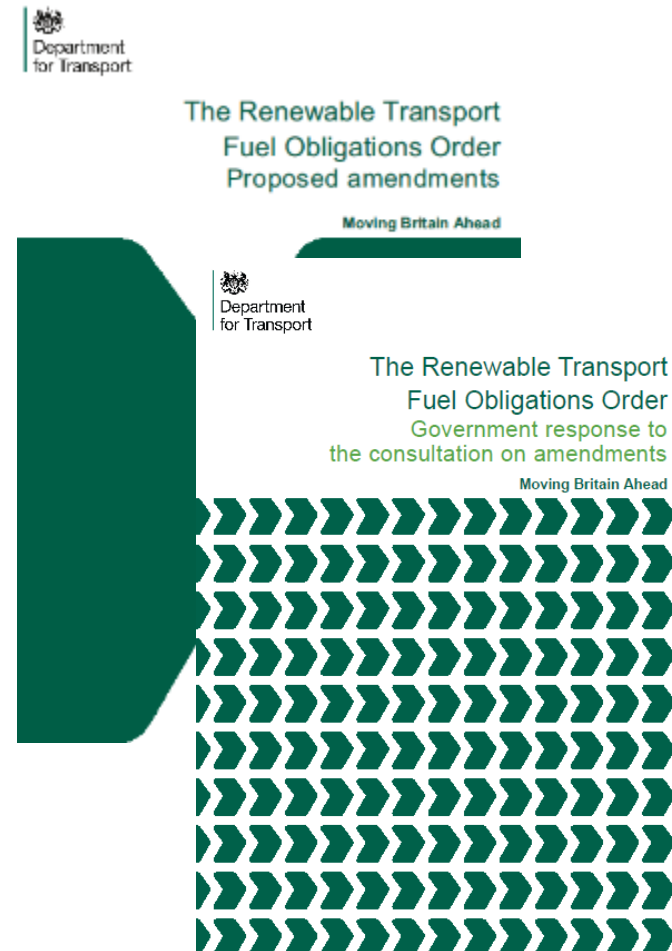


Department
for Transport

2018 Changes and Strategy

2018 Changes to the RTFO

- ▶ In **April 2018** implemented set of changes to RTFO and strategy to 2032
 - ▶ Increased targets for 2020 and 2030
 - ▶ Specific target for “development fuels”
 - ▶ Introduced crop cap
 - ▶ Updated GHG savings thresholds
 - ▶ Updated definitions and reporting obligations



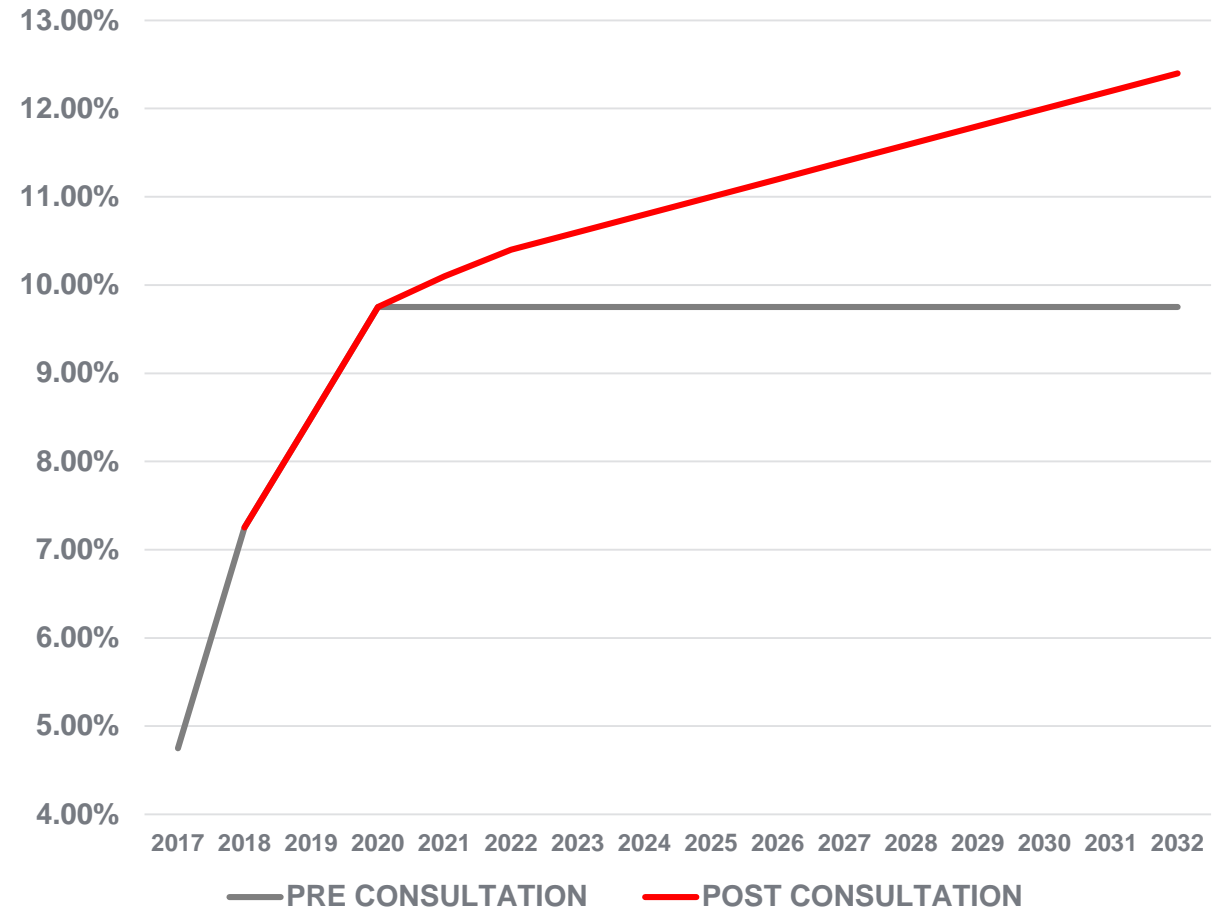


RTFO Targets to 2032

Increasing target to 2032

- ▶ Target more than doubled for clear investment signal
- ▶ Set to 2032 to align with UK carbon budget cycle
- ▶ Additional “development fuels”: combined 2032 target of 12.4%
- ▶ Providing above 7% by energy in 2032

RTFO trajectory to 2032

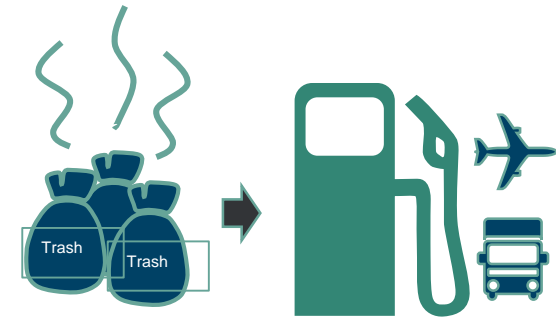




Development fuels target

- ▶ Indicative 2020 target of 0.5% for **advanced biofuels**
- ▶ Binding 2032 target for **development fuels**:

Qualifying feedstock	Qualifying fuels
<ul style="list-style-type: none">• Sustainable waste or residues	<ul style="list-style-type: none">• Aviation fuel (avtur or avgas)
<i>Excludes:</i>	<ul style="list-style-type: none">• Hydrogen
<ul style="list-style-type: none">• Segregated oils and fats (incl. UCO and tallow)	<ul style="list-style-type: none">• Renewable-SNG
<ul style="list-style-type: none">• Crops including energy crops	<ul style="list-style-type: none">• Fuel that can be blended at rates of at least 25% and still meet the relevant fuel standard i.e. EN228 for petrol, EN590 for diesel.



- ▶ **Buy-out price:** 80ppl (so £1.60 for 1 litre) (“basic” buy-out price at 30ppl)





Development fuels target

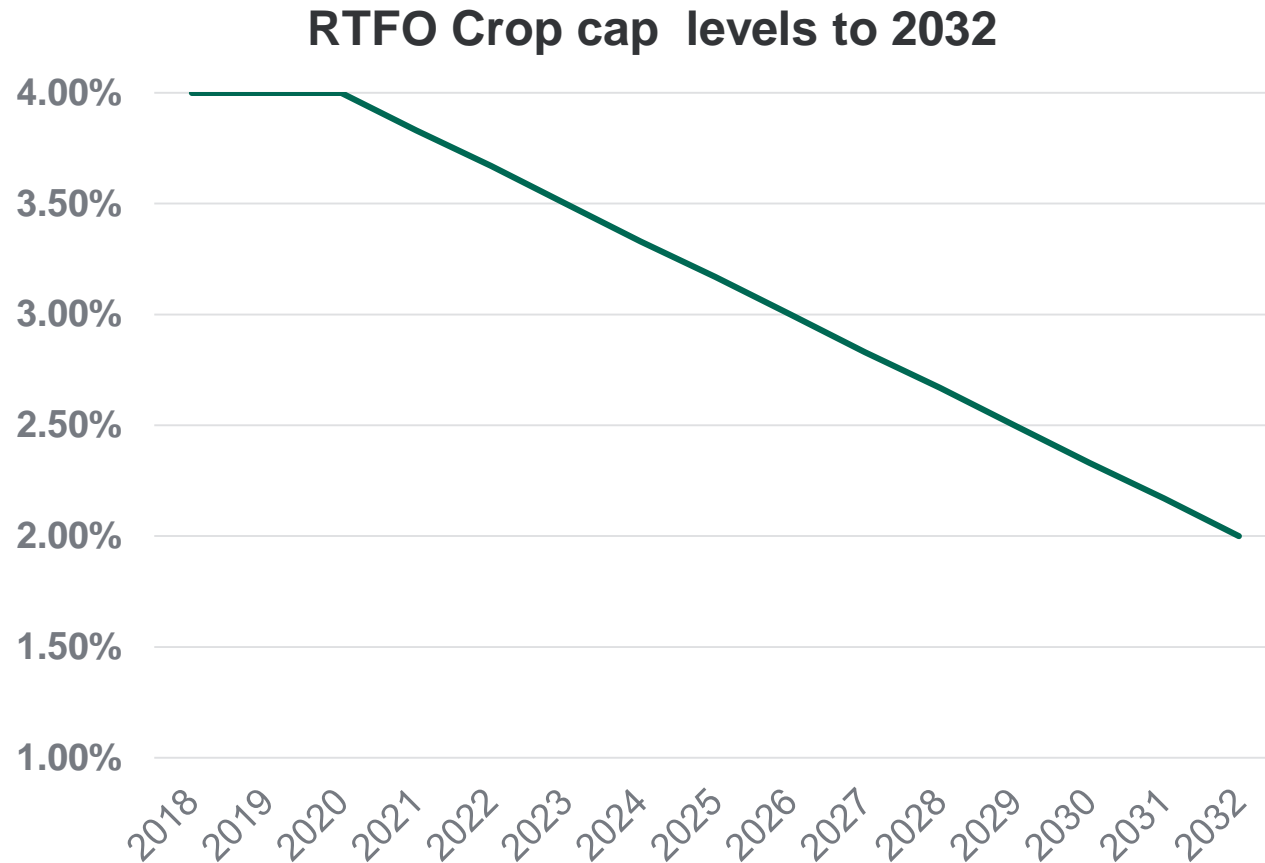
- ▶ Fuels of strategic importance
 - ▶ Sectors difficult to electrify (aviation; freight)
 - ▶ Stimulate investment in technologies required
- ▶ Supported by two demonstration competitions:
 - ▶ **Advanced Biofuel Demonstration Competition (ABDC)** launched in 2014; £16m
 - 2 winners waste to biomethane and cellulosic ethanol (completion due in 2019)
 - ▶ **Future Fuels for Flight and Freight (F4C)** launched in 2016; £22m
 - Stage 1: awarded 7 projects (out of 28 applications) a share of £2 million in funding
 - Stage 2: currently considering applications for second stage funding and a share of £20 million (announcement expected spring 2019)





Crop cap

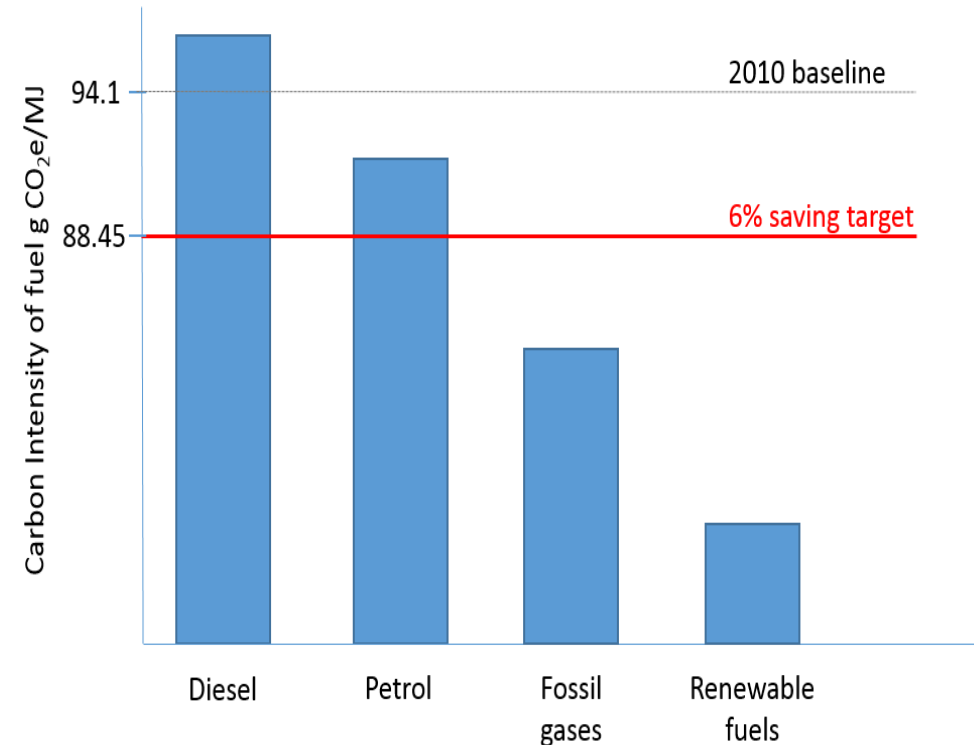
- ▶ Crop cap to decrease from 4% (2020) to 2% (2032)
- ▶ Long term signal to industry to invest in wastes
- ▶ Full E10 deployment possible





Additional measures: GHG mechanism

- ▶ Implementation EU Fuel Quality Directive, Art. 7a
- ▶ Obligation in parallel to RTFO: GHG savings from biofuels and fossil fuels
- ▶ **Target of 6% in 2020** (4% in 2019):
 - 4% expected from biofuels
 - Small contribution from electricity
 - Upstream Emission Reductions (UERs) or additional biofuels
- ▶ Reporting requirements on the origin of transport fossil fuels to monitor carbon intensity





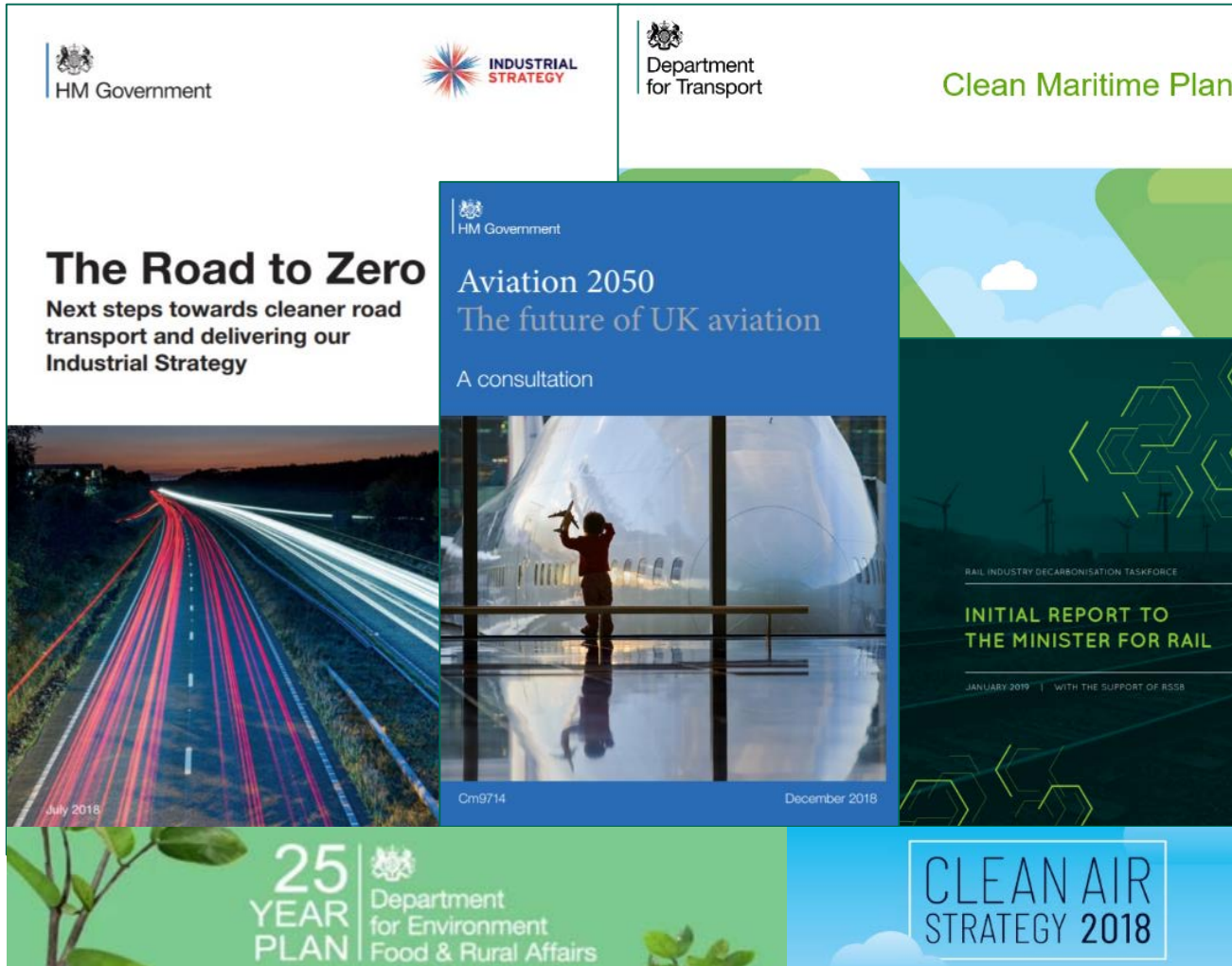
Department
for Transport

Next Steps and Future Challenges



Department
for Transport

Transport Decarbonisation Plan



Since the 2017 Clean Growth Strategy we've published:

- **Road to Zero;**
- **Maritime 2050;**
- **Light Rail** and other rapid transit call for evidence
- **E10** petrol, consumer protection and labelling
- The **Last Mile** – delivering goods more sustainably
- **Future of Mobility:** urban strategy; and
- **Aviation 2050** Green Paper



Greenhouse gases

And led international negotiations at ICAO and IMO.

In 2019 we are due to publish:

- **Carbon Offsets** for Transport call for evidence
- The **Clean Maritime Plan**; and
- The **Aviation White Paper**



Thank you

