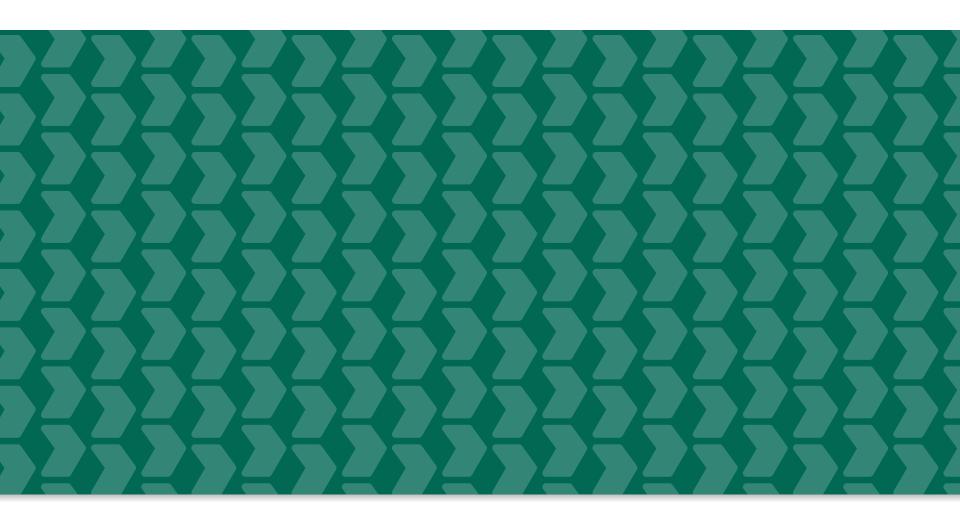


DfT Modelling Inputs and Assumptions

Thomas Robertson, Low Carbon Fuels



Moving Britain Ahead September 15



Waste availability

- Without a binding crop cap, the central scenario assumes that up to half of B7 (B3.5) will be available from waste-derived sources.
 - ▶ Given the uncertainty involved, there is also a 'low' scenario (1/4 of B7) and a 'high' scenario (all of B7).
- With a binding crop cap, it is assumed that there is sufficient waste-derived biodiesel available to meet the gap.
 - ▶ Higher demand increases the price of waste biodiesel, unlocking further supply.
 - Under these scenarios, the cost of waste biodiesel is raised accordingly to take account of this.



Prices

- ▶ 1st generation fuels
 - ▶ These have been modelled as a spread above their fossil fuel equivalent.
 - ▶ These have been derived from recent historical Platts price data.
- ▶ 2nd generation fuels
 - In-house analysis based upon publicly available data on existing/planned biofuels plants.
- ▶ Further information is available in the final report of the Transport Energy Taskforce, Annex A.
- No explicit assumptions have been made around other member state approaches
 - As the UK is only a small part of a global market, we do not anticipate UK policies will have a major impact on prices



Dieselisation

- ▶ Taken from DECC's Updated Emissions Projections (UEP) 2014.
 - ▶ Projects a 71/29 diesel/petrol split in 2020, rising to 72/28 by 2030.
 - ▶ Takes into account committed government policies.
- What drivers could reverse this, and what level of diesel/petrol split do you think these would lead to?



Emissions

- Direct
 - ▶ Based upon historical RTFO data from year 4b onwards.
 - Excepting advanced fuels, which are taken from the RED, Annex 5, part E.
- Indirect
 - ▶ Crops taken from European Commission impact assessment, SWD(2012) 343.
 - ▶ Tallow taken from Ecofys research.



E10

- If E10 is successfully introduced, our modelling assumes a 66% market penetration in 2020
 - ▶ This is likely to be the upper limit of possible scenarios, given that even in Finland only 61% was reached as of 2014
- ▶ Under central dieselisation assumptions, this should not breach a 1.5% crop cap.



Further areas

- Crop caps
 - ▶ Under central waste assumptions, only crop caps below 4% are binding
 - Anything higher acts as safeguard against high levels of crop biodiesel



Further questions / areas of interest?