



The Energy for Future Transport

Can Formula E electrify mainstream motoring?

LowC^{VP}
Low Carbon Vehicle Partnership

Annual Conference 2015



The Energy for Future Transport
Can Formula E electrify mainstream motoring?

Transport Energy: progress through partnership

Jonathan Murray

Policy and Operations Director, LowCVP

#LowCVP15

Changing Minds, **Changing Fuels**, Changing Cities

Rob Wakely, Head of Low Carbon Fuels, DfT at LowCVP Conference 2014

The Department for Transport (DfT) identified opportunities to amend European and UK transport energy policy.

DfT requested the assistance of the Low Carbon Vehicle Partnership (LowCVP) to establish the Transport Energy Task Force as a mechanism for stakeholders to help the Government to examine and formulate options for policy regarding transport energy.

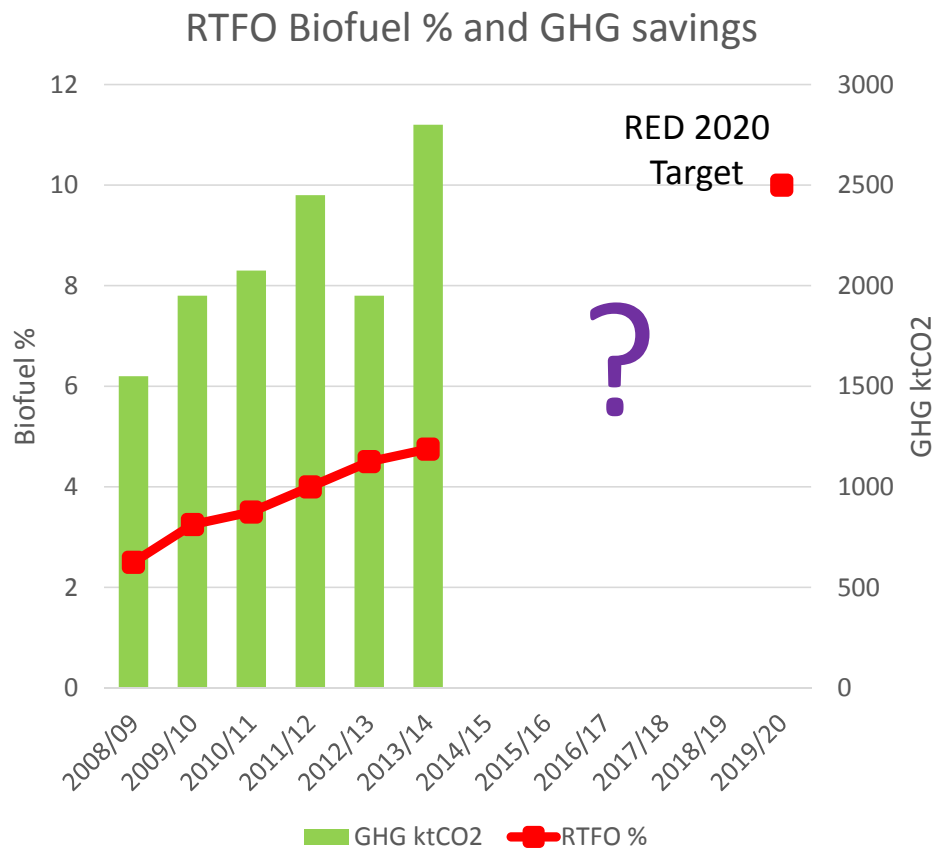
Specifically the Task Force was asked to consider how the EU 2020 greenhouse gas emissions reduction and renewable transport fuel targets should be reflected in UK policy and determine how low carbon fuels can help reduce greenhouse gas emissions from UK transport in the period to 2030 and beyond.



The Energy for Future Transport
Can Formula E electrify mainstream motoring?

#LowCVP15

New evidence created uncertainty



- Renewable Energy Directive (RED) set a transport target for renewables of 10%
- Indirect land use change (ILUC) undermined evidence base
 - GHG savings potentially overstated
 - Potential sustainability issues
- Protracted Europe negotiations to take account ILUC
- Significant investments made in 1G biofuel were at risk



Transport Energy Task Force

brought together a wide range of stakeholders

AA Air Products Airbus ADBA Argent
Energy ASDA BP British Airways BVRLA
Calor Cargill CNG Services DfT DFA Ensus
Evergreen Gas EWABA FiveBarGate FOE
Gas Bus Alliance Gasrec Greenergy
Greenpeace Imperial College IEEP ICCT JLR
Lex LowCVP MBP Group Morrisons NFU
NNFCC Olleco PRA RAC Ricardo SCOPA
Shell SMMT Tesco Co-op TUI UKPIA
Virgin Atlantic Vivergo Fuels WRAP WWF
CNG Fuels Sainsbury's REA E4Tech BIS
Defra DECC HMT



Chair Chris Mottershead, Vice Principal, King's College London.

Vice-chairs:

- Rob Wakely, Head of Low Carbon Fuels (DfT)
- Andy Eastlake, Managing Director (LowCVP).

Five working groups, chaired by:

- Ausilio Bauen, E4Tech (WG 1 – Evidence Base)
- Chris Mottershead, Kings College London (WG 2 - Objectives)
- David Baldock, IEEP (WG 3 – Policy and Investment Certainty)
- Rob Wakely, DfT (WG 4 – User Acceptance)
- Clare Wenner, REA (WG 5 – Alternative Fuels)



The Energy for Future Transport
Can Formula E electrify mainstream motoring?

#LowCVP15

A wide range of issues were reviewed



Agree the Evidence Base

- Agree costs, GHG, capacity constraints and other data
- Assessing scenarios to 2020



Confirm the objectives

- Objectives of transport energy policy
- Defining sustainability and criteria



Policy & Investment Certainty

- Policy options before 2020
- Policy options after 20320
- Basis of policy certainty
- Future investment certainty



User Acceptance

- Vehicle and fuel roadmaps
- Vehicle compatibility
- Rate of new fuel take up
- Information requirements



Alternative & Advanced Fuels

- The role of alternative fuels
- The potential of advanced biofuels
- Incorporating novel low carbon fuels



The Energy for Future Transport
Can Formula E electrify mainstream motoring?

#LowCVP15

Progress through partnership

The Task Force was able to agree:

- Reducing greenhouse gas (GHG) emissions should be a priority now and in the future.
- Focus on the pathway to 2030 objectives and align delivery of 2020 targets with that pathway.
- Adopt options which minimise risk and uncertainty
- Become progressively more sustainable.
- Build on the current position to create UK success and deliver 2030 objectives.



The Energy for Future Transport
Can Formula E electrify mainstream motoring?

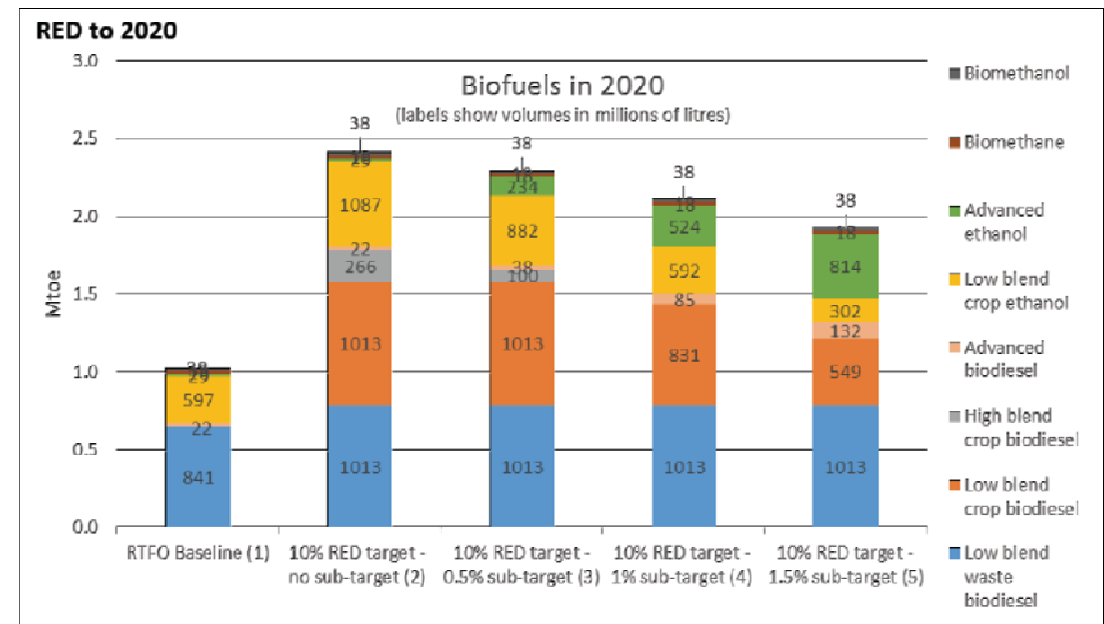
#LowCVP15

2020 – A Ministerial Decision

Options for 2020 are limited

- ILUC & FQD Directive could not be incorporated into UK law before 2017/18
 - Provides crop cap up to 7% and sub target for advanced biofuels
- E10 could be deployed prior to 2017
 - Government leadership & support required for successful deployment
- Biodiesel using waste feedstocks
 - B7 may not be sufficient, may require high biodiesel blends
- Double counting for waste, electricity and advanced biofuels
 - Upstream measures required to ensure Fuel Quality Directive is also achieved

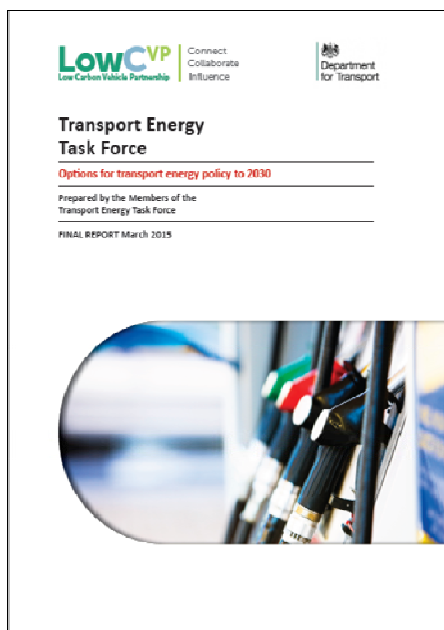
Central Waste Scenario, Source: TETF



- Scenario 1 represents no change to the RTFO
- All other scenarios are consistent with meeting the RED transport target for 2020
- Crop and waste based feedstocks provide majority of target
- Alternative fuels and advanced fuels have little impact by 2020



A vision for 2030 – but work to be done



- Transport Energy Task Force's report was published in March 2015
- Can be downloaded from the LowCVP's website: www.lowcvp.org.uk

- 2030 goals should focus on securing cost effective GHG emission reductions and providing greater certainty about the sustainability of all fuels.
- The pathway to delivery of GHG emission reductions in 2020 needs to be consistent with UK's goals for 2030.



The Energy for Future Transport
Can Formula E electrify mainstream motoring?

#LowCVP15

Changing Minds, **Changing Fuels**, Changing Cities

LowCVP will continue to work with DfT to create the environment the UK needs to deploy the fuels needed through our work programme.

Delivering answers to:

- What criteria should define sustainability?
- How to support future fuel options?
- How to create compatibility between consumers, transport fuels and infrastructure?
- How the UK can benefit?



The Energy for Future Transport
Can Formula E electrify mainstream motoring?

#LowCVP15