LowCVP Low Carbon Vehicle Partnership | Connect Collaborate Influence

National Policy Outlook

Low Emission Bus Workshop – Leeds

Tuesday 11th July 2017


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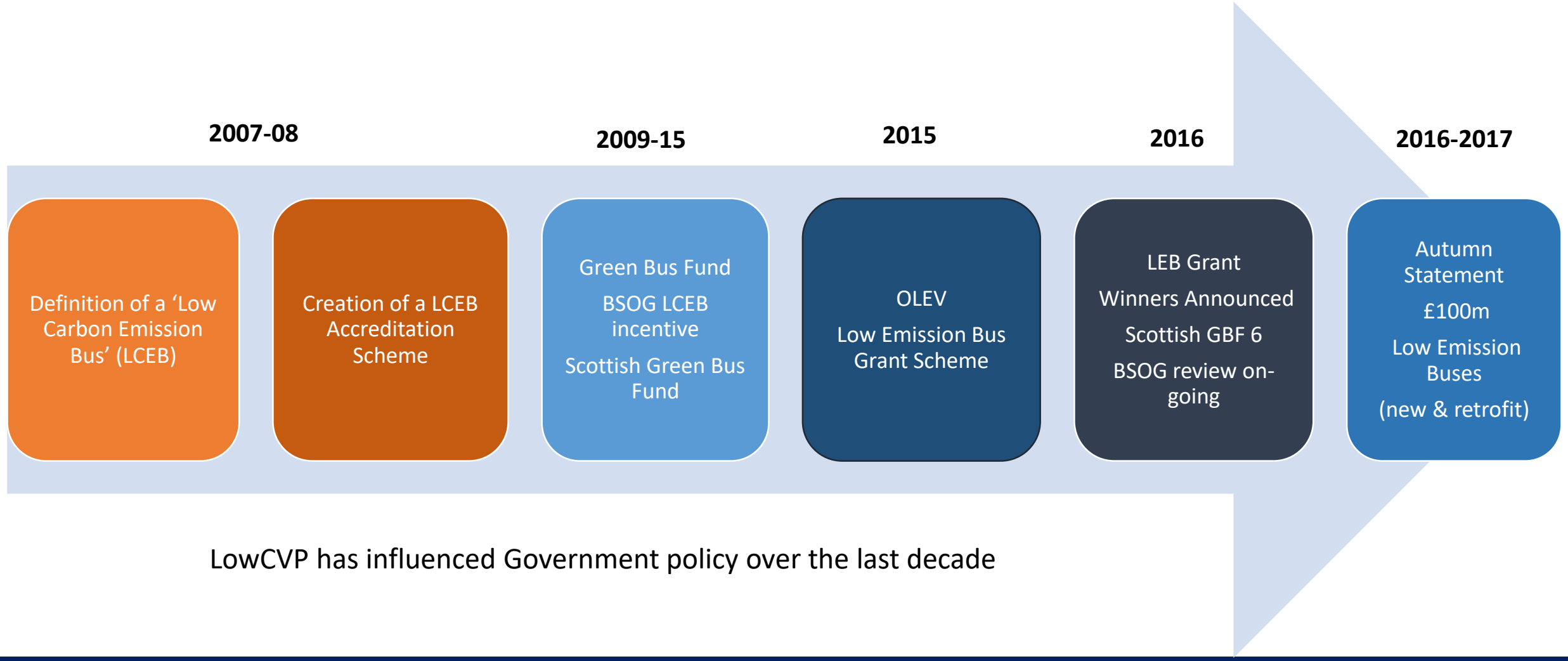
Low Carbon Vehicle Partnership

National Policy Evolution - Low Carbon to Low Emission Buses

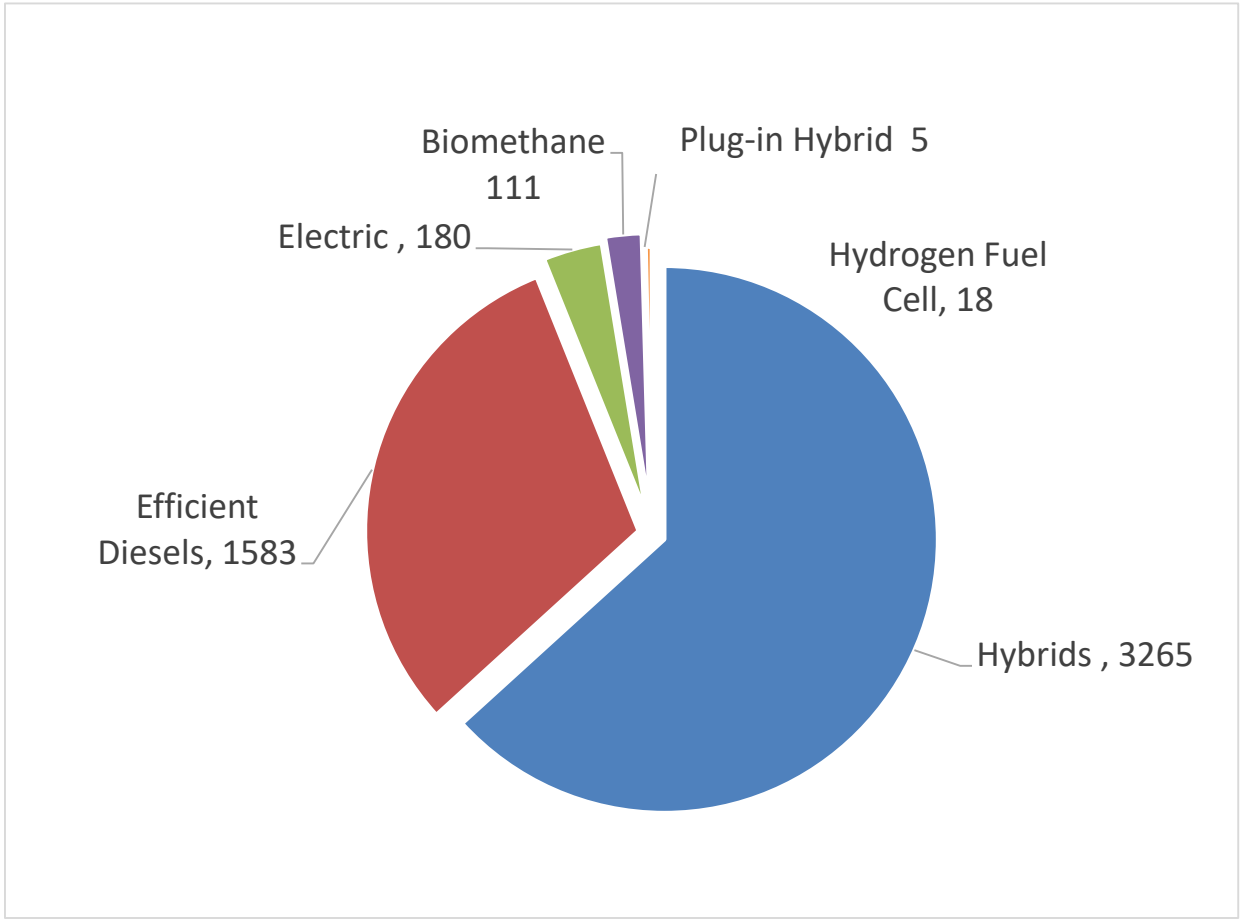
Low Carbon Vehicle Partnership

Connect Collaborate Influence



LowCVP has influenced Government policy over the last decade

Low Carbon Emission Buses What's Been Achievements to Date?



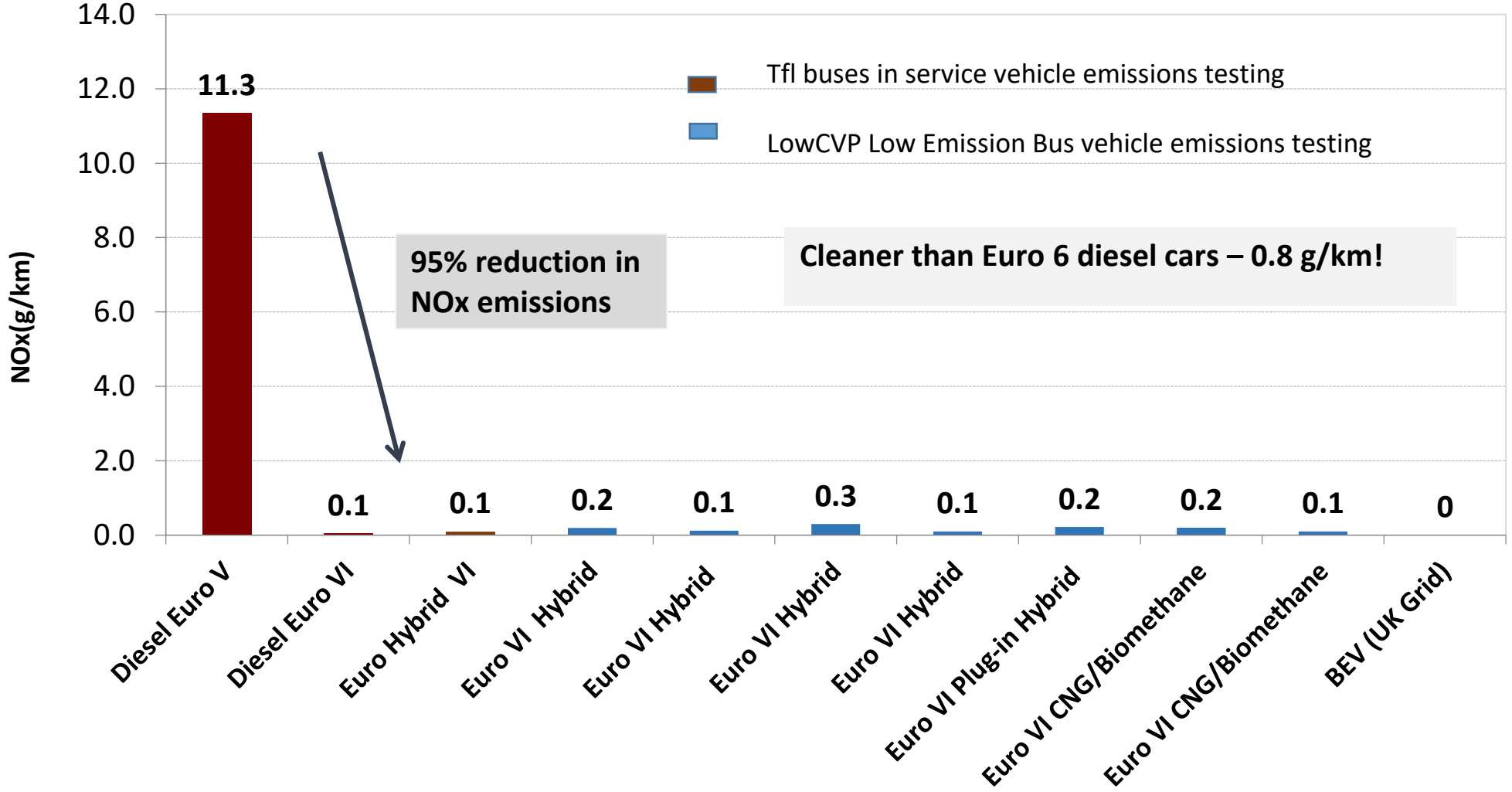
- 5,162 LCEBs in service across 38 UK cities
- LCEB achieve 30% WTW GHG savings vs Euro III diesel equivalent bus
- 44% of new bus registrations in 2016 were LCEB
- >9000 diesel buses running on B20 biodiesel
- Progressed more than any other vehicle sector – 4% new car sales alternative fuel/ULEV

OLEV Low Emission Bus Scheme

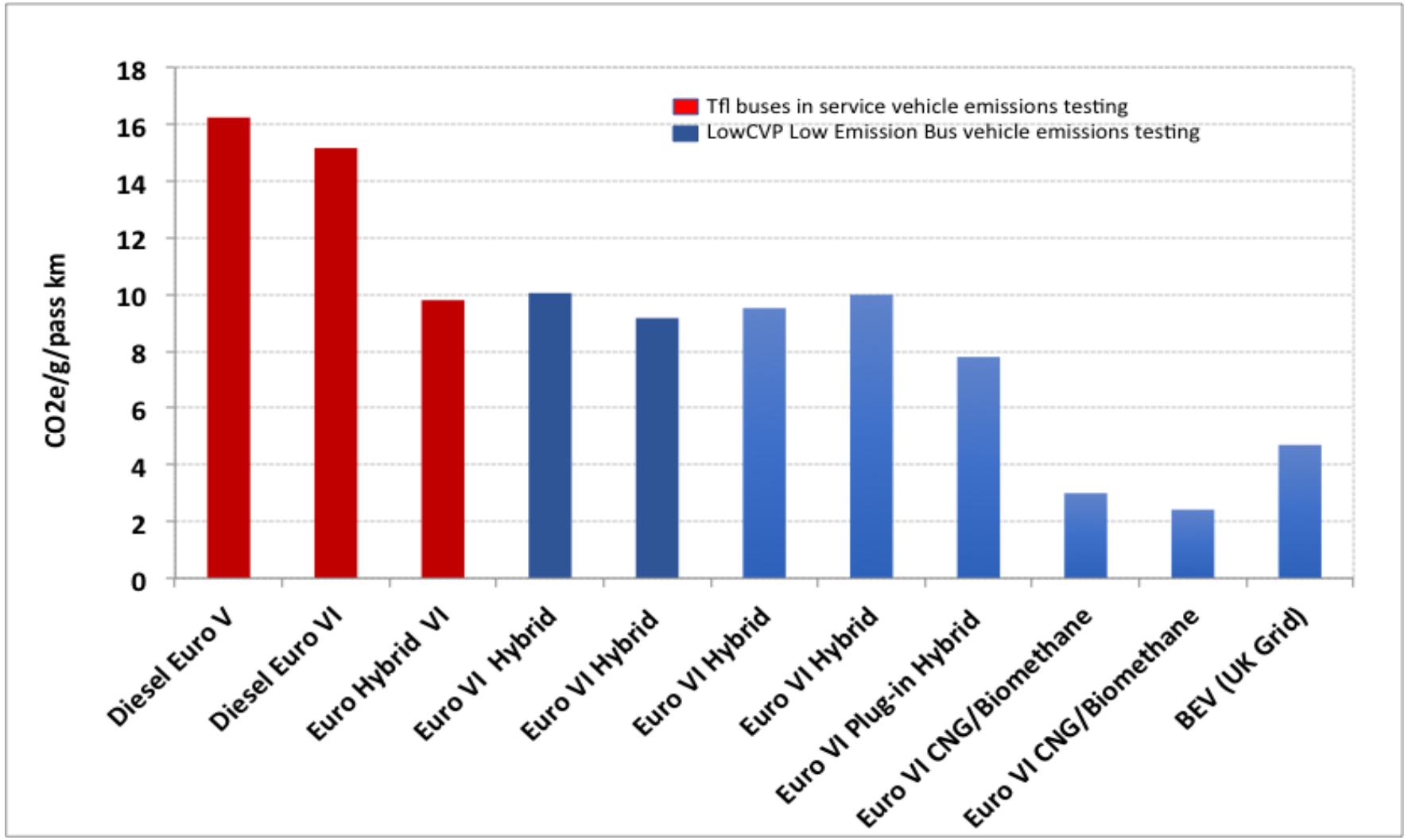
- A Low Emission Bus (LEB): achieves >15% **WTW GHG emission savings** compared to a Euro V diesel bus & achieves the **Euro VI engine standard or equivalent**
- **Low Emission Bus Accreditation Scheme** – Uses representative real world bus cycle (UK LowCVP LUB cycle) to measure emission and operational performance of an LEB
- **Low Emission Bus Grant Scheme**
  - Funding based on WTW GHG emission savings of an LEB
  - Additional funding for zero emission capable miles
  - Funding for infrastructure
- 2016 scheme funded 326 LEBs – LowCVP/TrL monitoring performance
- Awaiting launch of OLEV £100m funding for LEBs (new and retrofit)


Low Emission Bus Scheme Certificate

Euro VI buses are achieving very low NOx emissions – don't try to pick winners!



WTW CO2e performance varies for different LEBs important to consider vehicle technology and low carbon fuels



Use of biodiesel in hybrid and plug-in hybrid buses reduces WTW CO2e.

Renewable electricity lowers BEV CO2e

National Air Quality Action Plan
Joint Air Quality Unit (Defra+DfT)

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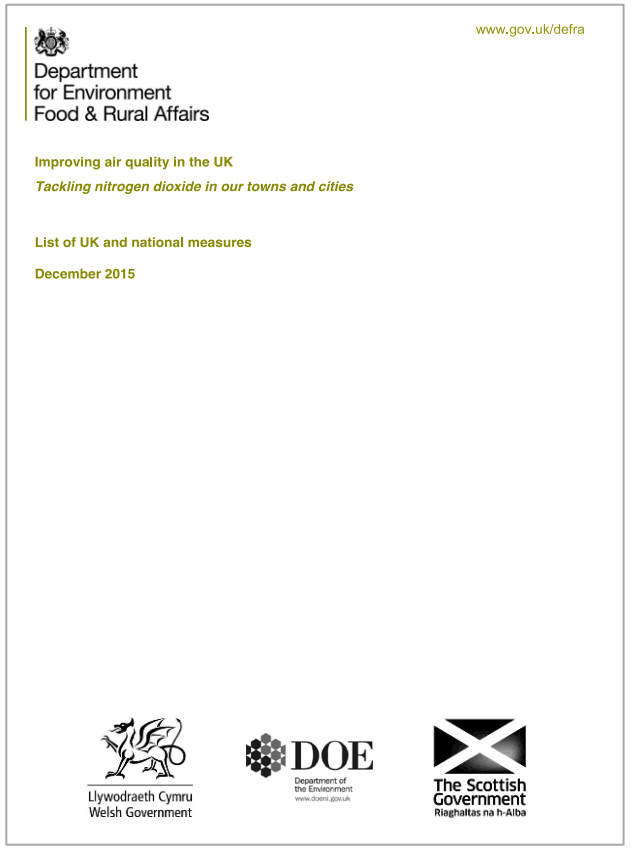
- Focus on reducing NOx emissions from road transport to meet compliance with NO_2 Limit Value by 2020
- Creation **of Clean Air Zones** main mechanism to meet compliance
- Strong emphasis on the shift to cleaner vehicles – new or retrofit of diesel vehicles required to meet Euro VI or equivalent for HDV (Euro 6 diesel, Euro 4 petrol LDVs).
- Two types of Clean Air Zones
  - ❖ Mandatory: 'charging' zone entry based on vehicle emission standards
    Five regions identified + London ULEZ – **All include buses**
  - ❖ Non-mandatory: local authorities adopt range of local measures
- Draft National Air Quality Action Plan Consultation released April, many more CAZ proposed (22) awaiting final plan end of July.


www.gov.uk/defra

Department for Environment Food & Rural Affairs

Improving air quality in the UK

Tackling nitrogen dioxide in our towns and cities

List of UK and national measures

December 2015

Llywodraeth Cymru Welsh Government

DOE Department of the Environment www.doeni.gov.uk

The Scottish Government Riaghaltas na h-Alba

Bus Retrofit Grant & Clean Vehicle Accreditation Scheme

- Various options for retrofitting diesel buses to achieve high NOx reductions – examples exhaust after treatment (SCR), engine conversion to hybrid or electric powertrain > 5000 buses retrofitted to date.

- LowCVP evaluated retrofit technologies funded through CBTF 2013/15 and CVTF 2014 progammes – report to be released September with local authority workshop

- OLEV £100m for Low Emission Buses includes retrofit technologies – **announcement very soon**

- **Clean Vehicle Retrofit Accreditation Scheme – Coming Very Soon**

  Developed by LowCVP for Government to certify the NOx reduction performance of different technologies, roll out in partnership with EST

  - Buses, Trucks, Coaches, Black Taxis, Vans, Mini-buses
  - Entails vehicle lab (chassis dyno) emissions testing
  - Emission limit values set – Euro VI equivalent and greenhouse gas emissions
  - Includes assessing methods for in service durability of retrofit equipment
  - Database to created of approved retrofit technologies and suppliers, CVRAS website out soon.

Huge opportunity for the bus industry to set itself up for the future as THE urban mobility solution

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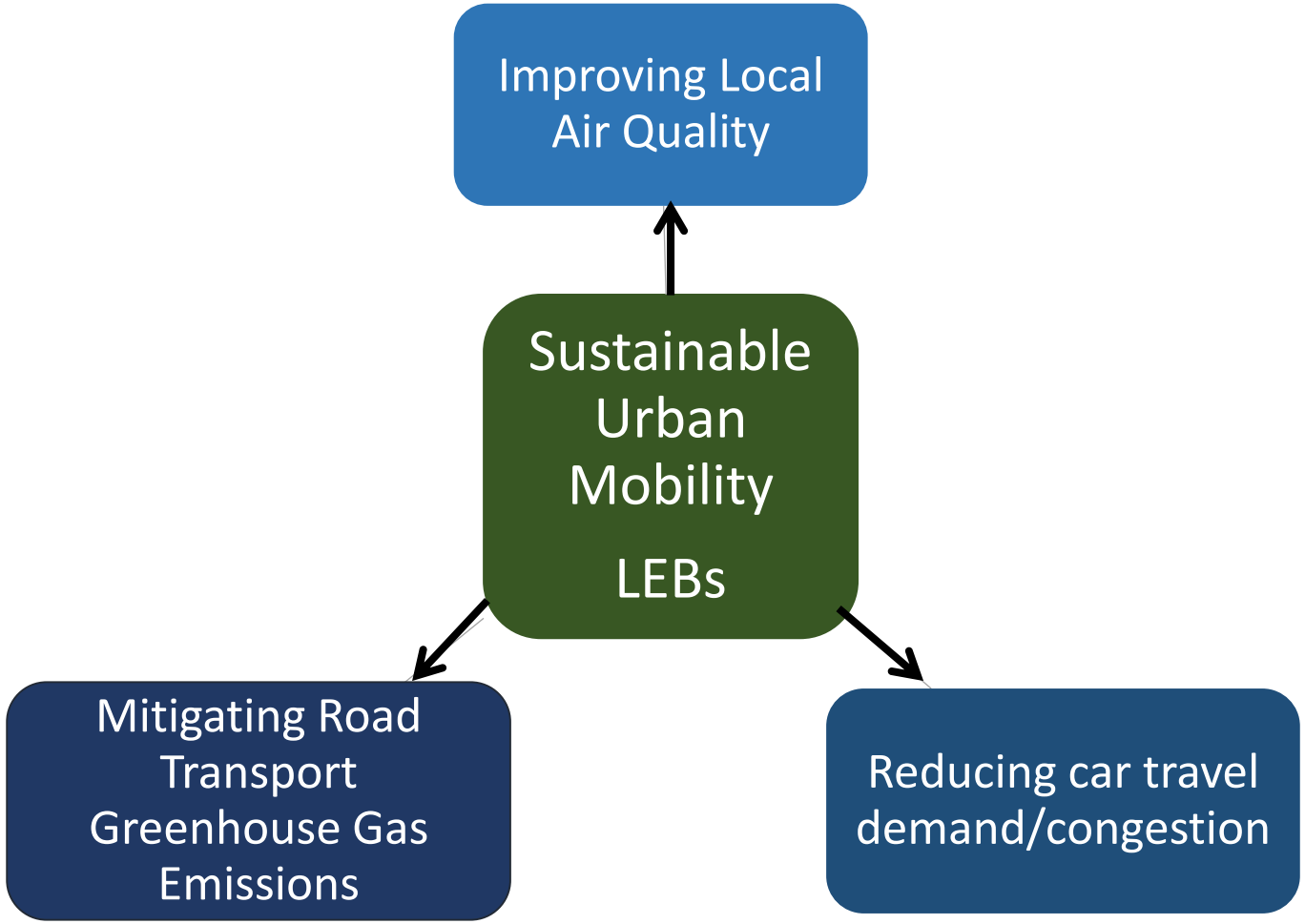

LEBs are clean and low carbon - variety of proven technologies.

LowCVP will champion the role of buses as the mobility solution of the future.