

Lower Carbon, Cleaner Air – LowCVP role in solutions

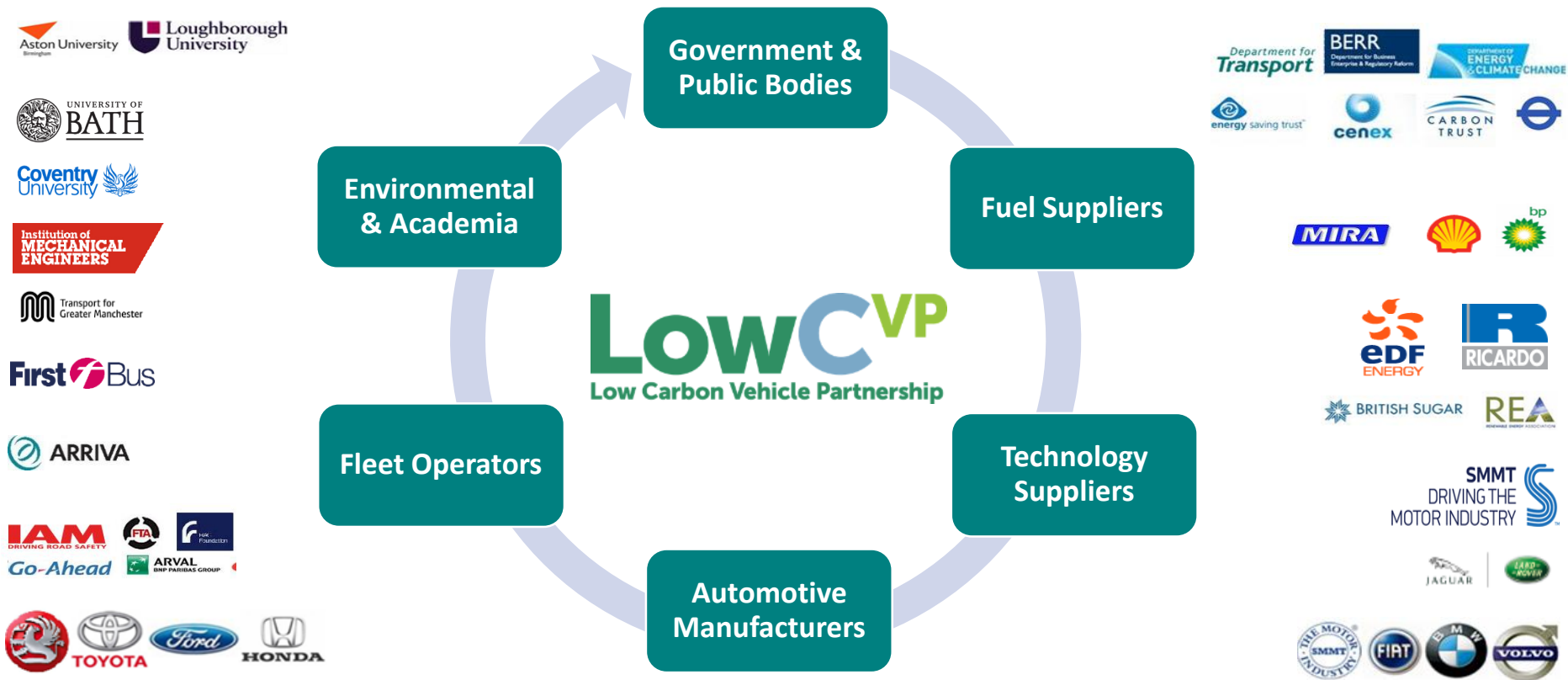
Gas Vehicle Workshop– 16 May 2016



Andy Eastlake

Managing Director - LowCVP

LowCVP is a unique public-private membership organisation building evidence and creating robust policies and innovation in UK



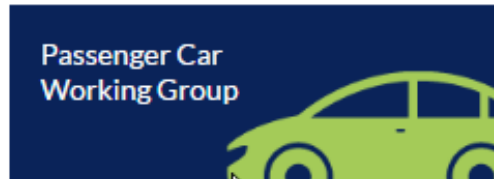
Projects for progression

The Working Groups are at the heart of Partnership action on buses, passenger cars, fuels, commercial vehicles and innovation. Participants of these Groups must be [signed-up](#) as members of the Partnership.



The LowCVP Bus Working Group consists of bus manufacturers and operators, design engineering companies, passenger transport executives, local authorities and others. It develops action programmes to speed the introduction of low carbon buses in the UK.

[Find out more](#)



The LowCVP Passenger Car Working Group is comprised of vehicle manufacturers, fleet operators, consumer associations, environmental groups and other interested parties. Its role is to accelerate the introduction of low carbon cars in the UK.

[Find out more](#)



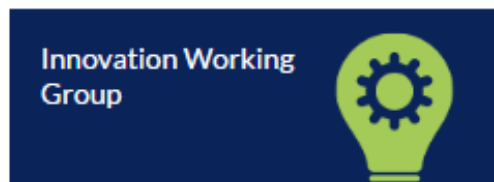
The LowCVP sometimes runs joint working group projects where the project content crosses over working group areas or where the content does not fit comfortably within one of the other groups. These projects are overseen by the Members Council.

[Find out more](#)



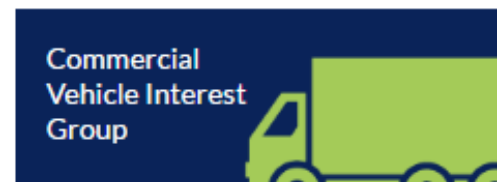
The Fuels Working Group provides analysis and strategic advice on promising low carbon fuels including biofuels and hydrogen. As part of its remit the Group develops advice on a suitable fiscal framework for low carbon fuels and identifies options for research and development.

[Find out more](#)



LowCVP's Innovation Working Group supports the development and introduction of new low carbon technologies. The issues facing technology developers- especially SMEs - in finding research, business and investor partners, as well as breaking down market barriers are the primary focus.

[Find out more](#)



A commercial vehicle (CV) interest group is being created to shadow the work being conducted under the Department for Transport's Low Carbon Truck Task Force. The group will build on the previous work of the CV Working Group and, if required, meet to develop specific work projects.

[Find out more](#)

Coordinating the measurement

- Measuring performance and defining success
- Real world test cycles, for buses, trucks, vans
- Drawing on regulation, best practice, experience and coordinating the industry
- Holistic perspective – Air Quality, Well to Wheel, total GHG (Green House Gas, CO₂, CH₄, N₂O)
- Technology neutral “find the best solution or every application”

Low Emission Bus Scheme - HGV technology Accreditation
- Clean Vehicle Retrofit Accreditation Scheme - Biofuel
Sustainability criteria – ‘L’ category evaluation,

Coordinating the market

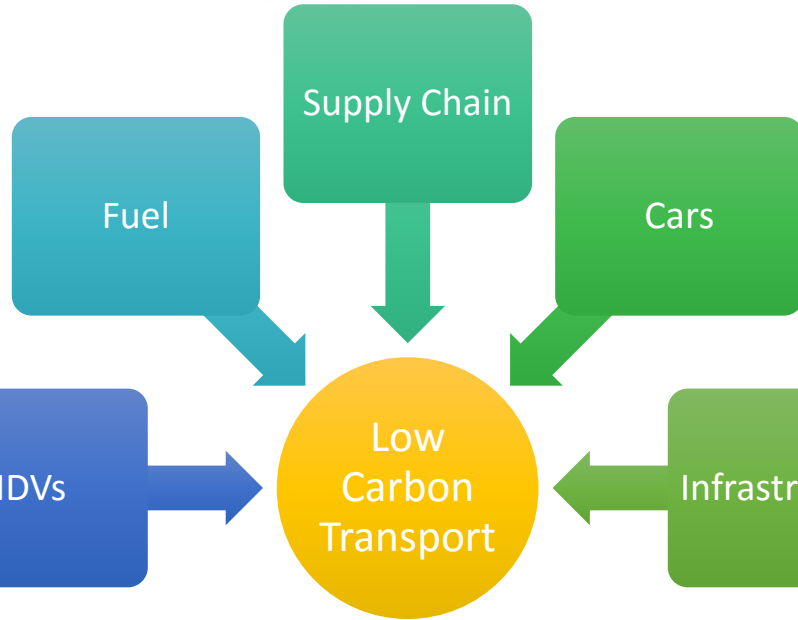
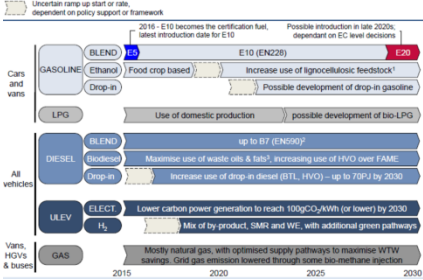
- Listening to stakeholders and researching needs
- Building bridges across industries
- Joining up the roadmaps
- Coordinating local measures and initiatives

Fuels Roadmaps – Infrastructure roadmaps - EV network group - Carbon and Air Quality solutions

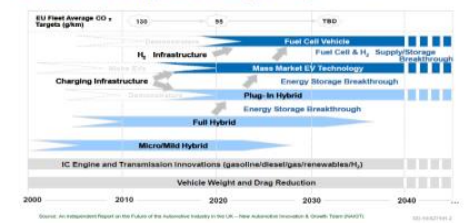
There is a growing consensus on the building blocks for low carbon road transport in the UK



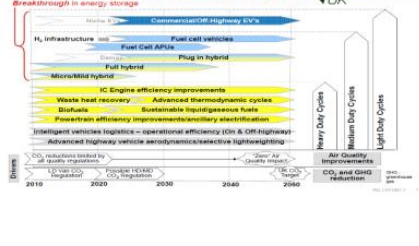
2015-2030 fuel roadmap: fuel types and blends



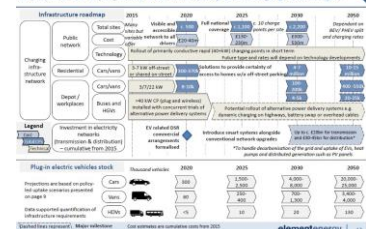
Individual manufacturers will prioritise certain technologies to fit with brand values, but OEMs share a common view of a high level Technology Roadmap



Low carbon Commercial Vehicle & Off-highway roadmap has parallel technology streams depending on duty cycle



Millions of charge points (mostly residential) will be needed to support widespread EV deployment, with uncertainty over charging technologies



The LowCVP has provided a guide to the suite of Transport Roadmap. Available from www.lowcvp.org.uk

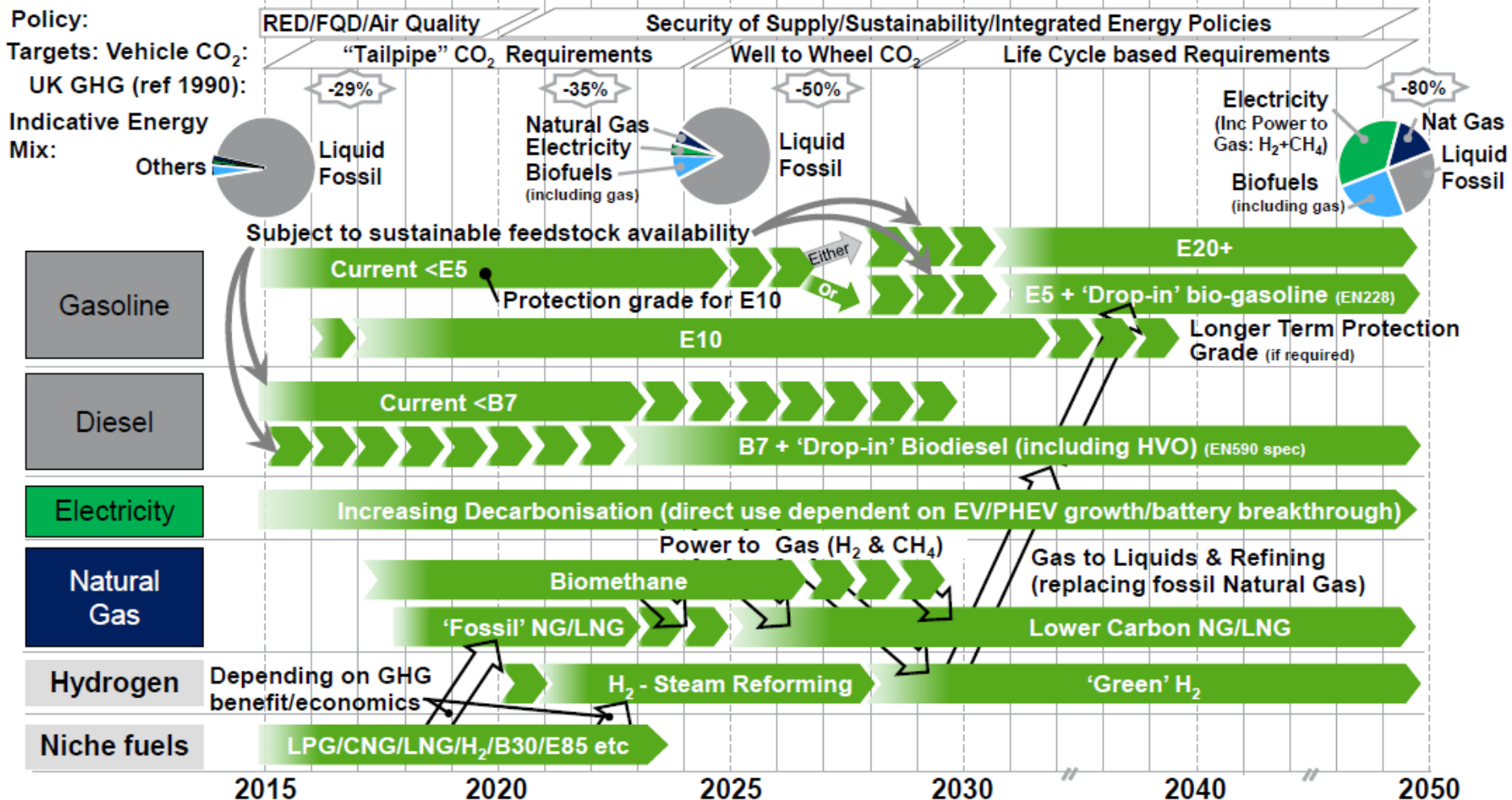
Transport Roadmaps
A guide to low carbon vehicle, energy and infrastructure roadmaps



Energy Roadmap shows long term transition from gasoline & diesel fuels to a majority renewable energy portfolio



UK: Energy Roadmap for Passenger Cars, Commercial & Off-Highway Vehicles

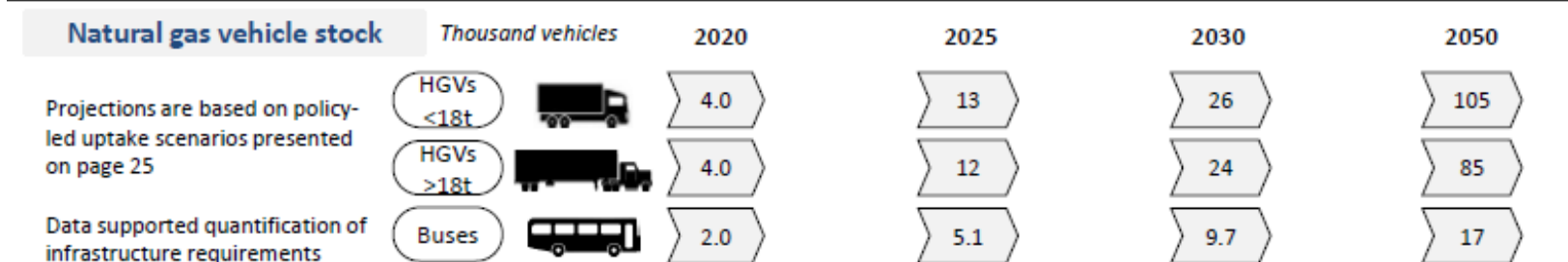
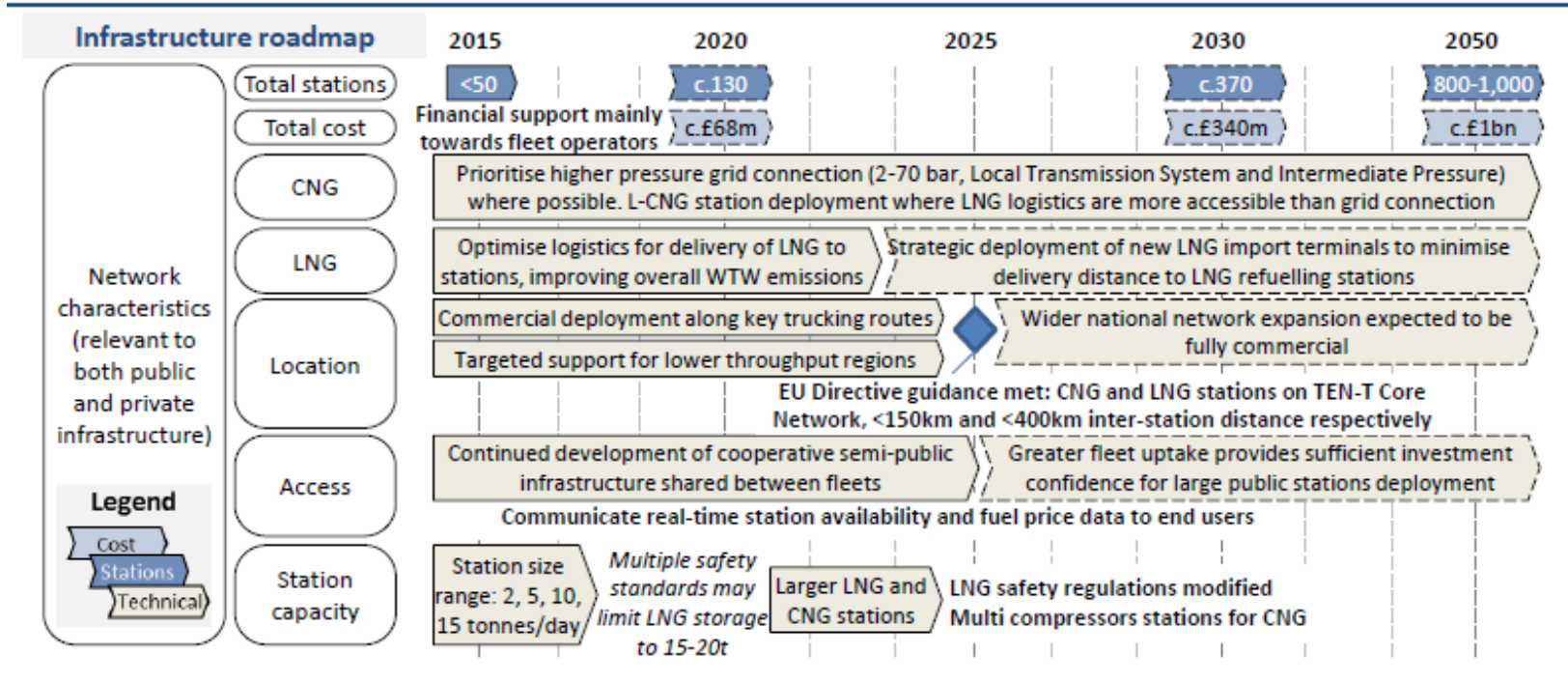


Source: Auto Council, ETRAC, E4Tech, Element Energy

Roadmap for Methane

methane

Regulatory barriers will be the primary focus for enabling natural gas infrastructure, whilst a number of technical issues must also be resolved



Dashed lines represent high uncertainty | Major milestone/enabler | Indicative fuel economy: dual fuel HGV = 60 kg/day, dedicated HGV = 75 kg/day | Costs based industry input, future cost reductions not included | **elementenergy** | 36

Coordinating the Support

- Identifying barriers and finding opportunities
- Consumer and Operator information.
- Government Incentive schemes
- Complementary measures
- Informing legislation

New car labelling, Van guide, Bus Guide – LEB grant – BSOG incentive – Plug-in-Car-Grant – Best practice guide for authorities – VECTO HGV CO2 tool – RED transport element - Clean Air Zone development

LowCVP Commercial Vehicle Activity

RICARDO-AEA

Opportunities to overcome the barriers to uptake of low emission technologies for each commercial vehicle duty cycle




Knowledge Transfer Networks
Transport

Department for Transport

The Chartered Institute of Logistics and Transport Ltd. | SMMT DRIVING THE MOTOR INDUSTRY | FTA | RHA

Report for the Strategic Task Force on Fuel Efficient, Low Emission Commercial Vehicle Technologies, funded by the Transport Knowledge Transfer Network and delivered through the LowCVP
Ricardo-AEA/RED58189
Issue Number 4
Date 26th November 2012



Office for Low Emission Vehicles

LowC^{VP}

Accreditation Scheme for Aftermarket Technologies
Certificate No: CMAT-2014-C123

This is to certify that the following product(s) have been assessed under the Low Carbon Vehicle Technology Accreditation Scheme for Aftermarket Technologies:

Manufacturer Product designation: Product Type:
Super Super Alarm Decoder Aerodynamic Air

Manufactured By:
Super Super Decoder Ltd.

The product has been tested in accordance with the following standard(s) and test methods / duty cycles:

- LowCVP CMAT Standard CMAT-2014-00002: T40 method - 200 cycles
- LowCVP CMAT Test CMAT-2014-1001: Track based 90 track duty cycle

The full results are reported in the following Product Assessment Report:


Product Assessment Report CMAT-2014-00123

Key CO₂ savings vs product fitted relative to standard vehicle (the difference in the indicated fuel consumption increases with product fitted):

Vehicle System	Using CMAT (Energy consumption)	Standard Vehicle (Energy consumption)	Relative Difference
Super decoder	17.8 %	19.9 %	-1.1 %
Aerodynamic Air	17.8 %	19.9 %	-1.1 %
Super decoder + Aerodynamic Air	17.8 %	19.9 %	-1.1 %
Vehicle total	17.8 %	19.9 %	-1.1 %

Authorized Signatory:

Dr A Daniels, Technical Director
Date: 09 August 2014





RICARDO-AEA

Provision of HGV Emissions Testing
Final Report
Report for Department for Transport
RM4470-582025

ED 60231 | Issue Date 31/08/2015

The Low Emission Van Guide
Helping van operators to reduce costs and emissions



LowC^{VP} | Connect Collaborative Influence
cerex

Clean Vehicle Retrofit Accreditation Scheme
Independent certification for technologies reduce NOx emissions

HGV Emissions Testing
Dedicated gas, duel fuel trucks, hybrid truck (partnership TfL)

VC³
Van Cost & Carbon Calculator

Welcome to the VC³ Van Cost and Carbon Calculator tool. The tool compares the economic and environmental performance of diesel, electric, gas and dual fuel van technologies.

Compare Van | Get Cost

<http://www.lowcvp.org.uk/lev.htm>



Practical steps on the pathway

Renewable Energy – used in – **Clean & Efficient Vehicles** – with – **Maximum Utilisation**

Fuel	Vehicle	Utilisation
Lower carbon	Low Emissions	Optimum use
Renewable sources	High efficiency	
Challenges		
Generation Distribution Storage Bio/renewable sources	Maximise fuel efficiency Minimise emissions Energy storage Costs Life Cycle impact Light weighting	Route Range Road space Payload Intelligent vehicles Autonomy

Andy Eastlake – andy.eastlake@lowcvp.org.uk

Connect | Collaborate | Influence

- ❑ **Connect:** With privileged access to information, you'll gain insight into low carbon vehicle policy development and into the policy process.
- ❑ **Collaborate:** You'll benefit from many opportunities to work – and network - with key UK and EU government, industry, NGO and other stakeholders
- ❑ **Influence:** You'll be able to initiate proposals and help to shape future low carbon vehicle policy, programmes and regulations



LowCVP is the partnership organisation with over 180 members with a stake in the low carbon road transport agenda.