



Accelerating the shift to low carbon vehicles and fuels

Stimulating opportunities for UK business

Foreword



Jesse Norman MP
Parliamentary Under Secretary
of State for Transport

Transport is at the heart of the UK's economic success, and it is undergoing a technological revolution. But transport policy is not only an agent of economic activity. It also has the power to transform people's lives, and build strong, vibrant communities.

The UK has a dynamic and innovative automotive sector; this is a key employer supporting many thousands of jobs, both directly and through the wider supply chain. British-based companies are at the forefront of technical developments in low emission, connected and automated vehicles. The sector will play a vital role in seizing new industrial opportunities.

The UK has made real progress in realising these opportunities to date. In 2016, it was the largest market for ultra low emission vehicles in the European Union and it has become a global leader in their development and manufacture. The Government is investing almost £1.5 billion over this Parliament to support the early market for ultra low emission

vehicles in the UK. We will end the sales of almost all conventional petrol and diesel cars and vans by 2040.

A zero emission future is of huge importance, economically and environmentally. But a number of fuels, technologies and vehicle design approaches all have the potential to play a significant role in decarbonising road transport, whilst reducing or eliminating air pollution at the roadside, particularly in larger commercial vehicles.

Partnership and co-operation have been a key feature of progress in this area in recent years, and it will need to be strengthened further in the years to come. The Low Carbon Vehicle Partnership has done much to nurture this. I would like to thank all of those who have contributed to past successes and urge the partnership and all actually or potentially involved with it to join in this critical shared endeavour.

A handwritten signature in black ink that reads "Jesse Norman". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

"A zero emission future is of huge importance, economically and environmentally." Jesse Norman MP
Parliamentary Under Secretary of State for Transport

What is the LowCVP?

The LowCVP is an independent, not-for-profit stakeholder partnership funded through government grants and member contributions. The LowCVP is the only organisation in the UK – or Europe – which brings such a range of stakeholders together to facilitate the development of policy and information to accelerate the shift to low carbon vehicles and fuels.

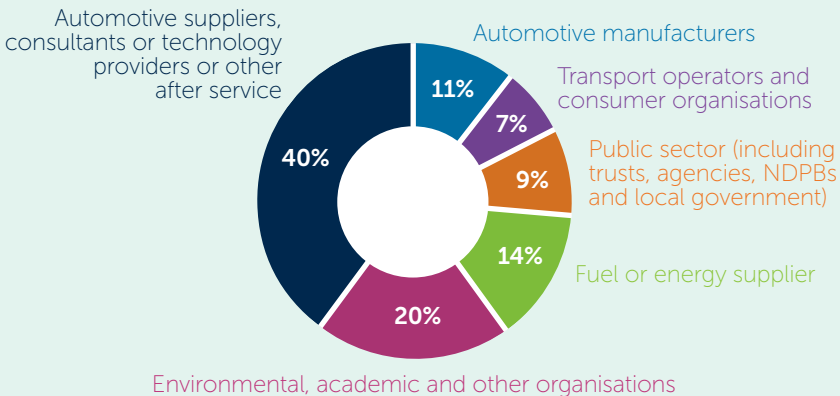
LowCVP members have the opportunity to:

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 members by stakeholder group



"The LowCVP is taking vital initiatives to join up policies to tackle the immediate air quality challenge with those targeted at dealing with the longer-term climate change imperative."

Melanie Hobson, Director, Aether

Current activities

The Partnership's current work programme which is delivered through its Working Groups (see page 10) and Members Council includes projects which:

- Focus on specific, measurable targets for 2020
- Tackle carbon emissions but also cut pollution by accounting for air quality
- Develop markets for low emission technology on trucks, vans, buses and taxis
- Identify new products, fuels and services to improve vehicle efficiency or cut emissions
- Provide consumer information to accelerate the uptake of low emission vehicles and fuels
- Accelerate progress in the commercial vehicle market where progress has been relatively slow
- Support the UK Government's transport and environmental strategies
- Increase and develop whole life-cycle consideration of transport impacts.



"The LowCVP provides an effective way of engaging with a broad range of stakeholders and policy makers." Sophie Ogunbiyi, Senior Specialist, External Affairs, Toyota Motor Europe

Notable achievements

2003	The Low Carbon Vehicle Partnership is launched as a cross-government collaboration aimed at reducing road transport carbon, as recommended by the Department for Transport's Powering Future Vehicles Strategy.	2013	New report on Life Cycle Assessment of Low Carbon Cars launched alongside 2013 Annual Conference which focuses on 'Beyond the Tailpipe' theme.
2004	The LowCVP publishes major study on well-to-wheel carbon emissions for bioethanol produced from wheat. Study shows greenhouse gas benefits can vary greatly across different production pathways.	2014	LowCVP commissions research to assess how low carbon policy has influenced auto investment, growth and jobs. LowCVP collaborates with DfT to produce 2050 Transport Energy Infrastructure Roadmaps showing way to transport decarbonisation.
2005	Successful launch of new car fuel economy label.	2015	LowCVP launches Guide to Local Measures for Encouraging the Uptake of Low Emission Vehicles. Annual Conference held in collaboration with FIA Formula E; discusses impacts of electric motor racing.
2006	LowCVP leads the development of the world's first carbon and sustainability reporting scheme for biofuels, adopted by the Government under the RTFO. LowCVP announces winners of low carbon road transport policy challenge.	2016	LowCVP launches the 'Low Emission Bus (LEB) Guide' for operators and local authorities at Euro Bus Expo 2016. 'Automated Vehicles: Automatically Low Carbon?' study launched at the LowCVP Annual Conference. LowCVP launches new joint initiative, 'Lower Carbon, Cleaner Air' at Parliamentary Reception at the House of Commons with the Clean Air Alliance to highlight links between the CO ₂ and air quality agendas.
2007	LowCVP announces winners of 'CarsNotCarbon' marketing challenge. Successful engagement with Government in the development of new policy initiatives: Low Carbon Transport Innovation Strategy; and removal of barriers to adoption of greener buses.	2017	LowCVP report: 'Successfully Deploying E10 Petrol' published. LowCVP completes 'Any Journey is Greener by Bus', third in a series on low emission buses, commissioned by Greener Journeys. LowCVP and EA Technology launch EV Network Group bringing together key stakeholders to meet challenges of growing EV uptake on the power grid.
2008	The LowCVP supports the delivery of Department for Transport's Green Bus Funds 1 & 2 which are accelerating the introduction of low carbon buses to the UK.	2018	LowCVP celebrates 15th anniversary with Parliamentary Reception attended by Ministers and Shadow Ministers.
2009	LowCVP launches used car fuel economy label following success of new car label which is now displayed in over 90% of dealerships.		
2010	Best Practice Principles for environmental marketing published by LowCVP with SMMT & ISBA.		
2011	The LowCVP works with Government to encourage low carbon HGVs leading to £9.5m Low Carbon Truck Programme. Research managed by the LowCVP for Department for Transport leads to launch of Plugged-In Vans grants programme.		
2012	Calculations show that LowCVP's activities have contributed directly to carbon savings of over 2Mt CO ₂ e at a cost effectiveness of £3 per tonne CO ₂ e		

"Cleaner, greener buses are now a common sight in UK cities. The LowCVP has been absolutely central to facilitating this impressive progress." Claire Haigh, Managing Director, Greener Journeys

Membership of the LowCVP

If your organisation has a stake in the UK's move to low carbon vehicles and fuels and agrees with the Partnership's membership principles and commitments (see page 7), it can become a member of the Low Carbon Vehicle Partnership.

LowCVP members have the opportunity to:

- **Network** and collaborate with key UK and EU government, industry, NGO and other stakeholders
- Gain **early insight** into policy developments in low carbon road transport
- Initiate proposals and help to **develop future policy**, programmes and regulations.

LowCVP members also benefit from privileged access to the LowCVP's wide range of information sources, including the LowCVP's membership database and the website 'members area' as well as enjoying discounts to a wide range of conferences, seminars and other events. The activities of the Partnership are governed through

statutory rules. All members agree to LowCVP's membership principles and commitments and make a membership contribution.

To apply for, or renew, membership submit your expression of interest to the LowCVP Secretariat using the online form at: www.lowcvp.org.uk/about/how-to-join

Please note: The LowCVP annual membership year runs in line with the financial year, therefore membership is due for renewal every 1st of April.

LOWCVP MEMBERSHIP COSTS 2018–19	
Charity	£185
Academic	£370
Public sector	£370
Commercial	
Micro < £2m turnover	£370
Small < £10m turnover	£925
Medium < £50m turnover	£1,920
Large > £50m turnover	£4,040

“LowCVP meetings are the place to be to hear about the latest and upcoming policy developments. The LowCVP provides a unique and very valuable forum in which to influence these developments.”

Celine Cluzel, Associate Director, Element Energy



LowCVP 2017-18 Review

July 2017



LowCVP developed a retrofit technology accreditation scheme for the Joint Air Quality Unit's Clean Air Zones plan. Buses were the first vehicle type to be covered. LowCVP released an Evaluation Report of the different types of retrofit technology on behalf of the government's Joint Air Quality Unit.

From September 2017



LowCVP coordinated activity around the potential deployment of E10 (10% ethanol in petrol) including a robust and independent testing programme. The activity also included the development of a communications strategy to facilitate successful implementation of E10 and delivery of the maximum GHG saving potential by 2020.

From August 2017



LowCVP relaunched the EV Network Group which aims to map the challenges and initiate proposals in terms of the development of an EV-ready powergrid in the UK. The initiative is expected to form a part of the Government's 'Road to Zero' strategy.

From September 2017



LowCVP is working to develop a web portal for low emission trucks, building on the work of LoCITY and encompassing HGV retrofit accreditation. LowCVP showcased Low Carbon Truck technologies at Cenex's Low Carbon Vehicle event at Millbrook in September 2017.

Key Activities 2017–18



October 2017



LowCVP Low Carbon Champions Awards held in association with Energy 2017 at the NEC in Birmingham. The event celebrated the achievements of organisations that have made a real difference in the area of low carbon road transport.

January–April 2018



LowCVP are evaluating the implementation of the Passenger Car Regulations through interviews with OEMs and dealers, collating LowCVP research and undertaking car buyer market research.

From October 2017



The LowCVP and a consortium of British universities undertook an assessment of the potential environmental, economic and societal benefits of L-category (micro) vehicles in the UK. The work is soon to be published with the help of Ricardo, as a report.

March–April 2018



In collaboration with EST, LowCVP is working to produce a low emission taxi guide focused on private hire vehicles and black cabs. It outlines the range of low emission fuels and technology on the market and their environmental benefits. It also looks at the total cost of ownership.

Key Activities 2017–18

February–March 2017



LowCVP published a new report, commissioned by Greener Journeys, highlighting how the bus is coming back into fashion in parts of the UK where new, modern and innovative service offers are helping more people beat congestion, cut pollution and get from A to B more conveniently.

From May 2017



Working in partnership with a range of stakeholders (including government and OEMs), LowCVP began to prepare a coordinated transition plan for consumer information and vehicle policy (including taxation) from the old NEDC to the new WLTP test cycle. A WLTP information portal is released on the LowCVP website.

March 2017



LowCVP chose Manchester as the venue for the first of four regional workshops to encourage the uptake of Low Emission Buses. The events, aimed at operators and local authorities, provide an opportunity to share knowledge and operational experience.

June 2017



LowCVP held its Annual Conference in association with the Mayor of London at City Hall. The event focused on how city-level policy needs to adapt to tackle the twin challenges of climate change and air pollution in an era of 'mobility revolution'.

Principles and commitments

Membership of the Partnership is dependent upon complying with the broad principles and commitments below and making an annual membership contribution.

LowCVP members agree that:

1. Climate change is an urgent problem requiring greenhouse gas emissions to be substantially reduced locally and globally within a timescale that limits the risk of serious impacts
2. Road transport is an important source of greenhouse gas emissions and must make a significant contribution to reducing its emissions through a combination of improved vehicle technology, use of alternative fuels and low carbon energy together with efficient vehicle use
3. Government, industry and other stakeholders share responsibility for accelerating

the supply of, and demand for, low carbon vehicles and fuels

4. The UK should seek to provide leadership to the international community by demonstrating how to achieve a sustainable pathway to a low carbon future and thereby stimulate opportunities for UK-based businesses
5. Working through a multi-stakeholder partnership is an effective means of accelerating the passage to a low carbon future.

Members commit that they will:

1. Through their activities encourage the supply of, or demand for, lower carbon automotive technologies, vehicles or fuels

2. Collaborate constructively with other LowCVP members to develop the market for low carbon vehicles or fuels

3. Support relevant Partnership activities through providing funding, staff resources or other appropriate assistance commensurate with the resources of their organisation

4. Inspire, innovate and lead the development of the market for low carbon automotive solutions by sharing learning and experience when appropriate

5. Promote their participation in the LowCVP and actively support its mission and aims through appropriate channels.



“The LowCVP’s strength lies in the breadth of its membership, wealth of information and its position as a place to meet key industry contacts.” Glenn Saint, Chief of Engineering and Manufacturing, Arrival Ltd

LowCVP Board 2018

Membership

1. Darran Messem
Chairman, LowCVP.
Madano

2. Andy Eastlake
Managing Director, LowCVP

3. Bob Austin
Sunamp Ltd

4. Claire Haigh
Greener Journeys

5. Prof Dave Greenwood
Warwick Manufacturing Group

6. David Wright
Coventry University

7. Doug Parr
Greenpeace UK

8. Prof Greg Marsden
*Institute of Transport Studies,
Leeds*

9. Helen Smith
Urban Transport Group/TfGM

10. Holly Jago
Autogas Ltd/UKLPG

11. Jay Parmar
*British Vehicle Rental and
Leasing Association*

12. Justin Laney
John Lewis Partnership

13. Ken Scott
Alexander Dennis Ltd

14. Mark Munday
Highways England

15. Mike Hawes
SMMT

16. Prof Neville Jackson
Ricardo

17. Peter Harris
UPS Europe

18. Peter Stephens
Nissan Motor (GB) Ltd

19. Phillip Sellwood
Energy Saving Trust

20. Roger Hunter
Shell

21. Sabine Mosner
*Department for Business,
Energy & Industrial Strategy
(Observer)*

22. Vicky Edmonds
*Department for Transport
(Observer)*

A
AB Airflow Systems
ABB Ltd
Abellio London
ADBA
ADGERO
Advanced Energy
Consultancy DMCC
AEMS ECOfleet
Aeristech Limited
Aether

Air Liquide Advanced
Business &
Technologies UK Ltd
Alexander Dennis
Allison Transmission
Alternatech Ltd
Argent Energy
Arrival Ltd
Arriva Plc
Artemis Intelligent
Power Ltd
Aston University
Autogas Limited
Automotive Comms
AVID Technology Ltd

B
BAE Systems
Baumot UK Ltd
BD Auto and Energy
BEAMA
BEIS
BJR Solutions Ltd
BMW (UK) Ltd
Bosch UK
Brighton & Hove Bus
& Coach Company &
Metrobus
Brunel University
BVRLA
BYD UK

C
Cadent Gas Ltd
Calor Gas Ltd
Carmen Data Ltd
Cenex
Chargemaster Plc
City of York Council
Clayton Herschel
CNG Fuels Ltd
Community Building
Services Ltd
Confederation of
Passenger Transport
Coventry University
Cummins

D
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Dearman
DfT
Dynamon Ltd

E
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EA Technology
EALABC
Ecodrive Ltd
Electric Blue Ltd
Element Energy
Eminox Ltd
Emission Engineering
Ltd - HJS UK
Representation
Emissions Analytics
Energicis
Energy Saving Trust
Energy Technologies
Institute
Ensus
EPSRC
Ethanol Europe
Renewables Ltd
EvoBus UK Ltd
Excalibre
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 FIA Foundation
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 FleetCarma
 Fleetdrive Electric
 Ford Motor Company
 Freight Transport
 Association
 Furrer+Frey GB Ltd
- G**
 Gas Bus Alliance
 Limited
 Gasrec
 GKN Hybrid Power
 Glass's Information
 Services Ltd
 Go-Ahead Group
 Gray & Adams Ltd
 Green Biofuels Ltd
 Greener Journeys
 Greenergy Fuels Ltd
 Green-Mopeds.
 com Ltd
 Greenpeace UK
 GreenUrban
 Technologies Ltd
 Groeneveld
 Lubrications Solutions
 UK Ltd
 G-volution
- H**
 High Speed Two
 HJS UK
 Representation
 Emission Engineering
 Ltd
 Horiba MIRA
- I**
 IAM RoadSmart
 Innovate UK
 Institute for Transport
 Studies, University of
 Leeds
 Institution of
 Mechanical Engineers
 Intelligent Power
 Generation
 Intertek
 Irizar UK Ltd
 ITM Power
- J**
 Jaguar Land Rover
 JouleVert Ltd
- K**
 KTN Ltd
- L**
 Leyland Trucks
 Libralato Ltd
 Lincolnshire County
 Council
 Lombard Vehicle
 Solutions
 London South Bank
 University
 Loughborough
 University
- M**
 Madano
 Magtec
 MAHLE Powertrain
 Ltd
 Majenta Solutions
 Mechadyne
 International
 Mercury Fuel Systems
 Michelin Tyre Plc
 Millbrook Proving
 Ground Ltd
 Mint Green
 Sustainability
 Motability
- N**
 National Franchised
 Dealers Association
 National Grid
 NatWest
 Next Green Car
 NGV Network
 Nissan Motor (GB) Ltd
 NNFFCC
 Nottingham City
 Council
 Nottinghamshire
 County Council
- O**
 Off Grid Energy Ltd
 OLEV
 Olleco
 Optare Group Ltd
 Otechos Engines Ltd
 Oxford Brookes
 University
- P**
 Palmer PR
 Paneltex Ltd
 Pelican Bus and
 Coach
 Perpetual V2G
 Systems Limited
 Plug'N'Go Ltd
 Portland CSO Trading
 Potenza Technology
 Ltd
 Pro2 Automotive
 Engineering Ltd
 PSA Group
 Psi Ltd
 PURltech GmbH
- R**
 RAC Foundation
 Renewable Energy
 Association
 RHK Innovation Ltd
 Ricardo UK Ltd
 Riversimple LLP
 Road Haulage
 Association
 RoadGas Ltd
- S**
 Samways F&L Ltd
 Scania GB Ltd
 Shell International Ltd
 SMMT
 Stagecoach UK Bus
 Stratio Automotive
 Sunamp Ltd
 Swansea University
- T**
 Tantalum Innovation
 Tewa Motors
 Torotrak Group
 Toyota Motor Europe
 Tranect Ltd
 Transport and
 Environmental Policy
 Research
 Transport for Greater
 Manchester
 Transport for London
 Transport Research
 Laboratory
 Transport Scotland
- U**
 Uber UK
 Ubitricity
 UK Petroleum
 Industry Association
 UKLPG
 ULEMCo Ltd
 University of Bath
 University of Brighton
 University of Liverpool
 University of
 Nottingham
 UPS Europe
 Urban Transport
 Group
- V**
 Vantage Power
 Vehicle Certification
 Agency
 Vehicle Repowering
 Solutions Ltd
 Venson Automotive
 Solutions Ltd
 Vireol Bio-Industries
 plc
 Vivergo Fuels
 Volkswagen Group
 UK
 Volvo Bus Ltd
- W**
 Warrens Group
 Warwick
 Manufacturing Group
 Wirth Research
 Limited
 World Auto Steel
 Wrightbus Ltd
 WWF-UK
- X**
 Xevia Ltd

“LowCVP is the place where those who want a cleaner transport sector can come together and find common cause pushing for a better policy environment.” Dr Doug Parr, Chief Scientist and Policy Director, Greenpeace and LowCVP Board Member

Organisation and history

The LowCVP was established in 2003 with support from the Government's Joint Ministerial Low Carbon Group – DfT, DTI (now BEIS), DEFRA, HM Treasury and the Cabinet Office. The Partnership also raises funds through membership fees, events and sponsorships. It is guided by a Board which gives strategic direction.

LowCVP members participate through the Partnership's Working Groups which formulate and develop initiatives. There are currently Working Groups concerned with:

- Buses
- Passenger Cars
- Fuels
- Commercial Vehicles
- Innovation

The work programme is agreed by members, delivered through the Working Groups and overseen by the Members Council. (See current activities, page 4)

The LowCVP Secretariat manages the activities of the Partnership. The Managing Director, Andy Eastlake, leads the Secretariat.

In spring 2009, the LowCVP became a not-for-profit company limited by guarantee.

For information on how to join the LowCVP, please see page 6.



“LowCVP sits at the nexus of industry, policy and civil society, providing a valuable forum for objective research, debate and action amongst disparate stakeholders.” Adam Chase, Director, E4tech

Transport and climate change

The world is warming as a direct result of a rising concentration of greenhouse gases in the atmosphere. Continuing emissions at current and historic rates is unsustainable and dangerous in the long-term.

If global temperatures rise more than 2°C, the effects become more unpredictable and there's a likelihood of more violent weather events; there's also a higher risk of breaching 'tipping points' leading to dangerous climate change.

Road transport contributes around a fifth of man-made greenhouse gas emissions and the sector's share has been growing.

Countries around the world are now investing heavily in low carbon technologies, including in the road transport sector. Increasingly these are seen as the key technologies which will underpin the successful economies of the future.

The UK has an opportunity to be in the vanguard of this new, green industrial revolution and to tackle climate change by accelerating the shift to low carbon vehicles and fuels.



"As a Tier 1 supplier we value our membership of LowCVP which allows access to the full supply chain."

Eman Martin-Vignerte, Director, Robert Bosch Ltd



“De-carbonising the road transport sector is key to achieving our long-term climate goals. The CCC values the dialogue with LowCVP and its diverse stakeholders about how best to achieve that.”

Adrian Gault, Acting Chief Executive, Committee on Climate Change

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