

The Low Carbon Vehicle Partnership

2004 Achievements

**Accelerating the shift to low carbon
vehicles and fuels**

The Low Carbon Vehicle Partnership

PRASEG Seminar

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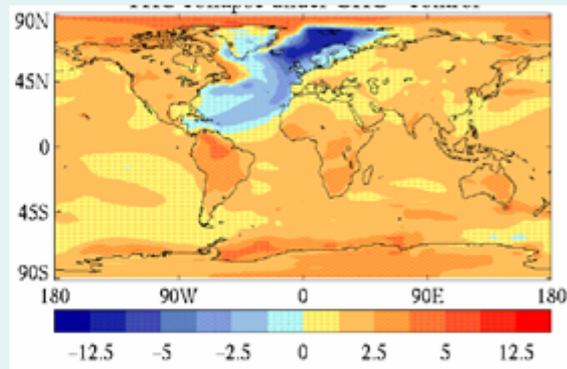
Good afternoon and thank you for attending today's seminar.

My name is Greg Archer and I am the Director of the Low Carbon Vehicle Partnership.

Low Carbon Vehicle Partnership

Accelerating a sustainable shift to low carbon vehicles and fuels in the UK

Stimulating opportunities for UK businesses



Climate models now predict a 1 in 2 possibility that the Gulf Stream will shut down by 2100

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http://www.stabilisation2005.com/33_Richard_Wood.pdf

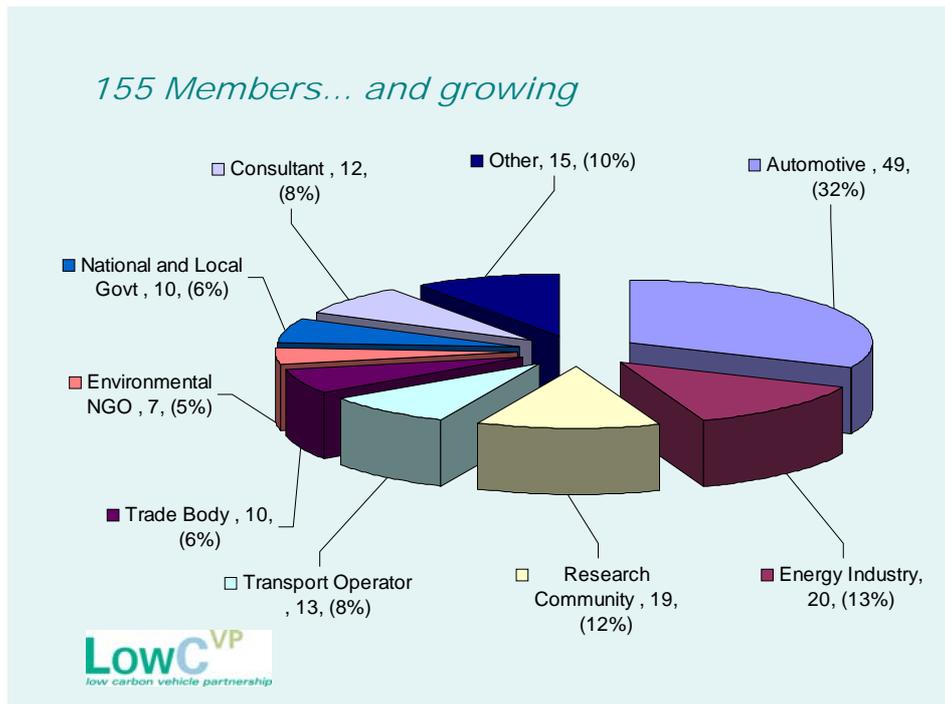
The Low Carbon Vehicle Partnership was established in 2003, as an outcome of the UK Government's Powering Future Vehicles Strategy. The Partnership's purpose is to achieve accelerated, sustainable progress towards low carbon vehicles and fuels. In parallel, it also aims to provide new opportunities for UK businesses. The Partnership undertakes specific membership activities to encourage the supply, and raise demand for, low carbon vehicles and fuels. It also provides advice to key decision makers, including Government, on the priorities to stimulate market development.

The Partnership is specifically focused on the task of reducing greenhouse gas emissions from road transport. We recognise that other environmental and societal issues are also important and sustainable development balances these concerns with the need for economic development and profitable businesses.

It is clear from the messages emerging from the recent Exeter conference, Avoiding Dangerous Climate Change, that global climate change is accelerating with profound implications for human society and biodiversity. Amongst the conference key messages were that CO₂ concentrations may reach potentially damaging levels within 10 years and that there is now almost a 1 in 2 chance of a potentially disastrous halting of the Gulf Stream by the end of the millennium. The slide illustrates the impact of this scenario upon UK average temperatures.

Further proof that increasing CO₂ concentrations are responsible for global climate change emerged last week at the American Association for the Advancement of Science. One paper providing compelling evidence that the oceans, like the atmosphere have also been warming for the last 40 years and that variations in temperature could only be accounted for by man-made global warming.

These studies, and many others, underline the urgency of accelerating progress towards producing lower carbon vehicles and fuels.



During 2004, LowCVP membership has grown by about 10% and now totals 155 members. Our membership is drawn from a wide range of sectors, backgrounds and perspectives including automotive companies such as vehicle manufacturers, distributors, suppliers and research and development organisations. This diverse group represents about a third of the overall membership.

Oil companies ranging from traditional suppliers, supermarkets and biofuel companies represent 13% of members. Academics, consultants and research organisations represent another 20%. Other members include transport operators, environmental and consumer organisations and Government Officials from the Departments of Trade and Industry and Transport, and from DEFRA.

The diversity of membership is the key to our success. It is only through engagement between organisations with different perspectives and priorities that we can achieve consensus on contentious issues and provide leadership in the actions we take, and the advice we provide.

The Partnership's high level Board, Chaired by Graham Smith, MD Toyota UK includes senior representatives from across our membership. The Board reports to Low Carbon Transport Ministerial Group, Chaired by David Jamieson and including representatives of DTI, DEFRA, DAs and Treasury.

LowCVP Activities

- Action by members
 - Biofuels accreditation
 - Car label
- Advice to Government
 - Bus programme
 - Centre of Excellence
- Research
 - Car buying behaviour
 - R&D agenda for CoE
 - Testing of commercial vehicles
- Policy development
 - Future of voluntary agreements
 - RTFO feasibility study
- Programme advice
 - TransportEnergy programme



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The Partnership engages in a wide range of activities. We undertake research to improve understanding of the issues, such as examining the environmental impacts of biofuel production and car buying behaviour. We have undertaken voluntary initiatives with industry partners such as the car labelling scheme and development of an accreditation scheme for biofuels.

The Partnership also supports Government in the development and implementation of new policies, through the considered responses we have prepared to a number of Government consultations, such as on the TransportEnergy Programme and requests for assistance such as examining the future of voluntary agreements with motor manufacturers.

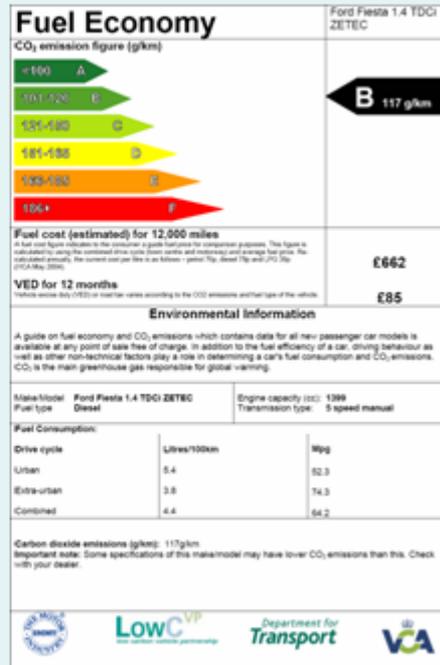
The Partnership also provide a monthly electronic newsletter on topical low carbon road transport topics. If you are interested in subscribing please speak to me, or Neil Wallis the Communications Manager.

As part of the Government Climate Change Programme Consultation we hosted workshops for over 200 delegates as part of our recent conference. We expect to undertake more of these types of activities in the future.

The Partnership does not seek to endorse any specific fuels or technologies in its activities and operates by working to achieve consensus across its diverse membership. Partnership activities are funded both by member contributions and through a grant from Government.

Voluntary car labelling scheme

- Voluntary Scheme to be launched in July 2005 – ahead of EU scheme
- 42 UK brands by September 2005
- Collaboration between LowCVP, UK Government and SMMT
- Bands linked to UK Vehicle Exercise Duty CO2 categories
- Consistent with European Energy Efficiency labels

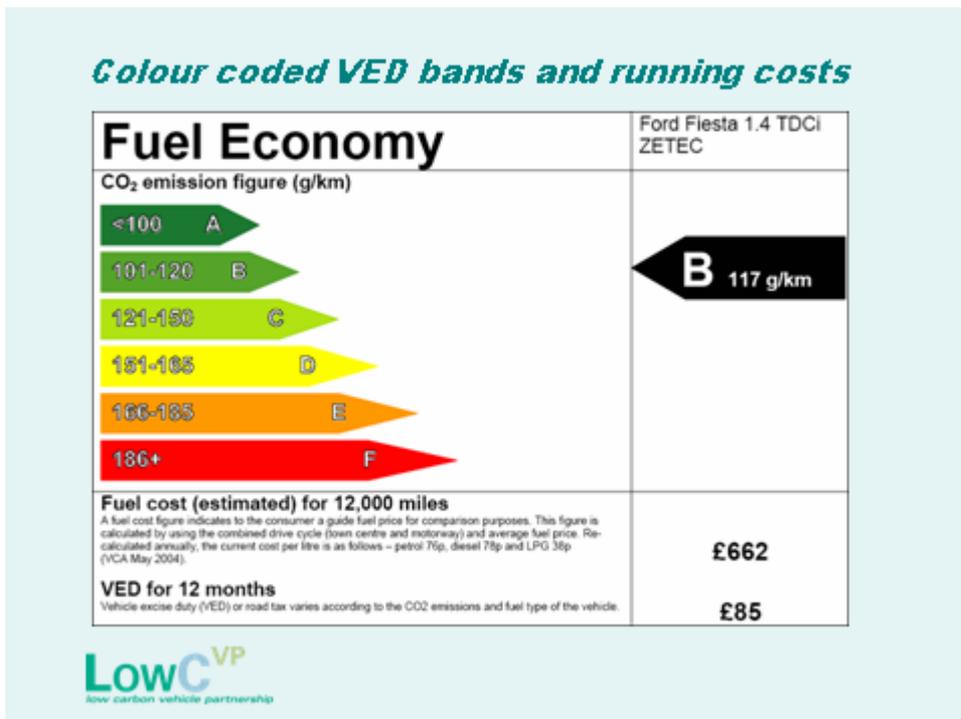


LowCVP was responsible brokering the agreement leading to the introduction of a voluntary car labelling scheme launched by Secretary of State for Transport, Alistair Darling at the Low Carbon Vehicle Partnership annual conference in February.

The new colour-coded environment label for all new cars, the same as that shown, will appear in UK car showrooms from July this year. The consumer-friendly label will help car buyers assess the climate change impacts of different cars. It will also emphasise that – increasingly - better environmental performance means lower road tax and lower running costs.

The new label is being introduced years ahead of likely EU legislation and was made possible by Lowcvcv brining together key stakeholders from car makers, fleet owners, environment groups and Government to reach agreement.

We cannot expect the label to have a profound effect upon consumer buying patterns for new cars. But we hope, by providing information in an easily understandable format, that some consumers will be persuaded to buy lower carbon vehicles. At present just 0.05% of new vehicle sales achieve the Powering Future Vehicles target of 100g/km compared to the 10% target for 2012. LowCVP is conducting research to understand how to influence consumers, but it is clear stronger policy signals are needed.



The new fuel economy label is intended to be familiar to consumers as it mirrors important aspects of the design and colour-coding of the energy efficiency labels that now appear on most ‘white goods’, such as refrigerators.

The gradations on the label are also consistent with the CO₂ bandings used for Vehicle Excise Duty (‘road tax’) to ensure that the environmental message is backed up by a clear fiscal signal: *lower carbon emissions = lower road tax*. The label also provides clear running cost information showing that *lower carbon, ‘climate-friendlier’ vehicles are cheaper to run*.

Biofuels



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Some of the Partnership's principal achievements in 2004 have been in the area of biofuels. Whilst the Partnership does not endorse specific fuels, or solutions, it is recognised that the supply of biofuel blends represents an important means of reducing carbon dioxide emissions from road transport today. This is because emissions can be reduced across the entire vehicle parc rather than just from improved technology within new vehicles coming onto the road.

A key scientific question addressed by the Partnership in 2004 was - how much carbon dioxide does the use of biofuels actually prevent and what are the other environmental impacts of such fuels? Biocrops absorb carbon dioxide from the atmosphere whilst they grow, which is then released when the fuels are burnt. The agricultural production, manufacturing and distribution of biofuels does, however, lead to emissions of greenhouse gases. This obviously means that the

use of biofuels does lead to some greenhouse gas emissions. Unfortunately, unlike the image portrayed in this slide, it is not possible to simply refuel direct from the field!

Agricultural production of the biocrops can also, potentially, effect biodiversity and lead to other environmental impacts which mean that the fuels are not entirely environmentally benign.

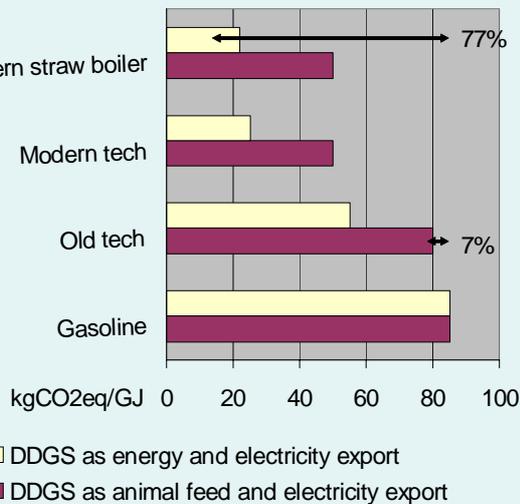
Bioethanol from wheat

□ Consensus reached on methodology for C-balance calculations for wheat to ethanol

□ C-balance (and cost) of bioethanol production strongly dependant upon

- Fuel production methods
- How by-products such as straw and DDGS are used

□ Principles and approach to biofuels accreditation agreed



http://www.lowcvp.org.uk/uploaded/documents/Biofuels_WTW_final_report.pdf

A detailed study by LowCVP examined the environmental effects of biocrop production and considered the most effective way of mitigating possible impacts. We have also undertaken a detailed study of greenhouse gas emissions from the production of bioethanol from wheat.

The study shows the way in which a biofuel is manufactured is critical in determining the net amount of greenhouse gases which are prevented compared to gasoline. The graph compares the amount of greenhouse gases released for different production methods of converting wheat to bioethanol compared to conventional gasoline. The analysis shows that greenhouse gas savings of between 7 and 77% are possible for bioethanol compared to gasoline depending upon the production process and way by-products are used.

The study shows that not all biofuels have equivalent benefits, and that to achieve significant greenhouse gas savings the right crops must be grown and utilised in the right way.

It is important that future policies, such as the proposed Renewable Transport Fuels Obligation, make use of this information and ensure that policies designed to promote the supply of biofuels, incentivise the best approach.

The Partnership is also working on a voluntary assurance scheme for biofuels – possibly through the development of a British Standard. Biofuels suppliers or oil company that sign-up to the scheme will guarantee to source good quality biofuels from sustainable sources. A number of major oil companies are presently working with us on this initiative.

Centre of Excellence for Low Carbon and Fuel Cell Technologies



Holywell Campus,
University of Loughborough



- ❑ To be launched in Spring 2005 at Loughborough University
- ❑ Address market failures of linking academia, supply chain and OEMs
- ❑ Partnership developed Supply Chain database will form a key element of Knowledge Transfer Activities
- ❑ Research priorities identified through Partnership R&D Working Group

Another important area of activity in 2004 was support for the proposed Centre of Excellence for Low Carbon and Fuel Cell Technologies. The Centre is expected to be formed legally in the next month and will be based at Loughborough University.

The Partnership has been a strong advocate of the Centre which aims to create stronger linkages between academia, supply chain companies and OEM's. It is hoped that the Centre will stimulate inward investment to the UK by highlighting, demonstrating and developing UK expertise. It will assist in research coordination and provide part of the DTI knowledge transfer network.

The Partnership, has chaired the Steering Group overseeing the Centre's development and working to ensure that the governance and activities of the Centre meet the needs of the wider industry and that the Centre supports and

does not compete with existing operations. The Partnership will continue to support the Centre during its inception period and looks forward to working closely with its new Chief Executive and members.

Discussion points

- ❑ How can delivering low carbon road transport be moved up the political agenda?
- ❑ What priorities would PRASEG members identify for the future work programme of the Partnership?
- ❑ How can the Partnership most effectively interact with PRASEG members within, and outside, Parliament?



In conclusion, in the two years since formation the Partnership has established itself as **Our recent annual conference, attended by nearly 300 delegates and addressed by amongst others Alistair Darling and,by video, Bill Ford CEO and Chairman of Ford illustrates**