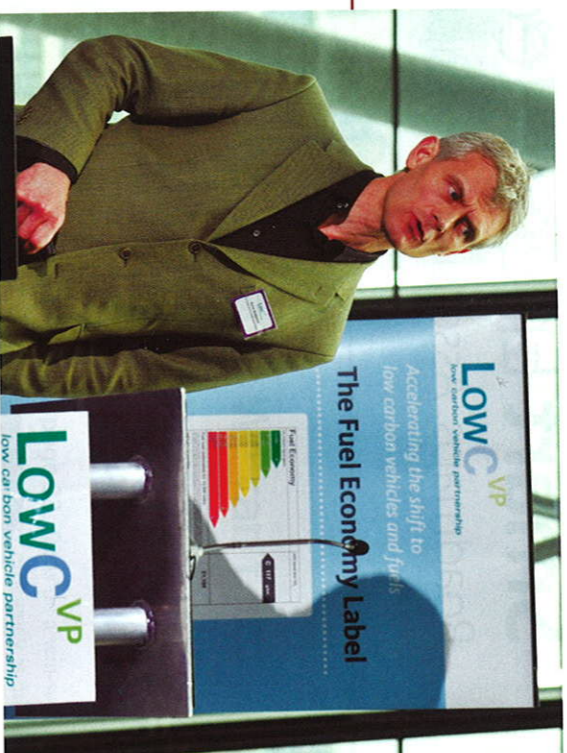


## ► SPECIALREPORT ENERGYTECH

# We can't just pass this on to our children

Messages on the climate change challenge at the Low Carbon Vehicle Partnership conference ranged from the apocalyptic to the practical but parochial. While leading climate scientist Professor Kevin Anderson warned of environmental devastation and mass extinctions, new Transport Secretary Lord Andrew Adonis unveiled an online carbon guide for van buyers. **Alison Thomas reports**



**ANDERSON:** "Long-term reductions are popular because we don't have to change our lives, but they are not related to the science"

**C**urrent targets aiming for an 80 per cent reduction in carbon emissions by 2050 may be challenging – but they are in-adequate. And so far there has been "abject failure" to reduce emissions, says Professor Kevin Anderson.

"Long-term reductions are popular because we don't have to change our lives, but they are not related to the science," Anderson, research director of the Tyndall Centre for Climate Change Research, warned the LowCVP conference.

"What matters are the cumulative emissions that will be there for the next 100 to 200 years. That rewrites the chronology to short-term targets that we have to respond to today."

He called for a moratorium on airport and sea-port expansion until it could be achieved without any net increase in emissions, and a ban on the production of any new cars emitting more than 130g/km of CO<sub>2</sub>, decreasing to 35g/km by 2035, as a "bare minimum".

Anderson described the 80 per cent by 2050 ambition as a "not in my term of office target",

with politicians saying "I will pass this on to my children".

He said the aim of keeping the global mean temperature rise to below 2°C was looking "very challenging", and even that would lead to the destruction of most of the world's coral reefs, a billion people threatened by water shortages or coastal flooding and the extinction of 30 per cent of Earth's species.

Even using the most optimistic estimates on halting deforestation and getting to grips with emissions from food production, achieving the 2°C goal would require cutting emissions from energy,



**Globally we need economic contraction, the complete opposite of what society has done for the past 200 years**



## Winning projects in the Cut Your Carbon campaign

< **page 31** system as a major step towards becoming an Eco Cathedral and an exemplar site for other historic buildings. It currently uses expensive and inefficient gas heaters, which it is planned to replace with woodchip biomass fuel boilers with under floor pipes and hot air vents to enable continuous background heating.

- Holt Area Partnership, a group of villages in North Norfolk, awarded up to £50,000 to fund a pilot project to change existing street lights to solar-powered alternatives using motion sensors.
- Brickendon Liberty, a Hertfordshire village, received £6,000 towards energy monitors

for everyone taking part in its new "Watt Watchers" scheme, which mimics a typical slimming club and invites villagers to attend meetings, clutching their electricity bills, to compare readings.

- Three Villages Eco Group, Hertfordshire, awarded up to £10,000 to purchase thermal imaging cameras to map the energy loss of all buildings within the project area, and to provide support to the occupants to improve energy efficiency.
- Swavesey Community Energy Explorers, South Cambridgeshire, awarded up to £17,000 to use heat and electricity monitors to make energy visible to homeowners. The

supplier chosen by the community, GEO, has been supported by EEDA proof of concept and R&D grants previously.

- Fitton and Greenfield Carbon Challenge Group, Bedfordshire, received £26,520 for a school solar energy project.
- Othona, a community in Essex promoting sustainable living and renewable technologies, awarded up to £103,000 towards providing a zero-carbon replacement for a building used as a meeting place and dormitory by hundreds of schoolchildren and visitors every year. The new building will have very high thermal mass and use glass to maximise passive solar gain.

## ► SPECIALREPORT ENERGYTECH

# Revolution starts here says Boris

**W**e are standing on the edge of a transport revolution – and London is set to lead the way in new technology and changing motoring habits, says city mayor Boris Johnson.

Electric vehicles are on the verge of becoming a serious option in the mass market, Johnson told the LowCVP conference, and government must encourage them and help shape the new market.

“The urban environment of London is the ideal place to begin that transport revolution,” Johnson said. “Even if there are still difficulties with the range of electric vehicles, 95 per cent of journeys in London are less than 75km and most journeys in outer London are less than 2km – and it’s absolutely shameful that most people spend that time in their car at all.

“By the time the revolution is in full swing in less than five years time, Jeremy Clarkson will come under overwhelming pressure to rename his programme Top Plug.”

Johnson said cutting vehicle CO<sub>2</sub> emissions would take London a “considerable” way to meeting its target of a 60 per cent reduction in emissions by 2025, as well making a “fantastic” difference to the city’s poor air quality.

Even using power from existing, non-renewable sources for electric vehicles would mean an overall cut in emissions.

There was scope for London to catch up and outpace



**REVOLUTION:** London mayor Boris Johnson inspects the new electric version of the Mini

developments in other major cities, such as Seoul, where buses and taxis now ran on LPG, and Beijing, which had a fleet of 1,000 electric buses.

The London electric vehicle partnership aimed to have at least 25,000 charging points available by 2015, while alterations to the London Plan would require charging points to be provided in all new housing developments.

“We are on the edge of an amazing and life-improving technical revolution,” Johnson told the conference. “The prize is colossal: saving money for consumers, creating jobs and above all, and not wholly irrelevantly, playing our part in saving the planet.”

## Private sector must take the lead – Adonis

A partnership approach – with the private sector in the lead – will be needed to encourage a switch to low-carbon transport, according to the new Transport Secretary.

The government will have a “pump-priming” role of targeted intervention to facilitate low-carbon infrastructure, Lord Andrew Adonis told the LowCVP conference.

“Currently there are around 26 million cars on this country’s roads and less than 0.1 per cent of them are electric,” Lord Adonis said.

“One way of encouraging motorists to switch from the pump to the plug is to put in place the initial infrastructure needed to make ultra-low-carbon vehicles a real option for consumers. There is clearly a role for government in this area, but I don’t believe that means we should be rushing headlong into assuming the installation of charging infrastructure should always be led by government.



**ADONIS:** “Finding ways to cut vehicle emissions is not an optional extra – it’s an absolute necessity”

“Ultimately it is for the private sector to take the lead in improving, providing and upgrading the necessary infrastructure.”

The partnership approach also meant a “joined-up focus” across the public and private sectors on the low-carbon cause, with politicians providing support and giving a lead at the national, regional and local level, and government working with the motor industry and infrastructure providers to speed the switch to low-carbon vehicles.

The government was playing its

part with initiatives to boost research and development, such as a £120m innovation fund, and there were “exciting signs” of UK businesses coming to the forefront of research efforts.

There would be cash incentives to help motorists buy electric or plug-in hybrid cars, plans to extend the new car fuel economy label to used cars, and a new database of van and commercial vehicle CO<sub>2</sub> emissions on the Business Link website to assist greener procurement choices. Lord Adonis said climate change was the “defining issue of the age”.

“Finding ways to cut vehicle emissions is not an optional extra – it’s an absolute necessity,” he told the conference. “But this is also a great opportunity. Our automotive industry is one of the strongest and most modern in the world. It is well up to the challenge of leading the development of next-generation technology and manufacture.”

## We can’t just pass this on to our children

< **page 33** focus on a win-win through energy efficiency is misplaced – there will be pain and loss.

“We are not prepared to think about these numbers – we always tweak them to something we find convenient.”

David Ward, director general of the FIA Foundation for the automobile and society, said there was a failure to treat transport emissions as a global issue and engage with countries such as China, Brazil and India.

“The biggest increase in car use is coming in non-OECD countries, which have been absent from the policy agenda around these issues,” Ward said.

“We have to face the fact that whatever we do in this country, if we ignore developments in non-OECD countries we fail. It is not realism to say to China or India: ‘don’t do this, it’s all a big mistake’. We have got to approach this in a much more globally coherent way and set standards on low-carbon vehicles for all parts of world.”

Tim Smit, founder of the Eden Project, told the conference that real innovation, genuinely lateral thinking and political commitment could rise to the climate change challenge.

“We are a clever species and if we can’t manage to cut emissions by 80 per cent by 2050 we don’t deserve to call ourselves homo sapiens,” Smit said. “Every previous civilisation has brought itself to its knees by a mixture of male vanity and environmental degradation. But we have the technology and the thinking power to be able to redeem ourselves. We have to make the decisions or be prepared to fry along with everyone else.”