



Cynulliad National
Cenedlaethol Assembly for
Cymru Wales

Carbon Reduction by Transport in Wales

2nd Report of the Sustainability Committee's Inquiry into Carbon Reduction in Wales

March 2008

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Chair's introduction

People in Wales, throughout the UK, and beyond, are beginning to realise how important it is to tackle climate change and the role that they as individuals can play in helping to achieve this. Governments across the western world are also demonstrating their commitment to reducing carbon emissions from all sectors, by introducing "green" policies. Indeed, the UK Government is in many respects leading the way in introducing the first piece of legislation in the world to lay legally binding targets for reducing greenhouse gas emissions.

The Welsh Assembly Government has also given a commitment within the One Wales document to reduce carbon emissions in those areas over which it has powers.

Against this background, the Committee agreed as our first priority to examine how Wales is performing in reducing its carbon emissions within the context of our national and international targets. We agreed to split the inquiry into a series of sub-topics, such as transport, planning and land-use, to focus our evidence sessions.

In this, the second report into carbon reduction in Wales, we look at transport emissions. We received written evidence from a wide range of organisations and took oral evidence from organisations representing transport providers, passenger transport, sustainable and integrated transport, and local authority officers. We also received evidence on examples of good practice and from an academic perspective. (See pages 26 and 27 for organisations involved)

We are confident that the evidence we have gathered from this broad variety of perspectives has provided us with robust information on which to base our recommendations. Although our recommendations are primarily aimed at the Welsh Assembly Government, we hope that you, as individuals, can use them as food for thought in your own efforts to reduce carbon emissions, whether it be opting for more sustainable modes of transport or by eco-driving.

This report will form part of our final report, to be published towards the end of 2008. As always, we welcome your thoughts and comments on this report, which we would like to publish on our website for others to read. Comments can be sent to us at Sustainability.comm@Wales.gsi.gov.uk or:

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Further information about how to contribute to our written consultations on future topics can be found on our website at:
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Chapter 1 – Introduction

1.1 The Department for Transport suggests that transport contributes to around 15 per cent of global CO₂ emissions and 23 per cent (by source) of UK domestic emissions. Road transport accounts for around 93 per cent of all CO₂ emissions from domestic transport. (*Towards a Sustainable Transport System: Supporting Economic Growth in a Low Carbon World*, October 2007)

1.2 According to DEFRA's *Key Facts About: Global Atmosphere* (October 2004), transport is the most rapidly growing source of emissions and is the only sector in which emissions have been rising consistently since 1990. The House of Commons Environmental Audit Committee in its report, *Reducing Carbon Emissions from Transport* (July 2006), concluded that, unless action is taken, emissions in the sector are projected to continue rising.

1.3 The Stern Review argued that transport is one of the more expensive sectors from which to cut emissions, because the low carbon technologies tend to be expensive and the welfare costs of reducing demand for travel are high. **Transport will be among the last sectors to bring its emissions down below current levels.** (*Stern Review Report on the Economics of Climate Change*, October 2006)

1.4 According to the *Eddington Review of transport's role in sustaining the UK's productivity and competitiveness* (December 2006), transport pricing should better reflect the carbon impacts of travel. The House of Commons Environmental Audit Committee has suggested that higher carbon modes of transport, such as air and motoring, have become relatively cheaper than lower carbon modes, such as bus and rail. (*Reducing Carbon Emissions from Transport*, August 2006)

1.5 The Commission for Integrated Transport in *Transport and Climate Change: Advice to Government* (2007) provides options to cut transport emissions, which involve addressing one or more of the following:

- Reducing the demand for movement (including raising public awareness, using the planning system to reduce the need for travel, traffic demand management schemes such as road-pricing, and encouraging the use of ICT facilities such as video-conferencing);
- Changing the choice of transport mode (including substituting road transport with other modes such as rail freight, improving the railway system and bus transport, promoting behavioural change through smarter choices, encouraging the use of demand responsive transport, walking and cycling);
- The technical efficiency of vehicles (including increasing the tax on some fuels, varying Vehicle Excise Duty to reflect fuel efficiency, reducing emissions from new cars) – largely determined by the UK Government and the EU;

- The carbon content of the fuels used to power them (including increasing the proportion of fuel from renewable and non-fossil sources) – determined by the EU; and
- The efficiency of vehicle use (including reducing national speed limits and encouraging road safety measures and eco-driving) – mostly determined by the UK Government.

1.6 Of the five options listed above, the Welsh Assembly Government has most responsibility and scope for influence over the first two, i.e. the demand for movement and the choice of transport mode.

Road transport

1.7 *Regional and local transport consumption statistics* show that road transport accounts for approximately 16 per cent of the total carbon dioxide emissions in Wales. Passenger cars are estimated to account for more than 60 per cent of the carbon emitted by transport activities. (*Department for Business, Enterprise and Regulatory Reform, 2002*) The Department for Transport's *National Travel Survey 2005* shows that the average distance travelled by car increased by around three per cent between 1995-1997 and 2005. Total road traffic was forecast to grow by 17 per cent between 2000 and 2010. (*Department for Environment, Transport and the Regions, Transport Ten Year Plan 2000: Background Analysis, July 2000*)

Air travel

1.8 In the aforementioned report, the Environmental Audit Committee suggest that air transport is undergoing the most rapid increase of any transport sector and that, by 2050, aviation will account for at least one quarter of the UK economy's "entire capacity to emit carbon". It is widely recognised that the climate impacts associated with air transport are more severe than those associated with emissions at ground level. (*Growth scenarios for EU and UK aviation: contradictions with climate policy, Tyndall Centre for Climate Change Research, January 2006*)

1.9 Department for Transport figures show that passenger growth at Cardiff International Airport in the ten years to 2002 was 9.8 per cent per annum, greater than the UK regional average. (*The Future of Air Transport: Key Facts – Wales, December 2003*)

1.10 It is widely accepted that **demand management** is currently the only realistic means of limiting the carbon dioxide emissions from air transport, principally through price signals – determined by the UK Government. Evidence from Brons M et al 2002, published in the *Journal of Air Transport Management* 8, indicates that price affects the demand for flying, in particular for non-business trips. (*Price elasticities of demand for passenger air travel: a meta-analysis, 2002*)

Wales Transport Strategy

1.11 The Welsh Assembly Government is required, under the Transport (Wales) Act 2006, to promote safe, integrated, **sustainable**, efficient and economic transport. The Act also places a requirement on the Welsh Assembly Government to publish a Wales Transport Strategy.

1.12 *Connecting Wales*, a draft Wales Transport Strategy, was published in July 2006, containing the theme “to minimise the need to travel” and suggests land-use planning, use of technology, managing demand and raising awareness, as possible methods to achieve this. *Connecting Wales* also includes a theme of achieving greater use of sustainable and healthy modes of travel, highlighting a reduction in single-occupancy car use and “smarter choices” as possible ways in which to do so.

1.13 The final Wales Transport Strategy is due to be published in Spring 2008, to be followed by a National Transport Plan. Each of the four regional transport consortia is also preparing a Regional Transport Plan and these are due to be completed in 2009.

Chapter 2 Key issues and recommendations

“We will aim to achieve annual carbon reduction-equivalent emissions reductions of 3% per year by 2011 in areas of devolved competence. We will set out specific sectoral targets in relation to residential, public and transport areas. “

One Wales - A progressive agenda for the government of Wales – Labour and Plaid Cymru Groups in the National Assembly, June 2007

2.1 The Committee welcomes the coalition government’s commitment to carbon reduction contained within the *One Wales* document and fully supports it in its efforts to achieve this.

2.2 On the basis of evidence gathered from a wide range of organisations during this inquiry, the Committee is concerned that the Welsh Assembly Government’s commitment is not sufficiently reflected within its current transport policies to enable the 3 per cent target to be achieved.

2.3 Whilst the transport sector is an area in which the Welsh Assembly Government does not have wide ranging powers to influence carbon reduction, the Committee believes that a significant impact on the 3% target can be made through changing the focus of its transport policies, changing behaviours, and improving public transport.

2.4 In this chapter, the Committee outlines four ‘headline’ recommendations that it believes will be key to achieving significant reductions in carbon emissions by transport. For each of the headline recommendations, the Committee has attempted to provide the potential savings in carbon dioxide emissions from transport that could be achieved if they were to be adopted by the Welsh Assembly Government. The calculations and assumptions used to arrive at the potential savings are provided at Annex D.

2.5 Other recommendations follow in later chapters of this report.

Government policy

2.6 The majority of witnesses claimed that carbon reduction must be a high priority on the transport agenda. According to the Commission for Integrated Transport, carbon reduction is currently a secondary consideration (Sustainability Committee, 22 November 2007). The evidence gathered by the Committee also suggested that the Welsh Assembly Government must take a much stronger lead in tackling carbon emissions by transport in Wales. Cardiff City Council and the South East Wales Transport Alliance (SEWTA) claimed that the Wales Transport Strategy was full of well-meaning statements to reduce carbon emissions, but was very short on details to turn this into reality. (Cardiff City Council written evidence SC(3) CR-T3; SEWTA written evidence SC(3)-T11)

2.7 There was also concern among respondents that the delay in publication of the Wales Transport Strategy and the National Transport Plan was having a knock-on effect on the Regional Transport Plans.

2.8 The Committee received conflicting evidence from some witnesses and the Deputy First Minister and Minister for Economy and Transport as to the exact proportion of transport funding currently being allocated to sustainable transport. The Association of Transport Co-ordinating Officers (ATCO) and the Welsh Local Government Association (WLGA) suggested that less than one third of transport funding was being spent on sustainable transport, as compared to 70 per cent in Scotland (ATCO, Sustainability Committee 29 November 2007, WLGA, written evidence SC(3) CR-T16). The Deputy First Minister and Minister for Economy and Transport stated in his oral evidence to the Committee that “the current proportion is 50:50 between public transport and roads” and that this split is likely to continue for the next 3 years. (Sustainability Committee, 24 January 2008).

2.9 The Committee is concerned that insufficient emphasis is being placed on carbon reduction within the Welsh Assembly Government’s transport policies, and in particular that too much investment is targeted at road-building and too little at sustainable transport, walking and cycling. The Committee is also concerned about the apparent lack of urgency in completing the Wales Transport Strategy and the National Transport Plan.

Headline Recommendation 1: The Committee recommends that the Welsh Assembly Government takes a much stronger lead by placing carbon reduction at the heart of the Wales Transport Strategy and by increasing funding for sustainable transport from around 50 per cent to around 70 per cent of the transport budget, in line with Scotland.

The Committee estimates that implementation of Headline Recommendation 1 could, from 2009 onwards, achieve a potential annual saving of carbon dioxide emissions of between 36,000 and 72,000 tonnes.

2.10 The Committee heard evidence from Friends of the Earth (FoE) and the Association of Transport Co-ordinating Officers that Regional Transport Plans must include commitments to real action on cutting carbon emissions (FoE, written evidence SC(3) CR-T7). Other respondents to the inquiry suggested that, at present, draft Regional Transport Plans concentrate too heavily on economic development with insufficient reference to sustainability.

2.11 Concerns were also expressed that a reduction in funding for the four Regional Transport Consortia had contributed to the delay in production of the Regional Transport Plans and could compromise their ability to deliver the plans. The County Surveyors’ Society Wales (CSS Wales) specifically expressed concerns about the current arrangements for local authority funding of public transport initiatives and claimed that there were better ways of funding transport in the future through the Regional Transport Consortia (CSS Wales, Sustainability Committee, 29 November 2007).

2.12 The Committee is disappointed that there would appear to be too much emphasis on economic development within the draft Regional Transport Plans at the expense of carbon reduction priorities and is concerned that the funding allocated to the Regional Transport Consortia might not be sufficient to ensure their effective implementation.

Headline Recommendation 2: The Committee recommends that the Welsh Assembly Government ensures that the National Transport Plan and Regional Transport Plans include specific and measurable objectives to cut carbon emissions and that sufficient funding is provided to the Regional Transport Consortia to be able to deliver these objectives.

The Committee estimates that implementation of Headline Recommendation 2 could, from 2009 onwards, achieve a potential annual saving of carbon dioxide emissions of 231,000 tonnes.

2.13 The Committee heard evidence from the County Surveyors' Society Wales that carbon reduction was too far down the list of priorities in the Welsh Transport Appraisal Guidance (WelTAG), the Welsh Assembly Government's transport investment appraisal technique. It was, however, reassured that the technique provided an initial safeguard that could be developed further.

2.14 SEWTA suggested that if investment in transport was to reduce carbon emissions, then carbon reduction must be moved up the list of priorities, as it is currently stalled on the starting grid (SEWTA, written evidence, SC(3) CR-T11). Sustrans argued that the WelTAG favoured large expensive schemes in excess of £5 million that very often increase carbon emissions (Sustainability Committee 22 November 2007 SC(3)-10-07 Paper 4).

2.15 Whilst the Committee recognises that the WelTAG provides an important mechanism by which the carbon impact of potential projects can be assessed, it is deeply concerned as to the priority to which carbon reduction is given within WelTAG.

Headline Recommendation 3: The Committee therefore recommends that the Welsh Assembly Government reviews the use of WelTAG as a matter of urgency to ensure that carbon reduction is the main objective when assessing projects.

The Committee believes that implementation of Headline Recommendation 3 will contribute towards achieving the savings that could be delivered through Headline Recommendation 2.

Changing Behaviours

2.16 The majority of witnesses suggested that the marketing of “smarter choices” is one of the keys to changing behaviour. Sustrans claimed that more information on existing alternatives to the private car can lead to reductions in car use of up to 12 per cent. The Association of Transport Co-ordinating Officers suggested that for 40 per cent of journeys, a good “smart” alternative already exists and that all that is required is smart marketing tailored to suit the needs of individuals.

2.17 The Committee is concerned at the Minister’s admission that there are currently only five travel co-ordinators in Wales charged with providing tailored information to individuals on existing alternatives to the private car. The Committee notes Sustrans’ proposal that for £15 million, which it claimed is less than the cost of building half a mile of motorway; its *TravelSmart* behavioural change programme could be rolled-out across large towns and cities in Wales and could achieve a 1 per cent reduction of 81,000 tonnes in carbon dioxide emissions per annum from all transport.

Headline Recommendation 4: The Committee recommends that the Welsh Assembly Government conducts a pilot scheme in Wales based on the Sustrans’ *TravelSmart* programme to assess its impact, before considering its roll-out across Wales.

The Committee estimates that implementation of Headline Recommendation 4 could achieve a potential annual saving of carbon dioxide emissions of 81,000 tonnes.

Chapter 3: Government policy

“Policies need to become more inspirational and solutions-based.”

Friends of the Earth, written evidence, SC(3) CR-T7

“We cannot build our way out of traffic and transportation problems.”

County Surveyors’ Society Wales, Sustainability Committee, 29 November 2007

3.1 Most respondents claimed that there was a conflict in the Welsh Assembly Government’s transport and carbon reduction policies, where sustainability competes with economic development. Wales Environment Link (WEL) highlighted, in particular, increased funding for the road network and subsidies for national and domestic air links as contradictory to policies on reducing carbon emissions (WEL, written evidence, SC(3) CR-T15). Friends of the Earth went one step further in suggesting that current transport policies were encouraging a significant increase in carbon emissions.

3.2 The Committee questions the consistency of Welsh Assembly Government policy in setting targets for the reduction of carbon emissions from transport, whilst continuing to subsidise domestic air travel.

3.3 Witnesses suggested that local authorities must lead by example in providing administration centres and public buildings at locations where sustainable modes of transport can provide mobility and accessibility for workers and visitors. The Commission for Integrated Transport argued that public sector organisations should be given targets in relation to the procurement of efficient cars and Sustrans suggested that they should be given sectoral targets.

3.4 The Association of Transport Co-ordinating Officers believed that local authorities and public bodies should adopt effective travel plans immediately and other respondents went a step further in suggesting that local authorities should be charged with requiring organisations in their area to develop green travel plans.

3.5 The Committee believes that local authorities and public bodies have a responsibility to be exemplars in the development and introduction of ground-breaking policies to support their staff in taking sustainable travel and working options.

Recommendation 5: The Committee recommends that local authorities and public bodies lead by example by providing administration centres and public buildings at locations where there are sustainable modes of transport for workers and visitors.

Recommendation 6: The Committee recommends that the Welsh Assembly Government gives public sector organisations targets in relation to the procurement of efficient motor vehicles and adoption of green travel plans.

3.6 The Wales Transport Research Centre argued that development planning projects, both public and private, must be considered in terms of multi-modal transport implications for passenger and freight. (Wales Transport Research Centre, Sustainability Committee, 22 November 2007). It further suggested that out-of-town commercial, retail and sporting land use must be discouraged, where there was a lack of existing public transport. Better integration of land-use and transport planning was required at a regional and local level.

3.7 The Committee supports the view that better integration of land-use and transport planning is required at a regional and local level to reduce the need to travel and to encourage use of public transport wherever possible.

Recommendation 7: The Committee recommends that the Welsh Assembly Government should urgently revise its statutory planning guidance for local authorities to ensure that proposals for development are not permitted where adequate public transport cannot be provided.

3.8 The South West Wales Integrated Transport Consortium (SWWITCH) suggested that the Welsh Assembly Government must look “beyond the transport box” in terms of carbon reduction to include those who plan for other public services, such as health, social services, housing and education. (SWWITCH, written evidence, SC(3) CR-T12). The decisions made on the location of services and facilities in these portfolios had an enormous potential impact on the demand for transport. Sustrans agreed that more joined-up thinking across government departments in general was needed, and highlighted in particular that walking and cycling directly saved the NHS, and other spending on preventable deaths and illnesses attributed to physical inactivity.

Recommendation 8: The Committee broadly supports this view and recommends that there is more joined-up thinking across departmental portfolios within the Welsh Assembly Government and local authorities to ensure that decisions on the location of services and facilities take into consideration transport implications.

Chapter 4: Changing behaviours

“Environmental concerns alone are not enough of an incentive to change behaviour.”

Netherlands eco-driving project, background paper to Sustainability Committee, 6 December 2007

4.1 The majority of witnesses argued that the promotion of wider travel choices could encourage people to change their behaviour. Sustrans claimed that most car journeys in Wales were local: 60 per cent of car trips were less than five miles and around 25 per cent were less than 2 miles.

4.2 Cardiff City Council suggested that changing behaviours would require improvements to the content, provision, accessibility and promotion of travel information; provision of transport improvements to encourage car-sharing and use of public transport, cycling and walking, promotion of travel planning and sustainable freight travel, reduction in the cost of public transport, and the provision of new roads and improvements to existing roads, where these can provide public transport and congestion benefits.

4.3 The Commission for Integrated Transport, the Energy Saving Trust and Friends of the Earth each claimed that the introduction of an eco-driving scheme could lead to fuel savings of between 5 and 10 per cent (Energy Saving Trust, written evidence, SC(3) CR-T6).

4.4 In the Netherlands, an eco-driving project achieved reductions in fuel use of up to 20 per cent over the last eight years. Evidence from the Netherlands and other countries across Europe showed that, in order to maximise results, marketing and promotion must focus on individual benefits, such as cost reductions, safety and comfort, rather than on environmental aspects.

4.5 The Energy Saving Trust highlighted its role in co-ordinating an eco-driving campaign for the Scottish Government, which had led to a doubling of awareness of eco-driving from 15 per cent to 34 per cent, within its target audience of over 850,000 commuters into Edinburgh and Glasgow.

4.6 The Committee notes the successes of eco-driving schemes in the Netherlands and other countries across Europe and welcomes the UK Government’s commitment to include elements of eco-driving as part of the driving test from this year.

Recommendation 9: The Committee recommends that the Welsh Assembly Government introduces a wide marketing and promotion campaign on the benefits of eco-driving, paying particular attention to cost and safety benefits, rather than environmental aspects.

Recommendation 10: The Committee further recommends that the Welsh Assembly Government introduces a pilot scheme in one local authority area where all public sector employees, for whom driving is part of their job, must undertake an eco-driving course.

4.7 According to SWWITCH, the Sustainable Travel Towns initiative must be a fundamental element of the Wales Transport Strategy, rather than a token gesture. Many witnesses questioned the Welsh Assembly Government's commitment to the project and stressed that, rather than introducing pilot schemes in Wales which had already proved successful in England, there was a need to roll-out the projects across Wales, including in some rural areas.

4.8 According to Sustrans and the Association of Transport Co-ordinating Officers (ATCO), the details and proposed level of funding for the Sustainable Travel Town projects were also required urgently, as there were concerns that the funding would be spread too thinly or would not be "new" money.

4.9 The Committee welcomes the Welsh Assembly Government's announcement of the creation of four Sustainable Travel Towns in Wales, but believes that there is no need for any more pilot projects, as the success of the initiative has already been widely proved in England.

Recommendation 11: The Committee recommends that the Welsh Assembly Government demonstrates its commitment to the Sustainable Travel Towns project by announcing details and levels of funding as a matter of urgency and by rolling-out the project across Wales, including in some rural areas, without any further pilots.

4.10 The Committee heard evidence from the Wales Transport Research Centre and Wales Environment Link that new technology provided a process by which to reduce the need to travel and should thereby assist in changing behaviour. Examples provided included internet shopping, home deliveries, video-conferencing, and home-working, which in itself was particularly effective in reducing traffic congestion at peak times.

4.11 The Committee believes that opportunities provided through new technology, such as home-working and video-conferencing, should be encouraged more widely and suggests that the Welsh Assembly Government, local authorities and other public bodies have a role in promoting such opportunities.

Recommendation 12: The Committee therefore recommends that the Welsh Assembly Government, local authorities and other public bodies lead the way in encouraging and incentivising home-working amongst their employees and the use of video-conferencing wherever possible.

Chapter 5: Improving public transport

“The challenge can only be met by investment in developing and promoting real and attractive alternatives to car use.”

Cardiff City Council, written evidence, SC(3) CR-T3

5.1 The Committee heard evidence that changing perceptions of public transport, particularly buses and local trains, was essential in achieving a modal shift from private car use. The Confederation of Passenger Transport Cymru (CPT Cymru) argued that poor perceptions of comfort, punctuality, convenience, safety, and service were currently deterring potential passengers (CPT Cymru, Sustainability Committee, 6 December 2007). According to Sustrans, people also perceived door-to-door journey times by car compared to public transport to be twice as quick as they actually were.

5.2 SEWTA suggested that promoting and publicising public transport in order to change perceptions required significantly increased funding and innovative thinking, for example, offering a free trial to travel on public transport. The Wales Transport Research Centre argued that advertising had a significant effect in lifestyle decisions and highlighted that current annual spend by the UK car industry is £500 million; public transport advertising was nearer £60 million.

5.3 The Committee agrees that perceptions of public transport must be challenged in innovative ways if a modal shift from private cars to sustainable public transport is to be achieved.

Recommendation 13: The Committee recommends that the Welsh Assembly Government provides support and guidance to local authorities on providing incentives to promote and publicise public transport, for example offering a free trial to travel on public transport.

5.4 The majority of witnesses argued that direct government funding to encourage major improvements in public transport product quality would have a greater impact on modal shift than most other means. The Chartered Institute for Logistics Transport (CILT) suggested that it would be more popular than some of the “sticks”, such as road-pricing, which would follow more naturally later, if required (written evidence, SC(3) CR-T4).

5.5 The Committee firmly believes that a real modal shift from private car use to public transport can only be achieved with increased government investment in public transport infrastructure and vehicles, to ensure that individuals experience a comfortable, reliable, punctual, cost-effective and safe journey by public transport, wherever possible.

Recommendation 14: The Committee recommends that the Welsh Assembly Government reviews its planned expenditure on public transport provision and provides direct funding at an early stage to encourage major improvements in the quality of public transport, before other options such as road-pricing can be considered.

5.6 The Confederation of Passenger Transport Cymru argued that the use of statutory Quality Bus Partnerships could drive quality upwards to make bus travel an effective alternative. It further argued that the Welsh Assembly Government could, through local authorities, encourage the use of statutory Quality Bus Partnerships with those bus companies that used environmentally friendly vehicles and that had achieved environmental standards, such as Green Dragon.

5.7 The Committee notes that the Deputy First Minister and Minister for Economy and Transport, in his statement on Welsh provisions in the Local Transport Bill (4 December 2007), suggested that the Bill would make Quality Contract Schemes “a realistic option”.

Recommendation 15: The Committee recommends that once the Local Transport Bill becomes law, the Welsh Assembly Government issues guidance to local authorities to ensure that they use Quality Bus Partnerships and Quality Contract Schemes, to encourage bus operators to give priority to reducing the carbon emissions of their vehicles.

5.8 A number of witnesses suggested that action should be focused on severe localised peak congestion at interchanges along key routes and within urban centres for optimum results in reducing carbon emissions. Both SEWTA and Friends of the Earth argued that it would be easier to cut carbon emissions in south-east Wales, where alternative provision for many journeys only need to be enhanced, than in mid-Wales where other options are more difficult.

5.9 The Association of Transport Co-ordinating Officers and the Wales Transport Research Centre suggested that demand-responsive intelligent transport solutions could enhance low usage public transport in rural areas, especially at off-peak times. Such provision could include higher frequency limited stop buses, community transport operations, car-sharing and taxi-bus schemes.

5.10 The Committee believes that action must be taken throughout Wales in order to efficiently tackle carbon emissions by transport. The Committee agrees that low usage public transport should be supplemented in rural areas, particularly during off-peak times, with demand-responsive intelligent transport solutions.

Recommendation 16: The Committee therefore recommends that the Welsh Assembly Government provides the necessary funding and guidance to local authorities to introduce pilot schemes across rural Wales, such as community buses, car-sharing and taxi-bus schemes.

5.11 Rail capacity must be increased to meet the anticipated growth and demand, according to Network Rail and the Association of Train Operating Companies (Network Rail, written evidence, SC(3) CR-T9). They believe that, whilst there is a continuing need for improvements to infrastructure, such as

new and extended platforms, significant increases in rail rolling stock were also required.

5.12 Network Rail further argued that increased investment in railway infrastructure could contribute to the modal shift required from private cars to public transport. Passenger Focus suggested that investment was needed in areas such as additional services and newer rolling stock that more directly influence passengers' choice of transport mode (Passenger Focus, written evidence, SC(3) CR-T10).

5.13 It was suggested by the Association of Train Operating Companies (ATOC) that there was no prospect of reducing carbon emissions if the low-carbon energy needed to power trains in 20 to 30 years is not there (ATOC, Sustainability Committee, 6 December 2007). This is an issue to which the Committee would like to return at a later stage in the inquiry.

5.14 The Committee agrees that increased investment in infrastructure and rolling stock is needed to meet the anticipated growth in passenger numbers and to encourage the transfer of freight from road to rail. However, the Committee suggests that this needs to be managed carefully to avoid the potential for conflict between the increased use of the railways for passengers and for freight.

Recommendation 17: The Committee therefore recommends that the Welsh Assembly Government provides significant investment in new and extended platforms, in rolling stock, and in ensuring that the infrastructure can also support the expected growth in passenger numbers and the increasing transfer of freight from road to rail.

5.15 Network Rail was keen to see closer collaborations between the rail industry and Welsh Transport authorities over the development of transport policies to reduce carbon emissions. In particular, Network Rail suggested that the Route Utilisation Strategy, which informs the development and delivery of timetables, infrastructure maintenance and renewals for the network, must be developed through a partnership of the rail industry and Welsh transport authorities.

5.16 The Committee believes that the uptake of rail transport can only be increased by improved timetabling of passenger journeys and reduced journey times, wherever possible.

Recommendation 18: The Committee recommends that the Welsh Assembly Government works closely with Network Rail and the train operating companies to enhance timetabling for rail passengers and to reduce journey times to allow more flexibility and encourage uptake.

5.17 A number of witnesses suggested that enhanced bus and rail co-ordination, including introducing and marketing integrated ticketing to improve

connections, particularly in towns and villages, could make public transport a more viable option.

5.18 The Association of Transport Co-ordinating Officers (ATCO) suggested that there was a lack of awareness of existing products that needed to be addressed. The Confederation of Passenger Transport Cymru in particular argued that integrated ticketing initiatives, such as the PlusBus scheme, already existed, but that they had not been marketed. However, ATCO argued that the PlusBus scheme had been promoted extensively over the past eight years, but the numbers using the scheme were still quite small.

5.19 The Committee believes that integrated ticketing across bus and rail journeys, if timetabling and connection times are co-ordinated effectively, can play an important role in encouraging both commuters and tourists to switch to public transport.

Recommendation 19: The Committee recommends that the Welsh Assembly Government works closely with local authorities and transport providers to promote integrated ticketing for existing travel options across bus and rail journeys, whilst ensuring co-ordination of timetables and minimising connection waiting times.

5.20 The Confederation of Passenger Transport Cymru suggested that political will and leadership from local authorities was required to enable the implementation of necessary measures, such as bus lanes and park and ride facilities.

5.21 The Wales Transport Research Centre argued that there was a need for investment in more long-distance commuter bus lanes and safe and convenient park-and-ride schemes. The Confederation of Passenger Transport Cymru claimed that improving reliability and making bus transport an effective alternative required investment in bus lanes, bus priority at junctions, and park-and-ride facilities.

5.22 The Committee believes that the Welsh Assembly Government has a role in influencing local authorities to implement and promote bus lanes and park-and-ride facilities where they would make a significant impact on tackling carbon emissions in urban areas.

Recommendation 20: The Committee recommends that the Welsh Assembly Government encourages local authorities to show leadership in the implementation and promotion of bus lanes and safe and convenient park and ride facilities.

5.23 The Institute of Advanced Motorists and the Energy Saving Trust suggested that Green Fleet Reviews should be introduced in Wales (Institute of Advanced Motorists, written evidence, SC(3) CR-T8; Energy Saving Trust, written evidence, SC(3) CR-T6). Green Fleet Reviews are currently being funded by the Department for Transport in England and the Scottish Government in Scotland and provide organisations with tailored fleet

management advice to help lower running costs, to reduce environmental impact and to enhance corporate social responsibility.

5.22 The Committee notes the work of the Green Fleet Reviews in England and Scotland in providing organisations with tailored advice in relation to reducing their environmental impact and running costs.

Recommendation 21: The Committee recommends that the Welsh Assembly Government considers introducing Green Fleet Reviews in Wales.

Chapter 6: Road-pricing

“Preparing people through promoting behavioural change will make them more receptive to initiatives for sustainable transport and road-pricing in the longer term”.

Cardiff City Council, written evidence, SC(3) CR-T3

6.1 The Committee heard evidence to suggest that UK-wide road-pricing with local implementation was required. SEWTA argued that road-pricing could make a substantial difference, whether it was operated nationally or just within cities and on the motorways. Road-pricing would not necessarily be applicable to the whole of Wales.

Recommendation 22: The Committee recommends that any future non-local road-pricing scheme should be integrated across the United Kingdom, but with regional and local flexibility as to how it is applied.

6.2 According to the Association of Transport Co-ordinating Officers, road-pricing should only be supported if it funded passenger transport improvements. SEWTA suggested that road-pricing was a source of funds which should be returned to users of the transport system by way of capital investment in public transport and in the highway system, improved highway maintenance, increased support of public transport services, support for travel plans and soft measures. The Local Transport Bill would make it a requirement for all of these funds to be reinvested in support of local transport policies.

6.3 The Committee agrees that adequate public transport alternatives must be available before the introduction of any local road-pricing schemes can be considered.

Recommendation 23: The Committee therefore recommends that the Welsh Assembly Government does not approve any local road-pricing schemes unless it can be demonstrated that adequate alternative public transport provision is available.

6.4 Road-pricing must be connected to the environmental credentials of vehicles and be introduced within the context of a more effective public transport system, stressed the Commission for Integrated Transport. SEWTA also suggested that relating the level of charges to the carbon emissions profile of the vehicle and to the number of passengers, could give clear signals to consumers to switch to more efficient cars or other more sustainable modes of transport. Others suggested that road-pricing must be set at variable rates based on sections of the road, areas and times of day.

6.5 The Committee notes that the Deputy First Minister and Minister for Economy and Transport is currently considering road-pricing on future large infrastructure projects, where there are congestion issues (Statement on Welsh provisions in the Local Transport Bill, 4 December 2007). The Committee stresses that, if significant improvements to congestion and

environmental impacts are to be achieved from any such future road-pricing schemes, they must relate to the environmental performance of vehicles and numbers of passengers.

Recommendation 24: The Committee recommends that any future road-pricing schemes relate to the environmental credentials of vehicles and number of passengers and that adequate support is provided to public transport in order to anticipate increased demand.

Chapter 7: Adequacy of current powers

“A lack of powers must not become an excuse for Wales not to reduce CO₂ emissions”.

Wales Environment Link, written evidence, SC(3) CR-T15

7.1 The Committee was interested to hear from respondents and witnesses as to whether they believed the Welsh Assembly Government needed any further powers in order to effectively address the problem of carbon dioxide emissions from vehicles.

7.2 An overwhelming majority of respondents and witnesses argued that the Welsh Assembly Government already had the powers it needed to have a considerable impact on tackling carbon emissions by transport, but that they needed to be used more effectively. The Confederation of Passenger Transport Cymru argued that the Welsh Assembly Government and local government lacked the resources and political will to introduce and enforce key measures, although the necessary powers were available to them.

7.3 Wales Environment Link argued that joint working with the UK Government in non-devolved areas in relation to carbon reduction by transport should urgently be sought and reported on by the Welsh Assembly Government.

7.4 The Association of Transport Co-ordinating Officers suggested that increased funding for and improvements in the marketing of sustainable transport alternatives were key ways in which the Welsh Assembly Government and local authorities could achieve results within their existing powers. It did, however, recognise the difficulty for local authorities to increase spending in this area against a background of spending pressures.

7.5 The Chartered Institute of Logistics and Transport (UK) Wales Region recognised that there was a constraint as to the amount of action that the Welsh Assembly Government could take, due to the fact that it did not have control over all transport policy decisions.

7.6 On the basis of the evidence gathered, the Committee firmly believes that the Welsh Assembly Government can, within its current powers, make a significant contribution to tackling carbon emissions by transport and that the recommendations contained within this report provide an effective action plan to achieve this.

7.7 The Committee further believes that the Welsh Assembly Government can have influence in those areas of transport policy that are not devolved, through close discussions with the UK Government and its departments to drive forward change.

Recommendation 25: The Committee recommends that the Welsh Assembly Government works closely with the UK Government to explore taking forward action in the non-devolved areas of transport,

such as the technical efficiency of vehicles, carbon content of fuels and reduced speed limits.

7.8 According to the Association of Transport Co-ordinating Officers (ATCO), the Local Transport Bill would give Welsh Ministers and local authorities more control over the provision of bus services through the use of quality partnerships and quality contracts. However, ATCO suggested that the Welsh Assembly Government needed more powers to integrate and co-ordinate bus services. Wales Transport Research Centre argued that the full franchising of local bus services was necessary to deliver fully integrated transport, but the Local Transport Bill does not go this far.

7.9 According to Sustrans, a duty should be placed on the Welsh Assembly Government to develop and maintain a network of traffic free shared-use paths across Wales. It further claimed that a current lack of funding for maintenance was proving to be a disincentive for local authorities to build paths for walking and cycling. Sustrans proposed the introduction of a Walking and Cycling Paths Legislative Competence Order to address this anomaly.

7.10 The Committee believes that Sustrans' proposal for the introduction of a Walking and Cycling Paths Legislative Competence Order has merits and suggests that the proposal should be considered in more detail by the Welsh Assembly Government.

Recommendation 26: The Committee recommends that the Welsh Assembly Government considers fully the proposal by Sustrans to introduce a Walking and Cycling Paths Legislative Competence Order, with a view to placing a duty on the Welsh Assembly Government to develop and maintain a network of traffic-free shared-use paths across Wales.

7.11 The Committee believes that the recommendations contained within this report provide an effective action plan for the Welsh Assembly Government to make a significant impact on reducing carbon emissions by transport. The Committee intends to monitor the impact of implementation of the recommendations and would therefore wish to receive regular updates from the Welsh Assembly Government on progress.

Recommendation 27: The Committee recommends that the Welsh Assembly Government reports to the Committee every six months on its progress in implementing the recommendations from this report that it accepts.

Annex A: Summary of recommendations

Headline recommendations:

Headline Recommendation 1: The Committee recommends that the Welsh Assembly Government takes a much stronger lead by placing carbon reduction at the heart of the Wales Transport Strategy and by increasing funding for sustainable transport from around 50 per cent to around 70 per cent of the transport budget, in line with Scotland.

Headline Recommendation 2: The Committee recommends that the Welsh Assembly Government ensures that the National Transport Plan and Regional Transport Plans include specific and measurable objectives to cut carbon emissions and that sufficient funding is provided to the Regional Transport Consortia to be able to deliver these objectives.

Headline Recommendation 3: The Committee recommends that the Welsh Assembly Government reviews the use of WelTAG as a matter of urgency to ensure that carbon reduction is the main objective when assessing projects.

Headline Recommendation 4: The Committee recommends that the Welsh Assembly Government conducts a pilot scheme in Wales based on the Sustrans' *TravelSmart* programme to assess its impact, before considering its roll-out across Wales.

Other recommendations:

Recommendation 5: The Committee recommends that local authorities and public bodies lead by example by providing administration centres and public buildings at locations where there are sustainable modes of transport for workers and visitors.

Recommendation 6: The Committee recommends that the Welsh Assembly Government gives public sector organisations targets in relation to the procurement of efficient motor vehicles and adoption of green travel plans.

Recommendation 7: The Committee recommends that the Welsh Assembly Government should urgently revise its statutory planning guidance for local authorities to ensure that proposals for development are not permitted where adequate public transport cannot be provided.

Recommendation 8: The Committee broadly supports this view and recommends that there is more joined-up thinking across departmental portfolios within the Welsh Assembly Government and local authorities to ensure that decisions on the location of services and facilities take into consideration transport implications.

Recommendation 9: The Committee recommends that the Welsh Assembly Government introduces a wide marketing and promotion campaign on the benefits of eco-driving, paying particular attention to cost and safety benefits, rather than environmental aspects.

Recommendation 10: The Committee further recommends that the Welsh Assembly Government introduces a pilot scheme in one local authority area where all public sector employees, for whom driving is part of their job, must undertake an eco-driving course.

Recommendation 11: The Committee recommends that the Welsh Assembly Government demonstrates its commitment to the Sustainable Travel Towns project by announcing details and levels of funding as a matter of urgency and by rolling-out the project across Wales, including in some rural areas, without further pilots.

Recommendation 12: The Committee recommends that the Welsh Assembly Government, local authorities and other public bodies lead the way in encouraging and incentivising home-working amongst their employees and the use of video-conferencing wherever possible.

Recommendation 13: The Committee recommends that the Welsh Assembly Government provides support and guidance to local authorities on providing incentives to promote and publicise public transport, for example offering a free trial to travel on public transport.

Recommendation 14: The Committee recommends that the Welsh Assembly Government reviews its planned expenditure on public transport provision and provides direct funding at an early stage to encourage major improvements in the quality of public transport, before other options such as road pricing can be considered.

Recommendation 15: The Committee recommends that once the Local Transport Bill becomes law, the Welsh Assembly Government issues guidance to local authorities to ensure that they use Quality Bus Partnerships and Quality Contract Schemes, to encourage bus operators to give priority to reducing the carbon emissions of their vehicles.

Recommendation 16: The Committee recommends that the Welsh Assembly Government provides the necessary funding and guidance to local authorities to introduce pilot schemes across rural Wales, such as community buses, car-sharing and taxi-bus schemes.

Recommendation 17: The Committee recommends that the Welsh Assembly Government provides significant investment in new and extended platforms, in rolling stock and in ensuring that the infrastructure can also support the expected growth in passenger numbers and the increasing transfer of freight from road to rail.

Recommendation 18: The Committee recommends that the Welsh Assembly Government works closely with Network Rail and the train operating companies to enhance timetabling for rail passengers and reduce journey times to allow more flexibility and encourage uptake.

Recommendation 19: The Committee recommends that the Welsh Assembly Government works closely with local authorities and transport providers to promote integrated ticketing for existing travel options across bus and rail journeys, whilst ensuring co-ordination of timetables and minimising connection waiting times.

Recommendation 20: The Committee recommends that the Welsh Assembly Government encourages local authorities to show leadership in the implementation and promotion of bus lanes and safe and convenient park and ride facilities.

Recommendation 21: The Committee recommends that the Welsh Assembly Government considers introducing Green Fleet Reviews in Wales.

Recommendation 22: The Committee recommends that any future non-local road-pricing scheme should be integrated across the United Kingdom, but with regional and local flexibility as to how it is applied.

Recommendation 23: The Committee recommends that the Welsh Assembly Government does not approve any local road-pricing schemes unless it can be demonstrated that adequate alternative public transport provision is available.

Recommendation 24: The Committee recommends that any future road-pricing schemes relate to the environmental credentials of vehicles and number of passengers and that adequate support is provided to public transport in order to anticipate increased demand.

Recommendation 25: The Committee recommends that the Welsh Assembly Government works closely with the UK Government to explore taking forward action in the non-devolved areas of transport, such as the technical efficiency of vehicles, carbon content of fuels and reduced speed limits.

Recommendation 26: The Committee recommends that the Welsh Assembly Government considers fully the proposal by Sustrans to introduce a Walking and Cycling Paths Legislative Competence Order, with a view to placing a duty on the Welsh Assembly Government to develop and maintain a network of traffic-free shared-use paths across Wales.

Recommendation 27: The Committee recommends that the Welsh Assembly Government reports to the Committee every six months on its

progress in implementing those recommendations from this report that it has accepted.

Annex B: List of respondents to written call for evidence

Arriva Trains Wales

Beehive Housing Co-operative

Cardiff City Council

Chartered Institute of Logistics and Transport (UK) Wales Region

Countryside Council for Wales

Energy Saving Trust

Friends of the Earth Cymru

Institute of Advanced Motorists Motoring Trust

Network Rail

Passenger Focus

South East Wales Transport Alliance (Sewta)

South West Wales Integrated Transport Consortium (SWWITCH)

Sundance Renewables (Sustainable Energy Co-operative) Ltd

Sustrans Cymru

Wales Environment Link

Welsh Local Government Association (WLGA)

Annex C: List of witnesses providing oral evidence

Thursday 22 November 2007 [SC\(3\)-10-07 : Transcript](#)

Commission for Integrated Transport

[SC\(3\)-10-07 : Paper 1 : Commission for Integrated Transport Submission \(pdf 82 KB\)](#)

Wales Transport Research Centre

[SC\(3\)-10-07 : Paper 2 : Transport Impacts - Issues and Steps to Deliver:- Briefing Note by Professor Cole, Wales Transport Research Centre.](#)

Sustrans

[SC\(3\)-10-07 : Paper 4 : Sustrans Submission \(pdf 161 KB\)](#)

Thursday 29 November 2007 [SC\(3\)-11-07 : Transcript](#)

County Surveyors' Society Wales

[SC\(3\)-11-07 : Paper 1 : County Surveyors Society Wales - Links to Regional Transport Plans.](#)

Association of Transport Co-ordinating Officers Wales

[SC\(3\)-11-07 : Paper 2 : Association of Transport Co-ordinating Officers' Submission.](#)

Thursday 6 December 2007 [SC\(3\)-12-07 : Transcript](#)

Association of Train Operating Companies

[SC\(3\)-12-07 : Paper 1 : Association of Train Operating Companies \(ATOC\) Submission.](#)

Confederation of Passenger Transport Wales

[SC\(3\)-12-07 : Paper 2 : Confederation of Passenger Transport Wales Submission.](#)

Background paper to the Committee: Eco-driving in the Netherlands

[Briefing paper for the Committee on Eco-driving in the Netherlands](#)

Thursday 24 January 2008 [SC\(3\)-02-08 : Transcript](#)

Deputy First Minister and Minister for Economy and Transport, Ieuan Wyn Jones AM

[SC\(3\)-02-08 : Paper 1 : Paper from the Deputy First Minister on Carbon Reduction by Transport \(pdf 48KB\).](#)

Annex D: CO2 Calculations: transport

Headline recommendation 1: The Committee recommends that the Welsh Assembly Government takes a much stronger lead by placing carbon reduction at the heart of the Wales Transport Strategy and by increasing funding for sustainable transport from around 50 per cent to around 70 per cent of the transport budget, in line with Scotland.

Assumptions:

- The Welsh Assembly Government's transport budget for 2009-2010 and 2010-2011 is adjusted so that an additional 20% of the total transport budget is allocated to promoting smarter choices, public transport, walking and cycling etc.
- Average emissions from car journeys are about 0.2 kgs per kilometre (2.9 tonnes per annum for 14,500 kilometres)
- This additional expenditure could reduce the volume of cars on the roads in Wales by between 180 and 370 million vehicle kilometres per annum (0.8 to 1.7 per cent of 2006 vehicle kilometres by cars in Wales). (Average annual increase over the last five years is 370 million vehicle kilometres, equal to about 1.7 per cent of 2006 vehicle kilometres by cars in Wales)

The Assembly Government's draft budget for 2009-2010 for transport is £867 million (£563 million revenue and £304 million capital). Reallocation of 20% of this budget would therefore mean an additional expenditure of £173 million per annum on sustainable transport.

The number of car journeys per person in Wales has been rising over recent years as has the total of vehicle kilometres by cars. In the short-term this additional expenditure may slow down further increases in emissions from car journeys that would otherwise have occurred. The savings at the top end of the range would only be achieved if the additional expenditure resulted in no further growth in vehicle kilometres by cars.

Annual Savings from 2009 onwards = 36,000 to 72,000 tonnes

Headline recommendation 2: The Committee recommends that the Welsh Assembly Government ensures that the National Transport Plan and Regional Transport Plans include specific and measurable objectives to cut carbon emissions and that sufficient funding is provided to the Regional Transport Consortia to be able to deliver these objectives.

Assumptions:

- National and Regional Transport Plans all set out policies and programmes capable of achieving the target of reducing carbon emissions from transport in Wales by 3% per annum from 2009 onwards
- Current carbon dioxide emissions from road transport in Wales are estimated as 7.2 million tonnes per annum (Source: DEFRA, consumption figures for 2005)
- Carbon dioxide emissions from other transport modes in Wales (excluding international aviation and shipping) are estimated as 0.5 million tonnes (Source: Department for Transport, based on share of GB emissions from road and other transport).

Annual Savings from 2009 onwards = 231,000 tonnes. Savings from recommendation 1 would contribute to this.

Headline recommendation 3: The Committee therefore recommends that the Welsh Assembly Government reviews the use of WelTAG as a matter of urgency to ensure that carbon reduction is the main objective when assessing projects.

This recommendation will contribute towards achieving the savings that should be delivered through recommendation 2.

Headline recommendation 4: The Committee recommends that the Welsh Assembly Government conducts a pilot scheme in Wales based on the Sustrans' *TravelSmart* programme to assess its impact, before considering its roll-out across Wales.

Assumptions:

- The programme in Wales achieves a similar impact to recent large-scale TravelSmart projects in England that have resulted in annual savings in car travel ranging from 740 to 1,400 km per household. Based on the lower figure in this range, and the average CO₂ emissions per km of new cars sold in 2005, Sustrans' Research and Monitoring Unit has estimated that a TravelSmart programme targeting all urban households in England could achieve annual carbon savings of up to 2.2 million tonnes of carbon dioxide.
- TravelSmart programme is delivered to 0.5 million households in Wales living in the largest towns and cities.

Annual Savings = 81,000 tonnes. This could be funded by the additional resources for sustainable transport in recommendation 1.