

putting people first

volatile times

transport, climate change and the price of oil



contents

Introduction	2
1. Why do we need to worry about the end of cheap oil?	4
Peak oil theory	4
Increasing demand at home and abroad	4
Won't price increases reduce demand and bring forward increased supply?	5
What about the credit crunch, isn't that pushing down the price of oil?	6
Who will dearer oil have the most impact on?	6
2. What do local councils need to do?	7
Build people's understanding of the issue:	7
Case Study: The Transition Towns	8
Case Study: Transition Nottingham	8
Promote 'smarter choice' alternatives to car use:	8
Case Study: What are 'smarter choices'?	8
Case study: Smarter Travel Sutton	9
Case Study: Engaging business in Stockport MBC	10
Green their transport fleets and lead by example	10
Case Study: Sandwell BC, Cutting Fuel Bills and CO ₂	10
Case Study: Fuel Consumption and CO ₂ Information	11
Case Study: Broadmead Freight Consolidation Scheme, Bristol	12
Case Study: Greening Gateshead's fleet	13
Use the planning system to reduce the need to travel	14
National planning guidance encourages development that reduces the need to travel by private car	14
The vital role of partnerships in developing co-ordinated approaches to reducing fuel usage	14
Case Study: Oil Independence in Oakland, California	15
3. What does central government need to do to help local councils?	16
Change the system of transport funding to promote 'smarter choices'	16
Change the system for appraising transport projects	16
Give councils the powers to rapidly improve bus services	16
Case Study: Making Sweden an oil-free economy	17
Reform the current system of bus subsidies	18
footnotes	19

introduction

What the LGA Climate Change Commission said:

- the supply of fossil fuels is limited and energy demand worldwide continues to increase, with demand expected to be 50 per cent higher in 2030 than today
- the analysis varies but some commentators say that global oil production has already peaked – the German-based Energy Watch Group predicts that production will fall by seven per cent a year from now on. Others say that it will peak in the next 10 years

The world's energy comes from a variety of sources, but the single biggest source (37 per cent of the total) is oil.¹ In recent times, a key characteristic of the world energy markets has been the high volatility of oil prices. At the start of July 2007, crude oil was trading at just over \$71 a barrel² with unleaded petrol and diesel costing 97 pence per litre (ppl). In January 2008, US crude broke the \$100 barrier for the first time and by July 2008 had peaked to around \$146 a barrel with petrol cost 119 ppl and diesel 133 ppl³. Prices have recently come back down closer to the \$50 level against a background of slowing global economic growth, but prices remain extremely volatile by historic standards.

So was the high peak in prices a temporary blip? Or do we need to prepare for an era of higher oil and energy prices? Perhaps more importantly, how do we frame this trend against one of the most significant challenges we face – climate change?

In the future all sectors of the economy are likely to be affected to some extent by the end of the era of cheap oil. But the effect on the transport sector will be greatest because it is so heavily reliant on liquid fuels. This report therefore will have a particular focus on transport and oil price uncertainty.

The first section of this report looks at the evidence and concludes that increasing demand, particularly from developing economies, combined with a declining supply of easy and cheap oil is likely to mean greater price uncertainty in the long term.



The second section makes recommendations to local authorities about practical steps they can take to help households and businesses adapt. It also offers some practical examples of action being taken now by local authorities and communities to prepare for challenges of diminishing energy supplies and climate change.

The third section suggests what central government needs to do to help local councils.

It is our hope that this report will be of use to all local authorities in demonstrating leadership and stimulating innovations on this most vital of issues. This information will be applicable to all member and officer communities not just those focused on environment issues.

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1. Why do we need to worry about the end of cheap oil?

“On a global basis, the transport sector will account for 74 per cent of the total projected increase in liquid fuel use from 2005 to 2030, because liquid fuels [which include ethanol, biodiesel and liquid fuel derived from coal], cannot easily be substituted for transport uses.”

US Energy Information Administration, 2008

Peak oil theory

Some commentators believe that we have reached, or will soon reach the point of peak oil, when global oil production reaches its maximum level and goes into decline. As the earlier quotation from the LGA Climate Change Commission indicates, estimates vary about when peak oil will be reached⁴, but over 60 of the world's 98 oil producing countries have 'peaked' in terms of oil production and another 14 could peak within the next decade.⁵

Peak oil theory would suggest that oil prices will continue to rise, with recent estimates of an average of US\$150 a barrel by 2010 and over US\$200 a barrel by 2012⁶. The theory is controversial, but regardless of the arguments, all will agree that oil is a finite resource and will become a declining resource at some point.⁷

Increasing demand at home and abroad

Whether or not peak oil has been reached, at home increasing demand for car travel and freight is predicted to grow, while other regulatory and fiscal interventions are likely to increase the price of using fossil fuel.⁸

Increasing demand, particularly from the developing world, is also likely to put strong upward pressure on the oil price in the longer term. The US government's energy statistics agency, the Energy Information Administration (EIA) has predicted that world energy consumption will grow by 50 per cent between 2005 and 2030. The most rapid growth in demand will come from non-OECD⁹ countries, where demand will increase by 85 per cent as a result of robust economic growth and expanding populations, as compared to 19 per cent in OECD countries. The EIA figures show that liquid fuels will continue to supply the largest share of world energy consumption over the projection period but their share falls from 37 per cent in 2005 to 33 per cent in 2030.



One of the most striking figures in the EIA projections is the importance of liquid fuel to transport. On a global basis, the transport sector will account for 74 per cent of the total projected increase in liquids use from 2005 to 2030, because liquid fuels cannot easily be substituted for transport uses¹⁰.

Another way of looking at this is in terms of national shares of consumption. Currently the United States, which accounts for 4.5 per cent of the world's population, consumes 25 per cent of the world's oil¹¹. Many traditional petroleum exporting countries¹² have massive and growing infrastructure programmes that increasingly cut into their scope for export. The two most populous nations, China and India, between them account for 37 per cent of the world's population but consume 11 per cent of the world's oil. However they are also among the economies that are showing the strongest growth in oil consumption and are predicted to experience the strongest future economic growth - Goldman Sachs has predicted they will both surpass the US economy in size by 2050¹³.

Won't price increases reduce demand and bring forward increased supply?

Some commentators argue that in line with classical economic theory, increasing oil prices will reduce demand, bring forward increased or alternative supply and encourage investment in replacement technologies and restore prices to equilibrium.

The difficulty is that there is likely to be a significant time lag in bringing increased oil production on stream and in any case, it is likely

to be more costly to get out of the ground – the 'easy' oil has already been harvested. Even if higher prices bring forward alternative technologies there is likely to be a time lag in bringing these new technologies to the market. For example, even if electric cars could rapidly replace the current petrol driven fleet, bringing forward non-oil dependent energy sources such as renewables or nuclear to produce the electricity to power them will probably take many years.

Concern over future production capacity is reinforced by the high degree of geopolitical risk attached with world oil markets. Current world oil supplies are highly concentrated, and much of those supplies are held by nations that limit access to private investment, thereby preventing full development of production through enhanced expertise and technology.¹⁴



What about the credit crunch, isn't that pushing down the price of oil?

The global financial crisis does indeed have implications on economic growth and commodity demand. However the fundamental long-term supply and demand picture for oil has not changed. High and rising depletion rates at existing oil fields, exacerbated by the growth of countries such as China and India, will make it increasingly hard for new supplies to keep pace. The key point here is the future is very volatile.

The LGA recently produced the publication Global slowdown: local solutions (LGA, November 2008). This document provides examples of the positive actions councils are taking to combat the effects of the recession on residents, businesses and communities.¹⁵

*"We gotta get off oil, America has got to change its habits,".. "It should be obvious to all, demand has outstripped supply, which makes prices go up."*¹⁶
George W. Bush, 5 March 2008

Who will dearer oil have the most impact on?

The most obvious challenge of dearer oil is the impact on household budgets. 14 per cent of household spending already goes on transport and 79 per cent of this spending is on private motoring. Fuel accounts for 4 per cent of the average weekly household expenditure, the second most costly weekly product or service after the cost of housing.¹⁷ The rising price of oil is also having an impact on general inflation through the impact on distribution and supply chain costs and on the price of gas, because gas and oil prices are often linked.¹⁸

It is going to have a greater impact on people who do not have easy alternatives to the car, for example those living in rural areas who do not have convenient access to public transport and who already spend 20 per cent more on transport than those living in urban areas.¹⁹ People with limited mobility such as older people and those with disabilities will also be disproportionately affected.

It will also have an impact on suburban areas that have developed in ways that make people reliant on cars. About 60 per cent of people in England live in car oriented suburban/rural areas and traffic in the suburbs is expected to grow by about a quarter by 2021.²⁰

Businesses that rely heavily on oil will also be badly affected. While some larger businesses for example public and financial services may be able to adapt by greening their fleets or by switching to other technologies, other modes such as rail freight, small and medium sized enterprises (SMEs) may have less capacity to quickly adapt.

However, the news is not all bad. Another story hitting the headlines is climate change and the measures that are already being developed to mitigate and adapt to climate change (Climate Change Act 2008) may also help reduce our reliance on oil.²¹ And perhaps the rising price of oil will provide the biggest possible incentive to individuals and businesses to make the step change in behaviour and investment in new technologies, which will become more economic needed to make a real difference to climate change.

2. What do local councils need to do?

It is important to frame the response to future energy insecurity against the longer term challenges of climate change.²² Local authorities have enormous potential to address these challenges through their functions as transport and planning authorities, through other services delivery such as building control, community care providers, waste, housing, environmental health and trading standards, and as providers of green spaces. The LGA publication *Be aware, be prepared, take action* (LGA, July 2008) signposts some of the tools and resources which local authorities can draw upon in responding to the challenges presented by climate change.²³

In addition through their convening role in local strategic partnerships, (LSPs), local area agreements (LAAs) and multi-area agreements, local authorities can work in partnership with key delivery partners to develop comprehensive integrated adaptation and mitigation action plans. More information is available from the Nottingham Declaration Partnership website www.nottinghamdeclaration.org.uk.²⁴

The following section illustrates some practical ways local authorities are responding to the challenges and opportunities, of transport provision, climate change and the future price uncertainty.

Build people's understanding of the issue:

Local authorities have in-depth knowledge of their areas and the needs of citizens, and can enable the public to take action and identify the right choices, by providing advice and assistance.

Case Study: The Transition Towns

The Transition Initiative aims to use a practical, community led approach in response to the twin challenges of reaching 'Peak Oil' and Climate Change. They begin with an initiating group and aim to engage a significant proportion of the people in their community to kick off a Transition Initiative. After going through a comprehensive and creative process of:

- awareness raising around peak oil, climate change and the need to undertake a community lead process to rebuild resilience and reduce carbon;
- connecting with existing groups in the community;
- building bridges to local government;
- connecting with other transition initiatives;
- forming groups to look at all the key areas of life (food, energy, transport, health, heart & soul, economics & livelihoods, etc); and
- kicking off projects aimed at building people's understanding of resilience and carbon issues and community engagement.

Further information:

visit <http://transitiontowns.org>

Case Study: Transition Nottingham

Transition Nottingham was established in the summer of 2007 with an aim to convert Nottingham into a city that is less reliant on fossil fuel energy and is a better place for residents to live.

Eight local groups make up Transition Nottingham, with each working on separate projects in their local communities and networking with each other across the city. Working at a smaller scale means a greater number of communities can be directly involved in the projects.

One local group, Transition Bramcote and Wollaton, have set up a community fruit and vegetable allotment to try and offset some of the energy that is wasted during conventional food production. It has been estimated that for every one calorie of food we consume it takes ten calories of fossil fuel to make its way from soil to mouth - the cost of food is directly linked to fuel. For example, flying a kilo of tomatoes from Kenya to Britain in energy terms, is costly compared with growing the same tomatoes in a British greenhouse during winter.

As oil prices rise, so will the cost of food, so alternative ways of producing it are needed. The community allotments present a key opportunity for local people to re-skill and improve their self-sufficiency, two important components in the move to the low carbon economy.

Further information:
Visit: <http://transitiontowns.org/>

Promote 'smarter choice' alternatives to car use:

Local authorities are already putting a great deal of effort into promoting 'smarter choices'. The idea is to give people the option of using their cars less by giving them other options for the short local journeys. Improving the appearance and safety of streets and pavements will encourage people to walk; putting in cycles lanes will reduce the risks and frustrations of cycling; and investing in modern buses, information systems and improved timetabling will make public transport more attractive.

The higher cost of petrol is likely to give car users stronger incentives to look for alternative ways of getting around such as walking, cycling or taking the bus. So as well as encouraging people to leave their cars at home for environmental and health reasons, local authorities should start to emphasise the cost savings of walking, cycling and using public transport in their local campaigns.

Case Study: What are 'smarter choices'?

Smarter choices are techniques for influencing people's travel behaviour towards more sustainable options such as encouraging school, workplace and individualised travel planning. The document *Smarter Choices – Changing the Way We Travel* (and the summary document *Making Smarter Choices Work*) is available from the Department for Transport (DfT) and embrace many of the supporting factors which influence travel choice such as public transport, cycling and walking information together with directly informing people about alternative modes of travel through personalised travel planning schemes.²⁵

Case Study: Smarter Travel Sutton



Smarter Travel Sutton is a partnership project between Transport for London (TfL) and the London Borough of Sutton. It is designed to reduce residents' car trips by promoting travel behaviour change. This three-year project, launched in 2006, has a budget of £5 million. The project is being delivered by TfL, Sutton Council and strategic partners such as the Primary Care Trust (PCT).

The London Borough of Sutton has a high level of car ownership, with 77 per cent of households having access to at least one car; for the journey to work, the car has the largest mode share with 47 per cent. Smarter Travel Sutton is consequently a practical example of how local councils can actively promote 'smarter choice' alternatives to car use across households, schools and businesses within their area. Smarter Travel Sutton is based on a behaviour change model taking the community through a series of stages from pre-contemplation to actual behavioural change.

In 2007 Smarter Travel Sutton visited all 76,000 households across the borough to offer residents personalised travel advice. Over 66 per cent of households participated and 45 per cent requested travel information, incentives and advice tailored to their individual needs.

Every school in Sutton has a school travel plan in place. The council is also working with over 100 organisations covering more than 16,000 employees to develop workplace travel plans. Supporting this is a high profile publicity campaign involving regular public events and advertising. There are also specific projects aimed at other segments of the community, which aim to create a shift towards sustainable modes (eg projects reducing car travel to junior sports activities (Little Leagues) and a partnership with the Sutton and Merton Primary Care Trust aimed at increasing every day physical activity through walking and cycling (Active Steps).

Each year the project is being independently evaluated to measure changes in residents' travel habits. Now in its second year, the project has already seen a two per cent decrease in residents' car trips. In addition, Smarter Travel Sutton is now the council's most recognised brand.

As the project progresses into its final year, Smarter Travel Sutton is looking to lock in the benefits of the campaign by looking at how the local transport infrastructure can be improved to encourage walking, cycling and the use of public transport.

Further information:

Visit: www.smartertravelsutton.org

Email: advice@smartertravesutton.org

Case Study: Engaging business in Stockport MBC

Local Authorities can also engage developers and businesses in the development of 'SMART' targets for reducing fuel usage and facilitating or enforcing the ongoing implementation and monitoring/evaluation of measures and their outcomes.

Experience has shown that Travel Plans are not achieving their full potential because of either a lack of practical skills to implement them within the organisation or through difficulties in getting relevant data through progress reports etc.

A practical approach being considered in Stockport MBC has been to offer a voluntary membership of a Green Travel Plan Forum which would enable the council to facilitate performance management and the development of realistic targets. Stockport MBC are also including this as an option for developers within its Transport Supplementary Planning Documents (SPD).

Stockport have produced a brief introductory guide to the benefits of developing a workplace travel plan. It provides step by step guidance, case studies and useful contact information. See www.stockport.gov.uk/content/transportstreets/greentravel/?a=5441

"23 per cent of car journeys are less than 2 miles long, 56 per cent less than 5 miles. Smarter travel choices, in the form of walking or cycling, are real options for many people for many of these journeys."

Making Targets through Transport (DfT, July 2008)²⁶

Green their transport fleets and lead by example

The LGA Climate Change Commission recommended that all local authorities should undertake the Energy Saving Trust's green fleet programme²⁷ and future oil price volatility makes this recommendation even more imperative.

Organisations that run a fleet of 50 or more vehicles (or 20 or more in Scotland) are eligible for a free green fleet review. The review identifies ways of reducing fleet costs; cutting vehicle emissions; minimising local traffic and parking problems and often helps the fleet manager to make a case for operating the fleet differently.

Case Study: Sandwell BC cutting fuel bills and CO₂

Sandwell Borough Council's Ground Care Unit is responsible for the cleaning and maintenance of parks and operates a fleet of 60 light commercial vehicles (LCVs) and 20 grey fleet cars (private vehicles used for business purposes). At the time of the Green Fleet Review, LCVs were travelling 440,000 miles a year and the grey fleet was responsible for 42,000 miles per annum. Following the review the fleet manager is now working towards reducing the Unit's £90,000 annual fuel bill by up to 20 per cent, as well as reducing carbon emissions by the same amount.

The implementation process began at the start of 2008 and 'quick win' measures have already been carried out. These include vehicle

downsizing and training drivers to encourage safer, stress free driving. An across-the-board review of risk management procedures has also started. The next phase will include the introduction of improved journey planning and further vehicle downsizing is being considered. Alternative fuelled vehicles are also being assessed, with a biodiesel trial and an appraisal of electric vans also planned.

The Green Fleet Review drew attention to grey fleet and the need to gain control over private car usage in order to improve health and safety. This will be brought to the attention of senior management as part of a council-wide review of occupational road risk issues.²⁸

Many local authorities and other public bodies run major transport fleets to carry out their business and the oil price volatility is having significant cost impact. LGA research has shown that in 2006/2007, councils spent £352m on fuel costs to run vehicles such as their rubbish bin fleets, gritters and meals on wheels vans. In the financial year April 2008 to March 2009, the rising price of oil could see local authorities' fuel costs rise to £505m.

Local authorities and other public bodies should therefore positively procure to obtain fuel economy in their fleets or consider switching to other fuels.

They should also have a leadership role in encouraging businesses and local residents to switch to more fuel-efficient vehicles. Local authorities also need to publicise what they are doing to green their fleets and provide information to businesses and residents about how to improve the fuel efficiency of their vehicles.

Case Study: Fuel Consumption and CO₂ Information

The use of public transport, walking and cycles represent more sustainable transport than the single occupancy of a car. There is scope for local authorities to set good examples for essential and casual car users in public authorities such as a ceiling on lump sum payments and mileage allowances on the vehicle carbon footprint rather than cubic capacity. The Vehicle Certification Agency (VCA) is responsible for the creation and management of the New Car Fuel Consumption and CO₂ database used by individuals and organisations to:

- inform buyers of new cars how they can reduce the impact of their vehicle on the environment;
- identify the vehicle excise duty and/or the relevant Company Car tax percentage bracket, based on CO₂ levels;
- search for cars that offer lower fuel consumption or use alternative fuel types.

Further information:

www.vcacarfueldata.org.uk/index.asp

The LGA publication *Cutting through the green tape* offers some further practical guidance on how local authorities can use the legislative framework to address the challenges of peak oil and climate change.²⁹ For example, the Sustainable Communities Act 2007 offers an opportunity for councils and communities to put forward new thinking on how to meet the challenges of sustainability.³⁰

Case Study: Consolidation Scheme, Bristol

Freight transport is the movement of goods or burden from point to point in the course of a commercial transaction. Achieving an efficient and sustainable distribution system for goods and services is one of the greatest challenges facing cities.³¹

The Broadmead Freight Consolidation Scheme is a local example of an approach to deal with the economic and environmental risks associated with freight delivery. Bristol City Council set up the freight consolidation centre in 2004 to serve the Broadmead Shopping Centre in Central Bristol. The scheme was the first of its kind set up in the UK.

The centre works by acting as a central delivery hub on the periphery of the city where deliveries are streamlined and the number of delivery vehicles travelling into Broadmead are reduced, whilst at the same time it provides an improved delivery service to retailers. Further aims and objectives of the scheme include; contributing to improving the air quality in the target area, reducing the conflict between vehicles in delivery bays, reducing conflict between delivery vehicles, other road users and pedestrians and providing the opportunity for added value services to retailers such as packaging collection and remote stock storage.

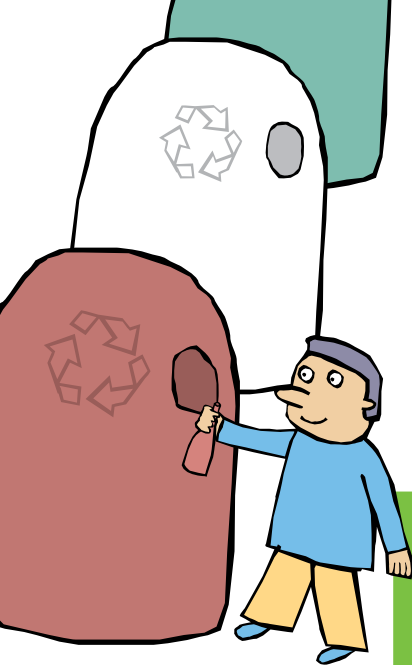
The scheme has seen some considerable successes including CO₂ savings of over 40 tonnes in 2007, calculated using Defra CO₂ emission factors for freight.³² Delivery vehicle movements for those involved have reduced on average by 75 per cent, reducing vehicles by 8031 and saving 205,000 vehicle km in and around the city centre since the scheme began. Retailers have also benefited from an improved delivery service with no lost or damaged stock and 100 per cent on time deliveries to date. Waste and packaging material has also been collected from retailers, which has meant over 14 tonnes of cardboard and plastic being recycled.

Initially set up through the EC supported project VIVALDI (Visionary and Vibrant Actions through Local transport Demonstration Initiatives), the scheme has now secured funding through the city council with top up support from the EC supported project START Short Term Actions to Reorganize Transport of goods (START).

Further information:

<http://www.start-project.org/bristol.html>





Case Study: Greening Gateshead's fleet

Alternative fuels

Gateshead initially pioneered the use of bio-diesel (95/5 per cent blend) in the North East a number of years ago following successful trials with Rix Petroleum and Petroplus, the Councils NE based supplier of fuel. Encouraged by the success of the fuel Gateshead undertook a trial of an increased blend (80/20 percent) in 2006 in partnership with Newcastle City Council. The results were extremely positive and the fuel, which is procured from sustainable sources, will be used to power the local authorities diesel engine fleet with the remainder comprising of Liquid Petroleum Gas (LPG) and electrically powered vehicles.

Driver training/assessment

A comprehensive system of assessment and training has been introduced that supports local authority drivers. This has provided employees with the skills required to minimise the effect their vehicle has on the environment whilst improving the overall standard of driving for at work and at home.

The process includes:

- a) The completion of a 45-minute driver training programme.
- b) Instruction on the completion of daily safety checks.
- c) Instruction on safe and fuel-efficient driving techniques.
- d) Advice on improving individual 'miles per gallon' performance.

The initiative was developed using the 'Safe and Fuel Efficient Driving' model. Four transport employees completed Institute of Advanced

Motoring Training and are qualified as driver assessors/trainers. An accredited "Fuel Champion" monitors performance and areas are targeted that are in need of improvement. Additional consideration is also to given young (17-24) and inexperienced drivers with further training integrated into the apprentice programme. While significant improvement has been made to the environmental performance of the fleet, there has also been a 25 per cent reduction in the number of road traffic accidents involving fleet vehicles since 2005.

Vehicle selection

Vehicle-related initiatives include:

- a) The limiting of all new vehicles to a maximum speed of 56 mph.
- b) The consideration of CO₂ ratings when procuring new tyres.
- c) The purchase of low rolling resistance tyres where operationally suitable.

These initiatives were developed in line with Energy Savings Trust guidelines and form an integral part of the vehicle selection process.

Impact

The cumulative outcome is that mileage and total fuel used has reduced resulting in the local authority's fleet cutting its CO₂ emissions by 330 tonnes. Recognition for such as achievement was rewarded by the Energy Savings Trust in the Environmental Hero Awards 2006, where Gateshead were judged winner of the 'Public Sector Fleet 250+Vehicles' category. In addition Gateshead were also presented with the 'Overall Winner Award' for all categories covering both the public and private sectors.

Use the planning system to reduce the need to travel

The availability of cheap oil has made private motoring inexpensive and lead to a significant increase in travel. Local authorities have strong powers through the planning system to control future development and they should continue to use them to reduce the need to travel and to reduce reliance on the private car.



National planning guidance encourages development that reduces the need to travel by private car:

“Regional planning bodies and local planning authorities should ensure that development plans contribute to global sustainability by addressing the causes and potential impacts of climate change - through policies which reduce energy use, reduce emissions (for example, by encouraging patterns of development which reduce the need to travel by private car, or reduce the impact of moving freight), promote the development of renewable energy resources, and take climate change impacts into account in the location and

design of development.”

(Planning policy statement 1: delivering sustainable development)

“The Government is seeking to reduce the need to travel, to encourage the use of public transport, walking and cycling and reduce reliance on the private car, to facilitate multi-purpose journeys... In selecting appropriate sites for allocation, local authorities should have regard to:

- i) whether the site is or will be accessible and well served by a choice of means of transport, especially public transport, walking and cycling, as well as by car; and ii) the impact on car use, traffic and congestion...”. (Planning policy statement 6: planning for town centres).³³

The vital role of partnerships in developing co-ordinated approaches to reducing fuel usage

Relevant to overall fuel usage is the enforcement of excessively polluting vehicles (which often correlate to poor performers in terms of fuel efficiency and the enforcement of existing speed limits, particularly on trunk roads and motorways. There is evidence to suggest that this a cost effective measure to reduce transport carbon emissions.³⁴ In Greater Manchester authorities are working closely with the Highways Agency to look at options for the motorway network as this impacts heavily on their Air Quality Management Areas (AQMAs) and it is recognised that integrated approaches to managing the inter and intra regional road networks are going to be needed to achieve reductions in speed and congestion on both.

Case Study: Oil Independence in Oakland, California

The city of Oakland in California published an *Oil Independent Oakland Action Plan*³⁵ in February 2008, drawn up by a 10-member task force appointed by the city council and the mayor. The report accepts the concept of 'Peak Oil', but the Task Force did not debate when this peak would occur and accepted the opinion of many experts that it will occur within a few years time – if it has not already occurred.

The primary focus of the recommendations is the transport sector, which accounts for 97 per cent of the oil used in Oakland. The report states baldly "Quite simply, if Oakland is to reduce its dependence on oil, its residents must DRIVE LESS." It identifies the two most important recommendations as:

- Begin the process of gradually redesigning the city so that residents can reduce their automobile dependence. This can be done by creating vibrant neighbourhoods where jobs, housing and a full range of services are available within short distances.

- Advance transport alternatives so that when residents do need to travel, they have options other than driving private automobiles.
- In order to implement these recommendations, the Task Force strongly recommends that the City do the following:
- Establish an Oil and Energy Team to co-ordinate the actions outlined in the report.
- Explore financing mechanisms to help pay for infrastructure changes, including the feasibility of regional congestion charges, carbon/fuel taxes and selling local carbon offsets.
- Develop a contingency plan to address future oil price and supply shocks on Oakland residents.
- Begin a Public Education and Outreach campaign to educate Oakland residents about the issue. A section of the report is devoted to showing how an individual can reduce their oil consumption by three per cent each year.
- Set up a process of regular collaboration and outreach with regional transport agencies and neighbouring cities to expand public transport.

Small Change, Big Difference

The LGA's Small Change Big Difference campaign, launched in March 2008, encourages local authorities to do more to tackle climate change and decision-makers and the public to see local authorities as central to the solution. Further information: www.lga.gov.uk

3. What does central government need to do to help local councils?

Change the system of transport funding to promote 'smarter choices'

If promoting alternatives to motoring is to make a real difference, investment in walking, cycling and public transport needs to be dramatically increased and given much higher priority in national transport investment programmes. The difficulty is that the overwhelming majority of transport funding is focused on capital investment to build and maintain road and rail networks. But many 'smart choice' measures require revenue expenditure on things like public transport information systems and capital investment in improved buses and trains.

So to achieve the step change that is required to give people real alternatives to car use, transport investment needs to give much higher priority to measures that reduce reliance on cars and Treasury rules should be changed to allow the 'capitalisation' of smarter choice measures, in line with the recommendations of the LGA Climate Change Commission³⁶.

Currently, local authorities that are unable to use revenue funding, through balances or otherwise, may be able to 'capitalise' expenditure, and therefore use prudential borrowing or capital receipts. However, this is subject to DCLG approval and must fall within the capitalisation limits set by HM Treasury.

In general, the current pattern of funding to support infrastructure and associated transport services is extremely complex. Reducing the number of and barriers between funding streams, how they are accessed and the conditions that are attached to them and

offering longer-term and flexible funding would ensure that money can be more effectively targeted.

Change the system for appraising transport projects

The system used by the DfT for assessing the costs and benefits of major transport projects seriously underestimates the cost of oil.³⁷ Using prices so seriously out of line with current and likely future cost of oil will reduce the 'cost' assessment to favour oil-intensive transport schemes such as road building and improvement over energy efficient public transport schemes. The appraisal system also factors tax receipts from fuel duty into the cost benefit analysis. So schemes that increase the amount of fuel bought are also favoured on the 'benefit' side of the equation. The government needs urgently to reform its transport appraisal system to reflect the true cost of oil and stop treating higher revenues from fuel duty as a 'benefit' of transport schemes.

Give councils the powers to rapidly improve bus services

In November 2008, the Local Transport Act³⁸ received Royal Assent. If the legislation works the way the government envisages, it could mean that local authorities have real power when it comes to providing people with better public transport. Bus operators and local authorities will need to work together better to provide good public transport, and the bill could help that happen. Investment in high quality bus services is likely to give the quickest gains in the short term.

Case Study: Making Sweden an oil-free economy³⁹

The Swedish Commission on Oil Independence, chaired by the then Prime Minister Göran Persson, produced a report Making Sweden an Oil-free Society on 21 June 2006.

It gave 5 reasons for phasing out Sweden's dependency on oil, improving the efficiency of energy use and in the long term replacing fossil energy sources with renewable energy:

1. To reduce Sweden's climate impact
2. To secure Sweden's supply of energy in the long term
3. To become a leading nation in the development of new technology for sustainable use of energy and more efficient use of energy
4. To strengthen Sweden's international economic competitiveness
5. To use and develop the energy resources from Sweden's forests and fields

The membership of the Commission was drawn from industry and academia. It recognised that its proposals would be a considerable challenge to the whole of society and require a large measure of collaboration and trust between politicians, industry and the academic community.

The Commission proposed:

- To reduce consumption of oil in the road transport sector by 40-50 per cent through the more efficient use of fuel and new fuels
- That in principle no oil should be used for heating residential and commercial buildings
- That industry should reduce its oil consumption by 25-40 per cent

To achieve these goals, it argued that the private car fleet should become more energy-efficient; the need for physical travel should be reduced by a well developed IT infrastructure; that the government should contribute to large-scale production of new, domestic biofuels from forests and fields; and that public transport should be given the resources to become faster, more convenient and better value for money. The report set out detailed proposals in the three areas – the heating of residential and commercial buildings, transport and industry.

Further information:
www.sweden.gov.se

Reform the current system of bus subsidies

A large part of the public subsidy for buses is paid direct to bus companies as a rebate for the fuel they use through Bus Service Operators Grant (BSOG). This amounted to £413m in 2007/8⁴⁰ in Great Britain (different arrangements apply in London). As a subsidy, BSOG payments are paid directly to operators linked to fuel consumed irrespective of rider-ship. Councils have little influence over the quality and efficiency of bus services delivered in return for investment of public money.

Government recently announced changes⁴¹ to the grant to introduce incentives for low carbon buses, smartcard ticketing and global positioning systems. These changes are welcome, but further radical reform of the bus subsidy system is required to move away from a rebate for fuel used and allow local councils to use bus subsidies to encourage fuel efficiency, tackle congestion, improve performance, quality and accessibility of services that will encourage people to switch to using buses.

The LGA believes that achieving value for money for subsidy of bus services will require:

- A clear framework of national policy objectives
- Public subsidy to be channelled through a single route. The ability to understand value for money of changes to bus networks
- The ability to focus bus subsidy to support local transport plans and other local strategies
- A focus on outcomes and improved services
- The ability to take a long term view about developing a sustainable bus network
- Arrangements in place to protect services and networks during period of transition to new system of subsidy.

It is the LGA's view that local transport authorities are best placed to meet these requirements and decide how to use public funding to best achieve value for money through partnership or contractual arrangements with operators.



footnotes

- 1 Values are taken from the BP Statistical review (most recent data available at <http://www.bp.com/statisticalreview>) BP p.l.c.; *BP Statistical Review of World Energy*; 2005 June. Other major sources are coal (25%), natural gas (23%), nuclear (6%), and hydro-electric (3%).
- 2 One barrel of oil is 159 litres (approx.).
- 3 IAM Trust, 10 July 2008 http://www.iam.org.uk/motoringtrust/news/latest_news/Fuel+prices+to+go+even+higher+says+IAM.htm
- 4 For the range of estimates see *Peaking of World Oil Production: Recent Forecasts* Robert L. Hirsch, SAIC (February 2007) <http://www.odac-info.org/sites/odac.postcarbon.org/files/pdf/Hirsch-Recent%20Forecasts.pdf>
- 5 Dr Michael Smith, quoted in *Preparing for Peak Oil*, Oil Depletion Analysis Centre (ODEC) <http://www.odac-info.org/>
- 6 *How Much Higher Will Oil Prices Go?* Jeff Rubin and Peter Buchanan April 2008 http://www.odac-info.org/sites/odac.postcarbon.org/files/How_much_higher_will_oil_prices_go.pdf , The International Energy Agency (IEA) also recently warned of a 'super spike' — a price surge that will soon drive crude oil to \$200 a barrel. *World Energy Outlook 2008*
- 7 The report *The Oil Crunch* argues that the risk of an early peak in oil production poses a bigger threat to society than tightening gas supplies, terrorism or the short term impacts of climate change. The report predicts that global oil production will peak between 2011 and 2013 then decline steadily with non-conventional sources such as tar sands failing to fill the gap in time to avoid serious shortages. The Oil Crunch Securing the UK's energy future: First report of the UK Industry Taskforce on Peak Oil & Energy Security (ITPOES) www.peakoiltaskforce.net
- 8 For example, in the March 2008 budget, the Chancellor announced a phased increase in Vehicle Excise Duty, rising to £950 a year for the highest carbon cars in 2010. The final report of the King Review of Low Carbon Cars, was published at the same time and the government announced its support for the recommendation that the European Union should tighten the regulatory cap on car emissions to 100 grams per kilometre of carbon dioxide by 2020. See http://www.hm-treasury.gov.uk/king_review_index.htm.
- 9 The OECD brings together the governments of countries committed to democracy and the market economy from around the world http://www.oecd.org/pages/0,3417,en_36734052_36734103_1_1_1_1_1,00.html
- 10 *International Energy Outlook 2008* (IEO2008), Energy Information Administration (EIA) June 24 2008 <http://www.eia.doe.gov/oi/ief/ieo/highlights.html>
- 11 http://www.nationmaster.com/red/pie/ene_oil_con-energy-oil-consumption
- 12 These are typified by members of the Organization of Petroleum Exporting Countries (OPEC) which is a cartel of 12 countries made up of Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
- 13 <http://www.iht.com/articles/2007/01/24/business/rupee.php>
- 14 Oil supply is increasingly dominated by a small number of major producers, most of them in the Middle East, where oil resources are concentrated. Non-OPEC production of conventional crude oil is set to peak within a decade. OPEC's share of global supply grows significantly, from 40% now to 48% by 2030. Iran and Iraq have significant potential to expand their production, but Saudi Arabia remains by far the largest producer. S. Hrg 110-6 -- Geopolitics of Oil, January 10, 2007 - united Stated Energy and Natural Resource Committee <http://www.access.gpo.gov/congress/senate/senate08ch110.html> See also <http://www.cftc.gov/stellent/groups/public/@newsroom/documents/file/itinterimreportoncrudeoil0708.pdf>
- 15 <http://www.lga.gov.uk/lga/publications/publication-display.do?id=1191945>
- 16 http://money.cnn.com/2008/03/05/news/bush_ethanol/index.htm
- 17 The cost of transport and its impact on UK households, RAC Foundation, August 2008: http://www.racfoundation.org/index.php?option=com_content&task=view&id=570&Itemid=31
- 18 See the BERR committee report on rising energy prices, 16 July 2008 <http://www.publications.parliament.uk/pa/cm/200708/cmselect/cmberr/293/29305.htm#a9>
- 19 The cost of transport and its impact on UK households, RAC Foundation *ibid*
- 20 Quoted in *Travel demand and its causes*, RAC Foundation July 2008 [http://www.racfoundation.org/files/Paper%20percent20Travel%20demand%20and%20its%20causes%20\(July%202008\).pdf](http://www.racfoundation.org/files/Paper%20percent20Travel%20demand%20and%20its%20causes%20(July%202008).pdf)
- 21 For further information, please refer to the selection of climate change publications produced for the LGA's Small Change, Big Difference campaign <http://www.lga.gov.uk> The Climate Change Act received Royal Assent on the 26 November 2008. Under the Act, the UK is committed to reducing emissions by 80% by 2050. The Act introduces a range of measures aimed at achieving this target, including legally binding carbon budgets which will set a ceiling on the levels of greenhouse gases that can be emitted into the atmosphere.

- 22 See former LGA Chairman Sir Simon Milton speech to LGA Sustainable Communities Conference 12 March 2008, <http://www.lga.gov.uk/lga/core/page.do?pageld=337103>
- 23 *Be aware, be prepared, take action*, produced jointly by LGA, Environment Agency, UKCIP June 2008 <http://www.lga.gov.uk/lga/publications/publication-display.do?id=566301>
- 24 The Nottingham Declaration Partnership is made up of the Carbon Trust (CT), Energy Saving Trust (EST), Environment Agency (EA), Local Government Association (LGA) Improvement & Development Agency (IDeA), UK Climate Impacts Programme (UKCIP) and Nottingham City Council. The Nottingham Declaration Partnership has developed a web-based tool the Nottingham Declaration Action Pack (NDAP) that provides guidance for producing Action Plans covering both mitigation and adaptation to climate change. See www.nottinghamdeclaration.org.uk
- 25 www.dft.gov.uk/pgr/sustainable/smarterchoices
- 26 *Making Targets through Transport* (HMSO,2008) This is a DfT publication produced in collaboration with the LGA, Sustrans and the Campaign for Better Transport. The booklet is designed to help councillors and senior officers to understand how well planned transport services can help local authorities to achieve wider objectives, such as stronger and safer communities, healthier children and young people, sustainability and better local economies. <http://www.dft.gov.uk/pgr/regional/ltp/guidance/targets.pdf>
- 27 <http://www.energysavingtrust.org.uk/fleet/organisations/vehicles50/greenfleetreviews/whatisagreenfleetreview/>
- 28 This and further case studies are available from <http://www.energysavingtrust.org.uk/fleet/organisations/vehicles50/casestudy/>
- 29 *Cutting through the green tape: the powers councils have to tackle climate change* LGA August 2008, <http://www.lga.gov.uk/lga/core/page.do?pageld=874285>
- 30 The Sustainable Communities Act became law in October 2007. It provides a statutory framework for councils and community organisations to put forward proposals for decentralisation and reconfiguration of public services, and changes to the pattern of public spending, which would contribute to sustainability. Further information is available from the LGA via selector@lga.gov.uk
- 31 *The Mayor's Transport Strategy*, GLA, 2001 http://www.london.gov.uk/mayor/strategies/transport/trans_strat.jsp#about
- 32 2008 Guidelines to Defra's GHG Conversion Factors: Methodology Paper for Transport Emission Factors (Defra July 2008) <http://www.defra.gov.uk/environment/business/envrpf/passenger-transport.pdf>
- 33 For a full list of relevant planning guidance see the Planning Advisory Service's *Inspiring planning: planning for climate change* Quickfile <http://www.pas.gov.uk/>
- 34 See *Getting The Genie Back In The Bottle: Limiting speed to reduce carbon emissions and accelerate the shift to low carbon vehicles*, Paper prepared for the Low CVP Road Transport Challenge by: Jillian Anable, UKERC and The Centre for Transport Policy, The Robert Gordon University Paige Mitchell, The Slower Speeds Initiative Russell Layberry, UKERC and The Environmental Change Institute, The University of Oxford January 2006. http://www.foe.co.uk/resource/briefings/driving_up_co2_emissions.pdf (p26-27) Also see *Driving up Carbon Dioxide emissions from Road Transport: An Analysis of Current Government Projections Final Report* July 2006 Prepared for Transport 2000. http://www.foe.co.uk/resource/briefings/driving_up_co2_emissions.pdf
- 35 <http://www.oaklandnet.com/Oil/pdfs/OIO-ActionPlan-020608.pdf>
- 36 Reference to LGA Climate Change Commission
- 37 The current oil price projections the DfT uses for the period 2010 - 2020 range from a low of \$25 a barrel to a high of between \$70 - \$80 a barrel. Figures revealed in a written answer to Norman Baker MP – Commons *Hansard* 4 March 2008 Column 2264W: <http://www.publications.parliament.uk/pa/cm200708/cmhansrd/cm080304/text/80304w0005.htm#08030488000034>
- 38 The Local Transport Act 2008 received Royal Assent on 26 November 2008. The Act aims to equip local authorities with a comprehensive toolkit aimed at giving them greater scope for working together in partnership with operators to enhance the standard of services in their areas. The Act will also make it a more realistic option for local authorities to introduce quality contracts schemes. The Act will also help bring all modes of transport together, by strengthening the role of the existing Passenger Transport Authorities - to be renamed Integrated Transport Authorities (ITAs) - and by enabling new ITAs to be established. A copy of the final version of the Act can be found on the Office of Public Sector website. <http://www.opsi.gov.uk/>
- 39 <http://www.sweden.gov.se/sb/d/574/a/67096>
- 40 The Bus Service Operators Grant (BSOG) is a partial rebate by government of the fuel duty paid by bus operators providing local bus services. Government provides a fuel duty rebate on 80% of the fuel used by buses. Bus operators pay fuel duty tax on the remaining 20% of their fuel. Figures are according to the DfT's subsidy consultation *Local Bus Service Support – Department for Transport consultation on options for reform*.
- 41 In the pre-budget report Nov 2008, The Department for Transport has consulted on changes to the Bus Service Operators Grant, aiming to modernise bus services and align incentives to wider climate change objectives. The Pre-Budget Report announces that reforms to the grant will introduce incentives for low carbon buses, smartcard ticketing and global positioning systems. These steps will bring benefits for passengers - with smartcard ticketing systems offering an easier journey and quicker boarding; and GPS helping to improve punctuality and real-time information. The department is also challenging the industry to improve its fuel efficiency and will announce further measures shortly.





Local Government Association

The Local Government Association is the national voice for more than 450 local authorities in England and Wales. The LGA group comprises the LGA and five partner organisations which work together to support, promote and improve local government.



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