# Lofty ambitions

The role of councils in reducing domestic CO<sub>2</sub> emissions Summary

October 2009





The Audit Commission is an independent watchdog, driving economy, efficiency and effectiveness in local public services to deliver better outcomes for everyone.

Our work across local government, health, housing, community safety and fire and rescue services means that we have a unique perspective. We promote value for money for taxpayers, auditing the £200 billion spent by 11,000 local public bodies.

As a force for improvement, we work in partnership to assess local public services and make practical recommendations for promoting a better quality of life for local people.

## Summary

## Climate change poses a major strategic challenge: parliament has set targets to reduce carbon dioxide (CO<sub>2</sub>) emissions

- Unchecked climate change will have major consequences for the natural and built environments, human health, the economy and public services.
- Reducing emissions to limit climate change will be less costly than adapting to its effects in the future.
- Parliament has set a legally binding framework to reduce UK greenhouse gas emissions by at least 80 per cent of their 1990 level by 2050.
- This will require both reductions in energy consumption and changes in energy production.

# Tackling domestic energy will reduce emissions and bring financial savings for households

- One-third of CO<sub>2</sub> emissions in England comes from energy used to heat and power homes.
- These emissions can be tackled cost effectively and quickly while reducing domestic fuel bills and helping the more than 4 million households in fuel poverty.
- Reducing domestic emissions by 29 per cent using energy efficiency measures could cost nearly £50 billion, but the resulting savings in household fuel bills would equal the investment in eight years.

## Spending is not always well-targeted or sustainable

- Government policies have driven action and considerable expenditure on domestic energy; around £18 billion from 2008 to 2011.
- Home energy efficiency has improved, although there is much more to do, and more effort is needed to promote low-carbon and renewable sources of energy.
- Funding to address domestic energy could be better targeted at areas or households most in need of support.
- Spending on fuel poverty that does not also tackle CO<sub>2</sub> emissions is not sustainable.

# Pioneering councils have shown the way to reduce emissions, but many have yet to take concerted action

- Pioneering councils have been leading work to make homes more energy efficient and championing low-carbon and renewable energy generation.
- Since 2008, two-thirds of local strategic partnerships have set a target to reduce CO<sub>2</sub> emissions.

Funding to address domestic energy could be better targeted at households most in need of support Few areas have developed ambitious long-term strategies to drive CO<sub>2</sub> reductions

- But only one in five partnerships has set a stretching target and many areas with high emissions have no target.
- Few areas have developed ambitious long-term strategies to drive CO<sub>2</sub> reductions.

# Councils spend relatively little money themselves in this area, but can punch above their weight

- Councils can tackle energy use in their own housing stock but have most impact where they lead, oblige and subsidise social landlords and private sector homeowners to reduce domestic CO<sub>2</sub> emissions.
- Financial constraints will limit councils' spending but they can lead local action and work strategically with partners to deliver emissions savings.
  - By understanding local needs and priorities, councils can ensure that funding is appropriately targeted.
  - By using their own resources to lever in external funding, they can ensure that public expenditure secures the greatest value.
  - By making links between action on domestic energy and other objectives, such as improving health, councils can engage partners to achieve maximum impact on domestic emissions.
- The recession also makes it more difficult for local areas to prioritise CO<sub>2</sub> emissions reduction, but work on domestic energy can:
  - bring local economic benefits by creating and sustaining employment in related trades; and
  - help people without jobs or on low incomes to heat homes affordably, freeing up spending power for other goods and services.

One-third of CO<sub>2</sub> emissions in England comes from energy used to heat and power homes

## Recommendations

#### The government should:

- do more to promote a sustainable response to the challenges of reducing CO<sub>2</sub> emissions and fuel poverty by:
  - reviewing expenditure on winter fuel payments to ensure that it is better targeted toward reducing fuel poverty and is spent in a way that also reduces domestic CO<sub>2</sub> emissions; and
  - building on the Community Energy Saving Programme, ensuring that the programme of work to deliver the Heat and Energy Saving Strategy prioritises energy efficiency improvements in fuel-poor households;
- review, in the light of the experience of local area agreements from 2008 to 2011:
  - the usefulness of national indicator 186 as a means of measuring progress on CO<sub>2</sub> emissions reduction in local areas; and
  - whether the voluntary approach to the agreement of local targets on CO<sub>2</sub> emissions is delivering the progress required to meet national targets;
- assist councils to better target activities by rapidly taking forward plans for a national energy efficiency data framework that will improve access to data – for example, on:
  - energy efficiency of homes from energy performance certificates (EPCs);
  - measures installed through the energy supplier obligation schemes; and
  - domestic energy consumption at postcode level and;
- use the opportunity presented by the 2010 revision to Part L of the Building Regulations to introduce a requirement for householders to improve the energy efficiency of homes when undertaking major improvements.

## **Councils should:**

- lead by example, taking action on energy use in buildings they own
  including housing and use their influence, legal powers and resources to encourage their partners and local communities to act on domestic CO<sub>2</sub> emissions;
- make greater use of their existing powers to address domestic emissions reduction – for example:
  - use planning powers to set standards for sustainable energy use in new homes;

## Recommendations

- monitor compliance with the requirements of Building Regulations; and
- enforce the standards set out in the Housing Health and Safety Rating System (HHSRS);
- pursue greater economy, efficiency and effectiveness for example, working with partners to undertake area-based programmes of work on energy efficiency;
- closely monitor the take-up of their financial incentives, grants and loan schemes to ensure that funding is targeted at those households most in need of financial support;
- identify sites for renewable energy generation through local development plans, drawing on evidence of future energy demand and potential for energy supply, and work with their communities to make the case for the development of renewable energy capacity; and
- explore opportunities for example, with Partnerships for Renewables
   to make use of their own land for renewable energy generation.

## The Audit Commission will:

- draw on the findings of this report when undertaking Comprehensive Area Assessment (CAA) to:
  - evaluate the plans and progress made by local partnerships on reducing domestic CO<sub>2</sub> emissions;
  - explore how effectively councils are working with partners to achieve maximum impact on domestic emissions; and
  - establish how well councils are making the links between their work on domestic energy and other objectives, such as fuel poverty.

## Reducing domestic CO<sub>2</sub> emissions – the council's role

Two-thirds of local strategic partnerships have adopted targets as part of local area agreements

Avoiding catastrophic climate change will require urgent and extensive reductions in the amount of greenhouse gases – principally  $CO_2$  – emitted into the atmosphere. Parliament has set stretching national targets for  $CO_2$  emissions reduction. Councils are well placed to lead and influence local action on  $CO_2$  emissions, and two-thirds of local strategic partnerships have adopted targets as part of local area agreements.

Councils can use their influence, legal powers and resources to:

Lead – encouraging local communities and public and private sector organisations to take action on domestic energy by developing a clear strategic vision, facilitating partnership working, providing information, advice and support and championing energy issues;

Oblige – using powers within the planning system to promote the development of more sustainable homes and increase the supply of low-carbon and renewable energy; enforcing Building Regulations; and using the HHSRS to improve private sector homes; and

Subsidise – funding measures in council homes and using financial incentives – such as council tax rebates, and direct funding, for example – home improvement grants or loans to promote take-up of measures to improve energy efficiency and supply low-carbon and renewable energy.

Different actions will offer councils and their partners different levels of cost effectiveness. The figures below provide an indication of the relative cost and impact of a range of measures to reduce energy consumption and increase the supply of low-carbon and renewable energy, for an individual household and for a neighbourhood or district.

High			Air source heat pump	Ground source heat pump
CO <sub>2</sub> saving	Providing information and advice to consumers to reduce energy consumption	Loft insulation (from scratch)	Solid wall insulation	Solar photovoltaic panel
		Cavity wall insulation	Double glazing	
		Home energy	Solar water	
	Providing information and advice on renewable energy technologies	audit	heating	
	Hot water tank insulation	Loft insulation (top–up)		
	Draught proofing			
	Improved heating controls			Wind turbine
	Energy efficient lightbulbs			
_ow		Cost		High
				ingi

## Figure 1: Achieving CO<sub>2</sub> savings cost effectively at the household level

Key: Measures marked green relate to reducing energy consumption Measures marked black relate to renewable energy supply

Source: Audit Commission

## Figure 2: Achieving CO<sub>2</sub> savings cost effectively at the neighbourhood or district level

			Developing a medium-to large-scale district heating network
Exploiting renewable energy potential of council-owned land	Allocating sites for renewable energy generation (high potential areas)	Developing area-based programme to deliver energy efficiency improvements	
Providing information and advice to consumers to reduce energy consumption	Requiring high levels of sustainable energy use in new housing (high demand area)	Providing grant funding or loans for energy efficiency improvements	
Providing information and advice on renewable energy technologies		in private sector homes Providing grant funding or loans for renewable energy installations in private sector homes	
		Developing a small- scale district heating network	
	Allocating sites for renewable energy generation (low potential areas)	Raising standards of energy efficiency through better enforcement of Building	
	Requiring high levels of sustainable energy use in new housing (low demand area)	Regulations Raising standards of energy efficiency through better enforcement of HHSRS	

High

## Key: Measures marked green relate to reducing energy consumption Measures marked black relate to renewable energy supply Measures marked grey relate to reducing consumption and renewable energy supply

## Source: Audit Commission

Given the contextual nature of decisions about what is cost effective, the matrices above do not claim to provide a definitive answer, but will provide a useful starting point for the exploration of which actions might be most cost effective in different local areas.

Cost

Low

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We welcome your feedback. If you have any comments on this report, are intending to implement any of the recommendations, or are planning to follow up any of the case studies, please email: nationalstudies@audit-commission.gov.uk

Copies of the full report are available at: www.audit-commission.gov.uk/CO<sub>2</sub> or to order a printed copy telephone: 0800 502030 quoting stock code: LNR3581

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