



Business  
Council  
for

Sustainable  
Energy UK

# Transforming the market to reduce energy demand

## Seminar Series Report

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### Introduction

The UK Business Council for Sustainable Energy brings together the key players in the energy sector to support a rapid transition to a sustainable energy economy consistent with the delivery of a secure, reliable and affordable energy infrastructure.

The Council regularly coordinates events to enable the energy sector, Government and NGOs and other key stakeholders to debate and discuss issues and help progress the sustainable energy agenda.

This report summarises the outcomes of a recent series of events focused on **Transforming the Market to Reduce Energy Demand**.

This document is best viewed electronically to access the links to presentations and related reports.

### Quick links

[Executive Summary](#)

[Seminar 1 - Changing Consumer Behaviour](#)

[Seminar 2 - Action in Our Cities](#)

[Seminar 3 - Learning from International Experience](#)

[Acknowledgements](#)

[Next steps](#)

[Speaker biographies](#)

[Attendees](#)



### Executive Summary

*'We face two long-term energy challenges:*

- *tackling climate change by reducing carbon dioxide emissions both within the UK and abroad;*
- *ensuring secure, clean and affordable energy as we become increasingly dependent on imported fuel.'*

***Meeting the Energy Challenge, A White Paper on Energy, May 2007***

Addressing the long-term energy challenges facing the UK requires a new approach to the way we meet our power, heating and transport needs.

This new approach will include an increasing proportion of energy supplied from sustainable sources, as well as moving towards more efficient energy use. Using energy more efficiently will benefit the economy, while also contributing to increased energy security and the reduction of greenhouse gas emissions.

There is considerable scope to increase the energy efficiency of our homes and businesses. However, fully realising the energy saving potential in the UK will require policies to overcome the barriers to energy efficiency, and a transformed energy market that values energy efficiency as a resource that can deliver energy security, as well as economic and environmental benefits.

To explore this area further, the Council organised a series of seminars to bring together the latest thinking on transforming the market to reduce energy demand in the UK.

Three events were held:

- **Changing Consumer Behaviour** to explore different approaches to engaging with consumers to encourage more efficient use of energy;
- **Action in our Cities** which looked at examples of best-practice at a local authority and city level; and
- **Learning from International Experience** to explore different approaches to driving energy efficiency improvements around the world.

The seminars showed that there is an enormous energy efficiency potential across the global economy that represents a significant resource in terms of:

- a cost-effective alternative to investment in new energy supply infrastructure;
- low-cost greenhouse gas abatement; and
- the potential to deliver broader economic benefits.

There is a range of barriers that are preventing this potential from being realised. A portfolio of policy instruments will be needed to address the range of barriers and realise this potential.

## Transforming the market to reduce energy demand

While energy efficiency is an extremely cost-effective energy resource, there is still a need for investment in capital to realise the benefits. The current allocation of resources towards energy efficiency objectives needs to change. Substantially more investment will be needed, however, the returns on these investments, both in commercial terms and in delivering a range of important public benefits are high. Where the market alone does not deliver this investment government action is needed.

In the UK, consideration of the broader benefits of energy efficiency will enable a better evaluation of energy efficiency programmes, and lend further weight to taking action in this area.

Changes in consumer behaviour will form part of the suite of actions needed to deliver a sustained decrease in energy demand. However, this is a particularly challenging area, with consumers surrounded by complex and potentially conflicting messages aimed at stimulating greater consumption, and many barriers to the uptake of energy efficient technologies and services, not least of which is the 'hassle factor' of doing something differently.

While national policies are critical to ensure a supportive environment for energy saving, practical delivery will occur at the local level. Local authorities in particular are seen as a trusted player, and can play a very important role in building community support for reducing energy saving.

Energy companies have a very important role to play in driving a sustained reduction in energy demand. However, there are many other players that can influence particular aspects of the energy chain, such as appliance manufacturers and retailers, the housing industry and local authorities.

While the UK is a leader in energy efficiency policy development, there is still much to be learned from the experience of energy efficiency initiatives overseas.

### Changing Consumer Behaviour

To complement Government and business activity, individuals have an important role to play in addressing climate change. The Council held an event on the 28<sup>th</sup> June 2007 that brought together a range of experts to discuss different approaches to Changing Consumer Behaviour. Speakers at the event included:

- **Matthew Wright**, Director of Customer Insight, Energy Saving Trust who provided an overview of the Energy Saving Trust's consumer segmentation model and how it is used to target their energy saving campaigns;
- **Gill Owen**, Senior Research Fellow, Warwick Business School who provided an insight into the effectiveness of smart meters and real time displays in driving change;
- **Matt Prescott**, Project Director – CarbonLimited, RSA who gave an overview of Personal Carbon Allowances as part of a broader suite of climate change policies and initiatives;
- **Peter Serjent**, Senior Marketing Manager, Defra who gave an overview of the Government's plans for broader behaviour change campaigns around climate change.

### Summary

#### Market segmentation

Matthew Wright spoke about the work of the Energy Saving Trust (EST) to segment the UK consumer energy market to enable a more focused approach to the promotion of energy saving behaviour.

The consumer segmentation process enables the EST to identify sectors it believes will return the greatest carbon savings through targeted marketing strategies.

The EST used information from Mosaic, a large consumer segmentation model, and overlaid this with energy consumption and attitudinal data.

Ten consumer segments have been identified, which have been mapped across the UK. The EST can use this data to identify hotspots to target particular campaigns.

The EST is already observing differences in responses to campaigns by each of the consumer segments. For example, a mail out by the North East Sustainable Energy Centre saw a response rate of 8% to a home energy check mailer from EST target sectors, with a response rate of 4% from those sectors not targeted by the EST.

[Link to Matthew Wright's presentation](#)

### Metering

Gill Owen provided an overview of smart meter technologies, and an analysis of the potential for smart meters to have an impact on energy demand.

The installation of smart metering technology in other countries tends to be in response to concerns about managing peak demand, as opposed to delivering energy savings.

Smart meters alone are unlikely to deliver significant energy savings, and need to be supported by other measures such as information, advice and incentives.

In-home visual displays can provide regular feedback on consumption, which can help influence consumer behaviour, but to be effective these displays need to be delivered along with smart meters and not as a separate initiative.

Without some form of regulation, smart meters will not be installed in UK households on a major scale.

The Energy White Paper outlines the Government's vision for the wider uptake of smart meters, but further work needs to be undertaken looking at how smart meters would be rolled out in the UK.

Gill Owen and Judith Ward have published a report for Sustainability First on smart meters that covers:

- the costs of smart meters for electricity and gas;
- technology and communications issues particularly for gas smart meters;
- what contribution smart meters could make to demand and emissions reductions; and
- some of the social issues that will arise in smart meter deployment.

[Link to the report 'Smart meters in Great Britain: the next steps?', by Gill Owen and Judith Ward](#)

[Link to Gill Owen's presentation](#)

### Personal carbon allowances

Matt Prescott gave an overview of *CarbonLimited*, which is a three-year project through the Royal Society for the encouragement of Arts, Manufactures & Commerce (RSA) to examine the potential for a system of personal carbon trading to be introduced in the UK.

The concept of personal carbon allowances is designed to practically connect individual consumers into the broader climate change agenda, and ensure that individuals take action to reduce their own greenhouse gas emissions.

The project is at an early stage of development, and has been investigating how a personal carbon trading scheme could work in practice.

## Transforming the market to reduce energy demand

Research by Carbon*Limited* indicates that the technology exists to administer a personal carbon allowance scheme. A proposed way forward is to trial a voluntary scheme with incentives.

Key areas of focus for further exploration include how such a scheme would fit with other policies, the economic and social impacts of personal carbon allowances, and the challenges associated with delivering an equitable solution.

The RSA has an online application for people to trial the concept of personal carbon trading called CarbonDAQ.

[Link to CarbonDAQ, an online application for personal carbon trading](#)

[Link to Matt Prescott's presentation](#)

### Government campaigns

Peter Serjent gave an overview of the Defra campaign designed to encourage people to 'Act on CO2'.

The campaign aims to increase awareness and understanding of the link between greenhouse gas emissions and climate change, and to also provide individuals with the tools to act.

The central advertising idea is that 'every personal activity leaves a carbon footprint'. The campaign will bring together television advertising, press, PR, and a road show all supported by a personal carbon calculator to help individuals get a better understanding of the impact of their actions.

[Link to the Act on CO2 calculator which helps people work out their carbon footprint and make simple changes to act on climate change](#)

A third party engagement strategy is also underway to enlist schools, local authorities, and the voluntary and communities sector to extend the reach and influence of the campaign.

[Link to Peter Serjent's presentation](#)

### **Key conclusions**

There is considerable emphasis on the role of individuals in addressing the climate change challenge. It is important that this is supported by policies that make it easy for consumers to make choices that deliver sustainable energy outcomes, and complement action by business and Government.

It is clear that there is no simple answer to driving consumer behaviour change. A sustained approach that uses a range of instruments is needed to deliver a long-term shift in behaviour.

This seminar highlighted the breadth of activity that is being undertaken to help influence consumer behaviour. A coordinated approach will reduce duplication of effort, and ensure that relevant information is shared between key organisations.

### Action in our Cities

This event looked at current best practice at a Local Authority level to drive sustainable energy outcomes in our cities and towns and brought together a range of speakers, including:

- **Phil Beardmore**, Programme Manager, Birmingham Sustainable Energy Partnership who discussed the work of the partnership to encourage sustainable energy use across Birmingham by working with businesses, residents and the statutory and voluntary sectors;
- **Philip Webber**, Head of Environment Unit, Kirklees Metropolitan Council who gave an overview of his Council's activities to drive the uptake of energy efficiency, renewable energy, and energy services;
- **Andy Deacon**, Climate, Energy and Air Quality Strategy Manager, Policy and Partnerships Directorate, Greater London Authority who gave an overview of the range of activities in London to tackle climate change, and drive down energy demand; and
- **Patrick Law**, Group Corporate Affairs Director, Barratt Developments PLC who discussed how the Zero Carbon Homes commitment could change our cities, and the potential role of the major house builders and energy companies in delivering this goal.

### Summary

#### Birmingham Sustainable Energy Partnership

Phil Beardmore is Programme Manager of the Birmingham Sustainable Energy Partnership, and gave an overview of the activities of the partnership.

The Birmingham Sustainable Energy Partnership brings together a wide range of members to encourage sustainable energy use across the city. Activities include facilitating the development of renewable energy projects, as well as identifying opportunities to use energy more efficiently.

Partner organisations include Groundwork Birmingham and Solihull, Birmingham City Council, EAGA Partnership, National Energy Action, Hestia Services, Climate Change Solutions and Birmingham Credit Union Development Agency.

Key activities include:

- the installation of renewable energy projects, including photovoltaic panels;
- the successful implementation of a number of CHP schemes;
- an energy advice manual to help people save energy and money;

Birmingham is the first core city to develop a Climate Change Strategy through a local strategic partnership. As a next step, Birmingham plans to establish a Birmingham Climate Change Agency.

[Link to the Climate Change Strategy](#)

[Link to Phil Beardmore's presentation](#)

## Transforming the market to reduce energy demand

### Kirklees Metropolitan Council

Philip Webber gave an overview of the activities that have been undertaken at Kirklees Metropolitan Council.

Some of the key actions include:

- the implementation of an energy conservation pay back fund;
- an ambitious greenhouse gas emission reduction target of 30% reduction by 2025;
- programmes to improve people's homes;
- major renewable energy projects.

Kirklees Council is also the only local authority in the UK that enrolled in the UK Emissions Trading Scheme.

Kirklees Warm Zone is one of the biggest and most comprehensive programmes to tackle domestic energy efficiency and climate change in the UK. Through this programme, every home in Kirklees is eligible for free cavity wall and loft insulation.

[Link to Philip Webber's presentation](#)

[Link to Kirklees Council](#)

### Greater London Authority

Andy Deacon gave an overview of London's greenhouse gas abatement targets, and the range of activities to deliver these targets.

London is responsible for 8% of the UK's carbon dioxide emissions (excluding aviation) and has set a target to reduce greenhouse gas emissions by 60% by 2025.

[Link to the London Mayor's Climate Change Action Plan, 'Action Today to Protect Tomorrow'](#)

There are four programmes in place to meet this challenge relating to homes, businesses, energy and transport.

The Green Homes Programme includes a domestic energy support service that makes it easy for consumers to identify and realise sustainable energy opportunities.

[Link to more information about the Green Homes Service in London](#)

The Greater London Authority has formed partnerships with energy companies to promote energy efficiency and to set up the London Climate Change Agency, an energy services company servicing the London area.

[Link to Andy Deacon's presentation](#)

### Role of developers

Patrick Law, Director of Corporate Affairs at Barratt Developments gave a developer's perspective on the commitment to zero carbon homes.

The design of a house can make a significant contribution to reducing the carbon footprint of a home. However, moving to zero carbon will require investment in zero carbon energy supply either at the household, or community level.

With house prices continuing to rise at a faster rate than salaries in the UK, a key challenge facing developers is delivering sustainable homes at affordable prices.

To prepare for the implementation of the zero carbon homes commitment, Barratt developments is trialling various technologies and approaches at its ECO village. The experience will inform future developments.

[Link to Patrick Law's presentation](#)

### **Key conclusions**

In the UK, a number of local authorities are demonstrating strong leadership and driving sustainable energy improvements in their own operations, as well as across their municipalities.

However, the challenges of both gaining high-level engagement and political buy-in for action on climate change, and allocating resources to deliver sustainable energy outcomes, means that only the most committed local authorities are delivering action in this area.

A wide range of partners needs to be engaged to effectively address climate change at the local level. While learnings can be shared across municipalities, every local authority will have access to a unique set of opportunities as well as specific challenges to overcome in the move to a sustainable energy economy.

The Core Cities network provides an important focal point for activity at the city level, in terms of sharing information and expertise, and delivering projects that can benefit a number of cities.

Developers have a particularly important role in ensuring future developments are highly energy efficient. However, the design of dwellings is only part of the picture. Energy companies will need to be engaged in the implementation of low carbon energy supplies.

### Learning from International Experience

The final event in our series brought together a range of energy saving experts from around the world, including:

- **Paul Waide**, Senior Policy Analyst, Energy Efficiency and Environment Division, International Energy Agency who gave an overview of energy efficiency policy approaches around the world;
- **Martin Kushler**, Director of the Utilities Program at the American Council for an Energy-Efficient Economy who gave an overview of energy efficiency initiatives in the US and aligning energy company incentives with delivering energy efficiency outcomes;
- **Ian Gearing**, Corporate Responsibility Manager, National Grid plc who presented on National Grid's Energy Efficiency programmes in the US; and
- **Andrew Warren**, Senior Advisor to EuroACE who gave an overview of the Energy End-Use Efficiency and Energy Services Directive and what it means for the UK.

### Summary

#### International overview

The International Energy Agency undertakes analysis to identify and promote best-practice energy efficiency policies and technologies.

Paul Waide highlighted the large contribution that energy efficiency has made to reduce the need for investment in new energy supplies. The IEA analysis indicates that if the energy efficiency improvements weren't made over the past 3 decades, there would be a 50% increase in actual energy use in IEA countries.

While the rate of improving energy efficiency has slowed, there is still a large pool of unrealised energy efficiency opportunities. A range of policy instruments can be applied to realise these opportunities, including: information and awareness raising; minimum standards; public procurement; market transformation programmes; building codes; financial incentives; energy performance contracting and ESCOs; research and development; and energy efficiency obligations.

By considering energy efficiency as a resource, it is clear that it is a much more cost-effective decision to invest in demand side measures than to invest in new supply side infrastructure.

There are some good examples from around the world of the effectiveness of energy efficiency programmes. For example, California has seen a levelling of energy demand as a result of sustained energy efficiency initiatives, compared to consistent growth in the rest of the USA.

[Link to Paul Waide's presentation](#)

### Utility programmes in the US

Martin Kushler from the American Council for an Energy-Efficient Economy provided an overview of the long history of utility energy efficiency programmes in the US.

In the US, electricity and gas utilities are regulated at the state level. There are no national energy efficiency requirements on utilities, so energy efficiency initiatives are driven by each state. This means that there is a broad range of activities in place, with different levels of commitment and success. Out of 50 states, 10 account for 80% of utility energy efficiency spending.

There are a number of key differences between the UK and the US in the development and implementation of energy efficiency initiatives. In the US, the major driver for energy efficiency is that it is recognised as a cost-effective way to reduce the need for investment in new energy supply to meet customer demand.

The US has seen a number of different phases of utility energy efficiency programmes. In the 1970s, energy efficiency was seen as a way of helping consumers manage the sudden increases in energy prices that arose from the energy crisis. From the mid 1980s, energy efficiency was recognised as a cost-effective way to defer investment in new supply infrastructure. From the mid-1990s, with the deregulation of the industry, energy efficiency was seen to deliver public benefits. Most recently, there has been a shift back towards recognising the value of energy efficiency as a resource.

In the US there are a number of factors that support the increased uptake of energy efficiency programmes, such as increasing need for resources to meet energy demand, growing concerns about climate change, and progress in policy approaches that address utility economic disincentives, such as decoupling energy sales from the revenue of energy companies. Some remaining challenges include greater political attention on renewable energy, diversion of resources looking at demand management rather than energy efficiency, energy supply industries a powerful lobby.

Martin made three key observations about delivering energy savings in the UK.

1. Currently the key driver for energy efficiency in the UK is environmental. This contrasts with the US where energy efficiency is seen as an energy resource, which is seen as cost-effective alternative to investment in energy supply. Considering the resource value of energy efficiency in terms of deferred investment in network infrastructure would significantly increase the perceived value of energy efficiency activities in the UK.
2. In the US, significant energy savings have been made in the commercial and industrial sectors. There is a strong focus on delivering energy efficiency improvements in the residential sector in the UK. There are policy proposals looking at the business sector, and this is an area of significant energy saving potential looking forward.
3. Energy suppliers have an important role to play in delivering energy efficiency objectives. However, consideration needs to be given to the range of players that can influence energy demand. It is critical that policies align the incentives

## Transforming the market to reduce energy demand

of those that can influence energy demand to delivering energy efficiency outcomes.

[Link to Martin Kushler's presentation](#)

Martin has co-authored a number of publications that give an overview of energy efficiency programmes in the UK.

[Link to publication 'America's Best: Profiles of America's Leading Energy Efficiency Programs'](#)

[Link to publication 'Energy Efficiency and Electric System Reliability: A Look at Reliability-Focused Energy Efficiency Programs Used to Help Address the Electricity Crisis of 2001'](#)

[Link to publication 'Aligning Utility Interests with Energy Efficiency Objectives: A Review of Recent Efforts at Decoupling and Performance Incentives'](#)

The next ACEEE conference in October 2007 will showcase latest developments in utility energy efficiency programmes.

[Link to information on the ACEEE's 4th National Conference on Energy Efficiency as a Resource](#)

### National Grid's activities in the US

In the US, National Grid is a major retailer of gas and electricity, with 4.4 million electric customers, and 3.4 million gas customers.

The company has had a range of energy efficiency programmes in place since 1987. These have resulted in total energy savings of £140 million.

Programmes range from residential energy efficiency schemes and education to large business programmes.

National Grid's energy efficiency programmes have won a range of awards in the US, including the President's Environmental and Conservation Challenge Award.

In addition to outreach activities, National Grid also has a range of initiatives in place to reduce the environmental impact of their own operations.

[Link to Ian Gearing's presentation](#)

### Energy End-Use Efficiency and Energy Services Directive

Andrew Warren is a Senior Advisor to EuroACE. He provided an overview of the Energy End-Use Efficiency and Energy Services Directive.

The objectives of the directive are to promote cost-effective energy efficiency in EU Member States through obligations and the removal of institutional, financial and legal barriers; and to promote the development of a sustainable market for energy efficiency and energy services.

[Link to a summary of the Energy End-Use Efficiency and Energy Services Directive prepared by Andrew Warren](#)

### Key conclusions

Energy efficiency improvements have already significantly reduced the need for energy supply infrastructure around the world.

The motivation for implementing energy efficiency initiatives differs by country. For example, the US sees energy efficiency as an important resource that provides an alternative to investment in energy supply infrastructure, while the UK is focused on energy efficiency as a cost-effective way of reducing greenhouse gas emissions. It is both a strength and a weakness that energy efficiency delivers a broad range of benefits. Taking all the benefits into consideration builds a stronger case for action in this area.

There is still an enormous potential for further energy efficiency improvements across all sectors. A portfolio of policies will be needed to address a range of barriers and realise this potential.

A key challenge in policy development around the world is aligning the incentives of those who can influence energy consumption to encourage the delivery of energy efficiency improvements. In other words, policy makers must find ways to incentivise energy efficiency outcomes.

## Acknowledgements

The Council would like to specially thank all the speakers who contributed to the success of these events, and helped stimulate interesting discussions at each seminar.

The Council is grateful to eaga and National Grid for their generous support of these events.



## Next steps

The Council is keen to continue a dialogue with key stakeholders about how to realise the significant energy saving potential that exists in the UK.

In particular, the Council is keen to further explore the issues and challenges around establishing energy service companies in the UK.

If you are interested in supporting the work of the Council in this area, please contact Megan Wheatley, Head of Policy on [megan.wheatley@bcse.org.uk](mailto:megan.wheatley@bcse.org.uk)

## Attachments

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|--------------|---------------------|
| Attachment 1 | Speaker biographies |
| Attachment 2 | Attendees           |

## Attachment 1 – Speaker biographies

### Changing Consumer Behaviour

#### **Matthew Wright, Director of Customer Insight, Energy Saving Trust**

Matthew has worked across blue chip companies across customer facing operations: sales, marketing, business development, customer service, and across technical functions: innovation and engineering service support.

Matthew spent 11 years in various marketing roles at Unilever working on a range of brands, much of his time there being spent outside the UK. His last role at Unilever was Business Development Director and he was responsible for all sales and marketing activities to industrial customers in Europe; he led the Persil brand across five geographical regions of the world. Matthew then moved to Pitney Bowes as European Marketing Director where his remit was to look after product management and develop a professional marketing operation to assist an excellent tactical selling team. He had responsibility for Europe, the Middle East and Africa.

Matthew joined Arjo Wiggins Appleton in 1999 where he turned round a loss making division to deliver profit for the first time in 8 years, selling carbonless paper.

After this division was bought out and the headquarters moved to France, Matthew worked on number of interim assignments, one for over twelve months working for an American group which owned Rexel, before joining the Energy Saving Trust in 2005 as Director of Marketing. Matthew now oversees a busy Marketing department and in his time at the Energy Saving Trust has helped grow the brand and delivered innovative marketing campaigns such as the recent Save Your 20% and the I Commit campaign, which has now seen 100,000 people signing up their commitment to help reduce the effects of climate change

#### **Gill Owen – Senior Research Fellow,**

Dr Gill Owen is a Senior Research Fellow at the Centre for Management Under Regulation (CMUR) at Warwick University Business School, Chair of the Public Utilities Access Forum, a Non-Executive Director of Ofwat, and a member of the Government's Fuel Poverty Advisory Group.

She was a Commissioner of the Competition Commission for ten years until 2002 and has also been a Non-Executive board member of Ofgem. She continues as a member of Ofgem's Social Action Strategy Review Group.

She has been a Specialist Adviser to the House of Commons Environment Committee and an Expert Adviser to the Economic and Social Committee of the European Communities on sustainable energy policy issues.

She is co-author of a report on smart meters published in 2006 and of another report on smart meters published in early July 2007.

### **Matt Prescott – Project Director, CarbonLimited**

Matt is the director of a new initiative from the RSA - CarbonLimited, which is developing environmental policy solutions for involving individuals and communities in climate change mitigation, with a current focus on the idea for personal carbon trading.

A geographer and environmental scientist, graduating from University College London and the University of Leeds, he has worked on award winning community scale sustainability projects, such as Brixton's Angell Town regeneration in South London, where principles of environmental sustainability were mainstreamed.

Matt lives in a far-from-airtight solid-walled, single glazed Victorian building in Battersea, London, but points to a reclaimed timber floor (which was once the floor of a local gym), his surprisingly rare need for space heating, his dislike for shopping and the fact that he cycles everywhere as good trade-offs. His projected personal emissions on RSA CarbonDAQ of 1.34 tonnes of CO<sub>2</sub> per annum aren't, he suggests, all that easy to beat. [www.theRSA.org/carbondaq](http://www.theRSA.org/carbondaq)

### **Peter Serjent, Senior Marketing Manager, Defra**

Peter has been a public sector communicator for over 12 years. He has worked on a range of campaigns (Climate Change, Chewing Gum, New Deal for Lone Parents, Pension Credit) and fulfilled a number of different communication roles, including marketing, media relations, stakeholder engagement, and communications planning. He is currently working on a multi-media campaign to encourage behaviour change to help the Government meet the UK commitment to reduce carbon emissions by 60% by 2050.

### Action in our Cities

#### **Phil Beardmore, Programme Manager, Birmingham Sustainable Energy Partnership**

Phil Beardmore works for Groundwork Birmingham and Solihull as Programme Manager for the Birmingham Sustainable Energy Partnership, which he set up in 2003. He is the Chair of the Birmingham Environment Partnership's Climate Change Core Priority Group. Phil co-ordinated the Birmingham Climate Change Strategy and Action Plan. Previously, Phil worked for People for Action, and in 2002 was the co-author of the PFA publication "O2 – A Catalyst for Change", and prior to that, he worked for energywatch.

Phil is the Treasurer of the Balsall Heath Housing Co-operative in Birmingham, and is well-known within the housing co-operative movement in England. He is a governor of Tindal Primary School in Balsall Heath and a trustee of Tindal Association for School and Community. Phil is Chair of the East Birmingham Community Energy Company.

Phil lives in Birmingham with his partner Julie and their two daughters Rebekah (14) and Hannah (12). His interests include cooking and gardening and his organic kitchen and wildlife garden attracts many interested visitors. Phil, Rebekah and Hannah are Birmingham City season ticket holders.

#### **Philip Webber, Head of Environment Unit, Kirklees Metropolitan Council**

Philip Webber is Head of Environment Unit at Kirklees Metropolitan Council, where he runs a £10 million per annum award-winning programme of renewable energy, energy conservation, grants and the Kirklees Council Eco-Management and Auditing System (EMAS) with a staff of 22 and Council wide responsibilities.

He has also worked in public policy and research in physics at Imperial College, London.

### **Andy Deacon, Climate Change, Energy and Air Quality Strategy Manager Greater London Authority**

Andy Deacon is the climate change, energy and air quality strategy manager for the Greater London Authority and joined them last summer.

Prior to joining the GLA, Andy was head of the climate impacts and adaptation team in Defra's Global Atmosphere Division, with responsibility for national and international adaptation policy. Before that he worked for the UK's Royal Commission on Environmental Pollution researching and advising on a range of environmental issues.

Andy has an MSc in Applied Meteorology and Climatology from the University and Birmingham, and has published a number of journal articles and book contributions in the fields of weather, climate and air quality.

### **Patrick Law, Director of Corporate Affairs, Barratt Development plc**

Patrick Law is the newly appointed Director of Corporate Affairs at Barratt Development, and is a member of the company's Executive Committee. He is responsible for communications strategy and relationships with the company's investor, media and employee audiences. He is also responsible for managing the growing public policy agenda including urban regeneration, affordability, planning and zero carbon.

Patrick has considerable experience of the energy industry. Until December he was the Director of the CEO's office working directly for Sir Roy Gardner. Prior to that he was Director of Corporate Affairs for British Gas and Director of Public Affairs for the Centrica Group. In both roles he was closely involved in Government Affairs on issues such as electricity trading arrangements, taxation, European liberalisation, utility pricing environmental issues, telecommunications, fuel poverty and corporate social responsibility.

Patrick has a strong interest in the relationship between the corporate and voluntary sector. He was responsible for the introduction of British Gas's long term partnership with Help the Aged as well as a number of other award winning CSR projects. He chaired the Judging Panel of the New Statesman's Upstart Programme, a national competition to identify and promote social entrepreneurs. He has served as a Board Director of the UK Business Council for Sustainable Energy, is a Trustee of NEA, the charity campaigning to end fuel poverty and is a fellow of the Royal Society of Arts.

He was educated at Oxford and lives in Greenwich with his four young children.

### Learning from International Experience

#### **Paul Waide, Senior Policy Analyst, Energy Efficiency and Environmental Division, International Energy Agency**

Paul Waide joined the Energy Efficiency and Environment Division (EED) of the International Energy Agency in March 2004 as a Senior Policy Analyst.

He has a central role in the agency's work on energy efficiency including fulfilment of the IEA's mandate to assist the G8 countries in developing their plan of action addressing Climate Change, Clean Energy and Sustainable Development of which the majority of the work is being coordinated by the EED.

He provides demand analysis for the agency's influential long-range energy scenarios including the World Energy Outlook and the recent Energy Technologies Perspectives publications and is the principle author of some of the agency's main publications addressing energy efficiency policy, including the latest IEA book on energy efficient lighting, *Light's Labour's Lost: Policies for Energy Efficient Lighting* and the previous analysis of the residential electricity sector, *Cool Appliances: Policy Strategies for Energy-Efficient Homes*.

Prior to joining the IEA he worked as an international energy efficiency consultant for 14 years wherein he was involved in the promulgation of numerous equipment energy efficiency programmes (especially those concerned with standards and labelling) in Europe, China, South Africa and numerous other countries.

Mr Waide has a Ph.D in Applied Energy from Cranfield University in the UK.

#### **Dr. Martin Kushler, Director of the Utilities Program for the American Council for an Energy Efficient Economy (ACEEE)**

Dr. Martin Kushler is Director of the Utilities Program for the American Council for an Energy Efficient Economy (ACEEE), a non-profit research and policy organization founded in 1980, with headquarters in Washington, D.C.

While at ACEEE he has directed numerous widely acclaimed national studies of utility sector energy efficiency policies and programs, and helped advance energy efficiency policies in many states.

Prior to joining ACEEE, he was Supervisor of Evaluation at the Michigan Public Service Commission (the utility regulatory commission in Michigan) for nearly ten years.

He has been involved directing research and evaluation regarding energy efficiency and utilities for over two decades, has been widely published, and has provided consulting services to numerous states and the federal government.

Dr. Kushler resides in Williamston, Michigan, and works regularly with states throughout the U.S. His wife, Charlene, is in private practice as a Psychologist, and his daughter Jessica, age 19, attends Michigan State University.

### **Ian Gearing, Corporate Responsibility Manager, National Grid plc**

National Grid is one of the world's largest utilities, focused on delivering energy safely, reliably, efficiently and responsibly. Its principal interests are in the transmission and distribution of electricity and gas in the UK and US.

Ian's career with National Grid has included electrical engineering, project management, corporate strategy and, for the past six years, corporate responsibility. Ian co-ordinated the development of the Company's responsible business values – the 'Framework for Responsible Business' - and is responsible for producing the CR content of the Company's Annual Report and Accounts and website as well as engaging with socially responsibly investors and other stakeholders on the Company's non-financial performance.

Ian is a founding member of the Business Leaders Initiative on Human Rights, a business-led initiative aimed at helping mainstream human rights within the business sector through its own work and by supporting the work of others.

### **Andrew Warren, Senior Advisor EuroACE (European Alliance of Companies for Energy Efficiency in Buildings)**

Andrew Warren has been Director of the Association for the Conservation of Energy since its foundation in 1981.

He was a former Special Advisor to House of Commons Select Committee on the Environment and has given evidence to many House of Commons and House of Lords Select Committees in the UK and also to inquiries undertaken by the European Parliament. He has spoken at a several hearings called by the European Commission and has spoken in every Member State of the European Union (EU-15) at a variety of conferences on energy and environment issues.

In addition to writing regular monthly columns for several trade publications, he has also contributed articles to many international newspapers such as the Financial Times, The Guardian and The Independent. Andrew Warren holds the following positions:

#### UK

- Chair of the British Energy Efficiency Federation
- Chair of the Sustainable Energy Partnership
- Deputy Chair of the Energy Efficiency Partnership for Homes
- Member of the Steering Group for the Sustainable Energy Programme of the Royal Institute for International Affairs
- Member of the CBI's Energy Policy Committee

#### Europe

- Senior Advisor to the European Alliance of Companies for Energy Efficiency in Buildings (EuroACE)
- Chair of the EU Task Group on Sustainable Construction and Energy Efficiency
- Member of the European Climate Change Programme Working Group
- Member of the European Commission DG TREN Policy Advisory Forum
- Member of the European Commission International Demand Side Management Committee

## Attachment 2 – Attendees

### Changing Consumer Behaviour

Matt Prescott	Carbon Limited
Gill Owen	Centre for Management Under Regulation, University of Warwick
Ian Rogers	Centrica
Paul Chambers	DEFRA
Michael Sozansky	EDF Energy
Nick Goodall	Energy Networks Association
Matthew Harwood	Scottish Power
David Green	UKBCSE
Ada Young	UKBCSE
Judith Ward	UKBCSE
Megan Wheatley	UKBCSE
Claire Stubbs	PRASEG
Rebekah Phillips	Green Alliance
Michelle Shipworth	University of Reading
Andrea Kaszewski	WWF
Ingrid Holmes	Climate Change Capital
Mitesh Dhanak	EAGA
Paul Bowens	EAGA
Russell Hamblin-Boone	ERA
Matthew Wright	EST
Chris Jacobs	DEFRA
Tom Luff	DEFRA
Peter Serjent	DEFRA
Ute Collier	Environment Agency
Sarah Darby	Environmental Change Institute
Cassie Higgs	National Consumer Council
Graham Kirby	Powergen
John McElroy	RWE npower
John Pietryszak	Scottish Power

### Action in our Cities

Paul Chambers	DEFRA
Nick Goodall	Energy Networks Association
David Green	UKBCSE
Ada Young	UKBCSE
Judith Ward	UKBCSE
Megan Wheatley	UKBCSE
Mitesh Dhanak	EAGA
Ute Collier	Environment Agency
Peter Smith	CHPA
Jenny Holland	ACE
Lewis Morrison	EST
Hannah Hislop	Green Alliance
Patrick Law	Barratt Developments
Phil Beardmore	Birmingham Sustainable Energy Partnership
Helen Champion	DEFRA
Jonathan Stern	DEFRA
Rita Wadey	DTI
Nigel Turner	EDF Energy
Andy Deacon	GLA
Philip Webber	Kirklees Metropolitan Council
Neil Reed	Powergen

### Learning from International Experience

Paul Chambers	DEFRA
Nick Goodall	Energy Networks Association
David Green	UKBCSE
Ada Young	UKBCSE
Judith Ward	UKBCSE
Megan Wheatley	UKBCSE
Matt Prescott	Carbon Limited
Gill Owen	Centre for Management Under Regulation, University of Warwick
Ian Rogers	Centrica
Michael Sozansky	EDF Energy
Matthew Harwood	Scottish Power
Lizzie Chambers	Climate Change Capital
John Connor	Climate Institute, Australia
Hugh Goulbourne	Compass Environment & Sustainability Group
Madeleine Holme	coolnrg
Rachel Ollivier	coolnrg
Lara Olsen	coolnrg
Tom Bastin	DEFRA
Catherine Browne	DEFRA
Michael Harrison	DEFRA
Stephen De Souza	DTI
Michael Seeney	eaga
Barry Adley	EDF Energy
Gareth Wordingham	EDF Energy
Frances Williamson	ERA
Jennifer Powers	EST
Michael Feliks	Office of Climate Change
Dan Goncher	Office of Climate Change
Kate Levick	Office of Climate Change
Pauline Lawson	Powergen