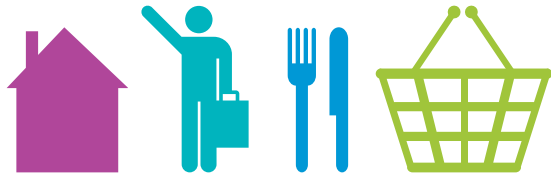


Low Carbon Scotland: A Behaviours Framework





We are heading for a Low Carbon Scotland...

A Scotland where...

...we have reduced the local and global environmental impact of our consumption and production

...our electricity, heating and the way we travel are largely decarbonised

...the food we eat is healthy and locally produced

...we have access to improved employment opportunities through our new low carbon economy

✦ This Framework outlines what the Scottish Government will do to drive and support the move to low carbon living in the lead-up to the first key climate change target in 2020. It specifies **the key behaviours we are seeking to influence**, outlines the **Scottish Government's evidence-based approach to behaviour change** and **the actions we will take**, and explains **how we will measure progress** in this area. The Framework is aimed at policymakers and other key influencers and intermediaries who are helping in the move towards a low carbon Scotland, and proposes **the role these partners can take** in influencing low carbon behaviours. It is intended as the next step on from the *Low Carbon Scotland: Public Engagement Strategy* which was published in 2010.¹

¹ www.scotland.gov.uk/Publications/2010/12/23134226/0

...but how do we get there?

Over the coming decades, we will all have to adapt to a reduced reliance on carbon – from the level of government, local authorities and the public sector, through to business, communities, households and individuals; this is the basis of an unprecedented economic and environmental opportunity for Scotland. Huge infrastructural and technological advances are being made to help drive this transformational change.

The Second Report on Proposals and Policies for the period 2013 to 2027 was published, in draft, on 29 January 2013 for a 60-day consultation period.² This document outlines the measures that will be taken to ensure we meet our statutory targets under Scotland's Climate Change Act. Publication of the final report is expected by summer 2013.

"Huge infrastructural and technological advances are being made to help drive this transformational change."

Some of the key low carbon measures supported by government that we will see over the coming years include:

- Development of more sustainable systems for heating and insulating our homes, and access to these supported through the Green Deal³ and the National Retrofit Programme⁴ (NRP).
- Development of new electric car technologies, and an associated increased take-up of electric cars on our roads.
- Technologies which will ultimately allow for the complete decarbonisation of heating and cooling processes in industry, business and the public sector.
- Dramatic reduction of waste to landfill, to – eventually – completely remove waste as we know it from our economy and instead see it as a material resource for use in a variety of ways.

² www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/lowcarbon/meetingthetargets

³ www.gov.uk/greendeal

⁴ www.scotland.gov.uk/Publications/2012/06/8390/4

So, how does this involve us as individuals?

Although these infrastructural and technological measures are crucial in moving us towards a low carbon Scotland, the impact of many of them depends heavily on the extent to which people adopt and use them. It is therefore vital that the people of Scotland fully understand these measures, and how to incorporate them into their everyday lives, to ensure everyone is both *willing* and *able* to make the move to low carbon living.

The transition to a low carbon Scotland will require significant lifestyle changes for most people, impacting on the ways we get around, how we heat our homes, buy our food, and the goods we consume. This will mean a whole cultural shift over the coming years.

This will be challenging, but the initiatives being implemented and supported by the Scottish Government aim to make the transition as seamless and straightforward as possible. Government and its partners need to engage fully with the public on the impacts of climate change and the actions we can all take, together, to make the move to a low carbon Scotland.

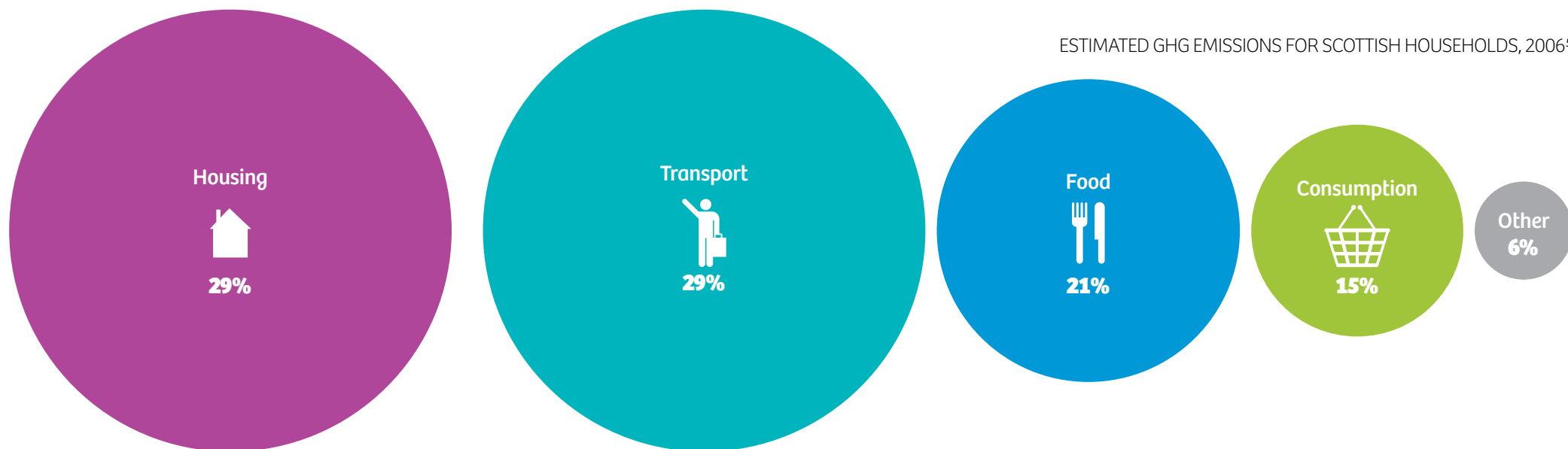
" It is vital that the people of Scotland fully understand these measures, and how to incorporate them into their everyday lives."

A successful transition depends upon Scotland's public learning to adapt to a changing environment – both built and natural. It is vital that we all work together to plan and prepare for change now, so that Scottish communities and businesses are better placed to build resilience and to take advantage of the opportunities that will come with low carbon living.

The engagement and support proposed in this Framework are crucial to helping individuals, households, communities and businesses be ready to take a new low carbon approach – for our lives now and in the future.

What should people be doing differently?

Individuals and households account for **70%** of Scotland's consumption emissions. These break down into **four key themes**:



* Consumption vs. production emissions

Production-based emissions are the emissions we generate domestically. These have gone down in Scotland over the past couple of decades because we have become more efficient in the use of energy and because the share of manufacturing in production has decreased.

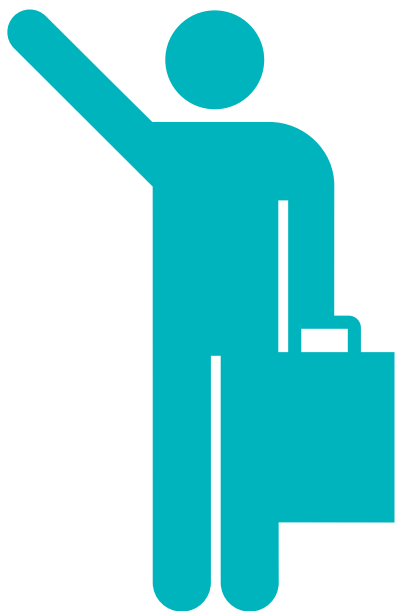
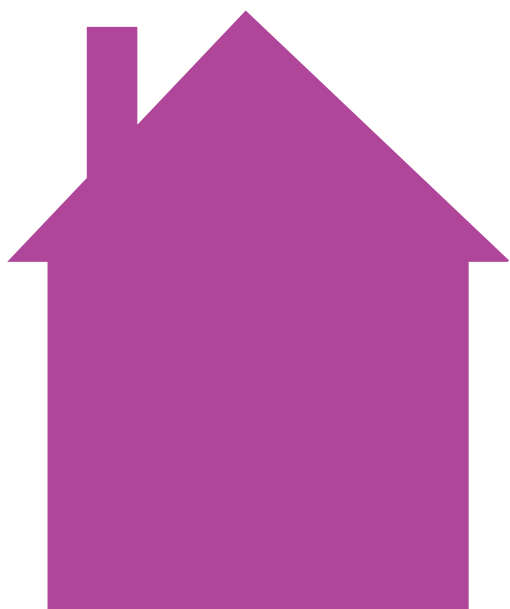
Consumption-based emissions take into account all the emissions we are responsible for as consumers of the goods and services we buy including those we import in Scotland. These emissions have not decreased to the same extent as production-based emissions despite generally improving energy efficiency across the world because we are consuming more.

⁵ www.scotland.gov.uk/Publications/2009/10/28101012/0

The Ten Key Behaviour Areas

These four themes (home energy, transport, food and consumption of goods and services) can be split down further into **Ten Key Behaviour Areas (10 KBAs)**, highlighting where individuals and households can really make a difference at the present time. These were identified through the Scottish Government's Climate Change Behaviour Research Programme (CCBRP) in 2010, and are intended to guide policymakers and other influencers on where public engagement and influencing activity is of most value. The 10 KBAs are listed in full on the next page.

For more detailed information on the ten key behaviours, please see: www.scotland.gov.uk/Topics/Research/by-topic/environment/social-research/Behaviour-Change-Research/CCBRPupdatereport



Ten Key Behaviour Areas

If everyone in Scotland drives more efficiently – saving up to 15% of fuel use – together we can save 1.3 million tonnes of CO₂ annually. This is equivalent to taking around 440,000 cars off the road.

If everyone recycles one more newspaper or magazine a month, together we will save over 11,000 tonnes of CO₂ per year – equivalent to making over 16 million cups of tea.

Turning your thermostat down by one degree is one of the best energy saving actions you can take. If all of us in Scotland turn the dial, together we will reduce housing emissions by 10%.

1. Keeping the heat in (insulation, draught proofing, double glazing)



2. Better heating management (turning down heating thermostat to between 18° and 21°, reducing the hours the heating is on, and turning down hot water thermostat to a maximum of 60°)

3. Saving electricity (buying energy efficient appliances, lightbulbs, TVs and other products when they need to be replaced, washing clothes at low temperatures)

4. Installing a more energy-efficient heating system or generating your own heat by replacing inefficient boilers with condensing boilers and/or microgeneration (e.g. solar water heating, biomass boiler, heat pump)

5. Becoming less reliant on the car (walking, cycling, using public transport and/or car-sharing instead of driving)



6. Driving more efficiently (using a low carbon vehicle (fuel efficient, hybrid, alternative fuel or electric), and/or following fuel-efficient driving principles)

7. Using alternatives to flying where practical (e.g. train or teleconferencing for business)

8. Avoiding food waste



9. Eating a healthy diet high in fruit and vegetables, in season where we live

10. Reducing and reusing in addition to the efforts we already make on recycling



The food we waste in our households creates 1.7 million tonnes of CO₂ each year. Stopping this waste will be equivalent to taking around 475,000 cars off the road in terms of cutting emissions – that's one in five!

If everyone in Scotland drives five miles a week less than they do now, together we will save 190,000 tonnes of CO₂ annually – equivalent to taking nearly 70,000 cars off the road.

If everyone in Scotland washes their clothes at 30°, together we will save 56,000 tonnes of CO₂ per year – equivalent to taking 20,000 cars off the road.

Why has influencing change been difficult so far?

Attempts at influencing low carbon behaviours in recent years have had some success, but the 'sea change' that is required hasn't yet been triggered, and it is clear that something more is needed. Extensive research has been undertaken to consider what elements are missing, and how efforts might be improved in future.

This research suggests that many interventions to date have sought to influence people primarily at the *individual* level, and have not generally allowed for the broader contexts in which people are living and working. While the individual approach can have a valuable role in certain situations, this alone is unlikely to initiate the groundswell of change that is needed.

While previous interventions have often tackled behaviours in isolation from one another, low carbon living is about a lot more than just changing one behaviour. 'Cherry-picking' from the ten key behaviours is no longer an option. People must be influenced across multiple areas in order to achieve real change, and this involves creating a 'low carbon package' for people to take on board.

This is easier said than done. In 2008, the Scottish Environmental Attitudes and Behaviours Survey showed that almost half of people (45%) felt that recycling was the action that would most help reduce climate change. Many people believe they are 'doing their bit' for the environment through recycling and do not realise they need to do anything else⁶. Together, we need to build a better understanding of what 'doing your bit' really involves, and support more people to adopt and follow more of the ten key behaviours more often. We all have to dramatically change the way we live, work and travel as we move towards low carbon lifestyles.

"We all have to dramatically change the way we live, work and travel as we move towards low carbon lifestyles."

For more information on the drivers and barriers to behaviour change, see: The 2011 Climate Change Behaviours Research Programme (CCBRP) Update www.scotland.gov.uk/Resource/Doc/175776/0114807.pdf and the Main Findings from the CCBRP www.scotland.gov.uk/Publications/2013/03/9022/0

⁶ www.ipsos.com/public-affairs/sites/www.ipsos.com.public-affairs/files/documents/tipping_point_or_turning_point_climate_change.pdf

How best can we influence behaviours?

In order to successfully influence the way people behave, it is crucial to recognise that all our behaviour is *contextualised* – within the values and attitudes that we hold, the habits we have learned, the people around us, and the tools and infrastructure available to us in our day-to-day lives. Research commissioned by the Scottish Government demonstrates that considering the *individual* level in combination with the *social* and *material* levels is likely to be more successful in influencing behaviour⁷.

What do we mean by Individual, Social and Material (ISM)?

The **individual** context includes factors that affect the choices made by individuals and the behaviours they undertake. These include an individual's values, attitudes and skills, as well as the calculations they make before acting including personal evaluations of costs and benefits.

The **social** context includes factors that exist in the social realm, beyond the individual yet shaping their behaviours. These influences include understandings that are shared amongst groups, such as social norms and the meanings attached to particular activities, as well as people's networks and relationships, and the institutions and opinion leaders that influence how groups of individuals behave.

The **material** context includes factors that are 'out there' in the environment and wider society, which both constrain and shape behaviour. These influences include existing infrastructures, technologies and regulations, as well as other 'softer' influences such as the time and schedules of everyday life.

That's all very theoretical...how does this translate into action?

By understanding better the various influences on how people act, multiple levers can be pulled at the same time in order to more successfully impact on people's behaviours. There's a wide range of specific actions that can be taken to influence behaviours, but simply put:

⁷ www.scotland.gov.uk/Publications/2011/02/01104638/0

- **At individual level:** making it easy by making the sustainable choice the default choice.
- **At social level:** building common cause (values) and supporting the development of positive social norms.
- **At material level:** supporting the development of technologies and infrastructure (e.g. electric cars and charging points), considering regulation where appropriate, and influencing softer material factors (e.g. people's schedules).

The success of recycling levels in Scotland provides an excellent illustration of this: a series of campaigns and information provided to households have informed us at the *individual level* how and why we should recycle; recycling is something we see our neighbours doing, so it is becoming a *social* norm; and each household in Scotland has been provided with a range of bins to support them at the *material* level to change their behaviour.

The Scottish Government is committed to working with partners to roll this approach out. To support this, we will publish a user guide on the Individual, Social and Material (ISM) tool for behaviour change in spring 2013, and we will offer a series of introductory workshops to internal government officials, NGOs, intermediaries and other partners throughout 2013-14 on the practical application of the ISM tool.

What is the role of values in low carbon behaviours?

Communicating a low carbon lifestyle is more complex than relying solely on traditional money-saving motivators. It means activating values around positive wellbeing and health, social and family cohesion and a strong sense of community, and linking up individual actions to build a picture of a coherent and affirmative lifestyle worth aspiring to.

Research demonstrates that we all hold a range of values in common. These can be temporarily 'engaged' by certain communications or experiences – which in turn can affect our attitudes and behaviours. If we are reminded of our **intrinsic values** (those that are inherently rewarding to pursue, e.g. generosity, family, social justice, concern for others), we are more likely to support pro-environmental policies than if we are reminded of **extrinsic values** (based on external reward, such as financial success and status) – without any mention of the environment being made. This can be a very powerful tool in influencing behaviours, and the Scottish Government is looking to incorporate this research into its programme of work on low carbon behaviour planned for 2013 and beyond.

For more information on values and their role in influencing behaviour, look at the webpages of the Common Cause team of experts who have been leading the way in this work in the UK: www.valuesandframes.org

Greener Together Campaign

The Scottish Government's 'Greener Together' Campaign, running since January 2012, has sought to represent the ten key behaviour areas in an integrated way that engages intrinsic values, through television, outdoor and digital social advertising, supported by a website and helpline. Through encouraging people to 'Go Greener Together' to create a cleaner, greener, healthier Scotland, the campaign's focus on collective action is designed to have a significant and long-lasting impact on behaviours. Early indications are positive – following the first burst of campaign field activity for example, 89% of people reported that they had taken some action as a result.

'Too Good To Waste' STV Programmes

In 'Too Good To Waste', a four-part television series, aired in April 2012, Scottish celebrities were challenged to reduce their wasteful ways, and were joined by a number of industry and celebrity experts to demonstrate how everyone has the potential to make changes to reduce costs and become 'greener'. In sponsoring these programmes, the Scottish Government aimed to reach a wider audience, particularly those without access to the internet.

An independent qualitative study was undertaken to assess the impact of the programmes in motivating the desired behaviour changes. All those who participated in the study demonstrated some behaviour change during and following programmes. The behaviours most adopted related to driving, electricity management, lowering food waste and composting.

The four episodes are available to view at: www.greenerScotland.org/why-live-greener/too-good-to-waste

 LET'S GO GREENER TOGETHER.
WWW.GREENERSCOTLAND.ORG

What about Business Engagement?

Businesses play an important role in contributing towards a low carbon Scotland, both in terms of reducing their own emissions, and in setting an example to other sectors of society. Many Scottish businesses have already taken significant steps to improve or reduce their impact on the environment, and it is increasingly recognised that being able to demonstrate green credentials can offer substantial benefits in terms of attracting and retaining customers and contracts. It is vital that we support businesses on this journey, and encourage others to follow suit.

The 2020 Climate Group has a wide range of business members in Scotland including major power companies, utility companies, transport companies and retailers. A key aim of the group is to lead by example in helping Scotland achieve the 42% emissions reduction target by 2020. The group is currently identifying its '13 priority actions for 2013' which will shortly be available to view on the 2020 website: www.2020climategroup.org.uk

Many of the behaviours we are encouraging households to adopt are equally relevant in a workplace environment – reducing emissions from travel, energy use, food and waste. Many Scottish businesses are already taking steps to ensure their staff are fully engaged in the journey towards 'being green' and are taking responsibility for changes that are being made within the business.

In 2012, the Scottish Government, in partnership with Defra and the 2020 Climate Group, commissioned some research into low carbon staff engagement, producing an easy-to-read guidance booklet, *Better Business: How To Go Greener With Staff To Improve Performance*⁸. A follow-up event supporting businesses on this journey took place in January 2013, and the Scottish Government will look at providing further support to businesses throughout 2013-14 and beyond.

'Resource Efficient Scotland', to be launched in spring 2013, will provide a one-stop resource efficiency advice service for businesses, on cutting waste and the efficient use of materials, water and energy.

⁸ www.scotland.gov.uk/Publications/2012/03/6082

How will the Scottish Government support Low Carbon Behaviours?

The Scottish Government is committed to supporting the policies and proposals announced in the RPP with a broad spectrum of behaviour-related interventions. Some of these are outlined as follows:

- **Greener Together Campaign** – we will continue to support this national campaign. Greener Together was first launched in January 2012 with a helpline and website, and aims to encourage the uptake of the ten key behaviours www.greenerScotland.org. This is supported by individual behaviour-specific campaigns, such as the Active Travel campaign planned for mid-2013.
- **ISM Tool** – we will:
 - publish a user guide on the Individual, Social and Material (ISM) tool for behaviour change in spring 2013⁹;
 - deliver workshops on the ISM tool for government officials responsible for the proposals and policies put forward in the RPP2 in 2013-14;
 - offer a series of introductory workshops to NGOs, intermediaries and other partners throughout 2013-14 on the practical application of the ISM tool.
- **Low Carbon Pilot Projects** – we are commissioning a series of projects to test out innovative ideas for influencing behaviours. These include a range of small scale projects focusing on one or two specific behaviours, such as working with Zero Waste Scotland to launch a ‘doggy bags’ campaign in Edinburgh and Glasgow restaurants to raise consumer awareness of and reduce food waste; partnering with Sustrans to establish an electric bikes ‘hub’ in Cairngorm National Park to encourage take-up of cycling in the area; and working with Energy Saving Trust to develop a series of YouTube videos on how to adjust heating thermostats to help people reduce emissions in their own homes. We will also assess the viability of commissioning some larger scale exemplar projects.

⁹ Publication of the ISM User Guide and accompanying technical paper is scheduled for spring 2013 on the Scottish Government website.

- **Low Carbon Networks** – we will continue to work with and support a range of networks which help promote the adoption of the ten key behaviours – including Eco-Schools Scotland, the Scottish Communities Climate Action Network, Eco-congregation Scotland; the Sustainable Scotland Network, CIFAL Scotland, and the Sustainable Development Education Network. We are also keen to engage with other organisations and networks on the 10 KBAs.
- **Low Carbon Business Engagement** – we will continue to support business engagement through a variety of organisations and initiatives, including the 2020 Climate Group, Scottish Business in the Community, the VIBES Awards, the Environmental Placement Programme, Choose Another Way and Resource Efficient Scotland. We are also keen to build new partnerships in this area.
- **Climate Challenge Fund (CCF)** – we are continuing to support this successful community fund, and £10.3 million per annum is committed over the years 2012-13 to 2014-15. CCF criteria has been revised to allow for projects to generate revenue (within state aid rules); the establishment of a Youth Panel to assess applications to the Junior Climate Challenge Fund (JCCF); and new development grants to be made available for disadvantaged communities, black and ethnic minority communities, and the JCCF.
- **Active Travel and Alternative Travel Options** – we will continue to provide support through grants to Sustrans, Cycling Scotland and Paths for All, support for car clubs, and Energy Saving Trust support for electric vehicles, travel planning and fuel-efficient driving.
- **Low Carbon Dialogues** – a range of people outwith our regular stakeholder network will be invited to take part in Low Carbon Dialogues with the Minister for Environment and Climate Change, starting in March 2013. The themes for these bi-annual discussions will include both mitigation and adaptation issues with a focus on behaviour change.
- **Installation of Household Energy Efficiency Measures** – we will continue to offer support to householders to help increase energy efficiency, for example through the National Retrofit Programme. The full list of measures and schemes available can be found at: www.energysavingtrust.org.uk/scotland

What can our partners do to support Low Carbon Behaviours?

A key aim of this document is to clearly lay out the role we envisage our many partners and stakeholders being able to take in leading the way to a low carbon Scotland, in particular with regard to influencing behaviours. Our current partners include other public sector agencies and government-funded bodies, local authorities, charities, environmental – and other – NGOs, as well as voluntary and community groups, and we are open to working with new organisations to keep driving this key agenda.

We are confident that the way forward in terms of influencing low carbon living choices lies in addressing the broader contexts of individual, social and material in a coherent and integrated way when developing any new proposals or initiatives.

The Draft Second Report on Proposals and Policies gives details of the – largely *material* – measures that will be introduced and further rolled out in coming years. We propose that the primary role of our partners is to work with us and with each other to help create the appropriate *individual* and *social* conditions – and potentially additional material input where appropriate – to support the adoption and uptake of these new measures across Scottish society.

Much work is already being done in this area, for example by the Energy Saving Trust and Zero Waste Scotland, whose programmes and initiatives tackle a wide range of individual, household and business behaviours. In the lead-up to 2020, we will be keen to see an expansion of this type of activity, with government and partners regularly using the ISM model to develop policies and proposals.

We would encourage communities to consider themselves as partners too: both geographic communities, and communities of interest hold a tremendous amount of potential to positively influence social norms and encourage low carbon living. The Climate Challenge Fund is one means through which the Scottish Government is continuing to support communities to foster low carbon change.

The ISM User Workshops we will deliver in 2013-14 will offer support to a wide range of our partners and stakeholders in putting the ISM tool into practice.

How will we track progress on Low Carbon Behaviours?

*Scotland Performs*¹⁰ measures and reports on the progress of government in Scotland in creating a more successful country, with opportunities for all to flourish through increasing sustainable economic growth. This is done through a series of core purpose targets, of which the key sustainability one is:

- To reduce emissions by 80% by 2050

Influencing low carbon behaviours will be central to achieving this target. *Scotland Performs* reports on a range of headline social, economic, environmental and wellbeing indicators, including reducing Scotland's carbon footprint.

What Are The Low Carbon Behaviour Indicators?

We have identified a small set of behaviour-related indicators that complement the *Scotland Performs* set on our carbon footprint and reducing emissions, with the intention of obtaining a general indication of the direction of change.

Tracking progress on behaviour is not simple or straightforward, and it is often necessary to rely on proxy indicators. These indicators cover the key low carbon behaviour themes (food, transport, energy and consumption of goods and services), and attitudes towards climate change. They have been selected as they represent everyday actions, with good data availability, and will give an indication of the attitudes and behaviours of the Scottish public.

The Scottish Government is considering a wider range of indicators across the 10 key behaviour areas and will publish further information in summer 2013.

¹⁰ www.scotland.gov.uk/About/Performance/scotPerforms

Indicators	Latest figure (year)	Performance ¹	Source
Climate Change – emissions, footprint and attitudes			
Reduce emissions (Scotland Performs)	54.7 million tonnes of CO ₂ equivalent (2010)	⬇ Performance Worsening	Scottish Greenhouse Gas Emissions
Reduce carbon footprint (Scotland Performs)	82.1 million tonnes of CO ₂ equivalent (2009)	⬆ Performance Improving	Scottish Greenhouse Gas Emissions on a Consumption Basis
Percentage of people agreeing that climate change is an immediate and urgent problem	57% (2008)	Figure not yet available ²	Scottish Environmental Attitudes and Behaviours Survey (SEABS) ³

Key behaviour areas

Home energy – percentage of households who monitor energy use (very or fairly closely)	47% (2011)	Up 2% points since 2010	Scottish House Condition Survey (SHCS) ⁴
Transport – percentage of journeys made to work by public or active transport (Scotland Performs)	30.8% (2011)	↔ Performance Maintaining	Scottish Household Survey (SHS)
Food – percentage of people who consume 5 portions or more of fruit and vegetables per day	22% (2010)	Down 1% point since 2009	Scottish Health Survey (SHeS) ⁵
Consumption – waste generated – local authority municipal solid waste (Scotland Performs)	3.06 million tonnes	⬆ Performance Improving	Scottish Environment Protection Agency (SEPA)

Notes

¹ Arrows for Scotland Performs measures drawn from the Scotland Performs website and based on change from latest figure compared to previous figure available: www.scotland.gov.uk/About/Performance/scotPerforms. This website also provides background information and data for the Scotland Performs based indicators.

² Progress can be tracked annually from 2013 via the Scottish Household Survey (SHS). The first annual data will be available from summer 2014.

³ See www.scotland.gov.uk/Publications/2009/03/05145056/0

⁴ See www.scotland.gov.uk/Resource/0041/00410389.pdf. This data will be collected from the SHS from 2012 onwards.

⁵ See www.scotland.gov.uk/Publications/2012/09/7902

So, a Low Carbon Scotland will be...

...a new Scotland, where as a society we have reduced our reliance on carbon, and living, working and travelling in sustainable ways is the norm. A low carbon Scotland will provide opportunities for all of us to flourish.

There is no doubt that the transition to low carbon living will present challenges. Individuals, households, communities and businesses are being asked to make some fairly big changes to the way they live, work and travel, and to adapt to a wide range of new technological and infrastructural measures which are driving the move to a low carbon Scotland.

The role for the Scottish Government and its partners is to influence people's behaviour to ensure the necessary changes are achieved, whilst simultaneously ensuring that people are supported in adapting to this level of change. This Framework has presented the approach that the Scottish Government is taking to realise this.

The Scottish Government is committed to working closely with its partners – the public sector, NGOs, intermediaries, community organisations, businesses and other networks – to ensure that the transition to low carbon living is as smooth as possible. A low carbon Scotland will be a better Scotland, for everyone.



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