



**Consumer
Futures
Unit**

Changing behaviour in a changing climate: consumers and Scottish climate change policy

August 2018
Consumer Futures Unit publication series: 2018/19 - 8





Changing behaviour in a changing climate: consumers and Scottish climate change policy

Report Author: Dr Jamie Stewart
Contact: CFUenergy@cas.org.uk



Electronic: ISSN 2398-6220
Hard copy: ISSN 2398-6212
Consumer Futures Unit publication series: 2018/19 - 8



Contents

About us	3
Executive Summary	4
1. Our Research	7
2. Background	8
3. Scottish climate change policy - Review of consumer impacts	11
4. Stakeholder views of Scottish climate change policy and progress	17
5. Lessons learned from previous behaviour change schemes	19
6. Appendix	20

About us

The Consumer Futures Unit (CFU), part of Citizens Advice Scotland, uses research and evidence to put consumers at the heart of policy and regulation in the energy, post and water sectors in Scotland. We work with government, regulators and business to put consumers first, designing policy and practice around their needs and aspirations. Our advocacy work is underpinned by a set of seven consumer principles which are shown below.

The Citizens Advice network plays a vital role as an advice provider for energy consumers, through the Extra Help Unit, Citizens Advice Consumer Service, and the 60 Citizens Advice Bureaux across Scotland. In 2017-18, our services helped clients with almost 40,500 energy issues and secured over £1.6 million in financial gain for these consumers.

Consumer Principles





Executive Summary

Citizens Advice Scotland (CAS) seeks to improve outcomes for consumers. We use research and other evidence to put consumers at the heart of policy and regulation in the energy, post and water sectors in Scotland. We work with government, regulators and business to put consumers first, designing policy and practice around their needs and aspirations.

The latest emission reduction figures showed that by 2016, Scotland had reduced its annual greenhouse gas (GHG) emissions by 49% compared with the 1990 baseline¹. However the Climate Change Bill, which in June 2018 was laid before the Scottish Parliament, proposes a more ambitious target to reduce GHG emissions by 90% by 2050². Emission reductions to date have largely been achieved by decarbonisation of the electricity and industrial sectors and there is growing recognition that further emission reductions will need to come from every sector across Scotland – including the residential sector.

To date, decarbonisation targets have not overtly impacted on consumers, however this is expected to change given the ambition of the 90% reduction target and the higher targets for the decarbonisation of heat. For example, a 23% decrease in emissions from the residential sector is envisaged

by 2032³ – as well as the decarbonisation of transport. There is a growing recognition that the people of Scotland will have to adapt their lifestyles and make behavioural changes to help meet these decarbonisation targets. As such we wanted to further understand the implications of these evolving climate change policies on the people of Scotland.

In 2017 we commissioned Changeworks and Hilliam Research and Analysis to undertake a study to examine the detail of energy and climate change policy in Scotland. The primary research objective was to determine how the Climate Change Plan⁴ (published February 2018), and Scotland's first Energy Strategy⁵ (published December 2017) and associated policies will potentially impact on consumers and to assess what steps are being taken by the Scottish Government and others to facilitate behaviour change.

¹ <https://www.gov.scot/Resource/0053/00536542.pdf>

² [http://www.parliament.scot/Climate%20Change%20\(Emissions%20Reduction%20Targets\)%20\(Scotland\)%20Bill/SPBill30PMS052018.pdf](http://www.parliament.scot/Climate%20Change%20(Emissions%20Reduction%20Targets)%20(Scotland)%20Bill/SPBill30PMS052018.pdf)

³ <https://www.gov.scot/Resource/0053/00532096.pdf>

⁴ <https://www.gov.scot/Publications/2018/02/8867>

⁵ <https://www.gov.scot/energystrategy>

Our research identified that programmes designed to facilitate one-off ‘structural’ behaviour changes such as installing retrofit energy efficiency measures, are well established in Scotland, and if well designed and implemented can succeed. However programmes to support habitual behaviour changes are less well established and targets for energy and water saving for example, are unspecified.

While the research team noted the difficulty in assessing the impacts that climate change policies will have on consumers, due to a lack of detail in current policies, it is clear that to meet ambitious climate change targets individual consumers will have to adapt. In many of the 7 key behaviours studied in detail in this research, there are positive outcomes for consumers over time with, for example, reduced bills and improved health and well-being. However as identified in the research, a number of key behaviours rely on consumers making an upfront financial investment. This may act as a barrier to both consumers (despite the fact that they would benefit from the change) and subsequently to the Scottish Government in meeting its emission reduction targets.

The 7 key behaviours identified in research commissioned by CAS were:

1. Upgrading domestic heating
2. Completing energy efficiency retrofits
3. Install of smart meters
4. Switch to electric vehicles or ultra-low emission vehicles (EVs/ULEVs)
5. Adopt energy saving behaviours (heat)
6. Adopt energy saving behaviours (electricity / water)
7. Purchase energy efficient appliances

As discussed in our stakeholder workshop⁶, it is risky for the Scottish Government to rely upon the assumption that individuals will spend their own money on the interventions noted above, at a time when inflation is rising above wage growth and household budgets are tight for many. In this circumstance the appropriate financial and non-financial support is needed to facilitate change – especially when those who will feel the biggest impact are likely to have contributed the least to emissions. Support programmes should also consider factors such as: socio-economic status; local authority support; tenure; and rurality because people from particular groups will require different approaches to help change their behaviour.

There is also a risk that the time and hassle factor for consumers who more commonly lead busier lives will be an additional barrier. As highlighted in our *Warming Scotland up to Energy Efficiency* research⁷ a large scale campaign of public communications and engagement is needed to ensure that climate change targets and the behaviour change needed to meet them are aspirational for the people of Scotland as well as the Scottish Government. It is also important that any programmes that rely on consumer interaction are as simple and clear as possible.

⁶ CAS ran a workshop with key stakeholders to discuss the research findings in May 2018.

⁷ <https://www.cas.org.uk/publications/warming-scotland-energy-efficiency-putting-consumers-first>

Based on this research CAS make a number of policy recommendations:

1. As the proposals and targets outlined in climate change plans and strategies will now need to be delivered, there is immediate need for the Scottish Government to put consumers' behaviour at the heart of policy. Policy-makers should consider how targets are likely to impact consumers in real terms and design policies that support consumers to meet these. The ISM Tool⁸ is a proven means to achieve this and develop appropriate solutions that consider the numerous factors that influence any behaviour or choice. However, this must be embraced across the Scottish Government so that policies are built around consumers and their behaviour, rather than behaviour being considered as an 'add-on'. Genuine commitment to supporting behaviour change is essential.

2. The appropriate financial and non-financial support is needed to facilitate change. Support programmes should consider factors such as: socio-economic status; local authority support; tenure; and rurality, because changing behaviours is particularly hard for particular groups.

3. A large-scale campaign of public communications and engagement is needed to secure popular support and 'buy-in' for Scotland's climate change targets, and for the behaviour change needed to meet them. This is essential so that the people of Scotland, as well as the Scottish Government, genuinely aspire to achieve such change together.

⁸ The Individual Social Material (ISM) Tool is a model used to identify and tease apart the multitude of factors which can influence behaviour

1. Our research

1.1 CAS commissioned Changeworks and Hilliam Research and Analysis to undertake a study to understand the consumer implications of energy and climate change policy in Scotland. The research was timed to provide analysis and comment on two recent policy documents in particular. These were the final version of the Climate Change Plan (published February 2018), and Scotland's first Energy Strategy (published December 2017).

1.2 The primary research objective was to determine how the relevant strategy and associated policies would impact on consumers. In particular, to understand the type of behaviour changes which are expected of consumers across Scotland.

Research included:

- > Exploring how these expectations could impact on consumers, across dimensions which broadly mapped onto CAS' consumer principles
- > Mapping out the extent to which such behaviours would need to be adopted, and identifying the current 'state of affairs' for each behavioural expectation, under each of the impact dimensions.
- > Interviews with expert stakeholders who work across Scotland, supporting the aims outlined within the policies.
- > Desk-based review of previous climate mitigation work that incorporates behavioural science and development of 10 case studies. These provide a backdrop for the Scottish policies, highlighting successes, challenges and costs to changing behaviours at scale.

A full list of the key findings and recommendations from the research is listed in the Appendix, section 6.

2. Background

2.1 The Climate Change Plan (CCP) was finalised and published in late February 2018. This follows years of work within the Scottish Government since the establishment of the Climate Change (Scotland) Act 2009. Consumer views were sought and integrated into the iterations of the plan through public consultations, climate change conversations and holding an ISM workshop with members of the public. The CCP is an umbrella document which sets out Scotland's long-term vision and ambitions to achieving carbon reductions and transitioning to a low carbon society by 2050. It focuses on discrete sectors which contribute to Scotland's carbon footprint, such as Buildings, Electricity and Agriculture and utilises a multifactorial quantitative methodology (the Times Model⁹) to determine CO₂ emission targets for the specific sectors. Policies, plans and proposals within each sector are described within the document to give a picture of future practice.

Scottish Energy Strategy: The Future of Energy in Scotland

2.2 The Scottish Energy Strategy¹⁰, published in December 2017, falls under the CCP, focusing specifically on meeting the future energy needs of the Scottish population, balancing actions to support climate change mitigation in a way that can support Scotland's economy. This has gone through a draft publication and public consultation process, as with the CCP. The document describes six energy priorities¹¹ for a whole-system approach that considers both the use and the supply of energy for heat, power and transport.

The high-level ambitions described within this document are caveated with a recognition that technological developments are likely

⁹ TIMES is a Whole System Energy Model (WSEM). Such models aim to capture the main characteristics of an energy system and are particularly useful for understanding the strategic choices that are required to decarbonise an economy.

¹⁰ <http://www.gov.scot/Publications/2017/01/3414/6>

¹¹ Consumer engagement and protection; Energy efficiency; System security and flexibility; Innovative local energy systems, Renewable and low carbon solutions; Oil and gas industry strengths.

to improve carbon efficiencies, though as yet such technologies are generally not mature enough.

The ISM Tool

2.3 The Individual Social Material (ISM) Tool¹² is a model used to identify and tease apart the multitude of factors which can influence behaviour completed by a person or group and anticipate likely responses to change. The ISM Tool was developed for the Scottish Government as a means to integrate best practice in behaviour change into climate change policy. It was developed following an international review¹³ of climate-behaviour interventions which found that effective behaviour change programmes targeted multiple levers to enable change. These levers may relate to the individual and the material world around them, as well as social factors such as the meanings attributed to certain actions, or the types of behaviours peoples' peers engage in. Considerations from the social level may not be immediately obvious, and are included less in interventions¹⁴, often at the expense of those interventions achieving their aims.

2.4 The Climate Hub within the Scottish Government have championed the use of the ISM Tool and aimed to incorporate it into the development of climate policy over recent years. The Tool represents the primary mechanism for incorporating considerations about behaviour and insights from the field of behavioural science into Scottish Climate Policy.

Policy Context

2.5 In recent years, there has been a growing recognition of the impact of the complexities of human behaviour on the implementation of policy.

¹² <http://www.gov.scot/resource/0042/00423436.pdf>

¹³ <http://www.gov.scot/Publications/2011/02/01104638/0>

¹⁴ <http://www.gov.scot/resource/0042/00423436.pdf>

The traditional view of behaviour is that people act logically and rationally, weigh up options and make a deliberate choice to act in a way that offers most benefit to them, or society. Thus, behaviours might be influenced through either a carrot or a stick approach.

2.6 In reality of course, individuals often make choices which may appear irrational, as any choice is influenced by cultural, contextual and other types of factors. Everyday examples of this are smoking and poor recycling habits. To design a policy solution that truly influences behaviour, an attempt must be made to understand all of the relevant factors that can influence people and lead to what would be considered ‘irrational behaviour’.

2.7 The increased understanding that behaviours are the product of numerous factors has major implications for policy related to climate change, which fundamentally relies on influencing behaviour at scale.

2.8 The Scottish Government’s Climate Change Plan acknowledges that cutting greenhouse gas emissions will require significant changes to consumer behaviour stating:

‘...in implementing this Plan, we will touch on the lives of everyone in Scotland: on the way we travel and move our goods around; the way we heat our homes and buildings; the way we manage our land and produce food; the jobs and training opportunities to which we will have access; the new energy infrastructure we will need; and the way this all builds Scotland’s economic capacity and competitiveness.’

2.9 In Parliamentary scrutiny of the plan in mid 2017, many welcomed the attempt to incorporate behaviour change, but some MSPs called for it to be developed more fully. For example, Graeme Dey MSP said:

‘Not enough emphasis appears to have been placed upon improving everyday habits in order to combat climate change. We believe this is a missed opportunity. That’s why we’ve recommended that the science of behaviour change should be included in the final plan, in order to empower the Scottish public to make lifestyle changes that can make a huge difference.’

Current consumer attitudes to climate action

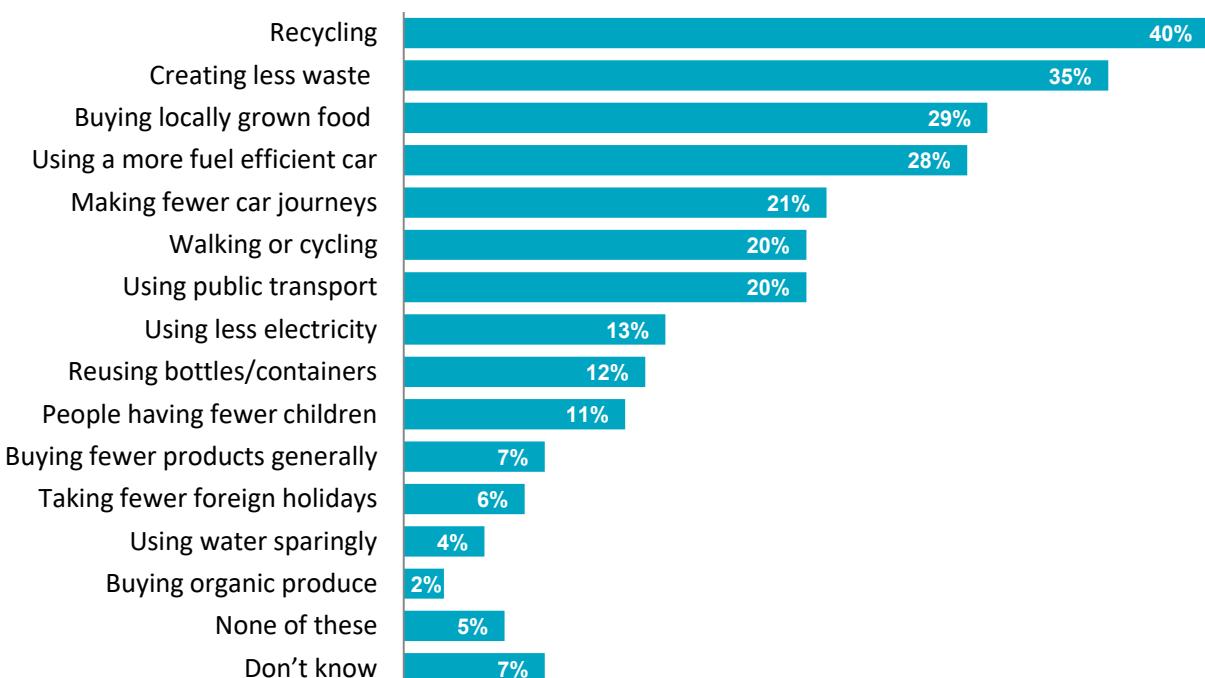
2.10 In March 2017 Citizens Advice Scotland (CAS) commissioned YouGov to complete a survey to assess consumer attitudes to climate change. Firstly the survey asked about general knowledge of climate change. While only 51% of respondents said that they knew a great deal or a fair amount about climate change, over 47% said that they knew not very much or nothing at all. However respondents were clearer that climate change needs to be addressed quickly. 73% of respondents said that climate change needs to be addressed now, versus 6% of people who thought that it needed to be addressed in the future and 9% who thought climate change wasn’t really a problem.

2.11 The latest data shows that 53% of Scottish energy consumption is used for heating¹⁵, with 43% of non-electrical heat demand coming from the domestic sector. This is not insignificant and has led to a number of ambitious decarbonisation policy proposals for the domestic heat sector. Although the technologies needed to deliver this transition may require varying levels of consumer engagement and behaviour change, consumer acceptance of new heating systems will likely be an essential component of a successful transition.

¹⁵ Energy in Scotland 2017

2.12 However, our survey shows that citizens' perception of what actions are needed on an individual level to reduce climate change focus around reducing waste, recycling and buying locally grown food (Figure 1). This may be due to the success of policies such as kerbside recycling, which for many citizens is something that they can relate to personally, is socially accepted /expected and importantly doesn't have associated costs to individuals.

Figure 1 – Question: Which of the following actions do you think would do the most to help reduce climate change on an individual level? Please tick up to three options.¹⁶



2.13 The fact that citizens do not perceive reducing energy use in the home as one of the key ways they can individually help to reduce climate change may also be a result of their perceptions of what is causing climate change. Our survey results show that citizens think that the use of gas and electricity in the home is only marginally more responsible for climate change than smoking.

If the domestic uptake of renewable heating technologies is to be successful, the survey results indicate that significant consumer engagement will be needed to inform consumers about the need to decarbonise the way they heat their homes and to encourage low carbon technologies that will be popular and affordable.

¹⁶ Respondents were asked to pick up to three options.

3. Scottish climate change policy - Review of consumer impacts

3.1 In reviewing the CCP and the Energy Strategy 7 key behaviours (which lie within the CAS' remit) were identified by the research team and became the focus of this research¹⁷.

These included:

1. Upgrading domestic heating
2. Completing energy efficiency retrofits
3. Install of smart meters
4. Switch to electric vehicles or ultra-low emission vehicles (EVs/ULEVs)
5. Adopt energy saving behaviours (heat)
- 6) Adopt energy saving behaviours (electricity / water)
- 7) Purchase energy efficient appliances

¹⁷ As noted in the accompanying technical report 41 behaviours were identified in total.

3.2 As noted in table 1 behaviours that are associated with specific targets in policy documents are here defined as explicit. These include for example the target for 35% of domestic properties to have a low carbon heat source by 2032. Also noted within the table is the current state of play – which for households with low carbon domestic heating currently lies at 2%. As seen in the table significant progress is needed for targets to be met in the identified explicit behaviours – such as energy efficiency where 61% of households in Scotland currently have an EPC of below C. Our *Warming Scotland up to Energy Efficiency* report¹⁸ highlights some of the steps that might need to be taken to feasibly meet targets that heavily rely on steps being taken by individuals.

¹⁸ <https://www.cas.org.uk/publications/warming-scotland-energy-efficiency-putting-consumers-first>



Table 1: Required behavioural changes with associated targets and current position - identified by our research

Behaviour	Explicit/Implied	Target
1. Upgrading domestic heating	Explicit	35% of domestic properties by 2032 have low carbon heat source (currently 2% ¹⁹)
2. Completing energy efficiency retrofits	Explicit	All domestic properties EPC C by 2040 (currently 61% below EPC C ²⁰)
3. Install of smart meters	Explicit	All homes offered a smart meter by 2020
4. Switch to electric vehicles or ultra-low emission vehicles	Explicit	Widespread adoption of EVs by 2032- with 5MTCO ₂ e saving (less than 1% of vehicles registered in Scotland are ULEV – Dec 2016 ²¹)
5. Adopt energy saving behaviours (heat)	Implied	Unspecified
6. Adopt energy saving behaviours (electric/ water)	Implied	Unspecified
7. Purchase energy efficient appliances	Implied	Unspecified

¹⁹ Scottish Government draft Climate Change Plan section 8.2.4
<http://www.gov.scot/Resource/0051/00513102.pdf>

²⁰ Scottish House Condition Survey, 2016.
<http://www.gov.scot/Publications/2017/12/5401>

²¹ <https://www.transport.gov.scot/media/41863/scottish-transport-statistics-2017-with-correction-to-table-214.pdf>

3.3 All behaviour groups were evaluated in terms of the co-benefits (positive impacts) and side-effects (negative impacts) which they could have on consumers. The dimensions identified by the study team on which potential impacts were assessed were:

- > Health
- > Wellbeing & Safety
- > Financial
- > Community & Social
- > Access
- > Choice, Fairness & Redress

These dimensions broadly encompass the seven principles of consumer protection which guide CAS' work as seen in Figure 2.



Figure 2 CAS advocates for consumers under the seven consumer principles noted above

3.4 As noted in this report while some targets and the behaviours that support them are explicitly defined, the foreseen consumer impacts cannot be described as certain – as targets can be missed or achieved in alternative ways. The research team also noted that the scope of some of the policy ambitions lack the detail needed to fully understand what they involve, and how these will affect consumers. However where evident, the likely impacts that the policy expectations could have on particular consumers were assessed. These are described in table 2.

Table 2 – Consumer impacts associated with energy and climate change policies in Scotland

Potential Consumer Impacts		
Behaviour	Co-benefits	Other considerations
Upgrading Domestic Heating	<ul style="list-style-type: none"> Positive effects on physical health Positive effects on mental wellbeing Savings over time Potential for community income Community Energy can support community cohesion 	<ul style="list-style-type: none"> Cost of initial switch Dependant on geography and environmental conditions / resources in an area Characteristics of area limit choice of options Confusion or lack of understanding of how to operate new system Stress of installation
Complete Efficiency Retrofits	<ul style="list-style-type: none"> Positive effects on physical health Positive effects on mental wellbeing Savings over time Improved appearance of local area (with external wall insulation) 	<ul style="list-style-type: none"> Cost of initial install/upgrades Costs may be higher to rural/remote consumers Hard to treat properties will be more expensive, if suitable for retrofit in first instance Possibly less choice for rural consumers (suppliers, materials, maintenance)
Smart Meters	<ul style="list-style-type: none"> Can provide certainty about bills Can save households money Intended to reduce billing errors Can support better understanding of energy use 	<ul style="list-style-type: none"> Could further exclude the disengaged from benefitting from savings Different suppliers will provide different tariffs/service (linked to location) Could present additional barrier to switching Prepay customers may not have different tariffs made available
Adopt Energy Saving Behaviours (Heat)	<ul style="list-style-type: none"> Reducing financial burden linked with positive health outcomes Save money 	<ul style="list-style-type: none"> Advice equally available to all consumers? Range of media and geography Range of technologies, systems in different homes will require appropriate behaviours with different savings
Adopt Energy Saving Behaviours (Electricity)	<ul style="list-style-type: none"> Reducing financial burden linked with positive health outcomes Save money 	<ul style="list-style-type: none"> Advice equally available to all consumers? Range of media and geography Range of technologies, systems in different homes will require appropriate behaviours with different savings
Purchase Energy Efficient/smart Equipment	<ul style="list-style-type: none"> Bill savings over time 	<ul style="list-style-type: none"> Purchase costs may vary from non-energy efficient products - not definitive Availability / choice of EE goods in rural areas

3.5 While many co-benefits and potential side-effects are noted for each behaviour, a number of common impacts are seen. Multiple behaviours such as upgrading domestic heating, completing energy efficiency retrofits and switching to ULEVs may provide savings for consumers over time, but they rely on an upfront financial investment. While financial support or incentives may be needed to encourage consumers to undertake these changes (especially for those in vulnerable situations), a number of behaviours are not dependant on an initial upfront investment. These behaviours, such as reducing energy use in the home, are dependent on consumers changing their lifestyles, which although initially challenging can lead to long term savings. As noted by the research team this can lead to positive health and well-being outcomes for individuals and for society.

Variation in consumer impacts

3.6 The research team identified some recurring factors that were noted to have the potential to affect some consumers more than, or differently to, other consumers in different situations. These are rural/ urban divide, local government, socio-economic status and tenure. These are described below. Other factors, such as number of dependants within a household, or a person's physical and mental health are also likely to affect consumers, though the four which could be commented on with relative certainty by the research team are discussed here.

Rural / urban divide

3.7 This was noted to be the primary factor which could influence the extent and manner that some policy expectations would impact on consumers, (e.g. retrofits, heating systems). Difficulties in economies of scale for dispersed homes will greatly reduce the feasibility of domestic energy efficiency retrofits in comparison with densely located urban homes. Should a nationwide hydrogen network be the chosen path for decarbonising heating, it is unclear how those currently living off the gas grid would

be affected. Geographical location is also an important consideration for the feasibility of certain technologies, such as district heating.

Local Government

3.8 Linked to the above point, the availability and delivery of climate-related support, programmes and regulations will likely vary depending on the local authority²². This is not just due to the governance or priorities of a local authority (LA) but also resourcing, both financial and staff-based. Budget constraints could mean smaller LAs could be disadvantaged where required to commit staff to developing and delivering programmes which support climate related programmes. A failure for centrally planned infrastructure for EVs could also disadvantage certain areas, as journeys may require multiple EV charging pay methods and numerous tariff zones.

Socio-economic status

3.9 Using socio-economic status (SES) as a broad proxy for education and vulnerability to fuel poverty, there is concern that some policies may disproportionately disadvantage consumers from low SES backgrounds. As consumers on the lowest band of income are typically more likely to live in homes which are not energy efficient²³, have less disposable income and less time to engage with climate-related issues, there is always the risk that they will be left behind and double-disadvantaged. As an example, research has suggested that without the provision of sufficient additional support, the smart meter roll-out is less likely to benefit vulnerable consumers²⁴.

²² <https://www.cas.org.uk/publications/taking-temperature>

²³ <https://www.ons.gov.uk/ons/rel/social-trends-rd/social...41/housing-chapter.pdf>

²⁴ Darby S (2010) Smart metering: what potential for householder engagement? Building Research and Information 38(5), 442-457 59

Tenure

3.10 Differences in tenure will also affect the impacts that Scotland's climate policy will have on consumers. Many of those living in social housing have been supported to the furthest extent through The Energy Efficiency Standard for Social Housing (ESSH)²⁵ regulations. However, given the housing emissions targets, it may be more financially viable for local authorities to build some new housing stock than retrofit all current hard-to-treat stock²⁶. This will require major upheaval to all those living within such areas. The private rental sector is likely to be further legislated for, to enforce the improvement of the energy efficiency of the private rental stock. In comparison, owner occupiers do not currently need to adhere to minimum efficiency standards – although this is now being considered under Energy Efficient Scotland²⁷

One off vs habitual behaviour changes

3.11 The research noted that where interim targets, base rates and routes to achieving the targets were noted, these tended to be in relation to the one-off visible changes to the physical 'system' that contribute to emissions (table 3). Energy efficient retrofits, transition to low carbon heating systems and transition to EVs or ULEVs all fall within this category. In contrast, the thinking around changes to consumer lifestyles and consumption habits which are personal (and less visible in terms completion, or potential benefits) seems less developed. These include changes to heating regime and electricity usage behaviours, and behaviours relating to energy efficient appliances and equipment.

3.12 The one-off, 'system changes' are generally noted to be the 'low hanging fruit' for reducing emissions. The behaviours which are part of individuals' consumption habits

may be more complex and therefore more challenging to understand and influence. While these are mentioned throughout the CCP, there appears to be little detail of how these changes to behaviour will be achieved. The research team believe that these lifestyle behaviours and consumption patterns warrant significant focus in the coming years to understand the behaviours as well as determining approaches to supporting change – which can reduce bills for consumers.

3.13 The research also noted that while work was being done by specific actors in the water sector, such as Scottish water to encourage sustainable water use, there was little mention of this in any Scottish Government policy document reviewed.

Table 3- One off vs habitual behaviour changes

One off behaviour changes	Habitual behaviour changes
Upgrading domestic heating	Adopt energy saving behaviours (heat)
Completing energy retrofits	Adopt energy saving behaviours (electric/water)
Install of smart meters	Purchase energy efficient equipment
Switch to electric vehicles or ultra-low emission vehicles ULEVs	

The impact on business

3.14 While this research focussed on impacts to consumers at an individual and household level, energy and climate change policy is already affecting how other organisations in the regulated industries sector are operating. For example the Royal Mail is trialling electric delivery vans in London²⁸ and Scottish Waters Horizons²⁹ division is generating renewable energy from wind, waste and water across Scotland.

²⁵ <http://www.gov.scot/Publications/2017/12/2678/10>

²⁶ <http://www.engineering.ucl.ac.uk/engineering-exchange/files/2014/10/Report-Refurbishment-Demolition-Social-Housing.pdf>

²⁷ <https://www.gov.scot/Publications/2018/05/1462>

²⁸ <https://www.businessgreen.com/bg/news/3016141/royal-mail-to-trial-electric-delivery-vans-in-london>

²⁹ <http://www.scottishwater.co.uk/business/horizons>

4. Stakeholder views of climate change policy and progress

4.1 To achieve the depth of evaluation necessary for this research to contribute meaningfully to the discussion of how Scottish climate change policy will impact on consumers, insights were sought from a range of expert stakeholders. These individuals work within climate-related fields and have insights into societal trends and current practices, enabling them to comment on the appropriateness, level of ambition and feasibility of some of the elements covered within the policies.

4.2 While a more in depth analysis of the stakeholder interviews is available in the accompanying research report, the seven key recommendations from stakeholders interviewed are summarised below:

- > **Prioritisation of climate policies -** the extent to which emission reduction targets (and associated consumer behaviour change) should be pursued was discussed.
- > **The need for integration of ISM thinking across policy –** while work on the ISM should be applauded, it appears that it was not the predominant approach for the majority of policies and procedures within Government.
- > **The need for further plans to achieve behaviour change –** plans and proposals outlined by the Government lacked a route-map as to how key behaviour changes would be achieved. This perceived lack of direction, combined with inadequately defined targets was felt to present challenges for delivery.
- > **The need for more understanding of drivers of behaviour change –** there is still a knowledge gap for those involved in policy making as well as delivery about how to motivate certain behaviours for particular groups.

- > **The need for ‘Cultural Shift’** - all interviewees highlighted that the climate policy ambitions laid out in the CCP will require a generation of momentum and action across society. This momentum, or cultural shift is not evident yet, nor do the mechanisms and programmes needed to achieve it appear to be.
- > **International comparisons** - though some of the points noted above could be perceived as critical, it is worth highlighting that many of the interviewees drew attention to the encouraging efforts and ambition of the Scottish Government relative to those of other governments.
- > **The need for immediate decisive action** - it was widely acknowledged that in order to meet emissions reductions targets, there is a need for actions to achieving Scotland’s climate-related ambitions without delay. Interviewees highlighted the need for some level of regulation and mandating to be used in conjunction with understanding of behaviours and the factors that influence them to “motivate or even compel changes in behaviour”.

4.3 Energy Efficient Scotland (EES)³⁰ (formally known as SEEP), the long-term programme to realise emissions reductions through energy efficiency, was published in May 2018 shortly after the interviews were completed. Some interviewees were hopeful that it would better define the role of local Government in facilitating programmes that meet broader Government targets on energy efficiency and behaviour change.

³⁰ <http://www.gov.scot/Resource/0053/00534980.pdf>

4.4 The potential effectiveness of this plan in achieving real change was also noted to be dependent on many internal factors:

"EES will set the framework... but the framework will need to be properly funded, properly targeted, properly accountable to be successful" – Ross Armstrong, Warmworks.

4.5 Interviewees also noted the need for further evidence and data to understand where consumers currently are in relation to climate related behaviours. This was echoed in a stakeholder workshop that CAS ran in May 2018³¹. Here it was suggested that any data that is available on current consumer behaviours - related to installing energy efficiency measures or reducing energy use in the home for example - should be analysed and utilised to understand what has motivated individuals in the past. It was also suggested that the emission reductions from these actions by individuals should be measured to highlight the positive impact they can have³².

4.6 Another recommendation from the stakeholder workshop was the need to design and focus policies and delivery programmes around different societal groups. It was noted by workshop attendees that any policy that takes a one size fits all approach to encouraging behaviour change will likely fail.

"We need so much more research to understand what are the best ways of doing things, for different people. Without that evidence, we can only make best guesses" – Dr Kathryn Colley, James Hutton Institute.

³¹ CAS ran a stakeholder workshop in May 2018 with attendees for a range of organisations such as: The Scottish Government; energy advice and energy sector delivery organisations; the Energy Saving Trust; other 3rd sector organisations; Scottish Water

³² This could be sampled from consumers real consumption data as suggested in Taking the Temperature CAS 2016 <https://www.cas.org.uk/publications/taking-temperature>

5. Lessons from previous behaviour change schemes

5.1 When reviewing a number of case study behaviour change programmes our research also highlighted that there is not a common approach to schemes that have been successful. The research team noted that fostering change is complex – there are multiple factors acting on consumers and it is a challenge to predict and account for all of them. While different models for behaviour change, including but not limited to the ISM Tool, were used in the successful cases analysed, it was clear that successful behaviour change programmes have been based on multiple interventions across the I,S and M sectors³³.

The research team noted that the ISM approach to behavioural change provides a framework to assist in the identification of factors that support and enable change. It was also evident from case studies analysed that successful programmes have been tailored around consumers and specifically target relevant factors.

³³ The Individual Social Material (ISM) Tool is a model used to identify and tease apart the multitude of factors which can influence behaviour



6. Appendix

Research Key Findings

The following findings incorporate results from the policy review as well as points raised and insights from the stakeholder interviewees. The research found that:

- > 41 behavioural expectations were identified across the policies, of which seven were explored in depth, as they fall directly within CAS' remit. These changes in behaviours fell into two groups:
 - **one-off** behaviours (adopt energy retrofits; install of low carbon heating systems; install of smart meters; adopting electric vehicles)
 - **habitual** changes to consumer consumption (adopt energy saving behaviours related to heat; energy saving behaviours related to water and electricity; purchase of energy efficient appliances).
- > A number of the targets for achieving emissions reductions through changes to consumer behaviours are not explicit in the policy documents. It was noted that the 'one off' changes to behaviours were more detailed and better considered than the 'habitual' behaviour changes. Habitual behaviours are more complex to understand and influence.
- > This was linked to an over-arching approach that explored how to make current consumption more efficient (e.g. more efficient air travel) rather than looking to change social practices linked to consumption (e.g. taking trains instead of flying).
- > Four areas which are likely to influence how certain policies will impact individual consumers differently were:
 - those living in urban compared with rural areas
 - the socio-economic status of consumers
 - their local authority area
 - consumers' tenure.
- > While most behaviours identified will reduce household costs over time - such as reducing energy use in the home - a number of changes, such as installing new low carbon heating systems and installing energy efficiency measures, require significant up-front financial investment.
- > The lack of clarity around some of the targets for behaviour change was noted as indicative of the uncertainty as to how the policy ambitions will be achieved. Interviewees expressed concerns about a lack of clear routes to delivery which could support widespread behaviour change, in particular regarding everyday habitual behaviours (e.g. energy use in the home).
- > At present, a gap appears to exist between consumers' awareness of the need to change behaviours and the momentum needed to achieve Scotland's emission-reduction ambitions. In order to bridge this gap, tough decisions will be required by the Government, which may involve increased regulation as one of the means to influence behaviour at scale.

In spite of some of the short-comings of the application of the ISM Tool or the extent behaviour change was considered in policy development, the Scottish Government has laid significant groundwork on which to build. There is an awareness of the benefits of behaviourally-informed decision making within Scotland, and some recent innovative pilots have been run which will inform future policy and planning.

Research Recommendations

- > As the proposals and targets outlined in the plans will now need to be delivered, there is immediate need for the Government to put consumers' behaviour at the heart of policy. The ISM Tool is a proven means to achieve this and develop appropriate solutions that consider the numerous factors that influence any behaviour or choice. However, this must be embraced across Government so that policies are built around consumers and their behaviour, rather than behaviour being considered as an 'add-on'. Genuine commitment to supporting behaviour change is needed.
- > Further clarity will need to be provided to delivery organisations, local authorities and consumers themselves to understand the scale of behaviour change needed, as well as the most appropriate means to achieving this.
- > In order to bridge current gaps in knowledge about what may motivate certain people to change their behaviours (particularly those who are not interested in climate change), there is a need for research. Better understanding of current trends, attitudes and motivations for change amongst consumers will be key to developing appropriate supports and interventions.
- > The appropriate financial and non-financial support is needed to facilitate change. Support programmes should consider factors such as: socio-economic status; local authority support; tenure; and rurality, which mean changing behaviours is particularly hard for certain groups.
- > A large-scale campaign of public communications and engagement is needed to secure popular support and 'buy-in' for Scotland's climate change targets, and for the behaviour change needed to meet them – so that the people of Scotland, as well as the Scottish Government, genuinely aspire to achieve such change together.



Consumer Futures Unit

For more information about the Consumer Futures Unit, visit:
www.cas.org.uk/spotlight/consumer-futures-unit

 @CFUcas

Copyright © Citizens Advice Scotland

Large print copies available on request.

www.cas.org.uk

 @CitAdviceScot

 CitizensAdviceScotland

The Scottish Association of Citizens Advice Bureaux - Citizens Advice Scotland. Scottish charity (SC016637) and company limited by guarantee (89892)

Spectrum House, 2 Powderhall Road, Edinburgh EH7 4GB
Tel: 0131 550 1000

