

Scottish Government Draft Climate Change Plan

Evidence to the Environment, Climate Change and Land Reform Committee – February 2017

Summary

- The draft CCP has clearly set out the Scottish Government’s vision for a low carbon Scotland and the overarching framework for achieving emissions reduction targets.
- Much of the progress to date in reducing Scotland’s emissions derives from changes in the power generation sector. Achieving further significant progress will need innovative approaches to be developed in areas that require active consumer involvement.
- In relation to costs, there is insufficient detail to judge the impact on consumers. The significant increase in investment required to achieve the ambitions in the plan must be carefully handled to ensure consumers are not overburdened. Financial support or incentives will be required to achieve the proposed paradigm shift in domestic heating by 2032.
- Consumer engagement will be critical to efforts to meet the goals set out in the draft CCP, yet the plan doesn’t adequately account for the role of consumer behaviour in meeting its targets. A detailed account of additional consumer benefits flowing from the measures proposed would be helpful, as it is similar benefits that have previously motivated consumers to install energy efficiency measures in their homes.
- The contribution that reductions in domestic energy use can make to carbon abatement, through demand side response and smart meters, is not straightforward, with difficulties in relation to consumer engagement and predicting behavioural responses. Reducing energy used to heat water, as well as reducing water consumption general, will be important with strong consumer messaging required, but the draft CCP lacks sufficient detail on this area.
- We welcome the Scottish Government’s commitment to developing a monitoring and evaluation framework, but note that the final plan must take account of the potentially complex outcomes of energy efficiency programmes, such as ‘rebound effects’, which are rarely considered in any comprehensive manner.

Introduction

1. The Consumer Futures Unit (‘the CFU’) sits within Citizens Advice Scotland (‘CAS’). The CFU is the Scottish consumer representative body in the regulated markets of energy, post and water. It uses evidence, expert analysis and research to put consumer interests at the heart of policy-making and market behaviour.
2. The CFU welcomes the Scottish Parliament’s scrutiny of the Scottish Government’s third draft Climate Change Plan (CCP) and we are pleased to have the opportunity to comment on Scottish Ministers’ plans for meeting Scotland’s annual greenhouse gas (GHG) emissions reduction targets. We have limited our comments to areas of the draft plan that are directly relevant to our remit.

Overall assessment

3. The draft CCP has clearly set out the Scottish Government's vision for a low carbon Scotland to 2032, and sets out the overarching framework for achieving GHG emissions reduction targets. Yet, while we have assessed the draft plan as being high in ambition, it is low on detail about implementation. As a result, it has been difficult to comment on:
 - the scale of the reductions proposed;
 - the timescales required for targets to be met; and
 - the significant questions of the cost and affordability of the programme to consumers.
4. To date much of the progress on reducing Scotland's GHG emissions has been from changes in the power generation sector. While some of this has been from increased renewable generation, much of the reduction is a result of the closure of Scotland's coal-fired power stations. This brings into sharp focus the enormity of the challenge, particularly if transformational changes in consumer lifestyles are to be realised.
5. Unlike previous Reports on Policies and Proposals (RPP1 & RPP2), the draft CCP does not include details of specific emission reductions attributable to each policy or proposal. This makes it difficult to understand the relative significance of each policy or proposal in meeting the targets.
6. The following evidence presents the CFU's three predominant concerns with the draft plan which relate to the committee's focus on: overview - development of RPP3, water, resource use and behaviour change. These are:
 - a. Issues related to consumer costs
 - b. Issues related to consumer engagement
 - c. Monitoring and evaluation

Consumer costs

7. The draft plan generally lacks detail on required expenditure beyond the 'system costs' identified by the modelling. This makes it impossible to comment on the financial impacts for consumers – yet these will be an essential component to the deliverability and uptake of the emission reduction measures detailed in the draft CCP.
8. In addressing the costs, benefits and wider impacts, the draft plan acknowledges the argument put forward in the Stern Review on the economics of climate change¹ that future costs will be higher if demanding mitigation strategies are not put in place in the coming

¹ http://webarchive.nationalarchives.gov.uk/20080910140413/http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm

decades. The CFU is of the view, however, that the cost of such measures must be carefully handled to ensure that consumers, and low income consumers in particular, many of whom may currently be in or at risk of falling into fuel poverty, are not expected to pay for them across short timescales.

9. A number of the technologies identified in the draft plan as integral to cutting emissions (e.g. heat pumps, carbon capture storage, hydrogen infrastructure and energy storage) are new and at this time remain commercially unproven. While we accept these technologies will be essential to achieving GHG emissions reductions, there is a lack of contingency in the draft plan if those technologies don't come to fruition, can't be mainstreamed or lead to increased costs for consumers.
10. The draft CCP depicts a paradigm shift in how we all heat our homes through to 2032, without any real detail on how it will be financed. Consumers in every income bracket will need to be supported to make the level of changes required to meet the targets. Without incentives the consumer uptake of less familiar technologies will likely be extremely low and targets not met. Further, it is essential that low income households are not expected to pay high upfront capital costs associated with the installation of new heating systems, some of which can be significant. For instance, the Energy Saving Trust estimates that installing an automatically-fed biomass boiler could cost an average home in excess of £20,000², though manually fed systems can be slightly cheaper.
11. Achieving the scale of ambition the draft plan sets out for mitigation measures will require a significant increase in the level of investment. For instance, the projected costs for the Scottish Government's proposed energy efficiency programme for Scotland are quoted at around £10billion³, but the current public sector spend, plus ECO, is around £200million per annum. In addition, if the Scottish Government are convinced about the range of health and economic benefits from energy efficiency and reductions in fuel poverty (all of which we agree with), we would question why the budget remains unchanged from previous years and is entirely taken from housing, rather than drawing on the economic development and health improvement budgets too.

Consumer engagement issues

12. The modelling underpinning the draft CCP has been successful at identifying the share in discrete policy envelopes the total decarbonisation effort required at the lowest cost. However, it fails to allocate specific emission reductions attributable to each policy or proposal and it fails to adequately account for the role of consumer behaviour in meeting the targets. Because the modelling has not been able to recommend the actions to be taken by individual actors, there are obvious risks associated with an over-dependence on consumer behaviour.

² <http://www.energysavingtrust.org.uk/renewable-energy/heat>

³ SEEP Consultation Document - <http://www.gov.scot/Resource/0051/00513248.pdf>

- **Behaviour change.** The Scottish Government is right to identify the need to reduce social inequalities when developing a low carbon society. Nevertheless, the tools identified in the draft plan for engaging consumers (e.g. ISM, 10 Key Behaviours and Climate Conversations) haven't really been proven as appropriate for consumer engagement at the scale required. Having said that, the Scottish Government's desire to move beyond overly simplistic understandings of human behaviour is welcome, as is the intention to undertake testing of the behavioural tools noted above.

It would be helpful if there was an additional chapter in the final plan which gave an indication of what the associated benefits to consumers might be from some of the solutions proposed. Our view is that education on its own hasn't been fully effective as the actions people have taken in relation to energy have often been driven either by the public sector providing measures free or they have been supported by subsidies. If the ambitious targets at the heart of the draft CCP are to be realised, being clear about the associated benefits to consumers would help secure their support.

- **Domestic energy reduction.** As highlighted in the draft CCP, demand side response (DSR), whereby customers are incentivised to lower or shift their energy use at peak times, and flexibility in the electricity sector will be an important component of decarbonisation. Previous research for the Citizens Advice Service has highlighted some of the potential difficulties of DSR and getting consumers to engage with such processes⁴, which should not be underestimated.

Assumptions about the role of smart meters in the draft CCP for achieving behaviour change may be simplistic. There is lots of evidence to question some of the assumptions of the roll out and the impact on consumers, including vulnerable consumers. Initial impact assessment reports of the smart meter roll out suggested that consumers could reduce their energy consumption by 2.5% after engaging with their in home display. However, as highlighted in the CFU's recent Smart Move report⁵ there are doubts about the accuracy of this figure. If consumers who are currently unable to adequately heat their homes actually increase their energy consumption following the installation of a smart meter and in-home display, the roll out could, without the right support, result in increases in energy use amongst consumers.

- **Water use.** The draft CCP lacks detail on domestic water use reductions. 25% of a household energy bill is the direct result of heating water. Stronger consumer messaging is required to clearly explain to consumers the links between heating water in the home to household energy bills. Promoting more responsible consumer behaviour by heating only what water they need results in substantial long term savings in energy bills, which could potentially help reduce fuel poverty.

⁴ Take a walk on the demand side - <https://tinyurl.com/ne97ddz>

⁵ Smart Move - <http://www.cas.org.uk/publications/smart-move>

Scottish Water is the single largest user of energy in Scotland. Stronger consumer messaging is required to encourage consumers to waste less water, with information of how this can be achieved around the home. Successful implementation of a water efficiency policy for Scotland would contribute to reducing energy demand. This needs to be supported and championed by key policy makers in the public and private sector to drive cultural change.

Monitoring & evaluation

13. Successful implementation of the plan will require effective monitoring by the Scottish Government, so we welcome the commitment to developing a monitoring and evaluation framework. This aside, we remain concerned at the lack of detail across the full range of new policies and proposals that will be required to meet the targets and the role of consumers in meeting that challenge.
14. The importance of effective monitoring and evaluation is highlighted below with relation to energy efficiency installations:
 - Otherwise known as the 'Jevons' Paradox', 'rebound effects' describes how actual energy savings following the installation of energy efficiency measures may be much lower than predicted by economic models. This is because some households, who may have been under-heating their homes, may take some of the energy efficiency gains as increased thermal comfort, rather than reducing their energy use.
 - A recent literature review in the CFU's⁶ *Taking the Temperature* report summarised a study of household energy efficiency behaviours in 39 European countries, which calculated an average rebound effect of 35.4% for the UK. This was consistent with other nations that have undertaken extensive energy efficiency refurbishment programmes.
15. Issues such as 'rebound effects' will only be identified and therefore managed with effective monitoring and evaluation. If outcomes of energy efficiency measures were evaluated on number of installations only, the success of any given energy efficiency policy to reduce emissions may be unrepresentative.

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⁶ Taking the Temperature - <http://www.cas.org.uk/publications/taking-temperature>