Thank you for this opportunity to comment on the Scottish Government’s climate plan for the period 2017-2032.

The purpose of our submission to the Committee is to highlight the opportunities that smart meters provide to support the Scottish Government in its climate ambitions.

Smart Energy GB is the voice of the smart meter rollout. It’s our task to help everybody in Scotland, England and Wales understand smart meters, the national rollout and how to use their new meters to get gas and electricity under control.

Every household and microbusiness in Scotland will be offered a smart meter upgrade by their energy supplier by the end of 2020. **Almost 5 million smart meters have been installed to date across Great Britain.**

**Smart metering is forecast to save 10m tonnes of carbon (CO2e) from reduced electricity consumption and 20m tonnes from reduced gas consumption.¹**

We welcome the recognition in section 8 of the plan that the smart meter rollout will contribute to the policy aim of reducing heat demand in Scottish domestic properties by 6% by 2032.

Stronger recognition in the plan of the ‘enabling functions’ of smart meters, as well as the case for close collaboration between the Scottish Government, Smart Energy GB and partners, would be welcome.

**Smart meters and reducing demand**

Smart meters have an important role to play in helping energy consumers understand and potentially reduce their energy usage. This is mainly achieved through the mandatory provision of an in-home display, which communicates directly with the smart meter/s and shows near real-time energy consumption in pounds and pence.

The latest **Smart energy outlook**, our own bi-annual survey of 10,000 energy customers, shows that of those households that already have a smart meter,

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¹ BEIS: Smart meter roll-out: cost-benefit analysis (November 2016) Part 2 – Pg. 37 & 68
82% have taken at least one step to use less energy, and 71% feel more in control of their energy use.\textsuperscript{2}

We note that the recent BEIS assessment of the rollout reviewed all the evidence on the energy savings that could be expected by households with a smart meter. This concluded that average savings of 2.8% for electricity (credit and pre-payment), 2% for gas credit and 0.5% for gas pre-payment could be anticipated. These figures are described as a ‘conservative approach’.\textsuperscript{3}

We also note that in recent evidence to a House of Commons committee, British Gas said that they have seen a 3% consumption reduction in customers with a smart meter, sustained over a two-year period.\textsuperscript{4}

**Smart meters also open up the option of more innovative ‘time of use’ tariffs, with lower prices at off-peak times.** Research for Smart Energy GB by UCL in 2015 showed that a third of consumers would be interested in such a tariff.\textsuperscript{5}

Lord Adair Turner, former Chairman of the UK Climate Change Committee spoke at a Smart Energy GB event in 2016. Writing afterwards, he said:

“**Smart meters can unleash the potential of demand management. What gets measured gets managed. In the residential space, this makes the smart meter the most crucial piece of technology to support progress towards a renewable electricity system. With that in mind, we need to get the technology into every home as soon as possible.**”\textsuperscript{6}

As such, the Committee might consider whether the potential wider benefits of smart meters could be recognised in section 8.4 of the plan.

\textsuperscript{2} Smart Energy GB: Smart energy outlook (February 2017) Pg. 10-11

\textsuperscript{3} BEIS: Smart meter roll-out: cost-benefit analysis (November 2016) Part 2 – Pg. 19-20

\textsuperscript{4} British Gas evidence to the Westminster Science and Technology Committee (September 2016)

\textsuperscript{5} University College London and Smart Energy GB: *Is it time? Consumers and time of use tariffs* (March 2015)

\textsuperscript{6} Smart Energy GB: Smarter Britain, Smarter Economy: Expert voices on smart energy and Britain’s smarter future (November 2016), Pg. 4
Smart meters and behaviour change

One of Smart Energy GB’s core tasks is to engage the population in using their smart meters as a tool to take greater control of their energy use.

Last year we carried out a review of behavioural science to inform our work in this area, and published our findings in *A smart route to change*\(^7\). As the number of smart meter installations has increased and the scale of opportunity has grown, we are now developing pilot projects for some of the ideas in this report.

In addition, as part of our mission to engage and inspire the nation in relation to the rollout and its benefits, we have produced a number of large and small creative moments, including ‘A Requiem for Meters’ by the Royal Philharmonic Orchestra and a series of low-carbon recipes by chef Ian Cumming.

The Committee might consider how the smart meter rollout could most effectively contribute to behaviour change programmes carried out by, or funded by, the Scottish Government.

Smart meters and the flexible grid

Because of their wireless connection and regular, automated meter readings, smart meters will form key part of the emerging smarter grid system, where energy generation can be more accurately matched to energy demand.

A smarter grid, using real-time information on energy usage from smart meters, will enable a reduction in wasteful over-generation and better voltage management. Smart meters will also lead to faster identification and management of electrical outages.

The Committee might consider whether these benefits could be recognised in section 7.3/7.4 (Electricity) of the plan.

Smart meters and fuel poverty

Section 8.3 of the draft plan reads:

‘...we are keen to ensure an effective rollout of smart meters and that it occurs in such a way as to maximise benefits to consumers – particularly those who are vulnerable or in fuel poverty.’

\(^7\) Smart Energy GB: A smart route to change (July 2016)
We believe that vulnerable and fuel poor customers will benefit considerably from smart meters, and we have carried out substantial research to identify and mitigate against potential barriers to this.

Following an extensive consultation, Smart Energy GB published *Smart energy for all*\(^8\), which identified 23 relevant consumer characteristics that would be likely to result in obstacles along the smart meter journey. These include a range of personal impairments, personal circumstances, housing types and energy setups (including pre-payment or off-gas grid).

In response, we embarked on a programme of work with a number of partners to offer targeted training and support to vulnerable consumer groups. In 2016, this work was led by Energy Action Scotland, and included the Scottish Federation of Housing Associations, Age Scotland and Carers Scotland among others.

There are a higher proportion of pre-payment customers in Scotland than in the rest of Great Britain (around 20% of households for electricity, 18% for gas). The smart meter rollout is transforming the customer experience for pre-payment in particular, with a range of more convenient ways to top up credit, such as online and through a mobile phone.

Additionally, because smart meters are able to operate in either credit or pre-payment mode, there is increasing parity between the cost of credit and pre-payment tariffs. 

**Smart meters and housing**

The smart meter rollout will have an impact on each of Scotland’s 2.5 million homes and integrate them into a more dynamic and modern energy system.

All homes will be offered a smart meter upgrade by their energy supplier by the end of 2020. In mid-2018, the UK Government intends to make it compulsory for all meters being replaced or installed in new-build housing to be smart meters.\(^9\)

We encourage all local authorities and housing bodies to work in collaboration with the Scottish Government and Smart Energy GB to promote the benefits of the smart meter rollout to as many Scottish consumers as possible.

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\(^8\) Smart Energy GB: Smart energy for all (July 2015) 

\(^9\) This is referred to as the New and Replacement Obligation. For more information, see: https://www.gov.uk/government/consultations/smart-metering-rollout-strategy
Our campaign

Since 2014, our campaign has been delivering a decisive shift in levels of understanding of smart meters and the rollout.

Our core campaign characters, Gaz and Leccy, are now recognised by 64% of the population. Two-thirds of people who recall seeing our advertising took action towards getting a smart meter.

Our campaign has been designed to be highly accessible, with educational films and advertising available in 5 languages in addition to English and Welsh. During 2016, an information leaflet was available in all 11,000 Post Office™ branches, and we partnered with PayPoint to target 1000 shops with point of sales information.

Summary

We believe that the smart meter rollout has an important role to play in helping Scotland meet its climate commitments.

We invite the committee to recognise the smart meter rollout as an important part of the solution to a number of the areas under consideration, including the challenges of demand reduction, grid management, fuel poverty, improved housing and behaviour change.

We would welcome any opportunity to give evidence in person to Committees.

John MacNeil
Head of Policy and Communications, Scotland