

## Scottish Annual Targets – Call for Evidence

### QUESTION PROFORMA

#### a. CLIMATE SCIENCE AND INTERNATIONAL CIRCUMSTANCES

The Committee has previously set out advice for a 2010-2050 cumulative budget (1,250 MtCO<sub>2</sub>e) for net Scottish emissions consistent with:

- meeting the 2050 target;
- a 'fair and safe' Scottish emissions budget - whereby Scotland would contribute appropriately to stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

This would largely be met through domestic abatement, according to a path characterised by a 60% emissions cut in 2030.

The Committee's [report](#) on the scientific and international context for the UK fifth carbon budget covering the period 2028-32 (October 2015) examines the latest climate science and international circumstances. It finds that the UK's target to reduce emissions on 1990 levels by at least 80% in 2050 remains in line with the international commitment to 2°C. Regarding safety, this target is based on global pathways estimated to keep a likely chance of staying below 2°C. Regarding fairness, it assumes that the UK does not take more than the global average level of emissions per person in 2050. As an input to the international process, the EU has pledged to reduce 2030 emissions by at least 40% on 1990 levels. Our best estimate for a UK share of that pledge is a reduction of 54%, within a range of 51-57%.

Globally, more will be required to give a reasonable likelihood of keeping below 2°C.

The Committee will provide advice on the level of the UK 5<sup>th</sup> carbon budget (2028-32) at the end of November.

#### **Question 1: *How does the international, EU and UK context affect the setting of the Scottish annual targets***

ANSWER: The UK's carbon budgets are domestic commitments, but form part of efforts worldwide to reduce greenhouse gas emissions. The UK will have to reduce its emissions to a level consistent with the global average needed to meet the climate objective of keeping mean global temperatures below 2C. This implies that the UK's 2050 target of at least an 80% reduction would achieve this when applied to all emitting sectors including international aviation and shipping. As part of the UK, Scotland will also need to meet these targets as a minimum.

**Question 2: Does the latest evidence on climate risks, pathways of future global emissions and methods to decide effort between nations support the current Scottish emissions budget, or suggest a change?**

ANSWER: The evidence of risk is mounting each year with record breaking storm events, heat waves, rainfall etc. particularly in the tropical regions where extremes are most evident. The pathways of future emissions are not encouraging because just about every country, including the UK and Scotland, has set ambitious targets then failed to meet them. In Scotland's case, the failure of the Scottish Government to meet each of the first four annual targets set under the *Climate Change (Scotland) Act 2009* has damaged the credibility of efforts to tackle climate change. Scotland's future targets may well need to be tightened to compensate for the lack of achievement in recent years.

**Question 3: In the lead up to Paris COP21 how do Scotland's ambitious climate change commitments and targets affect engagement internationally?**

ANSWER: We cannot see that having ambitious targets makes for more effective engagement if there remains an the absence of real progress towards meeting them. Scotland can at least point to a concerted drive in the energy generation sector to move towards renewable (in sharp contrast to the UK government which is cutting its investment and commitment) but the lack of progress in the area of transport is deeply worrying. Actions speak louder than words and what are required are policy changes that lead to public investment in renewable energy, sustainable transport systems, and other measures that will genuinely give reductions in GHG emissions. At that point, Scotland will then be in a better position to demonstrate international leadership on climate action.

**b. COST EFFECTIVE PATH TO 2050:**

The annual targets must set a path that is achievable from today without leaving too much to be achieved in later periods to prepare for the 2050 target. In our latest advice to the Scottish Government (March 2015 progress report) we advised that good progress has been made in reducing emissions in Scotland, however further action is needed to be on track to meet current legislated targets. The Climate Change (Scotland)

Act 2009 states that for each year in the period 2020-2050 the annual targets must be set at an amount that is –

- i. Consistent with a reduction over that period of net Scottish emissions accounts which would allow the 2050 target to be met; and
- ii. At least 3% less than the target for the preceding year.

**Question 4: *In the area(s) of your expertise, what are the opportunities and challenges in reducing emissions to 2032, and at what cost? What may be required by 2032 to prepare for the 2050 target, recognising that this may require that emissions in some areas are reduced close to zero?***

ANSWER:

**Challenges:**

The key challenge is a continued failure on the part of Scottish Ministers to match their rhetoric on the need for climate action with spending priorities that will bring about cuts in climate emissions. Between 2011-12 and the 2015-16 budgets, Scottish Government expenditure on roads increased by 34% and expenditure on aviation by 70%. At the same time, expenditure on buses increased by 1%, while investment in active travel (walking and cycling) remains below 2% of the overall budget. The Scottish Government is committed to an £8 billion road-building programme – per capita far in advance of that seen in England – and a commitment to abolish Air Passenger Duty at a cost of £250m to the Scottish Budget.

**Opportunities:**

Transport is an area where a major impact *could* be made in reducing GHG emissions by investment in active travel within our major cities and by reducing car commuting by investment in, for example, tram networks and/or hydrogen and electric buses (using hydrogen or electricity produced by wind power). We also consider it necessary to introduce traffic management in major cities, using perhaps road pricing, to encourage the shift from private to public transport for often quite short commuter journeys.

As regards active travel, It has been shown in several countries (Netherlands, Denmark, Germany as examples) that 30-40% commuter cycling can be achieved by infrastructure improvements such as the introduction of comprehensive segregated cycle lanes, yet Scotland still has no plans to effect such radical change, despite the relatively low cost that this would entail (and especially in the context of the multi-billion pound road building programme to which the Scottish Government is at present committed). This is an example where the Scottish Government needs to make a start on implementing and funding such

infrastructure improvements using expertise from Europe if need be and showing leadership at a national level.

The reduction in GHG emissions from a 40% modal shift to sustainable transport would lead to massive reductions in emissions whilst giving other benefits such as healthier lifestyles, improved air quality and enhanced public realm.

**Question 5: *What, if any, is the role of local authority, business, consumer, individual or household behaviour in delivering emissions reductions between now and 2032? And, separately, after 2032?***

ANSWER: Local Authorities have an important role to play through the planning process. Developer contributions should be required to help fund public transport infrastructure and developments should be discouraged unless near good transport links to avoid the need for car use.

They can also contribute by way of education, both at school level to educate the next generation on the need for GHG emissions reduction, and by example to business by using best practice within the Authority through such measures as active travel planning, low emission vehicles, encouraging travel by rail rather than flying etc.

At an individual level, part of the problem is the conflicting messages received from the world of science compared with the powerful climate denier lobby. However, the recent floods at Carlisle whereby a “rare” rainfall event has now occurred three times in a decade, is making the man in the street realise that climate change is real and happening now. This change in attitude should be built on by government through education programmes designed to change behaviours in favour of less car use, less energy waste and other individual behaviour that can all contribute, globally, to less demand for energy.

**Question 6: *Is there evidence to suggest that actions to further reduce emissions after 2032 are likely to be more or less challenging to achieve than actions in the period up to 2032?***

ANSWER: We fear that the targets set for 2032 are unlikely to be achieved if past results are taken into account. This will then require even greater effort after 2032 to achieve reductions which will be more

difficult if earlier action has not been taken. Delayed action will raise the costs of achieving climate goals. We also fear that too much reliance is being placed on technologies that are currently unproven because they provide a convenient excuse for doing little at present.

In addition, the attitude of the US is worrying with a Senate and Congress that are hostile to taking any action and in fact being climate sceptics despite the mounting evidence of the looming disaster from all around the world, including within the US itself.

### c. ANNUAL TARGETS AND ACTION

Scotland's statutory 2050 target requires actions across the economy to reduce emissions. Many of these actions will be driven by devolved government policy and implemented by businesses and consumers. There will be an important role of local authorities in successful delivery.

Although the annual targets do not require specific actions, they provide an important indication of the overall direction that policy will take in the future. Once set, targets can only be changed if there had been a significant change in the relevant circumstances set out in the Climate Change (Scotland) Act.

**Question 7: Do you think the existing targets should be revised given the failure to meet them to-date? If so, on what basis should they be revised?**

ANSWER: It is not necessary at this stage to revise the targets but rather put more effort and financial priority into meeting them.

**Question 8: As a business, local authority, or as a consumer, how do annual targets affect your planning and decision-making?**

ANSWER: Our business travel, and to a great extent our employees' travel to work, is almost completely by walking, cycling or public transport (by bus for local public transport journeys, or by rail between cities). Air travel is rarely used, never within the UK, as a conscious recognition of the damage done to the environment.

We feel that these sorts of actions could be rolled out across the entire business sector and would achieve considerable reductions in emissions. It must be said the current free market approach in the UK and USA does not help to tackle what is a problem that seriously threatens the survival of society as we

know it if action is not taken in an effective way. There needs to be a more scientific approach taken to the issue that should not be undermined by the pursuit of purely business interests.

**Question 9: *What would you consider to be important characteristics of effective annual targets? What is the evidence for their importance?***

ANSWER: Important characteristics should include effective and accurate reporting of performance against targets for such measures as GHG emission reduction.

The important thing is to see significant real reductions in carbon dioxide emissions on a decade by decade scale within Scotland, mirrored it is to be hoped by similar reductions from other countries.

The ambitions discussed in the report - "Low Carbon Scotland - Meeting the Emissions Reduction Targets 2013-2027", includes many good proposals for decarbonising the freight and domestic vehicle fleet. For example, the statement "We aim to see significant progress in the decarbonisation of road transport by 2030 through wholesale adoption of electric cars and vans, and conversion to hybrid or alternatively-fuelled HGVs and buses – as well as significant steps to decarbonise rail and maritime transport" is highly laudable but we are concerned at the level of road and related building that is taking more than £8 billion over the next few years. By comparison, the investment in low carbon infrastructure is miniscule and patchy at the moment.

#### **d. OTHER ISSUES**

The Climate Change (Scotland) Act requires that in designing the annual targets we consider impacts on 'target setting criteria':

- 1) The objective of not exceeding the fair and safe Scottish emissions budget;
- 2) Scientific knowledge about climate change;
- 3) Technology relevant to climate change;
- 4) Economic circumstances, in particular the likely impact of the target on –
  - a. The Scottish economy;
  - b. The competitiveness of particular sectors of the Scottish economy;
  - c. Small and medium-sized enterprises;
  - d. Jobs and employment opportunities;

- 5) Fiscal circumstances, in particular the likely impact of the target on taxation, public spending and public borrowing;
- 6) Social circumstances, in particular the likely impact of the target on those living in poorer or deprived communities;
- 7) The likely impact of the target on those living in remote rural communities and island communities;
- 8) Energy policy, in particular the likely impact of the target on energy supplies, the renewable energy sector and the carbon and energy intensity of the Scottish economy;
- 9) Environment considerations and, in particular, the likely impact of the targets on biodiversity;
- 10) European and international law and policy relating to climate change.

The criteria include not exceeding the fair and safe Scottish emissions budget and economic circumstances, in particular the likely impact of the targets on competitiveness, fiscal circumstances, social circumstances (e.g. fuel poverty), and rural and island communities. High level conclusions on these from our advice on the 2023-2027 annual targets were:

- **Competitiveness.** There are potential risks for energy-intensive industries in Scotland where these firms are subject to carbon costs and compete in global markets with firms who are not subject to such costs. Sectors most at risk in the period to 2022 accounted for 0.07% of GVA (2005) and less than 0.5% of employment.
- **Fiscal impacts.** Under current arrangements, the main direct fiscal impacts of decarbonising through the 2020s are likely to occur at the UK level. At the Scottish level, the primary fiscal implication relates to possible public expenditure to support emissions reduction programmes. Since these conclusions were made further powers have been devolved to the Scottish Government, including the ability to set income tax rates and bands and controlling a proportion of VAT raised in Scotland, although these won't be passed in legislation for a number of years.
- **Fuel poverty.** There is an expectation that fuel prices would increase further, reflecting projected increases in gas and carbon prices and support for investment in renewable generation. There is scope to offset costs through energy efficiency measures
- **Rural and island communities.** Particular opportunities exist for cost-effective investment in renewable heat generation for off-gas grid homes, in conjunction with energy efficiency measures. Remote and islands communities are also often located in areas particularly suitable for renewable power generation.

**Question 10:** *What evidence should the Committee draw on in assessing the impacts of the annual targets on fuel poverty and those living in rural or island communities?*

ANSWER: No response to this question.

**Question 11: *What evidence should the Committee draw on in assessing the impacts of the annual targets on economic circumstances (e.g. the economy, competitiveness, jobs and employment) and fiscal impacts?***

ANSWER: It is likely that industries that embrace more sustainable technologies benefit rather than suffer because they are in a position to export the technology and expertise to other countries. A recent article in Investopedia (Can Business Evolve In A Green World?) stated “Companies will soon discover that there are economic benefits to increasing their energy efficiency and lowering their GHG through increasing efficiencies in the supply chain, the value chain and manufacturing operations. The companies that show leadership here will be those that have strong corporate governance policies. Studies conducted by consulting group McKinsey on the S&P 500 have shown that these companies tend to outperform the broad market over extended time period.” So, rather than fearing negative impacts on business one should embrace the change.

**Question 12: *Is there anything else not covered in your answers to previous questions that you would like to add?***

ANSWER: Only that we feel the dangers from climate change are already in evidence throughout the world with increasing extreme events such as heat waves, droughts, intense rainfall, flooding, storms and this is after only a 1C rise in average global temperature. Although it may well be that the costs of going green” are high they are likely to be much lower than the cost of doing nothing when viewed from the point of view of insurance claims from storm damage; repairs to infrastructure after storms; human misery etc.

We believe that an easy success for Scotland in terms of reducing GHG emissions could be achieved in the transport sector and an initial relatively low cost programme could be targeted at achieving significant modal shift from car to active travel. This will require investment in infrastructure but at far less cost than the Scottish Government’s current priority for expenditure on expensive new road-building and subsidies to the aviation sector.