

CLIMATE CHANGE BILL

Partial Business and Regulatory Impact Assessment

June 2017



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Title of Proposal: A New Climate Change Bill

Purpose and intended effect

Background

Tackling climate change is a key component of the Scottish Government's aim to create a growing, sustainable and inclusive economy. The Climate Change (Scotland) Act 2009 set world-leading greenhouse gas (GHG) emission reduction targets, including a target to reduce emissions by at least 80% by 2050, and an interim target to reduce emissions by 42% by 2020. Annual targets are set through secondary legislation in batches of 5 years, and have been set up to 2032.

The Scottish Government intends to introduce a new Climate Change Bill to make the targets even more ambitious and has received advice from the UK Committee on Climate Change (CCC) on how the new Bill may look¹. The advice covers issues such as the level of ambition of new targets and the accounting framework for measuring emissions. This advice has been carefully considered by the Scottish Government, in discussion with key stakeholders, and forms the basis of the proposals set out in the consultation paper, available on Citizen Space.

This partial Business and Regulatory Impact Assessment (BRIA) sets out considerations regarding the potential impacts of the proposals for a new Climate Change Bill and seeks stakeholders' views on these. Responses are invited through Question 11 in the Climate Change Bill consultation paper on Citizen Space (there is no problem responding to only one question in the consultation if that is what you wish to do). Question 11 reads:

What are your views on the opportunities and challenges that the Bill proposals could have for businesses?

Objective

The United Nations Framework Convention on Climate Change Paris Agreement was signed in December 2016 at the 21st Conference of the Parties (COP21) in Paris. The Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels, and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

The Scottish Government is committed to playing its part in the Paris Agreement and capitalising on the opportunities it presents to build a strong economy. Scotland's Economic Strategy highlights the importance of an economy that supports and enhances equality, wellbeing and sustainability. Our ambition is to encourage a low-carbon transition that promotes sustainable and equitable economic growth here in

¹ <https://www.theccc.org.uk/publication/advice-on-the-new-scottish-climate-change-bill/>

Scotland, and avoid displacing industrial activity to other countries with less stringent climate policies. The Climate Change Bill is part of a suite of activity aiming to deliver this transition and build on our world-leading approach to tackling climate change.

Proposals for the new Bill include:

- increasing the 2050 target to a reduction of at least 90%;
- setting targets based on actual emissions; and
- making provision for a net-zero greenhouse gas emissions target to be set when the evidence becomes available.

A number of technical amendments designed to further improve the transparency of the targets and functioning of the 2009 Act are also being considered.

Rationale for Government intervention

The Bill will form an important element of the Scottish Government's commitment to focusing Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.

Tackling climate change means adjusting to a more resource-efficient and sustainable economic model. In Scotland this represents a real opportunity to capitalise on our advantages and the strong progress towards decarbonisation that we have already made, and help Scotland be the most attractive place to do business in Europe.

The proposals for the new Bill will retain the approach of the 2009 Act, which requires that specific emission reduction measures are defined in strategic delivery plans ("Reports on Policies and Proposals", otherwise known as "Climate Change Plans"), which can be updated as circumstances evolve, rather than in the primary legislation itself. The preparation of these plans provides a long-term framework to consider specific sectorial issues and implications.

Consultation

In preparing their advice, the CCC issued a Call for Evidence and held a stakeholder session. Scottish Government officials have subsequently discussed the CCC advice with a range of key stakeholders, including at an event on 19 April 2017 attended by around 40 people from the public, private and third sectors.

Earlier this year, the Scottish Government commissioned EY to undertake a study to evaluate the implications of climate change and the impact on Scottish businesses from Government policies and proposals to reduce GHG emissions.

The purpose of this report is to set out the impact of the low carbon transition on Scottish businesses, and highlight the challenges and opportunities that will face Scottish business as a result of climate change and the action required to reduce it in the 2020s and 2030s. It identifies the challenges which need to be overcome for

business as well as the opportunities that a potentially disruptive change of this nature brings. These business impacts are illustrated with case studies of how different types of businesses have already successfully responded to climate change action.

The report was presented at the National Economic Forum in Inverness in May 2017. The forum provided the opportunity for senior figures from across business, the third sector, trade unions, government and the wider public sector meet to debate how to grow Scotland's economy.

The report can be found at:

<http://www.gov.scot/Topics/Environment/climatechange/meetingemissionstargets/climate-change-plan/transitioning-to-a-low-carbon-economy>

The material presented in this partial BRIA reflects issues raised by the CCC and stakeholders, and are linked to the questions in the public consultation paper. The public consultation will run for 12 weeks on Citizen Space, during which time we would welcome views on the issues and options considered in this BRIA. Question 11 in the consultation paper invites views on the opportunities and challenges that the Bill proposals could have for businesses. The feedback received will help inform the final BRIA and Bill.

Sectors and groups affected

Climate change is an issue that affects all of us and updating the levels of long-term climate target ambition has the potential to affect all sectors and groups.

The business community is already responding to the challenge of tackling climate change. Issues of particular concern to business often include the ability to harness emerging business opportunities, including in fields such as green technologies and resource efficiency; and long term certainty and stability on policy and regulatory issues to support investment decisions.

The EY report categorised firms into three broad business types - Energy intensive firms, Fast growing firms, and Domestic-facing SMEs – and considers that the opportunities and risks to each differ:

- Large energy-intensive industries may have greater opportunities for investing in on-site renewable energy generation, although they may also face a greater risk of carbon leakage as energy accounts for a greater proportion of their overall business costs;
- Fast growing firms may look to become early-adopters of low carbon technologies. However they may also face particular challenges, including around access to finance to invest in new technologies;
- Domestic facing SMEs are likely to face particular challenges in terms of lack of information about climate impacts and in preparedness for managing increases in energy costs. However many SMEs have demonstrated an ability to capitalise on a growing market for sustainable products.

Options

Three options are set out and stakeholders are invited to consider the costs and benefits of the options identified, and to raise any additional costs or benefits in their answer to Question 11 of the consultation paper.

Option 1 – Do nothing.

Benefits

The 2050 target of a 80% reduction was considered ambitious, at the time of the 2009 Act, and it remains a challenging target. Making no changes to the 2009 Act provides continuity.

The development of new measures in collaboration with industry, and implementation with sufficient lead times, has helped companies incorporate these into their future investment plans. For example, the EU Fluorinated Greenhouse Gas Regulations set a target to reduce the use of fluorinated gases, to phase out some of the most potent greenhouse gases, by 79% by 2030. Industry is responding to this by developing more environmentally friendly alternatives. Another example is the agreement reached in October 2016 at the International Civil Aviation Organization, an industry group, for a global scheme to address aviation emissions. The resulting scheme to offset the growth in emissions above 2020 levels is one of a basket of measures that the aviation industry is pursuing, including biofuels and efficiency improvements.

In 2015, the low carbon and renewable energy economy supported 58,500 jobs in Scotland (43,500 in 2014). This accounts for 14% of the total UK employment in this sector (higher than population share). It also generated £10.5 billion in turnover (£10.7 billion in 2014), 14% of the total UK turnover in this sector (again higher than population share).

In addition, the Scottish Government has designated energy efficiency as a National Infrastructure Priority, the cornerstone of which will be Scotland's Energy Efficiency Programme. Improved energy efficiency helps households and businesses to have more control over their fuel bills, which will contribute to tackling fuel poverty through reduced costs and achieve health improvement benefits through people having warmer homes. By reducing the costs of energy to Scottish businesses, economic competitiveness is likely to improve.

Over their lifetime, these programmes and policies will have supported thousands of jobs across Scotland and created a substantial Scottish market and supply chain for energy efficiency and renewable heat services and technologies.

Costs

The 2009 Act is structured around a 2050 target to reduce emissions by at least 80% from baseline levels. This target was considered, at the time of the Act, to represent an appropriate contribution to global efforts to limit global temperature rise above pre-industrial levels to near 2 degrees Celsius. More ambitious targets (than those

in the 2009 Act) for 2050 and the years in between are necessary if Scotland is to deliver its fair share of the Paris Agreement goal to limit global temperature rise this century to 1.5 degrees Celsius. The cost of continuing to aim for a 2050 target which is no longer in line with the global ambition is the loss of Scotland's position as a world-leader in tackling climate change.

Analysis conducted using the TIMES model² indicates that, based on the 2014 GHG Inventory, achieving 80% reduction in GHG emissions by 2050 could be achieved for an estimated cost equivalent to around 2% of the cumulative Scottish GDP.

In addition, it is recognised that the current target levels present a number of challenges to Scottish firms, including technological and trade risks around the integration of intermittent renewables to the energy system and financial challenges around the cost of measures to decarbonise the economy.

Option 2 – introduce a new Climate Change Bill which sets more ambitious targets for reducing emissions.

Benefits

Tackling climate change means adjusting to a more resource-efficient and sustainable economic model. This represents a real opportunity for Scotland to capitalise on our advantages and the strong progress towards decarbonisation that we have already made. Bringing forward legislation now to increase Scotland's long term climate change targets provides clarity on the direction of change in the economy in time for businesses, investors and others to plan accordingly.

Scotland is now a well-established knowledge hub for energy exploration, production and subsea technologies, for power system engineering and a host of modern, renewable energy technologies and systems – including the world's first tidal array and first floating offshore wind farm, Europe's largest fleet of hydrogen fuel cell buses and the UK's first smart grid – placing Scotland at the forefront of the challenge to decarbonise the global economy.

Scotland has world-class research and innovation capacity and facilities to support the energy sector, and Scottish companies and community partners have pioneered the development of local energy systems – driving remarkable innovation in technology, systems, business and engineering models for local provision. This approach is not only helping to build new expertise in emerging technologies like energy storage and hydrogen but is also delivering better outcomes for energy consumers and boosting community participation and the growth of social enterprise.

Low-carbon innovation across sectors can also have wider economic benefits, such as knowledge spillovers, whereby innovation by one firm can lead to technological improvements by other companies.

² TIMES (The Integrated Markal EFOM System) model, is an international standard for modelling of greenhouse gas emission reductions and energy issues. It has been calibrated with Scottish data and sector intelligence to analyse the cost implications of the proposed Climate Change Bill.

The CCC has also set out the scale of the opportunity presented by the transition to a low carbon economy. The “UK business opportunities of moving to a low carbon economy ” report³ sets out the potential size of the global and UK markets for selected low carbon products and services, and estimated the potential for future growth in these sectors out to 2050. This analysis suggests the projected compound annual growth rate for the UK low carbon economy could be 11% per annum between 2015 to 2030, and 4% per annum between 2030 and 2050. This growth relies on continuing investment in the development of new products and services across a wide range of low carbon technologies and processes.

The CCC has indicated that a 90% reduction in GHG emissions in Scotland by 2050 is achievable but is at the limits of feasibility.

Sectoral scenarios run by the CCC suggest that the benefits of increasing the targets for carbon emission reductions include improved air quality from reduced burning of fossil fuels; reduced noise pollution resulting from improved glazing, electric vehicle use and reduced traffic; improved health and reduced congestion from rationalisation of car journeys and more active travel (i.e. walking and cycling).

Costs

Increasing Scotland’s long term climate change target will require greater effort across Scotland. Analysis conducted using the TIMES model indicates that, based on the 2014 GHG Inventory, increasing ambition to 90% reduction in GHG emissions by 2050 could be achieved for an estimated cost equivalent to just under 3% of the cumulative Scottish GDP. The cost of meeting the current target is 2% of GDP, so increasing the target would cost an additional 1% of GDP. These estimates are consistent with those from other published studies, including the Stern Review (2006)⁴, which estimated the global cost of climate change mitigation to be in the range –1.0 to +3.5% of GDP.

Achieving our climate change targets will not affect all sectors of the economy equally, and it will be important to manage the transition. The extent to which achieving our climate change targets may impact on any sector's competitiveness will be determined by a number of factors, including:

- **The carbon intensity of the sector** (the amount of CO₂ equivalent emitted per unit of output). All else being equal, highly carbon intensive sectors are likely to face a greater adjustment.
- **International competition.** Where sectors are exposed to greater international competition, measures to reduce carbon emissions may have a greater impact on their competitiveness, as buyers can more easily move to overseas suppliers, who may face less stringent regulations or lower energy costs.

³ <https://www.theccc.org.uk/publication/uk-energy-prices-and-bills-2017-report-supporting-research/>

⁴ http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/media/4/3/Executive_Summary.pdf

-Global cooperation. Coordination on measures to reduce carbon emissions e.g. by agreeing consistent standards for sectors and overall abatement targets is likely to reduce both the cost of adjustment for companies and the likelihood that companies in a particular country will face a competitive disadvantage.

There are existing frameworks in place that can be used to support sectors facing adjustment costs as a result of climate change mitigation e.g. under the EU ETS, a proportion of carbon allowances (where 1 allowance provides the right to emit one tonne of CO₂) are given free to industries considered at risk of “carbon leakage”. Such measures can assist energy intensive and trade-exposed industries during the transition towards a low-carbon economy.

In addition to carbon leakage, EY note the following challenges may arise :

- Asset stranding (whereby inefficient equipment is retired at an accelerated pace)
- Re-configuration and repurposing
- Access to finance
- International competition
- Risks to or disruption of supply chains, and transport and distribution costs
- Lack of information
- Customer expectations or Changing consumer preferences
- Energy cost increases.

Sustained under-performance against annual targets could disillusion stakeholders and result in a loss of momentum in respect of progress towards a low carbon economy.

Option 3 – introduce a new Climate Change Bill which sets more ambitious targets for future emissions and changes the form of future emissions targets; changes the frameworks for reviewing and updating targets, accounting for emissions, and reporting progress.

Benefits

Combining more ambitious emission reduction targets (the benefits and costs of which are set out in Option 2) with a clearer, more transparent carbon accounting framework and related arrangements for the review and updating of targets and subsequent reporting of progress, would help raise awareness and understanding of progress towards a low carbon economy and engagement in future policy objectives.

Setting annual targets as a direct consequence of the levels of longer term targets, instead of through secondary legislation, would ensure that the various targets remain fully consistent with each other and would reduce the administrative burden on the Scottish Government (in respect of drafting secondary legislation) and the Scottish Parliament (in respect of scrutiny of the secondary legislation).

A shift to annual and interim targets being expressed in the same unit of measurement - as percentage reductions - would be more transparent than the existing framework and would reduce the risk of the annual and interim targets

becoming misaligned.

Accounting on the basis of actual emissions would be more transparent than the existing framework, which replaces emissions from the power sector and energy intensive industry with Scotland's notional share of the EU emissions covered by the EU ETS. **Removing the EU ETS adjustment does not change how the EU ETS operates in practice, and the Scottish Government remains committed to the EU ETS as the most cost effective way to achieve emission reduction from industry.** Removing the adjustment would allow Ministers to determine which sectors can decarbonise most cost effectively and would ensure that any major reduction in industrial emissions was fully reflected in progress towards the annual target.

Provision in the proposed Climate Change Bill for the amendment of interim targets and the 2050 target by secondary legislation, would allow for changing circumstances, such as technological advancements, and evolving evidence. It would also reduce the administrative burden on the Scottish Government and Scottish Parliament: drafting and scrutiny of secondary legislation is less resource intensive than primary legislation.

Costs

If, following removal of the EU ETS adjustment (irrespective of participation in the EU ETS), a decision is made that decarbonisation from the industry is required above the EU ETS rate, then there is an increased risk of reduced competitiveness leading to industry relocating to another country with less stringent climate policy. Policies would be needed which would avoid placing additional burden on industry to mitigate this risk. These could include the purchase of international emissions credits or the further incentivisation of industrial emissions reduction.

If the level of industrial activity in Scotland was higher than anticipated, for example as a result of increased output or the development of a new industry, action may be required on a yearly basis to offset the additional emissions.

The costs to the Scottish Government of meeting more ambitious emission reduction targets will be in line with those outlined in Option 2. The costs of the proposed changes to the reviewing, updating, accounting and reporting frameworks are not expected to be significantly different from the costs in respect of the current frameworks.

Scottish Firms Impact Test

The Climate Change Bill is part of a suite of activity aiming to deliver the transition to a low carbon economy. The Climate Change Bill will amend only those parts of the 2009 Act that relate to emission reduction targets and associated reporting duties.

The Scottish Government will be working with stakeholders during the public consultation period to ensure the concerns of Scotland's businesses and industry in respect of the proposals set out in the consultation paper, are taken into account.

These discussions will be reflected in the final BRIA.

Future Climate Change Plans will be developed under the new legislative framework agreed by Parliament for the new Bill. It will be at that stage that Ministers will consider how to deliver against the new targets. The potential impact on Scottish businesses of these specific policies will be considered in due course and be subject to the full BRIA process, as appropriate.

Competition Assessment

This partial BRIA does not include a Competition Assessment as the proposals which will be included in the Bill relate to emission reduction targets and related reporting duties. It is the specific policies introduced at a later date to deliver against these new targets which may have an impact on competition and will therefore be subject to the BRIA process, as appropriate.

Test run of business forms

The proposals do not involve any changes to existing business forms or the introduction of new forms.

Legal Aid Impact Test

The proposals do not introduce new rights or responsibilities on individuals or create a new procedure or right of appeal so no impact is anticipated on the legal aid fund.

Enforcement, sanctions and monitoring

The 2009 Act requires Scottish Ministers to lay before the Scottish Parliament a “Report on Proposals and Policies” for meeting the annual targets, as soon as reasonably practicable after each batch of targets has been laid. While the proposals include some changes to the frequency of the reports and the period covered within the report, they do not change the need for regular reports to be laid.

The verification of the projected emissions consequences of a particular policy or proposal will be provided by the results of the monitoring framework and the GHG Inventory.

Implementation and delivery plan

The public consultation will influence the content of a new Climate Change Bill.

Post-implementation review

Subject to passage of the Climate Change Bill, the new legislation will be reviewed within 10 years.

Recommendation

The recommended option is Option 3. This option will introduce a new Climate

Change Bill which will increase the ambition for statutory emission reductions targets enshrined in the 2009 Act. It will also make changes to the carbon accounting framework and aspects of the reporting provisions.

This option increases our ability to create a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.

Do you agree with this interim costs and benefits analysis? If you believe that there are other costs and benefits associated with these changes then please let us know in your response to Question 11 in the consultation paper on the proposals for a new Climate Change Bill.

Declaration and publication

I have read the Business and Regulatory Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options. I am satisfied that business impact is being assessed with the support of businesses in Scotland.

Signed:



Date: 22 June 2017

Minister's name: Roseanna Cunningham

Minister's title: Cabinet Secretary for Environment, Climate Change and Land Reform

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