

CLIMATE CHANGE (EMISSIONS REDUCTION TARGETS)(SCOTLAND) BILL

Business and Regulatory Impact Assessment

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Scottish Government
Riaghaltas na h-Alba
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Business and Regulatory Impact Assessment

Title of Proposal: Climate Change (Emissions Reduction Targets) (Scotland) 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 (the 2009 Act) 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 has introduced a new Climate Change Bill to make the targets even more ambitious. This includes amending the 2020 target to 56% and the 2050 target to 90%. It also sets interim targets of 66% for 2030 and 78% for 2040. The UK Committee on Climate Change (CCC) provided advice on target levels and changes to the target framework in March 2017¹. This advice informed the written consultation on the Bill in summer 2017². The CCC also provided updated advice in December 2017 on the target levels and framework³.

This Business and Regulatory Impact Assessment (BRIA) sets out considerations regarding the potential impacts of the proposals in the Climate Change (Emissions Reduction Targets) (Scotland) Bill (the Bill). It builds on the partial BRIA⁴ that was published alongside the public consultation on the Bill proposals, and takes into account the views expressed through the range of consultation activities. This includes responses to the public consultation and from specific events held with businesses.

Objective

The Paris Agreement to the United Nations Framework Convention on Climate Change entered into force on 4 November 2016. The Agreement aims to strengthen the global response to the threat of climate change by holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius.

The Scottish Government is committed to playing its part to implement the Paris Agreement, 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

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

² <https://consult.gov.scot/energy-and-climate-change-directorate/climate-change-bill/>

³ <https://www.theccc.org.uk/publication/letter-lord-deben-roseanna-cunningham-msp-advising-scottish-climate-target-framework/>

⁴ <http://www.gov.scot/Resource/0052/00521892.pdf>

low-carbon transition that promotes sustainable and equitable economic growth here in Scotland, and avoid displacing industrial activity to other countries with less stringent climate policies. The Bill is part of a suite of activity aiming to deliver this transition and build on our world-leading approach to tackling climate change.

The Bill includes provisions which:

- increase the 2050 target to a reduction of at least 90%;
- measure progress to targets without adjusting for the operation of emissions trading schemes; and
- require the Scottish Ministers to regularly review whether the time is right to specify a net-zero target year; and to explain their reasons to Parliament if they are advised of the earliest achievable net-zero emissions target year and do not set this year as the net-zero emissions target year in regulations.

The Bill also contains provisions for a number of technical amendments designed to further improve the transparency of the targets, reporting requirements and functioning of the 2009 Act.

Rationale for Government intervention

The Bill forms 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 Bill retains the approach of the 2009 Act, which requires that specific emission reduction measures are defined in Climate Change Plans. These plans are the Scottish Government's strategic summaries of policies across all sectors of the economy that relate to decarbonisation. This approach allows specific emission reduction measures to be updated as circumstances evolve, and for specific sectorial issues and implications to be regularly considered.

Consultation

In preparing their advice, the UK Committee on Climate Change (CCC) issued a Call for Evidence and held a stakeholder session on 20 January 2017. Scottish Government officials 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.

This was followed by a public consultation which was open from 30 June – 22 September. Two events were held with business organisations in September 2017,

facilitated by the 2020 Climate Group, amongst other wider consultation activity. An analysis report of the public consultation is available⁵, as is a report of the business consultation events⁶.

In early 2017, 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 emissions⁷.

The purpose of the commissioned 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 to debate how to grow Scotland's economy.

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 businesses 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

⁵ <http://www.gov.scot/Publications/2017/12/8859>

⁶ <http://www.gov.scot/Resource/0052/00529372.pdf>

⁷ <http://www.gov.scot/Topics/Environment/climatechange/meetingemissionstargets/climate-change-plan/transitioning-to-a-low-carbon-economy>

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 were proposed in the partial BRIA, published as part of the consultation activity. Option 3 was set out as the Government's preferred proposal for the Bill. The assessment of these three options has been retained for the final BRIA, with additional assessment from the consultation activity included under option 3.

Option 1 – Do nothing to existing legislation.

Benefits

The 2050 target of an 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, 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 increased use of biofuels and efficiency improvements.

In 2016, the low carbon and renewable energy economy supported 49,000 jobs in Scotland. This accounts for 12.5% of the total UK employment in this sector (higher than Scotland's population share). It also generated £11 billion in turnover (£10.5 billion in 2015), 14.2% of the total UK turnover in this sector (again higher than Scotland's 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 2020 target to reduce emissions by 42% from baseline and 2050 target to reduce emissions by at least 80% from baseline levels, alongside annual targets set in secondary legislation.

It is recognised that the current target levels present a number of challenges to Scottish businesses, 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. The cost to business of retaining current target levels will be the costs incurred in addressing these challenges.

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 business can lead to technological improvements by others.

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" report⁸ sets out the potential size of the global and UK markets for

⁸ <https://www.theccc.org.uk/publication/uk-energy-prices-and-bills-2017-report-supporting-research/>

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 benefits to the Scottish workforce such as 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 Scottish TIMES model⁹ indicates that, based on the 2015 GHG Inventory, the additional cost of moving from an 80% to 90% Greenhouse Gas reduction target is estimated to result in an additional cost of £13 billion.¹⁰ These estimates are consistent with those from other published studies, including the Stern Review (2006)¹¹, 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.

⁹ 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.

¹⁰ All estimates are discounted and in 2017 prices. The cost of £13 billion represents a system cost that is the total discounted resource cost of meeting a series of fixed final energy demand in the TIMES model. It is the cost of purchasing the technologies and fuels to deliver the TIMES pathway, with no assumption made about who incurs the costs.

¹¹ 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 Emissions Trading Scheme (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.

These challenges could lead to costs for businesses; the level of these costs will depend on the specific emission reduction measures taken forward and how these challenges are mitigated through these measures.

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 is fully reflected in progress towards the annual target.

Provision in the 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.

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.

Additional assessment following consultation

Option 3 was the option proposed for consultation activity.

The report from the **business events** noted that increased ambition could be an opportunity for businesses, although attendees also suggested they needed to know more clearly what increased targets would mean for businesses.

Opportunities brought about by increased targets were suggested to include the

ability for Scottish business to lead by example and the reputational opportunities from high targets; a stable policy environment which could favour inward investment in renewable energy; generational opportunities where young people are keen to start businesses to tackle climate change; and incentivising more long-term thinking for smaller businesses, who have to focus on the short term. Increased targets may also set expectations and provide motivation to businesses to tackle and reduce emissions.

Potential costs and challenges suggested include potential higher energy, recycling and certification costs, meaning a need to ensure a cost-effective transition to a low-carbon economy; a lack of regulatory and policy power to deliver on the targets; potential issues with certain infrastructure elements such as the power grid; and not including embedded emissions in imports.

Respondents to the **public consultation** were also asked for their views on the opportunities and challenges that the Bill proposals could present for businesses. In these written responses, multiple benefits to businesses were identified from the option of increasing the ambition of our targets; some possible negative impacts were also suggested.

Many of the impacts identified by respondents to the consultation were based on the opportunities for meeting the challenges and changes that are likely to be needed to transition to a low carbon economy, in various areas and sectors. Respondents suggested that businesses could see increased demand and opportunity in areas such as energy generation; low-carbon farming; buildings and housing; transportation; energy efficiency; and waste reduction.

Other opportunities for Scottish businesses that were suggested include opportunities for innovation and Scottish leadership in technological developments; long term targets creating a clear and stable environment for business; opportunities for reskilling in high carbon industries; and opportunities for rural businesses in local economies. Several respondents suggested that new jobs could be created, including suggesting that sustainable sectors may provide more employment than fossil fuel sectors. Another element that was identified as an opportunity for businesses was avoiding the damage that could be caused by failing to tackle climate change, and any consequent impact on businesses resulting from that damage.

Respondents also noted other areas where there could be a mixed or negative impact, or where support might be needed. These included that SMEs or sectors such as transport may need support to transform to low-carbon; energy conservation measures could be initially expensive (but save money in the long term if carefully managed); and the impact on impact on rural businesses where it might be harder to reduce all emissions.

Although these possible impacts were identified at a general level, the specific impacts and where they fall will depend on the policies and approaches taken to meet the targets. Policies for delivering the targets are not included in the Bill. It would therefore be most appropriate for the detailed impacts on business to be assessed alongside individual policies, where relevant.

Scottish Firms Impact Test

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

The Scottish Government discussed the Bill proposals with business 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, were taken into account. These discussions are noted above.

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 specific policies will be considered in due course and be subject to the full BRIA process, as appropriate.

Competition Assessment

This 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. The specific policies introduced at a later date to deliver against these new targets 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. These will be known formally as Climate Change Plans under the Bill proposals. While the Bill proposals include some changes to the statutory procedure around the Plans, they do not change the need for regular plans to be laid.

There are several ways in which progress will be monitored. Under the Bill proposals, there will be annual reporting twice a year. Firstly, annual greenhouse gas emissions statistics are published, setting out whether overall annual targets have been met. The timing of this is based on the availability of the statistics, currently in June, and each year is reported on within two years (i.e. 2016 will be reported on in 2018). Secondly, Scottish Ministers will lay a series of reports in

Parliament that cover progress against the chapter headings in the most recently published Climate Change Plan. This will be required every October for the same year as reported on in the GHG emissions statistics.

Additionally the most recent Climate Change Plan sets out a monitoring framework for implementation of the policies and proposals under the Plan. This framework includes an annual monitoring report.

Implementation and delivery plan

The updated statutory targets will be delivered through the policies set out in Climate Change Plans- the Scottish Government's strategic summaries of policies across all sectors of the economy that relate to decarbonisation. Where required, it is expected that these individual policies would be accompanied by a BRIA.

The Scottish Government will continue to engage with business stakeholders over the course of the passage of the Bill.

Post-implementation review

The Bill proposes that Scottish Ministers seek advice from the CCC at least once every five years as to whether the target levels set out in legislation are appropriate.

Recommendation

The recommended option is Option 3 and is taken forward in the Climate Change (Emissions Reduction Targets) (Scotland) Bill which will increase the ambition of statutory emission targets. It will also make changes to the target and reporting framework, including removing the adjustment for the operation of emissions trading schemes

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

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: Roseanna Cunningham

Date: 26 April 2018

Minister's name: Roseanna Cunningham

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

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