

Climate Change Bill consultation

Friends of the Earth Scotland response, September 2017

Summary of our comments on the proposed Climate Change Bill

- The new Climate Change Bill is an opportunity for Scotland to show leadership on climate change and set ambitious targets that deliver on the Paris Agreement;
- The proposed targets in the new Climate Change Bill are not nearly strong enough, and imply doing almost nothing extra until 2030;
- Friends of the Earth Scotland is calling for the Bill to set stronger targets - 77% emissions reductions by 2030, and net-zero emissions by 2040;
- The Bill should also:
 - ensure that representatives from all levels of government consider the impact of their decisions on future generations;
 - legislate to urgently reduce emissions from transport, homes and agriculture;
 - lay the foundations for the Just Transition Commission and the phasing out of petrol and diesel vehicles in law.

About Friends of the Earth Scotland

Friends of the Earth Scotland exists to campaign, with partners here and across the globe, for a just transition to a sustainable society. We work in Scotland for socially just solutions to environmental problems and to create a green economy; we campaign to end the degradation of our environment and to create a society which cherishes and protects the natural world on which we depend; we think globally and act locally, enabling people to take individual and collective action. We are part of Friends of the Earth International - the world's largest grassroots environmental network, uniting 74 national member groups, over 2 million members and 5,000 local activist groups around the world. We are an independent Scottish charity with a network of thousands of supporters, and 10 active local groups across Scotland. Friends of the Earth Scotland's vision is of a world where everyone can enjoy a healthy environment without exceeding their fair share of the planet's resources, now and in the future.

Introduction

Climate change is one of the greatest threats humankind has ever faced. The Intergovernmental Panel on Climate Change (IPCC) has reported with greater certainty and scientific consensus than ever before that "*warming of the climate system is unequivocal*" and that "*human influence has been the dominant cause of the observed warming since the mid-20th century*".¹ Global warming of 2°C or more will result in catastrophic impacts, including an increase in extreme weather events, sea level rise, the destruction of livelihoods and even entire countries, species extinction and habitat loss. In turn these impacts will see increased political instability and violent conflict, and a rise in migration and climate refugees.²

¹ IPCC Fifth Assessment Report: Climate Change 2013 Working Group I Report "The Physical Science Basis" http://www.climatechange2013.org/images/uploads/WGI_AR5_SPM_brochure.pdf

² IPCC Fourth Assessment Report: Climate Change 2007 Working Group II Report "Impacts, Adaptation and Vulnerability" http://www.ipcc.ch/publications_and_data/ar4/wg2/en/contents.html

The Paris Agreement, ratified in April 2016, commits nations to “*holding*” global warming to “*well below 2°C*” and pursuing efforts to limit warming to 1.5°C, in recognition of the fact that even 1.5°C warming will have devastating consequences for the countries and peoples most vulnerable to the impacts of climate change.³

The legally-binding Paris Agreement represents a significant increase in ambition compared to previous global commitments on climate change, which reflects advances in climate science. Scotland’s current climate legislation was passed when the consensus of world leaders on climate ambition was that as expressed in the 2009 Copenhagen Accord, “*to hold the increase in global warming below 2 degrees Celsius*”.⁴

The Scottish Government has a manifesto commitment to “*strengthen our ambition further*” in “*a new Climate Change Bill to implement the Paris Agreement*”. The First Minister has publicly reconfirmed the Government’s commitment to the Paris Agreement, saying “*It is essential that the world meets the overall target we set ourselves in Paris, of limiting global temperature increases to well below 2 degrees Celsius, and making serious efforts to keep them below 1.5 degrees.... Scotland will play its part.*”⁵

However, the proposals set out in the Climate Change Bill consultation paper do not contain the ambition or action required to meet the Paris Agreement ambitions or to keep temperature increases below 1.5°C. In order for Scotland to truly play its part and deliver our fair share of emissions cuts, the new Climate Change Bill must set stronger targets of a 77% reduction in emissions by 2030, and reach net-zero emissions by 2040.

1. Do you agree that the 2050 target should be made more ambitious by increasing it to 90% greenhouse gas emission reduction from baseline levels?

The 2050 target should certainly be more ambitious than the current Act specifies, but the proposed target of a 90% reduction does not go nearly far enough. **In order to deliver the aims of the Paris Agreement, Scotland should achieve a 100% reduction in net greenhouse gas emissions by 2040 at the latest.**

The Scottish Government pledged to bring forward a new Climate Change Bill which would implement the Paris Agreement aims of limiting the global temperature increase to ‘well below 2°C, and pursuing efforts towards limiting the increase to 1.5°C’. However, the targets proposed in the Climate Change Bill consultation paper fall far short of the ambition and action required by the Paris Agreement, and by climate science.

The Paris Agreement commits parties to “*global peaking of greenhouse gas emissions as soon as possible*”, recognising that this will take longer for developing countries, and aims for “*a balance*” between sources and sinks of emissions during the second half of this century, “*on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.*”⁶

What this means is that, taking into account the historical responsibility of industrialised nations for contributing to the climate crisis and our higher capacity to tackle emissions, developed nations like Scotland need to take a significantly more ambitious path than less developed nations to reducing emissions.

³ The Paris Agreement 2015:

http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf

⁴ The Copenhagen Accord 2009 <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>

⁵ First Minister’s speech to Arctic Assembly, Reykjavik, October 2016. <https://news.gov.scot/speeches-and-briefings/arctic-circle-assembly>

⁶ Article 4 Paris Agreement

http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf

The 'Fair Shares' approach⁷ evaluates individual nations' contributions under the global emissions budget, taking account of historical responsibility for causing climate change and capacity to reduce emissions, towards the 1.5°C temperature limit. Fair Shares analysis suggests that the UK should reduce emissions between 76% and 86% by 2030. Extrapolating these figures for Scotland reaches zero emissions between approximately 2036 and 2041.

Further support comes from the UK Committee on Climate Change (UKCCC)'s report on the Paris Agreement which shows that global CO₂ emissions would need to fall to zero in the 2040s for the world to stay close to the 1.5°C temperature limit.⁸

The UKCCC claims that evidence is not available to set a domestic net-zero emissions target at the present time, but the ambition of our climate targets should be shaped by what climate science and climate justice demands in terms of a fair contribution to international targets, not restricted by the limited vision of current technology.

Scotland is one of the first countries to debate new domestic climate legislation following the ratification of the Paris Agreement. The Scottish Government should take this opportunity to set an ambitious net-zero target of 2040 reflecting our historical emissions, the wealth and benefits resulting from these, our abundance of renewable resources and our relatively high capacity to act as a climate leader amongst the world's nations.

2. Do you agree that the Climate Change Bill should contain provisions that allow for a net-zero greenhouse gas emission target to be set at a later date?

No. A net-zero greenhouse gas emission target should be set in this Bill, rather than at a later date. We believe that Scotland should aim for net-zero emissions by 2040, based on a Fair Shares analysis (as set out in Q1 above).

Scotland should aim to achieve net-zero emissions through directly reducing our emissions in Scotland, and activities such as reforestation and peatland restoration, rather than relying on carbon credits or unproven and risky negative emissions technologies. While there may be a small role for carbon capture and storage (CCS) in industry, we should not expect to rely on CCS in the energy sector. With abundant capacity for renewable energy in Scotland, we should also not look to imported biofuels which lead to land-grabbing, increased hunger and environmental damage.

As mentioned above, a domestic net-zero emissions target should be shaped by what climate science and climate justice demands.

In 2009, the 2020 and 2050 targets in the Climate Act were set on the basis of what climate science showed was necessary to meet a 2°C goal. At the time those targets were set there was no defined pathway to deliver them and even the first Report on Policies and Proposals, published in 2011, failed to show a convincing pathway to the 2020 target, yet we are now on track to meet that target comfortably. The First Minister has said that *"at that time a 42% reduction by 2020 was the most ambitious legal target anywhere in the world. Scotland deliberately set a goal that we thought would be difficult"*⁹. The Scottish Government should take the same ambitious approach now and set a net-zero target in this Bill.

⁷ <http://www.climatefairshares.org> and <https://www.foe.co.uk/sites/default/files/downloads/uks-fair-share-emissions-cuts-76425.pdf>.

⁸ <https://www.theccc.org.uk/wp-content/uploads/2016/10/UK-climate-action-following-the-Paris-Agreement-Committee-on-Climate-Change-October-2016.pdf>

⁹ First Minister's speech to Arctic Assembly, Rejkjavik, October 2106. <https://news.gov.scot/speeches-and-briefings/arctic-circle-assembly>

3a. Do you agree that the 2020 target should be for greenhouse gas emissions to be at least 56% lower than baseline levels?

Yes. UKCCC figures show that the 2020 target would need to be around 56% under the proposed new accounting system in order to be broadly equivalent to the 42% target set in the 2009 Act (under the current accounting system).¹⁰

A new target of 56% would therefore represent the same level of ambition as set in the 2009 Climate Change (Scotland) Act, and would not meet the Scottish Government commitment to set an 'ambitious new target' for 2020, as set out in the 2016 SNP election manifesto and repeated in the Programme for Government.

In order to deliver on the promise of 'strengthening our ambition' the 2020 target would therefore need to be more than 56%. As the new Act is not expected to become legislation until 2019, the level of the 2020 target is effectively a moot point, and 56% is clearly the minimum at which this target should be set.

The Scottish Government must immediately focus efforts on setting and delivering policies that will reduce emissions to 2025 and 2030, particularly in areas such as transport, agriculture and heating.

3b. Do you agree that a target should be set for greenhouse gas emissions to be at least 66% lower than baseline levels by 2030?

No. Science is clear that action in the next decade is vital if we are to avoid the most dangerous impacts of climate change. The Paris Agreement requires all countries to increase their ambition.

Despite this, the Government's proposed 66% target for 2030 is only a miniscule increase on the target already agreed for that year and so would have very little impact on Scotland's emissions reductions during this critical next decade. Obviously, doing almost nothing extra beyond the current trajectory for the next 13 years cannot be consistent with the commitments from the First Minister and the Scottish Government to increase ambition and deliver on the Paris Agreement.

As set out in Q1 above, to be in line with the Paris Agreement and deliver our fair share of global emissions cuts, Scotland should act faster and set a more ambitious target for 2030.

The Fair Shares analysis (see Q1 above) suggests the UK should be aiming for reductions of between 65% and 75% by 2025 and 76% and 86% by 2030.¹¹ **We therefore support a target of at least 77% emissions reductions by 2030.**

The commitment in the recent Programme for Government to phase out the sale of new fossil fueled vehicles in Scotland by 2032 will provide significant additional emissions reductions in the next decade. The draft Climate Change Plan, written to deliver a target of 66% reductions by 2032, included a policy of 40% of new cars and vans to be ultra-low emission by that date. If the Scottish Government delivers on the Climate Change Plan and the phase out of fossil fueled vehicles, it is clear that we can achieve emissions reductions beyond 66%.

¹⁰ <https://www.theccc.org.uk/wp-content/uploads/2016/03/Scottish-Emissions-Targets-2028-2032.pdf>

¹¹ <http://www.climatefairshares.org> and <https://www.foe.co.uk/sites/default/files/downloads/uks-fair-share-emissions-cuts-76425.pdf>.

3c. Do you agree that a target should be set for greenhouse gas emissions to be at least 78% lower than baseline levels by 2040?

No. As set out in response to Q1 and Q2 above, we believe that the 2040 target should be for a 100% emissions reduction on baseline levels.

4. Do you agree that annual emission reduction targets should be in the form of percentage reductions from baseline levels?

Yes. Currently progress is reported in both absolute terms and as percentages; with annual targets expressed as absolute emissions reductions while the 2020 and 2050 targets are expressed as percentages.

The new Climate Change Bill should ensure that all targets are conveyed in a consistent manner, and, while there are pros and cons for either approach, we agree that percentages are the most appropriate form. In order to track absolute progress and to allow for comparison with previous results, the absolute figures should also be included in annual reporting.

5. Do you agree that annual targets should be set as a direct consequence of interim and 2050 targets?

There may be merit in setting annual targets as a direct consequence of interim and 2050 targets, which we have advised should include 77% by 2030 and 100% (net-zero) by 2040. However this approach may make it harder to incorporate expected technological developments appropriately. If this approach is used it should not be a straight line between interim targets but should define a curved trajectory over time to deliver more valuable early action to reduce emissions.

6. Do you agree that all emission reduction targets should be set on the basis of actual emissions, removing the accounting adjustment for EU ETS?

Yes. We agree that the emissions reduction targets and annual results should be set and reported in gross emissions units. Actual emissions reflect real progress in reducing Scotland's greenhouse gas emissions, showing more clearly which sectors are doing well and which need to do more, and are easier to communicate to the public.

However, for comparison with international data and with our own emissions history, the ETS-adjusted figures should continue to be reported in parallel.

7a. What are your views on allowing the interim and 2050 emission reduction target to be updated, with due regard to advice from the CCC, through secondary legislation?

If this power is included the interim and 2050 targets should only be allowed to be revised upwards, and this revision should be subject to advice from the official advisory body, formal consultation and a period of full Parliamentary scrutiny.

7b. What do you think are the most important criteria to be considered when setting or updating emission reduction targets?

We believe the criterion regarding a 'fair and safe emissions budget' is the most important to consider when setting or updating both interim and annual targets, and we do not support removing it.

The Paris Climate Agreement recognises that nations have common but differentiated responsibility and respective capabilities to tackle climate change. In practice, this means that historically high polluters and wealthier economies like Scotland will have to contribute more to the efforts to mitigate climate change.

Delivering our fair share of a global emissions budget under the Paris Agreement should be our key criteria when setting targets, and this would not be adequately covered by the criteria relating to scientific knowledge about, or international law relating to, climate change.

To ensure that the Bill furthers Scotland's aims in relation to global climate justice, the following actions should be taken:

- Define 'fair' as Scotland's share of the global emissions budget that is in line with the principle of common but differentiated responsibilities and respective capabilities, considering intra-generational equity and inter-generational equity – the principles of justice and fairness between peoples, and to future generations.
- While acknowledging that no temperature rise is safe as lives are already being affected due to climate change, define a 'safe' budget as one that will limit global warming to the temperature goals of the Paris Agreement.
- Require Scottish Ministers to request the advisory body (UKCCC) to review every five years (in line with UNFCCC process) new evidence that may affect the Scottish share of a 'fair and safe global emissions budget'.
- Require Scottish Ministers to consider reviewing annual targets, interim targets and the 2050 target at set periods (for example every five years), if new evidence has substantially altered the Scottish share of a 'fair and safe global emissions budget'. Scottish Ministers should only be able to revise targets upwards.

Action on climate change should be designed to maximise employment opportunities in low-carbon sectors, ensure a just transition for workers and communities currently dependent on high carbon sectors and tackle existing social inequalities.

There should be a distinction drawn between the criteria to be considered when setting or updating targets (e.g. science, equity, fair and safe budget, international law) and the criteria to be considered in setting policies through Climate Change Plans (e.g. technology, economic circumstances, fiscal circumstances, social circumstances, environment etc).

8a. What are your views on the frequency of future Climate Change Plans?

In general five years has proven to be a useful interval for the creation of Climate Change Plans to reflect on policy effectiveness, economic cycles, demographic and technological change. To ensure there is no delay in action, the first new Climate Change Plan under this new Act should be published within a year of Royal Assent.

8b. What are your views on the length of time that future Climate Change Plans should cover?

We believe that the current time frame of 16 years is adequate, allowing for both detailed short term policy action, and longer term proposals.

Every Climate Change Plan should have an indication of the full pathway to 2040 and 2050 in order to track overall progress, but the main focus for actions should be the next decade and a half.

8c. What are your views on how development of future Climate Change Plans could be aligned with Paris Stocktake Processes?

There are pros and cons with linking the Climate Change Plan cycles to either the Paris reporting cycles or to Scottish political cycles. Ideally Scotland would be feeding in to the Paris reporting process with a fully developed plan, meaning that a plan would have to be developed in 2019, after Royal Assent, and another one for 2023, then every five years thereafter.

The Scottish Government's advisory body should be required to reflect on the Paris Stocktake outcomes in their advice to Government.

8d. How many days do you think the period for Parliamentary consideration of draft Climate Change Plans should be?

We support the extension of the period of Parliamentary scrutiny of the draft Climate Change Plan to 90 days at minimum as this is a complex, cross-sectoral exercise requiring a significant degree of expertise across Committees. It may be useful to include some flexibility to maximise the number of sitting days during the 90 day period.

The Scottish Government should publish the final Climate Change Plan no later than six months following the conclusion of Parliamentary scrutiny, together with a report showing how Committee recommendations have been responded to.

9. What are your views on the proposal that any shortfall against previous targets should be made up through subsequent Climate Change Plans?

As targets are reported annually, 18 months after the close of the year being reported on, and the Climate Change Plans are currently developed every 5 years, allowing the shortfall to be made up through CCPs would result in a worst-case time lag of over 6 and half years to make up for a shortfall. As the frequency of CCPs is under review, this could become even longer.

In order to keep on track, any shortfall should be addressed immediately in the year after it is reported.

10. What are your views on these initial considerations of the impacts of the Bill proposals on Scotland's people, both now and in future generations?

The injustice of leaving to future generations the barely hospitable planet that current global emissions trajectories will result in is without comparison. Measures to deliver on climate targets will only be positive for younger and future generations if our targets are strengthened and action to tackle emissions is taken swiftly enough to avert catastrophic warming.

The concern for equality and justice in the transition to a low carbon economy is welcome as is the implicit recognition that the actual socio-economic impacts will depend on the ways in which the targets are achieved. Climate change is one of the greatest threats to the wellbeing and flourishing of Scotland's people. Tackling climate change is therefore critical, but it also provides opportunities to shape our society and economy for the better – creating a fairer and more equal Scotland. There are significant benefits to Scotland's people from acting on climate change – improved energy efficiency will reduce fuel poverty, implementing a nitrogen budget and phasing out fossil fuel vehicles will both improve air pollution and have positive health benefits. A good Bill with strong targets and clear actions to achieve them can also provide opportunities to increase employment, improve public health and reduce poverty, creating a better future for the people of Scotland, if plans for delivery incorporate these objectives.

Air pollution causes 2,500 early deaths in Scotland each year - more than ten times the number of people dying in road accidents. It has been linked with cancer, heart attacks, strokes, restricted foetal development¹² and dementia. It costs an estimated £1.1bn to Scotland's economy each year, in days lost at work and costs to the NHS. Traffic is the key culprit for elevated air pollution levels¹³, so action to reduce the volume of motorised transport and improve emissions standards on our roads will tackle both climate change and improve air quality.

Increased equality and justice will be achieved only if specific plans are put in place to manage the transition to a low carbon economy. Conversely without them there are real dangers of job losses in specific sectors which can arise from unplanned industrial change, as was seen with the decline of the coal industry. Building a low-carbon economy can result in a growth in employment if planned and delivered in a way which protects workers' livelihoods.

Therefore there should now be much more attention paid to the 'What? and How?' of creating a low-carbon economy, with these purposes in mind. The Climate Change Act should include a commitment to a Just Transition; this should be reflected in the content of the Climate Change Plan and the Energy Strategy; and an industrial policy should be prepared to ensure that the targets are achieved.

Measures to tackle climate change will not work if they are 'done to' people, there must be participative approach to transformation. In particular, in moving away from high carbon energy the transition must be planned with and fair to workers and communities currently dependent on these sectors / industries.

¹² "Ambient air pollution and low birthweight: a European cohort study (ESCAPE)" The Lancet Respiratory Medicine, Volume 1, Issue 9, Pages 695 - 704, (Nov 2013), British Medical Journal, "Long term exposure to ambient air pollution and incidence of acute coronary events: prospective cohort study and meta-analysis in 11 European cohorts from the ESCAPE Project" (Jan 2014)

¹³ Road traffic is responsible for 80% of NOx concentrations at roadside: Defra, "UK plan for tackling roadside nitrogen dioxide concentrations: Detailed Plan," July 2017, p 5

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

The Business and Regulatory Impact Assessment (BRIA) highlights the benefits and opportunities of the transition to a low-carbon economy, including the 58,500 jobs already created and the projected annual growth of rate of 11% per year to 2030.

While the BRIA looks at the cost of action on climate change, it fails to account for the economic cost of inaction. Even in 2006 the Stern Review estimated the cost of inaction at between 5-20% of GDP.

Committing to ambitious targets and policy action now will provide certainty to businesses, enabling them to make a planned transition.

The economic consequences for businesses will depend on how the transition to a low carbon economy is achieved. Some previous transitions in which the outcomes were left to the market have contributed to de-industrialisation and social exclusion (e.g. coalmining) or failed to generate promised growth in employment (e.g. offshore wind). However studies have shown that the transition to a new low-carbon economy could result in a net increase in jobs provided it is carried out with this objective in mind.

Therefore the Government should ensure that there is a planned Just Transition from high carbon industries and jobs to a prosperous zero-carbon economy, protecting workers and delivering a fairer and more equal Scotland. Government should also take steps to ensure that this creates opportunities for businesses of all sizes in Scotland to thrive, and develop an industrial base for Scotland's exports.

An industrial plan for the Just Transition should be created, incorporating measures for the creation of new high added value sectors which offer well paid secure employment. Jobs and companies can be re-purposed to ensure that existing capabilities are re-deployed; local supply chains can be built through careful use of procurement and through the use of public support to energy sectors; opportunities for upskilling and retraining to support these shifts must be properly funded.

This approach offers private businesses numerous opportunities to grow and create capacity to succeed in export markets, so creating a new, secure industrial base. However public enterprise is as important as private enterprise and where necessary to drive forward these plans, public investment and options of public or community ownership should be developed. Tackling climate change is too important to leave crucial economic decisions with the big businesses which dominate key sectors, many of which are based outwith Scotland.

We welcome the commitment in the recent Programme for Government to create a Just Transition Commission. The Climate Change Bill presents an ideal opportunity to lay the foundations for this Commission in law. The Commission should advise the Scottish Government on the transition to a prosperous low-carbon economy in which the costs and rewards are shared fairly, and employment is protected.

12b. What are your views on the predicted environmental effects as set out in the Environmental Report?

The Environmental Report provides a clear summary of the many environmental impacts of climate change, including coastal flooding, habitat loss and changes in weather patterns. It also highlights the environmental benefits of measures to reduce emissions, such as improved air quality. In order for Scotland to realise the benefits and avoid the environmental costs, it is vital that action to reduce emissions is accelerated over the next decade.

12d. Do you agree with the conclusions and recommendations set out in the Environmental Report?

We do not agree with the recommendation to set a net-zero target at a later date. Urgent action to reduce greenhouse gas emissions is vital in order to avoid the very worst environmental impacts, therefore a net-zero target should be set immediately. (See answers to Qs 1- 3 above).

13. Please use this space to tell us any other thoughts you have about the proposed Climate Change Bill not covered in your earlier answers.

The new Climate Change Bill should not be restricted solely to targets and accounting measures, but should include policies to cut our emissions. The commitments in the recent Programme for Government to phase out the sale of new fossil fuel cars and vans by 2032 and to establish a Just Transition Commission are very significant steps forward for Scotland's transition to a low carbon future. The new Bill should cement these promises in law and commit to further action in agriculture, heating and alignment with finance budgets.

Along with the other members of Stop Climate Chaos Scotland, we are calling for the new climate bill to:

- Ensure that future finance budgets are consistent with our climate targets
- Recognise the rights of future generations.
- Commit to actions that cut emissions and deliver a cleaner, healthier, more prosperous Scotland by:
 - Making all homes efficient and warm: Ensure that all homes have at least Energy Performance Rating 'C' by 2025.
 - Greener farming: Set a nitrogen budget for Scotland by 2020.
- Set targets for reducing Scotland's consumption emissions, and a requirement to report progress annually.

In detail:

Finance budget

We recommend that the forthcoming Climate Change Bill does three things that help ensure that the Scottish Government's budget is pulling in the direction our climate change targets require it to.

1. **Close the loophole** in Section 94 of the Climate Change (Scotland) Act 2009 so that the Scottish Government must publish accurate and transparent information about the complete long-term effect of each budget on Scotland's climate change emissions.

2. **Align the Scottish Government's budget with its Climate Change Plan.** The Climate Bill should create new legislative duties to require the Scottish Government to align its budget and its Climate Change Plan.
3. **Establish a low-carbon infrastructure commission** with responsibilities for advising the Scottish Government of the major infrastructure projects that are needed for Scotland to achieve its zero carbon ambitions, and analyzing the Scottish Government's capital budgets to ensure that they are aligned with meeting climate targets.

These actions would have **wide ranging benefits** across the Scottish economy from cleaner air and warmer homes, to new jobs and investment opportunities.

There are **no significant additional costs** to the Scottish Government of publishing a more accurate analysis of the Scottish Budget or creating better alignment between the Budget and the Climate Change Plan.

The Environment, Climate Change and Land Reform Committee's Report on the Draft Climate Change Plan, published in March 2017, said, "The Committee considers the issue of climate change should be more firmly embedded in the draft budget and recommends the Scottish Government include detail of how this information will be included in future budgets in the final Climate Change Plan."¹⁴

Nitrogen budget

Agriculture accounts for 22.5% of total GHG emissions in Scotland. Unlike other sectors, the two most significant greenhouse gases from farming are Nitrous Oxide (N₂O) and Methane (CH₄), with both have a much bigger impact on our climate than CO₂. Inefficient use of chemical fertiliser in Scottish agriculture creates excess N₂O and causes water pollution.

We support SCCS's proposal for a **Nitrogen Budget for Scotland which aims to drive efficient use of all nitrogen sources, cut surpluses and pollution, and create a more circular economy** for biodegradable wastes like food waste. More efficient fertiliser use would also have **significant economic benefits for farmers**. Estimates in RPP2 put these benefits at £240m for the industry to 2027

The Rural Economy and Connectivity Committee in their response to the draft Climate Change Plan recommended that Scottish Government should develop a Nitrogen Budget for Scotland.

Denmark has had a nitrogen budget since 1990, and this has helped to focus actions which have halved the nitrogen losses to the atmosphere and to water.¹⁵ There is an established UN methodology for this¹⁶ and Scotland hosts one of the leading global nitrogen research teams at the Centre for Ecology and Hydrology. **A 50% reduction as achieved in Denmark would reduce Scotland's emissions by 1.35Mt CO₂e**

A Nitrogen Budget would also help to improve the efficiency of nitrogen use in other sectors including fisheries, forestry, food and livestock feed production, local authorities, solid waste, wastewater, industry, energy production, and transport, bringing additional economic and environmental benefit.

¹⁴ <http://www.parliament.scot/parliamentarybusiness/CurrentCommittees/103917.aspx> (paragraph 553)

¹⁵ <https://phys.org/news/2015-09-danish-nitrogen-nutshell.html>

¹⁶ http://www.clrtap-tfrn.org/sites/clrtap-tfrn.org/files/documents/EPNB_new/ECE_EB.AIR_119_ENG.pdf

Energy efficiency

Poor energy efficiency is one of the biggest drivers of fuel poverty and contributes significantly to emissions from Scotland's homes. Investment in energy efficiency is one of the cheapest, greenest approaches to decarbonisation and is able to deliver multiple social and economic benefits.

The Scottish Government has set out that Scotland's Energy Efficiency Programme (SEEP) will be the main vehicle for the delivery of the National Infrastructure Priority. The Climate Change Bill could put some key elements onto a statutory basis:

- **Targets and milestones for the delivery of SEEP** including a milestone of supporting all existing homes to reach at least an Energy Performance Certificate rating of 'C' by 2025. A regular reporting cycle, perhaps linked to the wider annual climate change reporting cycle, should keep the Parliament updated with progress in delivery of this infrastructure priority.
- **A new independent body responsible for the delivery of SEEP should be created.** The independent body would report to Ministers and Parliament and be charged with ensuring value for public sector investment. The independent public body could be disbanded on completion of the SEEP programme.

The NHS in Scotland would save between £48m – £80m a year if all homes were brought up to EPC C¹⁷. The National Institute for Healthcare and Excellence (NICE) recommends that as a minimum, properties should be raised to an EPC band C and ideally to a band B to avoid the risk of death and ill health associated with living in a cold home¹⁸.

- Upgrading fuel poor homes to EPC C by 2025 would **save an estimated 1 MtCO₂ a year by 2025¹⁹**. This is double the rate of carbon savings anticipated from all RPP2 policies in the homes sector by 2027.
- A project of this scope could generate a **net increase in jobs of 8-9000 per year²⁰**. It would also be a 'value for money' project – creating more jobs and benefits for the wider economy than a fiscally equivalent spending package²¹.

Consumption Emissions – annual reporting and reduction targets

The new Climate Change Bill should require Ministers to measure and report annually not only on Scotland's production emissions but also its consumption-based emissions – assessing the climate impact of goods and foods we buy from outside the UK.

A report from the UK Committee on Climate Change²² shows that, while our territorial emissions have been falling, emissions from consumption have been rising. By buying goods produced or processed overseas, we require other countries to emit greenhouse gases on our behalf. This cannot be consistent with the need for global action under the Paris Agreement.

While the Government has begun to report on consumption emissions, this is not aligned with reporting on our territorial emissions and there is currently no obligation to reduce these emissions.

¹⁷ Consumer Futures Scotland (2014) Economic impact of improving the energy efficiency of fuel poor households in Scotland

¹⁸ <http://www.nice.org.uk/guidance/ng6/resources/excess-winter-deaths-and-morbidity-and-the-health-risks-associated-with-cold-homes-51043484869>

¹⁹ CCC (2016) Scottish Climate Targets 2028 – 2032; analysis by WWF Scotland

²⁰ Verco (2014) Building the Future

²¹ https://www.e3g.org/docs/Frontier_Economics_-_Energy_Efficiency,_an_Infrastructure_Priority.pdf

²² <https://www.theccc.org.uk/wp-content/uploads/2013/04/Reducing-carbon-footprint-report.pdf>

The Bill should require Scotland's consumption emissions to become part of the annual reporting of progress towards Scotland's annual greenhouse gas emissions targets, in order that the statistics for production emissions and consumption emissions can be compared.

There should also be targets in the Bill for reducing consumption emissions, and strategic action to reduce emissions from consumption should be incorporated into the policy making process in the Climate Change Plan and elsewhere.

Reducing emissions from transport

Transport became the **single biggest source of emissions** in Scotland for the first time in 2017, accounting for well over a quarter of emissions²³. And it is the sector that has **made least progress** in cutting emissions over the last three decades, with emissions static at 1990 levels. Meanwhile our urban streets continue to choke with traffic congestion and the **polluted air** we breathe causes up to 2,500 premature deaths annually in Scotland.

We welcome the recent announcement to **bring an end to the sale of new petrol and diesel vehicles by 2032 and to increase the number of proposed Low Emission Zones from one to four**²⁴. **Measures to support this** could include requiring public vehicle fleets to lead the way on electrification, financial incentives like workplace parking levies, non-financial incentives like preferential bus lane access for EVs, and changes to building regulations to require EV charging points in new build homes. The Scottish Government need to provide significant financial assistance to local authorities to ensure that Low Emission Zones are delivered well and on time.

In addition a wider package of transport measures should be implemented to reduce both climate and air pollution emissions:

- Invest 10% of the transport budget in safe, dedicated walking and cycling infrastructure. In Seville, a widespread roll-out of cycling infrastructure, coupled with other demand management measures, has contributed to the city cutting its nitrogen dioxide levels in half.²⁵
- Introduce a Bus Act that gives local authorities greater powers over bus services. Local councils should be enabled to regulate fares, plan routes, introduce integrated ticketing systems, and operate entire networks.
- Legislate to reduce the default speed limit in urban areas from 30mph to 20mph to support clean air, safe streets, reduced traffic and help social cohesion.

Just Transition

In setting challenging targets which fit with the ambition of the Paris Agreement, the Climate Change Bill should enshrine a commitment that the ways in which a low-carbon economy will be achieved will enhance social justice, protect livelihoods and create a fairer and more equal Scotland – that is, that the transition will be a Just Transition.

A Just Transition is guided by the following principles:

- employment levels and livelihoods will be maintained
- communities affected will be supported through the transition
- training and re-training will be funded

²³ <http://www.gov.scot/Resource/0052/00520839.pdf>

²⁴ The Government's Programme for Scotland 2017-18 <http://www.gov.scot/Resource/0052/00524214.pdf>

²⁵ ECF, "Cycling And Urban Air Quality: A study of European Experiences", 2016

- measures to tackle disadvantage in the labour market will be included
- fairness regarding the costs of the transition – any tax or price burden should fall to the largest extent on those who can most easily pay

We welcome the Scottish Government's commitment to **establishing a Just Transition Commission**²⁶. The Climate Change Bill presents an ideal opportunity to lay the foundations for this Commission in law. The Commission should have participants drawn from trade unions, environmental organisations, industry and commerce, enterprise, the community sector and civic society and have powers to prepare and advocate proposals and to work with local authorities, enterprise agencies and industry. The establishment of a Commission is an appropriate way of helping to meet emissions reductions targets because, although having widespread support, this is a challenging objective concerning which there is the need to create consensus in practice and for a constant sense of urgency. A Commission can generate focus which crosses the boundaries of many departmental silos, bring together a wide range of views and create a space for discussion and the resolution of differences of perspective.

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²⁶ The Government's Programme for Scotland 2017-18 <http://www.gov.scot/Resource/0052/00524214.pdf>