

CLIMATE CHANGE BILL

Consultation Summary Report

December 2017



Scottish Government
Riaghaltas na h-Alba
gov.scot

Client	Scottish Government
Company	Dialogue by Design
Title	Proposals for a new Scottish Climate Change Bill
Subtitle	Summary Report
Dates	last published 06/12/2017 last revised 06/12/2017
Status	Final
Classification	Open
Project Code	SCOTG1
Author(s)	Killian Condell, Jennifer Gisborne, Skye McCool, Matthew Reynolds, Robin Kimber
Quality Assurance by	Isabelle Guyot
Main point of contact	Killian Condell
Telephone	0207 239 7800
Email	info@dialoguebydesign.co.uk

If you would like a large text version of this document, please contact us.

Dialogue by Design

252B Gray's Inn Road
London
WC1X 8XG

+44 (0)20 7042 8000
www.dialoguebydesign.co.uk
info@dialoguebydesign.co.uk



Contents

Executive summary	1
Chapter 1: Introduction	5
1.1. About the consultation	5
1.2. Participation	5
1.3. Methodology	9
1.4. Reading this report	10
Chapter 2: Proposals on updating target ambition.....	13
2.1. A more ambitious 2050 target and a complete set of interim targets – questions 1 and 3.....	13
2.2. A future target for net-zero emissions – question 2	20
2.3. Consistent annual targets – question 4 and 5.....	25
Chapter 3: Targets based on actual Scottish emissions	35
3.1. Closed question.....	36
3.2. Comments about setting targets based on actual Scottish emissions – question 6.....	37
Chapter 4: Reviewing targets and reporting on policies and proposals.....	41
4.1. A flexible and responsive target framework – question 7	41
4.2. Future Climate Change Plans – questions 8 and 9	46
Chapter 5: Assessing the wider impacts of the proposals	52
5.1. Assessing impacts on people – question 10	52
5.2. Assessing impacts on businesses and regulation – question 11	55
5.3. Assessing impacts on the environment – question 12.....	57
Chapter 6: Other issues regarding the new Climate Change Bill.....	63
6.1. Climate change – targets and framework	63
6.2. Broader political issues.....	67
6.3. Consultation process	69
Chapter 7: Campaign responses.....	71
7.1. General points made by campaigns.....	71
7.2. Specific points made by campaigns	72
Appendix A: List of consultation documents	76

Appendix B: Suggestions for implementation of the new Bill	77
Appendix C: Environmental Report: suggested additional sources	83

List of tables

Table 1: Consultation responses received.....	6
Table 2: Number of responses per question (n=19,365)	7
Table 3: Themes used in the coding framework.....	10
Table 4: Campaign acronyms used in this report	71
Table 5: Specific points made in each campaign	73

List of figures

Chart 1: Breakdown of non-campaign responses by respondent type	9
Chart 2: Responses to the closed questions 1, 3a, 3b, and 3c	15
Chart 3: Responses to the closed question 2	22
Chart 4: Responses to the closed question 4	28
Chart 5: Responses to the closed question 5	31
Chart 6: Illustrative example of cumulative GHG emissions with different approaches to long-term and annual targets	34
Chart 8: Responses to the closed question 6	36

Executive summary

This report provides a summary of the responses to the consultation by the Scottish Government on its proposals for a new Climate Change Bill. The consultation began on 30 June 2017 and closed on 22 September 2017.

The Scottish Government announced that it would bring forward a Climate Change Bill to increase the ambition of the targets in the Climate Change (Scotland) Act 2009 in response to the Paris Agreement. The purpose of this consultation was to allow members of the public, organisations, and any interested parties to respond to the proposals to inform the development of the final Climate Change Bill.

A total of 19,365 responses were received, of which 19,092 were campaign responses with or without variation, coordinated by several organisations.

This report summarises respondents' views by considering comments made in relation to each of the nine questions included in the Consultation Document. This executive summary provides an overview of some of the main themes and issues that arise in response to the consultation, and which are presented in greater detail in subsequent chapters of this report.

Updating target ambition

Respondents generally support the proposal of raising the ambition of the 2050 and interim greenhouse gas (GHG) emission reduction targets; however, many perceive them as a minimum requirement and feel that they should be more ambitious. Some respondents are opposed to the proposed targets, and a few would prefer the 2050 target to remain at 80% GHG reduction from baseline levels, with the provision to increase it later. Some respondents feel that ambitious targets are important to achieve net-zero GHG emissions and to motivate continuing action.

Some respondents see interim targets as useful tools for monitoring progress towards the 2050 target. A few respondents express concerns about the feasibility of the 2050 and interim targets. Some respondents suggest that considering the feasibility of the various targets, that they should be set according to a non-linear approach.

Many respondents feel that a net-zero GHG emissions target should be set now, and should be reached before 2050. Other respondents support the proposal to include provisions in the new Climate Change Bill that allow for a net-zero target to be set at a later date, they value the flexibility

this provides, particularly considering a current lack of feasibility evidence. Some respondents feel that the proposal reflects intention and ambition, and is important for global leadership and maintaining momentum in emission reduction. A few respondents provide suggestions for provisions around the setting of a net-zero target that should be included in the new Climate Change Bill.

Many respondents support the proposal to present annual emission reduction targets in the form of percentage reductions from baseline levels. They provide reasons such as percentages are easier to understand, negate the need to update targets to reflect new evidence, and enable comparison across countries and sectors. Those respondents who raise concerns note that a percentage format moves away from the format of global and national carbon budgets, and suggest publishing absolute figures alongside percentages.

Many respondents support the proposal to set annual targets as a direct consequence of interim and 2050 targets. They see this approach as sensible, and believe it will be clear if targets are not being achieved. Other respondents suggest a non-linear approach to setting annual and long-term targets.

Actual Scottish emissions

Many respondents support the proposal to set targets on the basis of actual emissions, removing the accounting adjustment for the EU ETS. They feel the proposal will improve accuracy, consistency, and transparency of the current system; and make communication about targets easier to understand. Some respondents believe that using actual emissions will better reflect progress and motivate further action. Other respondents suggest that both figures be reported in parallel, and a few oppose the proposal referring to perceived benefits of the accounting adjustment for the EU ETS.

Reviewing targets

Many respondents support the ability to update interim and 2050 targets through secondary legislation, but feel that this should only be allowed for increasing targets. Other respondents believe that decreasing targets should be allowed, but via primary legislation or the super affirmative procedure. Respondents who oppose the proposal feel that any changes require primary legislation, or that updating targets is wasteful and misrepresents performance.

Some respondents feel that scientific knowledge, technology, environmental considerations, and European and international law and policy are important criteria for setting or updating targets. Some respondents provide more detailed comments on the Scottish emissions budget, social circumstances, economic circumstances, and impact on remote rural and island communities. They highlight the importance of equality, intergenerational and international equity, and human rights and suggest additional criteria which they feel should be considered when setting or updating targets.

Reporting and future plans

Respondents generally prefer the current frequency (every five years) and duration (of 16 years) for future Climate Change Plans, but some provide alternative suggestions. Respondents who agree with the current frequency feel that setting plans every five years provides a suitable balance of flexibility and long-term stability. Some respondents feel that short-term plans allow for urgent action and quicker adaptation to change; while others feel that long-term plans provide certainty and stability for long-term planning and investment for implementation.

Some respondents support the suggestion to create Climate Change Plans after the Paris Stocktakes, to avoid the need to update them. Respondents who are opposed to this proposal see it as an unnecessary delay to Scottish climate change efforts. Some suggestions include making provisional plans prior to the stocktakes, and updating them afterwards.

Respondents generally feel that the period for parliamentary consideration of Climate Change Plans should be 90 or 120 days as they believe a period of more than 60 days would allow for proper scrutiny and consensus-building.

Some respondents support the proposal to make up for any shortfall against targets in future Climate Change Plans, seeing it as essential to avoid missing future targets. Respondents who object to the proposal are concerned about a potential time lag between shortfalls occurring and remedial action being implemented. They suggest alternative approaches to deal with shortfalls.

Assessing the wider impacts of the proposals

Some respondents feel that the proposals would impact positively on people, improving quality of life and health, and an increase in income equality. Others say that details are lacking to be able to identify potential

impacts. Respondents sometimes say that the Scottish Government has a responsibility to future generations to address climate change. They often reflect on the need for people to change their behaviour as Scotland transitions to a low-carbon economy, along with the barriers to behaviour change.

Many respondents say that the proposals will be beneficial to the Scottish economy, with increased employment in sectors such as renewable energy or electric transport, as well as research and development opportunities. They say that increased energy efficiency will reduce business costs. Other respondents say that the proposals represent a challenge to Scotland's economy and businesses, and fear that there may be higher transport and energy costs, or increased taxation. Respondents often refer to the need for a just transition to a low-carbon economy, with input from a range of stakeholders and support available for businesses.

Respondents who comment on potential positive environmental effects of the proposals, say that the predicted effects set out in the Environmental Report are accurate. They support the use of evidence in the Report, and agree with its conclusions and recommendations. Often respondents say that additional assessments of the impacts of the proposals will be needed when they have been put in place. Some respondents suggest topics that they feel could be examined in greater detail in the Report, providing additional sources of evidence to be considered. Some respondents discuss the negative environmental effects of the proposals, as outlined in the Report, which are principally due to the need for new energy infrastructure. They request mitigation of these impacts through monitoring and project planning.

Other issues regarding the new Climate Change Bill

Respondents emphasise various broader issues relating to the proposals put forward in this consultation, including climate change impacts, the need for urgent action, and the Paris Agreement. Some respondents highlight the importance of global approaches in setting targets; such as global emissions budgets and the Climate Fairshares Model. They praise the Scottish Government for what they view as better than expected recent progress against current climate change targets, and feel that it is important for Scotland to maintain its position as a global leader in climate change mitigation. Many respondents provide various suggestions for the proposals and methods to achieve the proposed targets.

Chapter 1: Introduction

1.1. About the consultation

The Scottish Parliament passed a Climate Change (Scotland) Act in 2009 to set a statutory target for reducing greenhouse gas (GHG) emissions by at least 42% by 2020 and 80% by 2050, compared to baseline levels from 1990/95.

The Scottish Government supports the aspirations of the UN Framework Convention on Climate Change Paris Agreement, and continues to make strong progress towards the targets set out in the 2009 Act. The Scottish Government is therefore proposing a new Climate Change Bill to reaffirm its commitment to reduce GHG emissions and pursue efforts to limit global temperature increase.

The Scottish Government requested advice from the UK Committee on Climate Change (CCC), which put out a call-for-evidence and subsequently published its advice in March 2017. This advice stated that a 90% reduction in GHG emissions by 2050 would be more consistent with the ambition of the Paris Agreement. The CCC also stated that setting a more ambitious target than the 2009 Act “would require actions that are currently at the very limit of feasibility”.

The proposals for the Bill include a target for 90% emission reductions by 2050, and sets out a strategic framework for achieving this target, including interim targets and provision for future reporting and legislation. The consultation asked respondents specific questions on these issues, and requested feedback on the wider potential impacts of the proposals on people, businesses and the environment.

The Scottish Government commissioned Dialogue by Design (DbyD), an independent organisation specialising in engagement and consultation, to process, analyse and report on the responses to the consultation. The Scottish Government will use this summary report, alongside the full response data, to get a full and detailed picture of all consultation responses to inform the development of the final Climate Change Bill.

1.2. Participation

The consultation was open from 30 June 2017 until 22 September 2017. The consultation paper provided a link to the Scottish Government consultation hub where an online questionnaire could be accessed for respondents to submit their responses. It also provided email and postal addresses to which responses could be sent.

Most responses to the consultation were submitted via online forms set up by campaign organisations. These organisations sent postcards and emails to the Scottish Government, and provided datasets of the responses generated.

A total of 19,365 responses to the consultation were received, including 273 non-campaign responses and 19,092 campaign responses. Table 1 provides a detailed breakdown of responses. Any blank forms or exact duplicate responses from a single respondent were marked as null responses and are not included in the table.

Table 1: Consultation responses received

Response type	Count
Online and off-line questionnaires	246
Offline responses that do not follow the questionnaire format	27
Campaign 38 Degrees	8,426
Campaign Christian Aid - Postcard	1,019
Campaign Friends of the Earth Scotland	2,935
Campaign Friends of the Earth Scotland - Postcard	908
Campaign Global Justice Network	448
Campaign Global Justice Network - Postcard	329
Campaign Oxfam	586
Campaign Scottish Catholic International Aid Fund	2,154
Campaign Stop Climate Chaos Scotland	1,071
Campaign Stop Climate Chaos Scotland - Postcard	103
Campaign WWF	1,113
Total	19,365

The consultation questionnaire comprised six closed questions that asked respondents for their agreement or disagreement with specific aspects of the proposal and 13 open questions that invited respondents to provide more detailed comments. As is common in public consultations, the number of responses per question varied as most respondents did not respond to all questions. Table 2 provides an overview of the number of responses received to each question.

Table 2: Number of responses per question (n=19,365) ¹

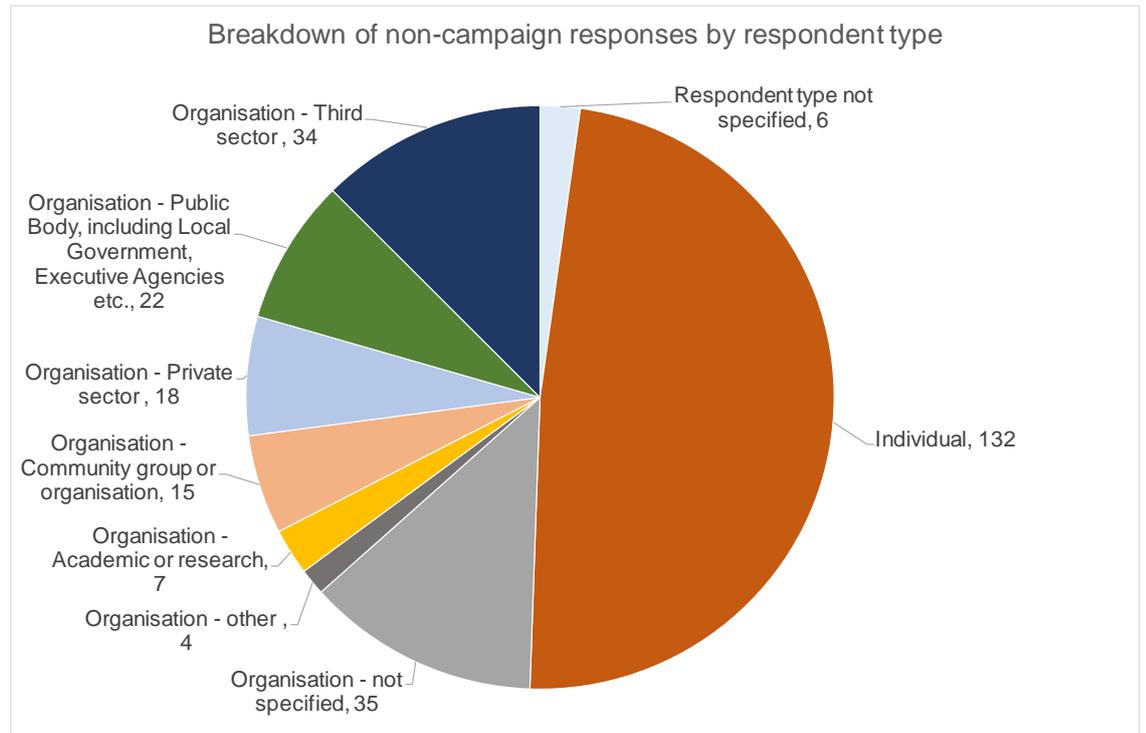
Section	Question	Count
Section 2	1. Do you agree that the 2050 target should be made more ambitious by increasing it to 90% greenhouse gas emission reduction from baseline levels? Yes / No	206
	1. Please explain your answer	215
	2. Do you agree that the Climate Change Bill should contain provisions that allow for a net-zero greenhouse gas emission target to be set at a later date? Yes / No	207
	2. Please explain your answer	210
	3a. Do you agree that the 2020 target should be for greenhouse gas emissions to be at least 56% lower than baseline levels? Yes / No	198
	3a. Please explain your answer	185
	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? Yes / No	192
	3b. Please explain your answer	186
	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? Yes / No	195
	3c. Please explain your answer	189
	4. Do you agree that annual emission reduction targets should be in the form of percentage reductions from baseline levels? Yes / No	196
	4. Please explain your answer	180
	5. Do you agree that annual targets should be set as a direct consequence of interim and 2050 targets? Yes / No	196
	5. Please explain your answer	176
Section 3	6. Do you agree that all emission reduction targets should be set on the basis of actual emissions, removing the accounting adjustment for the EU ETS? Yes / No	190
	6. Please explain your answer	173

¹ The consultation included two additional closed questions with comment fields about satisfaction with the consultation and with using the consultation platform (Citizen Space), which are not included in this report.

Section	Question	Count
Section 4	7a. What are your views on allowing the interim and 2050 emission reduction targets to be updated, with due regard to advice from the CCC, through secondary legislation?	203
	7b. What do you think are the most important criteria to be considered when setting or updating emission reduction targets?	206
	8a. What are your views on the frequency of future Climate Change Plans?	194
	8b. What are your views on the length of time that future Climate Change Plans should cover?	185
	8c. What are your views on how development of future Climate Change Plans could be aligned with Paris Stocktake Processes?	180
	8d. How many days do you think the period for Parliamentary consideration of draft Climate Change Plans should be?	188
	9. What are your views on the proposal that any shortfall against previous targets should be made up through subsequent Climate Change Plans?	200
Section 5	10. What are your views on these initial considerations of the impact of the Bill proposals on Scotland's people, both now and in future generations?	202
	11. What are your views on the opportunities and challenges that the Bill proposals could have for businesses?	197
	12a. What are your views on the evidence set out in the Environmental Report that has been used to inform the assessment process? (Please give details of additional relevant sources)	149
	12b. What are your views on the predicted environmental effects as set out in the Environmental Report?	142
	12c. Are there any other environmental effects that have not been considered?	133
	12d. Do you agree with the conclusions and recommendations set out in the Environmental Report?	141
	12e. Please provide any other comments you have on the Environmental Report.	127
Section 6	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.	197
Email / campaign responses which did not follow the questionnaire format		18180

The Respondent Information Form asked respondents whether they were responding as an individual or an organisation. Organisations were asked to specify their organisation type. Chart 1 provides a breakdown of non-campaign responses (n=273) by respondent type, including 132 individuals and 135 organisations. Six non-campaign respondents did not specify their type.

Chart 1: Breakdown of non-campaign responses by respondent type²



1.3. Methodology

1.3.1. Receipt and processing of feedback

A detailed Data Journey was developed at project inception to outline agreed data handling protocols and ensure the integrity of the final dataset of responses to be analysed.

Response data was downloaded regularly from the Scottish Government online platform to be imported into DbyD’s bespoke analysis database, with a final import carried out following consultation closure.

The Scottish Government received and logged all responses that were not submitted via the online questionnaire, which included written responses and campaign datasets. All such responses were securely transferred to DbyD for processing.

² See 1.4.2 Interpreting charts

1.3.2. Analysis of open text responses

In order to analyse the responses to open text questions, and the variety of views expressed, a coding framework was created. The purpose of the framework was to enable analysts to organise responses by theme and issue so that main messages as well as specific points of detail could be captured and reported.

A two-tier approach was taken to coding, starting with high level themes derived from the structure of the consultation document, and then specific codes. The top-level themes are listed in Table 3 below.

Table 3: Themes used in the coding framework

Theme
Section 2 – Targets
Section 3 – Actual emissions
Section 4 – Reviewing targets
Section 5 – Impacts of proposals
Section 6 – Proposals (general)
Consultation process
Climate change general
Other

Each code was intended to represent a specific issue or argument raised in responses. Natural language codes (rather than numeric sets) were applied as this allowed analysts to suggest refinements and additional issues, aiding quality control and external verification.

The application of a code to part of a response was done by highlighting the relevant text and recording the selection. A single submission could receive multiple codes. Where similar issues were raised, care was taken to ensure that these were coded consistently.

The coding process enabled all responses to be indexed according to the issues raised by respondents, and enabled a detailed summary of the content by means of this report.

1.4. Reading this report

This summary report follows the structure of the consultation questionnaire and addresses each of the questions in turn, before addressing overall comments made about the proposals generally, or related topics outside the scope of the questions asked.

- Chapter 2: Proposals on updating target ambition

- Chapter 3: Actual emissions
- Chapter 4: Reviewing targets and reporting on policies and proposals
- Chapter 5: Assessing the wider impacts of the proposals
- Chapter 6: Other issues regarding the Bill
- Chapter 7: Campaign responses

The report has five appendices:

- Appendix A: List of consultation documents
- Appendix B: Suggestions for implementation of the new Bill
- Appendix C: Environmental Report: suggested additional sources

Some responses were made partly or entirely without reference to specific consultation questions including many of the campaigns (see [Chapter 7](#)). The points made in these responses have been integrated into the chapters that cover the relevant themes identified.

The report summarises the issues raised by respondents without judgement or interpretation. The report does not aim to cover all the detail contained in the consultation responses and should be seen as a guide to their content rather than an alternative to reading them.

Quotations taken directly from responses have been included to illustrate views discussed in the narrative. Quotations are taken from a wide range of responses and should not be interpreted as an indication that the view has greater significance than others. Nor should quotations be interpreted as representative of the views of other respondents of the same type. No quotations have been included from confidential responses.

1.4.1. Use of numbers and quantifiers in the report

Throughout the report, respondents' views are summarised using quantifiers such as 'many', 'some' and 'a few', to ensure the narrative remains readable. These terms are used to provide the reader with an indication of the balance of views expressed by respondents. To aid readers in interpreting the scope of such quantifiers, each section begins with an indication of how many respondents have responded to the question, also detailed in Table 2. The quantifiers used in each section are relative to this number – so 'many' and 'some' should be read as 'many of the respondents who commented on this issue' and 'some of the respondents who commented on this issue'. The term 'majority' is only used in cases where a clear majority of the respondents who comment on an issue share a similar view. The term 'a few' is used for a relative small

number of respondents. The selection of other quantifiers is based on the relative balance of issues raised.

It is important to note that this consultation was an open and qualitative process, rather than an exercise to establish dominant views across a representative cross-section of the public. Therefore, no conclusions can be reliably drawn about any population's views beyond those who responded to the consultation.

1.4.2. Interpreting charts

A few considerations should be borne in mind when interpreting the data in the charts in this document.

- Firstly, as a consultation process is self-selecting (that is anyone is free to respond or not as they choose), those who respond cannot be considered a representative sample.
- The values in the charts for closed questions show only those who completed the online questionnaire or submitted a response using the format of the online questionnaire.
- Even within the subset of respondents who responded using the questionnaire, some of these respondents chose not to answer some of the closed questions on the questionnaire.

Chapter 2: Proposals on updating target ambition

2.1. A more ambitious 2050 target and a complete set of interim targets – questions 1 and 3

This section addresses responses to question 1 about setting a more ambitious 2050 greenhouse gas (GHG) emission reduction target, and question 3 about setting interim targets for 2020, 2030, and 2040; as well as relevant comments in response to other questions and responses from letters or emails.

Responses to questions 1 and 3a-c are summarised together below, as respondents address targets in a general manner and raise the same points across the 2050 and interim targets.

The Scottish Government proposes to increase the ambition of the 2050 target to 90% GHG emission reduction from the baseline, in line with the CCC's advice that a 90% reduction in GHG emissions by 2050 would be more consistent with limiting temperature rise to 1.5°C than the current 80% target. The Scottish Government recognises that meeting the target will be challenging, but feels that increasing targets will strengthen their position as international leaders in tackling climate change.

The Scottish Government proposes, in line with the CCC's advice, to update the interim target for 2020 to at least 56%, and to set new interim targets for at least 66% in 2030 and at least 78% in 2040. The CCC advise that the interim 2020 target should reflect actual Scottish GHG emissions (see [Chapter 3](#)), and should be updated for a reduction of at least 56% from baseline levels.

There were 206 responses to the closed section and 215 responses to the open section of question 1,³ which asks:

Q1. Do you agree that the 2050 target should be made more ambitious by increasing it to 90% greenhouse gas emission reduction from baseline levels? Yes/No (Please explain your answer)

³ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

There were 198 responses to the closed section and 185 responses to the open section of question 3a,⁴ which asks:

Q3a. Do you agree that the 2020 target should be for greenhouse gas emissions to be at least 56% lower than baseline levels? Yes/No (Please explain your answer)

There were 192 responses to the closed section and 186 responses to the open section of question 3b,⁵ which asks: (Please explain your answer)

Q3b. Do you agree that a target should be set for greenhouse gas emissions to be at least 66% lower than baseline levels by 2030? Yes/No

There were 195 responses to the closed section and 189 responses to the open section of question 3c,⁶ which asks: (Please explain your answer)

Q3c. Do you agree that a target should be set for greenhouse gas emissions to be at least 78% lower than baseline levels by 2040? Yes/No (Please explain your answer)

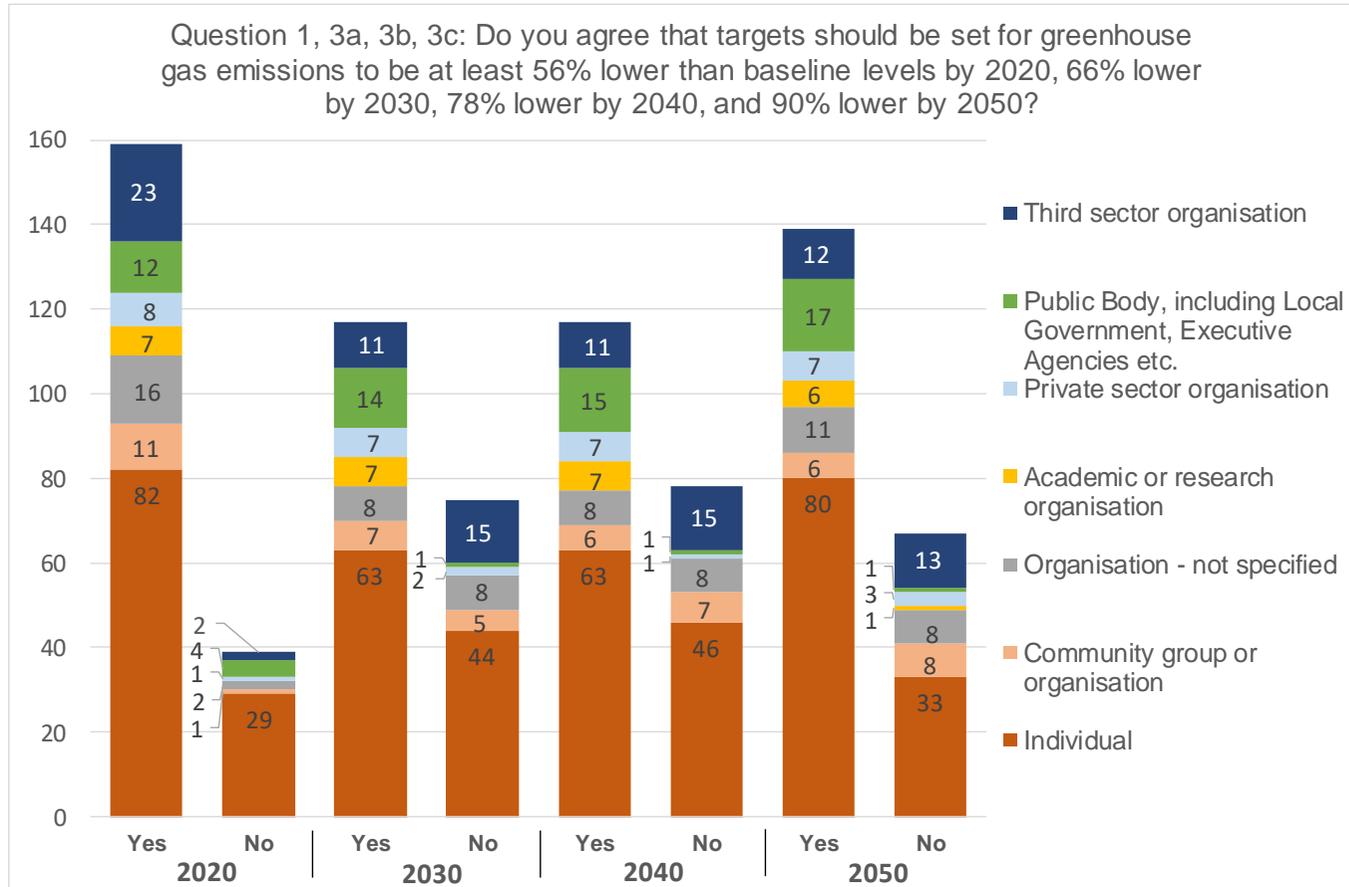
⁴ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

⁵ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

⁶ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

2.1.1. Closed questions about the targets

Chart 2: Responses to the closed questions 1, 3a, 3b, and 3c⁷



⁷ See 1.4.2 Interpreting charts

The majority of respondents who answered closed questions 1, 3a, 3b, and 3c, support the proposals:

- to set the 2020 target for GHG emissions to be at least 56% lower than baseline levels (n=198):
 - 159 respondents selected Yes (82 individuals and 77 organisations),
 - 39 respondents selected No (29 individuals and 10 organisations);
- to set the 2030 target for GHG emissions to be at least 66% lower than baseline levels (n=192):
 - 117 respondents selected Yes (63 individuals and 54 organisations),
 - 75 respondents selected No (44 individuals and 31 organisations);
- to set the 2040 target for GHG emissions to be at least 78% lower than baseline levels (n=195):
 - 117 respondents selected Yes (63 individuals and 54 organisations),
 - 78 respondents selected No (46 individuals and 32 organisations); and
- to make the 2050 target more ambitious by increasing it to 90% GHG emission reduction from baseline levels (n=206):
 - 139 respondents selected Yes (80 individuals and 59 organisations),
 - 67 respondents selected No (33 individuals and 34 organisations).

Some respondents who ticked 'No' however explained in the open question below that they want higher targets and the proposed targets are seen as a minimum requirement.⁸

⁸ Due to the way in which these questions were posed, respondents could interpret the questions with two different meanings: the agreement with the target to be more ambitious and the agreement with the percentage of the increase.

2.1.2. Comments about the 2050 and interim targets

Higher 2050 and interim targets

Most respondents, including all campaigns (see [section 7.2.1](#) for further detail), agree the need for ambitious targets but believe that the proposed targets are not ambitious enough. Many respondents would rather have the proposed targets than no targets or lower targets.

'Yes, at least, but the target may need to be more ambitious to reach carbon neutrality by mid-century' Private sector organisation

Many respondents provide various reasons as to why they think the proposed targets should be higher. These reasons include:

- net-zero GHG emissions should be achieved as soon as possible, by 2030, 2040, or 2050 at the latest;
- it is necessary to align with the Paris Agreement, United Nations Sustainable Development Goals (UN SDGs), Global Carbon Budget, and other global climate commitments (see [Chapter 6](#));
- it is essential to contribute to limiting the average global temperature increase to 1.5°C or 2°C;
- Scotland's historic production of GHG emissions increases its current responsibility for emission reductions and higher targets are perceived as appropriate to align with the Climate Fairshares Model (see [Chapter 6](#));
- to set an example and remain a global leader in climate legislation (see [Chapter 6](#));
- the means to achieve greater reductions are believed to exist already and significant GHG emission reductions have already been achieved;
- further technological advances are expected to occur;
- scientific evidence is believed to show it is achievable and required;
- to drive innovation, policy, and investment;
- the severity, longevity, and onset of climate change impacts warrant greater ambition and urgent action (see [Chapter 6](#));
- the updated 2020 target is not increasing ambition, as it is the same target according to a different accounting system;
- to avoid using up the carbon budget; and

- to cater for additional GHG emissions that are excluded (such as that of imported goods).

'However, it is not ambitious enough to prevent the 1.5 degrees C as advised by the Paris Climate deal agreement, so more drastic action is required' Academic or research organisation

Support for the proposed 2050 and interim targets

Many respondents who support the proposed 2050 and interim targets note agreement with the rationale in the consultation document and the CCC's advice:

- to be ambitious while considering feasibility;
- to support the Paris Agreement and a limit of 1.5°C rise in global temperature;
- to show leadership; and
- to signal the direction of business and the Scottish economy.

Some respondents support the proposed targets in light of the need for action and ambition in response to climate change, and see them as an important step in reaching net-zero GHG emissions. Some respondents see ambitious targets as building on Scotland's success to date and important motivators for continuing momentum. A few respondents feel the proposed targets will strengthen and support Scottish climate change policy and strategy nationally and at a local level, and see it as important for transitioning to a sustainable energy economy.

'My views on allowing the interim and 2050 emissions reduction targets to be updated is that I agree with the CCC that a 2040 target should be set now as if we don't do something soon emissions can and will continue to damage and harm our planet' Individual

Some respondents perceive interim targets as useful tools to monitor Scotland's progress towards the 2050 target, that provide opportunities to see what areas need attention to meet the long-term target.

Opposition to the proposed 2050 and interim targets

A few respondents would prefer lower targets, for example the alternative option provided by the CCC to keep the 2050 target at 80% GHG emission reduction from baseline levels, with the provision to increase it later.

Respondents who oppose the proposed 2050 and interim targets provide reasons including the following:

- targets are not ambitious enough;
- zero-emissions need to be reached before 2040 or 2050;
- Scottish GHG emissions are not significant enough on a global scale to affect climate change;
- targets are not achievable;
- targets should be set according to a non-linear pathway (refer to Feasibility, below);
- it is unnecessary and too short a timeframe to change the 2020 target;
- the later targets are too far ahead to be relevant, as evidence changes; and
- impacts on the environment and Scottish population of the measures implemented to achieve targets (see [Chapter 5](#)).

‘...our output of any harm full emissions compared to the rest of the world is tiny and makes no difference at all’ Individual

Feasibility

Some respondents believe the targets are too ambitious and raise several concerns about feasibility including:

- financial restraints, limited capacity, and lack of technology would limit the ability to meet the targets;
- GHG emission reductions are not equally possible across all sectors, with some sectors being better placed to make significant contributions;
- GHG emission reductions to date are evidence that the targets are infeasible;
- GHG emission reduction can only be achieved if there is sufficient political motivation (see [Chapter 6](#));
- the short timescale poses additional challenges to achieving the 2020 target; and
- targets rely on renewable energy and carbon sequestration.

‘At present, we consider that current spending constraints limit our ability, as a local authority, to meet more stringent targets’ Public body

A few respondents seek further evidence and information about how the targets will be achieved.

Target trajectory

Some respondents believe that GHG emission reductions get progressively harder and more costly as greater reductions are achieved.

Some respondents describe a ‘curved trajectory graph’ (see [section 2.3.5](#)), in which the size of the area underneath the line represents the cumulative GHG emissions that will be emitted while meeting the interim and 2050 targets. They believe that with faster progress earlier and slower progress later, far less GHG emissions are released over all, even though the final target doesn’t change. For this reason, they call for a non-linear approach to setting targets.

A few respondents feel that more ambitious targets will be more viable towards 2040 or 2050, due to progress in technology, and suggest a non-linear approach with larger efforts to reduce GHG emissions later on.

‘...the rate of technological development in decarbonisation technology means it would be appropriate to weight reduction targets towards 2040 and 2050’ Private sector organisation

Other comments

A few respondents suggest setting a range for allowable shortfall for targets. Some respondents make suggestions as to how the targets can be achieved, such as targeting specific sectors or implementing policy measures and financial incentives, an extensive list is provided in [Appendix B](#).

2.2. A future target for net-zero emissions – question 2

This section addresses responses to question 2 about including provisions for a net-zero GHG emission target to be set at a later date in the new Climate Change Bill, as well as relevant comments in response to other questions and responses from letters or emails.

As part of this consultation the Scottish Government proposes, in line with advice from the CCC, to include provisions in the new Climate Change Bill to allow Ministers to set a net-zero emissions target for the second half of the century, subject to regular reviews of the evidence. The UNFCCC Paris Agreement sets a goal of reaching net-zero global GHG emissions during the latter half of the century, and the Scottish Government supports this aspiration. Highly ambitious, stretching targets

are important to drive action, but equally it is important for targets to be credible and achievable. The CCC advise that the evidence is not available to set a domestic net-zero emissions target now.

As described in the consultation document the Scottish GHG inventory reflects emissions that are positive (where GHGs are emitted into the atmosphere) or negative (where GHGs are taken out of the atmosphere); negative emissions are subtracted from positive emissions to provide an overall net emissions figure. It is not clearly stated in the consultation document that targets are for net emissions, and set against a baseline that is a net emissions figure. When net emissions figures are used as a baseline, a 100% reduction would achieve net-zero emissions. This was not clear to some respondents, and as there was no definition of net-zero GHG emissions in the consultation document, there were some inconsistencies in responses.

The Scottish GHG inventory reflects emissions that are positive (where GHGs are emitted into the atmosphere) or negative (where GHGs are taken out of the atmosphere); negative emissions are subtracted from positive emissions to provide an overall net emissions figure. Net-zero emissions are achieved when the same amount of GHGs are emitted into the atmosphere as what is taken out of the atmosphere. When using net emissions figures, as in the proposals in this consultation, a 100% reduction in net emissions from baseline would achieve net-zero emissions. This was not clear to some respondents and has led to some inconsistencies in responses, with different interpretations of net-zero and 100% emission reduction.

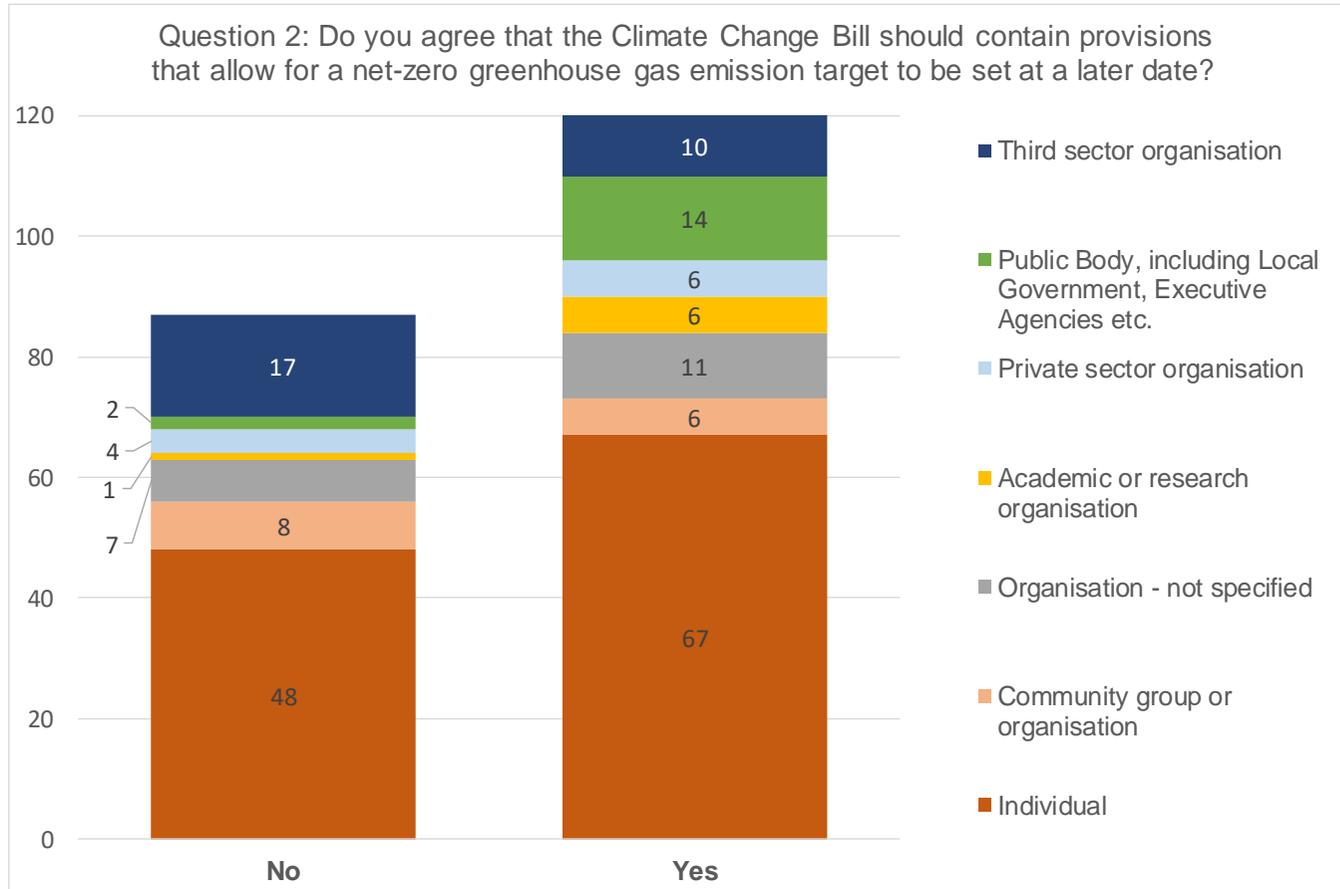
There were 207 responses to the closed section and 210 responses to the open section of question 2,⁹ which asks:

Q2. 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? Yes/No (Please explain your answer)

⁹ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

2.2.1. Closed question 2

Chart 3: Responses to the closed question 2¹⁰



¹⁰ See 1.4.2 Interpreting charts

The majority of respondents (120 respondents – 67 individuals and 53 organisations) who answered the closed question 2 (n=207) support the proposal to include provisions in the new Climate Change Bill that allow for a net-zero GHG emission target to be set at a later date. 87 respondents selected no to this question (48 individuals and 39 organisations).

2.2.2. Comments about a future target for net-zero emissions

Support

Some respondents provide reasons for supporting the proposal to include provisions that allow for a net-zero GHG target to be set at a later date. These reasons include:

- the required evidence is not currently available, it does not appear feasible at present, and it is too early to set a target (as per the rationale in the consultation document);
- the proposal provides flexibility as the net-zero target can be brought forward or pushed later as required, in line with future progress and evidence;
- including provisions in the Bill that allow for a net-zero target to be set at a later date is valuable to reflect intention, ambition, and long-term expectations, particularly in terms of global leadership (see [section 6.2.3](#));
- showing commitment to net-zero GHG emissions by including provisions to set a target is important to maintain momentum in GHG emission reductions;
- reaching net-zero GHG emission is important;
- a premature push for net-zero could work against the credibility of GHG emission reduction targets; and
- including provisions in the Bill that allow for a net-zero target will support investment and development in technology and research.

'We agree that allowing for future provision is reasonable given that current reduction paths cannot comfortably attain full carbon neutrality.'
Public body

Opposition

Some respondents, including several campaigns, feel that achieving net-zero GHG emission is feasible and the target should be set now, showing

opposition to the proposal to set it at a later date. A few respondents are concerned that with the current proposal, the net-zero target may never be set. Many respondents suggest a net-zero target, generally feeling that it should be reached before 2050. Some respondents feel that setting a net-zero emissions target now is important because they say:

- ambition is needed (see [section 2.1](#)) and it shows commitment;
- the extent and severity of climate change warrants it (see [Chapter 6](#));
- it is necessary to limit the increase in average global temperatures to 1.5°C, in line with the Paris Agreement (see [Chapter 6](#));
- it is valuable to show global leadership (see [section 6.2.3](#));
- it is important to allow policy-makers, businesses, organisations, and individuals to plan for implementation; and
- it would lead to a shift in education, which would equip people for future jobs.

Suggested provisions for a net-zero target

Some respondents suggest considerations and approaches for provisions for a net-zero GHG emission target, including the following:

- a net-zero target should only be set when evidence shows that it is possible to achieve it;
- stagger the introduction of net-zero emissions targets per sector, initially piloting policy in sectors that are more likely to achieve it;
- on setting a net-zero target, the mechanisms to achieve it should be outlined;
- the target should be sooner rather than later, and the flexibility provided in this proposal should only allow for the target to be brought forward;
- the Bill should include a date by which the target should be set;
- the setting of a net-zero target should go to the Scottish Parliament as a formal amendment or revision of the Climate Change Bill; and
- the target should be given the appropriate legal status.

Feasibility

Some respondents refer to the feasibility of achieving net-zero emissions as discussed in the consultation document, where the CCC note that with current evidence it does not appear to be feasible. A few respondents feel that current perceived infeasibility shouldn't prevent Scottish Government

from setting a net-zero target, as advances in GHG emission reduction measures will make it achievable. A few respondents believe net-zero emissions will never be feasible.

'With present technology, this is unattainable and unrealistic. Even in countries with massive renewables deployment it has not been achieved. In fact, Germany's CO2 emissions have not even reduced, let alone become zero' Individual

Other comments

A few respondents comment on the need for a clear definition of the term 'net-zero', that factors in carbon sequestration, import and export, and all sources of GHG emissions.

Some respondents did not directly answer the question, and highlight the importance of a net-zero or net-negative emissions target. Some respondents feel it is important to achieve net-zero emissions as soon as possible, without commenting specifically on the proposal. However, these respondents often indicated in the closed question that they support the proposal to include provisions in the Bill for a net-zero emission target to be set at a later date, which appears to contradict their views that net-zero should be achieved as soon as possible.

Some respondents provide suggestions as to how to achieve net-zero emissions ([Appendix B](#)).

2.3. Consistent annual targets – question 4 and 5

This section addresses responses to questions 4 and 5, which both focus on how annual targets should be set.

Question 4 asks whether annual emission reduction targets should be presented as percentages, and Question 5 asks about automatically setting annual targets according to the 2050 target.

The 2009 Act makes provision for annual emission reduction targets to be set every year up to 2050. These annual targets are currently specified as fixed amounts of GHG emissions, measured in tonnes of carbon dioxide equivalent, and are set in five year batches through secondary legislation.

The situation in which long-term emission reduction targets are given in the form of percentage reductions from the baseline, and annual targets are given in the form of amounts of GHG emissions (in tonnes) has created confusion. Setting all targets in the Bill in the same form, but not both, would help ensure that targets remain consistent. Whilst the fixed amount form provides links to global and domestic carbon budgets, the

percentage reduction form is much less sensitive to changes in the GHG inventory and is easier to understand. The Scottish Government proposes, in line with the CCC's advice, to specify the annual targets in the Bill in the form of percentage reductions from baseline levels.

The 2009 Act requires annual targets to be set through secondary legislation. Annual targets are set in five year batches at least 12 years in advance. The Scottish Government proposes to set additional interim targets for 2030 and 2040 which raises the possibility that the annual targets could be set as a direct consequence of these long-term targets, rather than through separate secondary legislation. The annual targets from 2021 to 2050 would be calculated as a simple linear path between the 2020, 2030, 2040 and 2050 targets. These annual targets would be updated automatically if the interim and/or 2050 targets were updated.

There were 196 responses to the closed section and 180 responses to the open section of question 4,¹¹ which asks:

Q4. Do you agree that annual emission reduction targets should be in the form of percentage reductions from baseline levels? Yes/No (Please explain your answer)

There were 196 responses to the closed section and 176 responses to the open section of question 5,¹² which asks:

Q5. Do you agree that annual targets should be set as a direct consequence of interim and 2050 targets? Yes/No (Please explain your answer)

2.3.1. General comments about annual targets

Whilst question 4 and 5 ask about the way that annual targets should be set rather than whether annual targets are a good proposal, respondents share their views on the role of annual targets altogether.

Respondents who express support for annual targets feel that they are important to maintain focus on long term goals, keep momentum, and to highlight where progress is not on track to meet overall goals.

Some respondents oppose having annual targets, saying that the time frame between them is too short, making them vulnerable to fluctuations in progress that may be caused by economic, technical, and environmental changes. Some say that the annual targets will frequently

¹¹ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

¹² See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

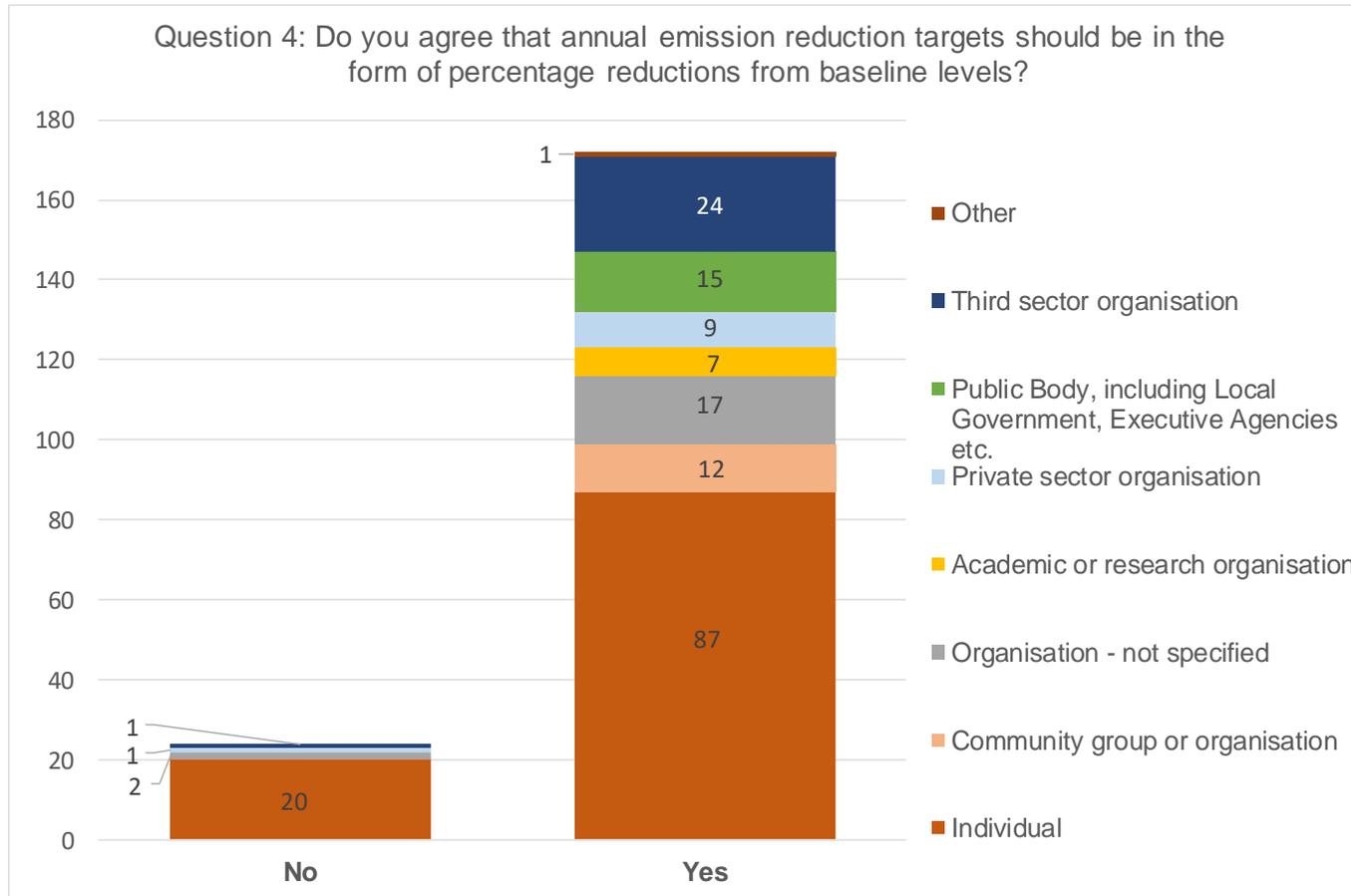
be missed because of this and therefore will be undermined in their importance.

Some respondents suggest that the Scottish Government should communicate that annual targets are likely to be missed, and that there is an acceptable margin around them for achievement, but that the 2020, 2030, 2040, and 2050 targets are obligatory and must be achieved and enforced (see [section 6.2](#)).

On the other hand, some respondents say that all targets should be compulsory with repercussions for organisations that miss them, but to make them more achievable they should be every five years rather than every year, and set as a direct consequence of the 2050 targets.

2.3.2. Closed question 4

Chart 4: Responses to the closed question 4¹³



¹³ See 1.4.2 Interpreting charts

The majority of respondents (172 respondents – 87 individuals and 85 organisations) who answered the closed question 4 (n=196) support the proposal to present annual emission reduction targets in the form of percentage reductions from baseline levels. 24 respondents selected no to this question (20 individuals and 4 organisations).

2.3.3. Comments about annual emission reduction targets in the form of percentage reductions from baseline levels – question 4

Support

Many respondents who discuss this proposed change feel that percentages are the best way to present the annual GHG emission reduction targets, giving various reasons such as:

- percentages are easily and universally understood across different levels of expertise;
- easier to visualise progress against overall targets than with absolute units;
- if the baseline is updated to reflect new evidence, targets will still stay the same; and
- because of the above reasons, percentages are easy to compare between countries, organisations, sectors and local authorities.

'It is an easy way to visualise the relative change in consumption. GWh or similar units would be lost on the general public' Individual

Some respondents feel that a wide understanding of percentages will be useful when communicating progress to the general public, whilst demonstrating the scale of the progress required by 2050. Some respondents comment that it is important as they feel that the Scottish Government needs to get the general public 'on board' if they are to meet targets.

Some respondents feel that the ability to easily compare targets, coupled with the clarity of progress presented by percentages, holds the Scottish Government accountable for their performance against annual targets.

Respondents frequently argue that, while they feel that percentages are a useful way of showing targets and progress, the Scottish Government must also publish absolute figures annually alongside them. These respondents give different reasons for this, including:

- to avoid losing sight of the total carbon budget;

- the absolute figures are helpful for breaking down carbon budgets further to a sector level, organisation level or even an individual level; and
- they bring transparency about changes made to the baseline and the impact of changes to progress.

Opposition

A few respondents oppose the proposal citing various concerns as discussed below, such as the need to consider global emissions budgets (see [section 6.1.4](#)).

Concerns

Some respondents, including some who support the proposal and some who oppose it, raise various concerns about the proposal. Some respondents have concerns about the use of percentages as annual targets. Most of these people say that a percentage format moves too far away from planning around global and national carbon budgets. They argue that whilst percentages are a clear way of demonstrating how far Scotland has come, they do not clearly demonstrate that there is an ultimate limit to the cumulative emissions that can occur before irreversible damage is caused to the climate, and how much more Scotland can emit before reaching this limit. These respondents feel that targets should be set by working backwards from carbon budgets, rather than looking forward from past performance.

'The climate responds to the forcing effect of the cumulative absolute emission, not the emission relative to an arbitrary baseline. We encourage SG not to lose sight of this fact and to still give information on how percentage targets translate to absolute emissions when appropriate to the context' Organisation

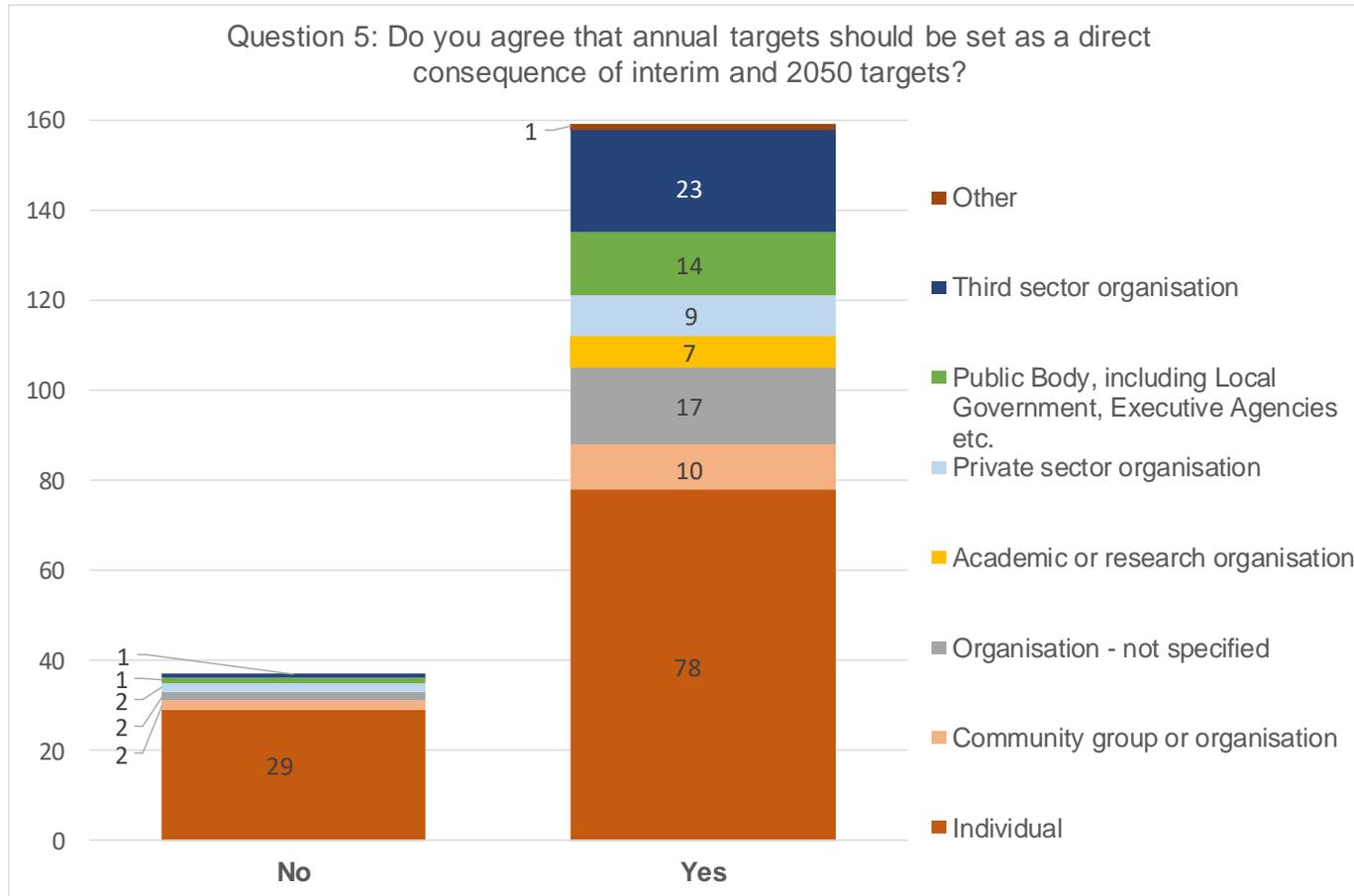
Many respondents refer to the Climate Fairshares Model (see [section 6.1.6](#)), arguing that the government must also focus on GHG emissions budgets in terms of absolute figures in order to fulfil the responsibilities that the Climate Fairshares Model sets out.

Several respondents make clear that the Scottish Government should evaluate whether percentage targets work as intended, and that they should be open to changing the method of measurement if it is not fit for purpose in practice.

Some respondents ask that the government provide clear guidance on how the actual figures and the percentages are calculated so that there is consistency of use between local authorities and organisations.

2.3.4. Closed question 5

Chart 5: Responses to the closed question 5¹⁴



¹⁴ See 1.4.2 Interpreting charts

The majority of respondents (159 respondents – 78 individuals and 81 organisations) who answered the closed question 5 (n=196) support the proposal to set annual targets as a direct consequence of interim and 2050 targets. 37 respondents selected no this question (29 individuals and 8 organisations).

2.3.5. Comments about setting annual targets as a direct consequence of interim and 2050 targets – question 5

Support

Respondents who express support for annual targets being set automatically according to the 2050 targets, give reasons such as:

- it is common sense to derive short term targets from the overall targets;
- it will be clear if Scottish Government is falling behind targets, therefore holding them accountable for their performance against the agreed targets; and
- it aids public understanding and interest as the overall GHG emission reduction target is broken down into more digestible or comprehensible ones, and the short-term targets encourage consistent focus.

Some respondents support the method of setting annual targets automatically, according to overall targets, but reiterate their view that the overall targets are too low (see [section 2.1](#)). Some of these respondents specifically refer to the Global Emissions Budget and say annual targets should be derived from this in order to fulfil our targets set by the Climate Fairshares Model (see [section 6.1.6](#)).

'Yes, so long as the interim and 2050 targets are set to take account of the need for rapid, early reductions and of the need to stay within our 'fair' carbon budget' Community group or organisation

Opposition

A few respondents oppose the proposal expressing various concerns, such as target trajectories and the need to consider a Scottish fair share of global emissions budgets (see [section 6.1.4](#)).

Target trajectory

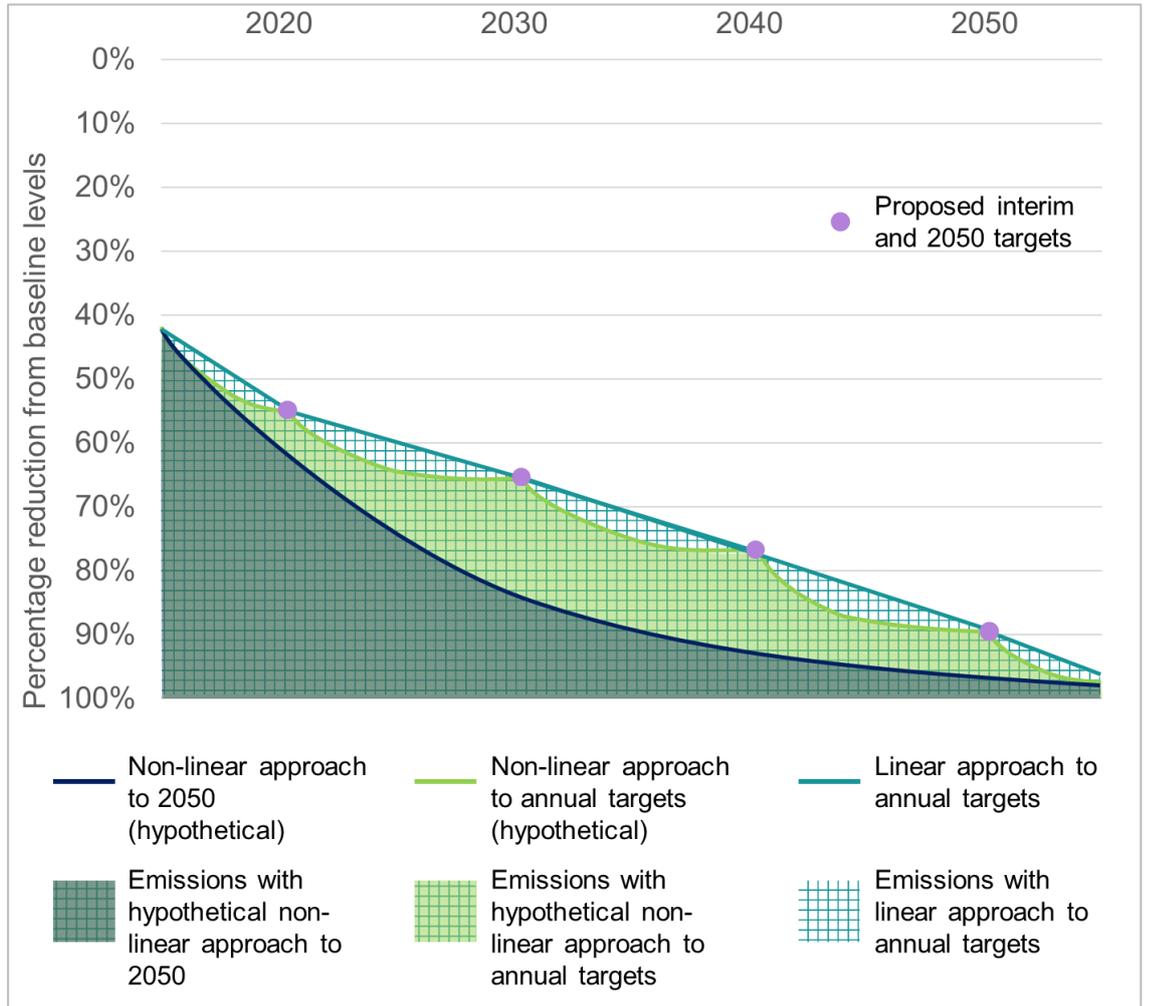
Some respondents support the concept of having annual targets working towards the 2050 target, but raise some concerns about the way they will be calculated and set. They echo concerns raised in [section 2.1.2](#),

Feasibility, arguing that year-on-year progress will not be consistent, as GHG emission reductions will be easier and cheaper at the beginning and become harder as time goes on, with a possible lull in the middle as the easiest reductions have already been achieved, but the technology for the tougher solutions is still being developed. Their thoughts are illustrated with the hypothetical scenario indicated with the dark blue line in Chart 6 below.

Some respondents say that if the annual targets are automatically set with a straight-line trajectory between current GHG emissions and the 2050 targets (light blue line in Chart 6 below), it could disincentivise early action as target reductions would be set lower than what is already achievable. They feel this would create a false perception that meeting the targets will always be easy and that there is little urgency on the matter, but in later years the targets would be too high and regular shortfall would undermine them.

Respondents often suggest that for this reason, annual targets should be tougher at the beginning and easier towards each decadal interim target (2020, 2030, 2040, 2050), as demonstrated with the hypothetical scenario indicated with the green line in Chart 6. The chart has been created only for illustration purposes.

Chart 6: Illustrative example¹⁵ of cumulative GHG emissions with different approaches to long-term and annual targets



¹⁵ This chart depicts hypothetical examples to enable understanding of the discussion raised by respondents, and the non-linear pathways are not indicative of reality or proposals being put forward by the Scottish Government or a defined proposal by respondents

Chapter 3: Targets based on actual Scottish emissions

This chapter addresses responses to question 6 about setting emission reduction targets on the basis of actual GHG emissions, removing the accounting adjustment for the EU emissions trading system (EU ETS) as well as relevant comments in response to other questions and responses from letters or emails.

The Scottish Government proposes, in line with the CCC advice, to set all targets on the basis of actual GHG emissions, by removing the EU ETS adjustment. It is anticipated that statistics will continue to report GHG emissions on both actual and adjusted bases.

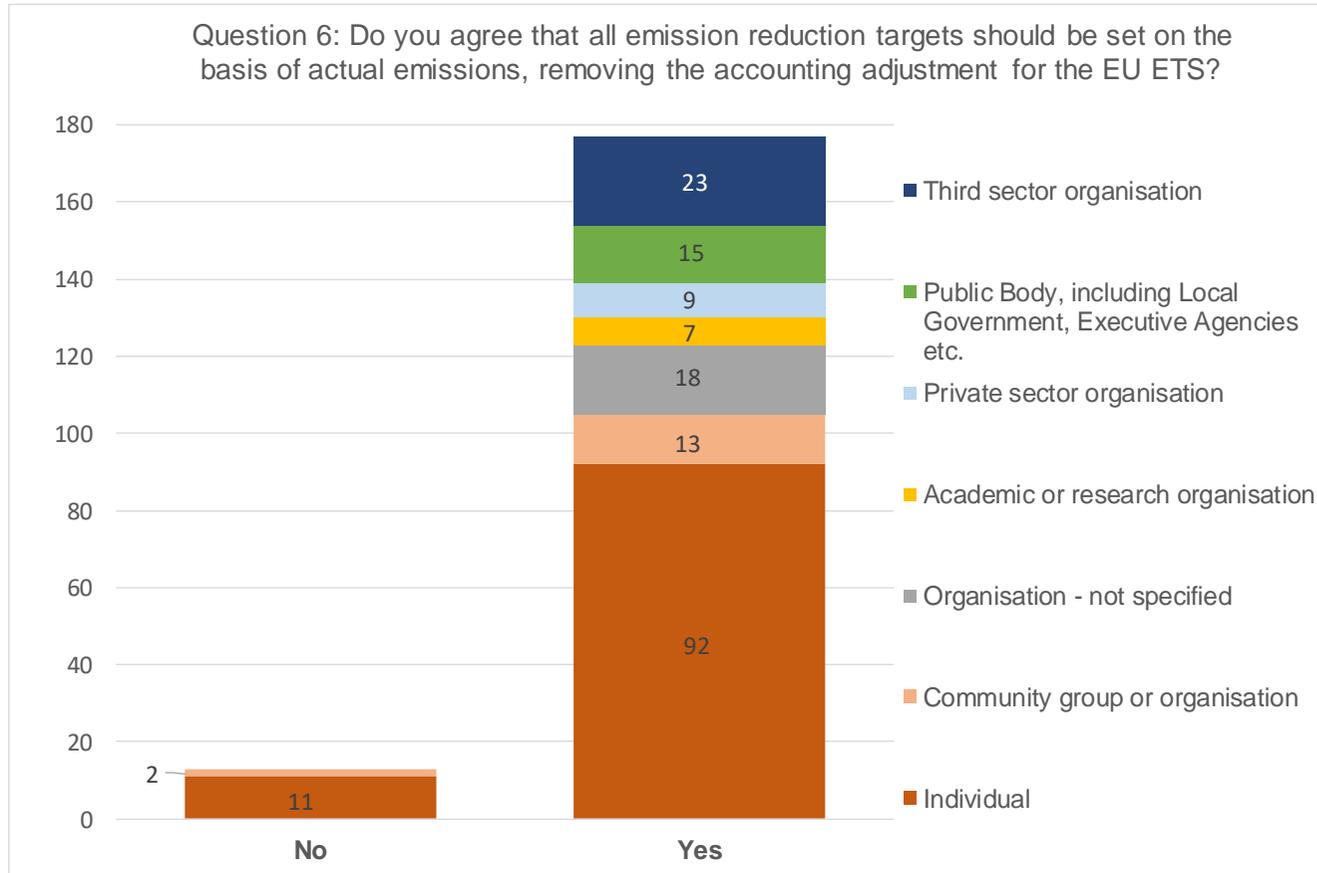
There are 190 responses to the closed section and 173 responses to the open section of question 6,¹⁶ which asks:

Q6. Do you agree that all emission reduction targets should be set on the basis of actual emissions, removing the accounting adjustment for the EU emissions trading system (EU ETS)? Yes/No (Please explain your answer)

¹⁶ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

3.1. Closed question

Chart 7: Responses to the closed question 6¹⁷



¹⁷ See 1.4.2 Interpreting charts

A large majority of respondents (177 respondents – 92 individuals and 85 organisations) who answered the closed question 6 (n=190) support the proposal to set emission reduction targets based on actual emissions, removing the accounting adjustment for the EU ETS. 13 respondents selected no to this question (11 individuals and 2 organisations).

3.2. Comments about setting targets based on actual Scottish emissions – question 6

Support

Respondents who support the proposal believe that setting emission reduction targets based on actual emissions, removing the accounting adjustment for the EU ETS, will improve accuracy, consistency, or transparency of the current system. Some respondents feel that using actual emissions will be simpler, making communication and information about targets easier to understand. A few respondents think that it would make GHG emissions data collection easier.

'Using actual as opposed to adjusted emissions will give a more clear and transparent measure.' Public body

Some respondents say that setting and reporting on targets using actual emissions would better reflect progress and the impact of investment in reducing Scottish GHG emissions. Some respondents emphasise other benefits they believe this approach would provide, such as it would:

- encourage decarbonisation across the Scottish economy;
- increase accountability across sectors and businesses;
- improve the likelihood of achieving targets;
- allow for uncertainty, such as that of the withdrawal of the UK from the EU (see [section 6.2.1](#)); and
- better achieve the desired outcome of mitigating climate change.

A few respondents emphasise that a tailored approach of setting targets based on actual Scottish GHG emissions considers progress to date and what is still achievable, making the targets more realistic, with an ability to measure achievability.

Opposition

A few respondents are opposed to removing the accounting adjustment for the EU ETS for various reasons, including:

- reliable measurement of actual emissions can be a challenge;
- the EU ETS is an important tool and incentive for driving action;
- by retaining the EU ETS adjustment it would maintain consistency in accounting and reporting across the UK and internationally; and
- it will be inconsistent with previous targets and reporting thereby not representing Scottish progress.

Other comments on this proposal

Some respondents feel strongly that the EU ETS adjusted figures should be reported in parallel with the actual emissions. They believe that this would allow for comparison with international data and Scottish GHG emissions history; provide context; incentivise businesses; and assist the public in understanding the approach at the European level.

A few respondents raise various concerns that they believe need to be considered:

- how the change in approach will impact Scotland's progress to date;
- how this decision will affect the ways companies reduce their GHG emissions; and
- a risk of contradictory legislation and policy impacting on the targets.

A few respondents express a need for more information to state a position, such as:

- detailed impacts of this proposal;
- explanations of how measurements are made; and
- the difference in the GHG emissions figures to understand if more ambitious targets could be set.

3.2.1. EU ETS and carbon trading

Some respondents support the proposed approach to set the emission targets based on actual emissions, removing the accounting adjustment for the EU ETS, due to various perceived problems with the EU ETS and carbon trading, such as the perceived inability of the EU ETS to encourage reducing emissions.

'It should be noted that EU ETS does not account for all emissions from some EU ETS installations.' Private sector organisation

Some respondents comment generally on carbon trading and the EU ETS, which is outside of the scope of this consultation. Some

respondents are opposed to GHG emissions trading as they feel it is not an appropriate approach to mitigate climate change, as internationally, countries will be struggling to meet targets and as such won't sell carbon credits. Some respondents feel that policies for industrial decarbonisation need to go beyond the EU ETS, and that provisions must be in place to prevent displacement of GHG emissions to other countries.

'We also support the proposal to ensure policies for industrial decarbonisation, but these policies must go beyond EU ETS cap levels and include provision for mitigating displacement of emissions to other countries.' Third sector organisation

Those respondents who value the EU ETS programme, believe it would prevent distortions in high energy industries (particularly in terms of industrial production export). They feel that Scotland should be advocating for greater GHG emission reductions, in the EU and internationally, and see involvement in the EU ETS as a platform for doing this.

A few respondents seek transparency in reporting and the publication of more information about EU ETS and use of international carbon credits.

3.2.2. Aviation and shipping emissions

Accounting for aviation and shipping emissions is addressed in this section of the consultation document. A few respondents specifically support the continued inclusion of Scotland's share of International Aviation and Shipping emissions. They say it would support transparency, continuity, and ambition; and aid communication and understanding with the public.

'Retaining in the new bill the current practice of including our share of international aviation and shipping emissions (ideally separately) will also help communication and understanding of the bigger picture with the general public.' Individual

3.2.3. Suggestions

Some respondents provide suggestions for the data used in setting and reporting on targets:

- include import and export GHG emissions data;
- include consumption GHG emissions data;
- include sector targets;

- include other trading schemes data;
- take account of local authority data;
- provide baseline 1990 GHG emissions data to local authorities to enable more accurate reporting;
- consider fugitive methane emissions;
- identify polluters and sources of GHG emissions; and
- incorporate flexibility to be guided by the best available carbon accounting practice and climate science.

Chapter 4: Reviewing targets and reporting on policies and proposals

4.1. A flexible and responsive target framework – question 7

Currently, the Climate Change (Scotland) Act 2009 allows for limited updates to the annual and interim 2020 targets through secondary legislation, but does not include a provision to update the 2050 target. It is proposed that it should be possible to update both the interim and 2050 targets through secondary legislation, subject to Scottish Ministers seeking advice from the CCC and with due regard to a number of specific criteria.

There were 203¹⁸ responses to question 7a, which asks:

Q7a. What are your views on allowing the interim and 2050 emission reduction targets to be updated, with due regard to advice from the CCC, through secondary legislation?

There were 206¹⁹ responses to question 7b, which asks:

Q7b. What do you think are the most important criteria to be considered when setting or updating emission reduction targets?

4.1.1. Ability to update interim and 2050 targets – question 7a

Support

Many respondents who discuss the proposal to update interim and 2050 targets through secondary legislation support the principle to allow for updating targets but caveat their support for the proposal. They welcome the necessity to adapt to unforeseen changes in the future, such as in scientific understanding, available technology, or performance against targets

¹⁸ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

¹⁹ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

However, many respondents do not support aspects of the current proposal as they prefer to only allow targets to be revised upwards. Other suggest various changes, including:

- upwards revisions should go through secondary legislation and downwards revisions should go through primary legislation;
- upwards revisions should go through secondary legislation, via the super-affirmative procedure²⁰, and downwards revisions should go through primary legislation;
- any revisions of targets should be through primary legislation; and
- it should be harder to change the 2050 target than the interim targets.

Respondents who request the use of primary legislation seek full parliamentary scrutiny of any revisions to targets.

‘...however targets should only be able to be increased and the process should be subject to formal consultation and Parliamentary scrutiny. If targets are to be reduced, this should only be done through primary legislation.’ Organisation

Opposition

Other respondents oppose the ability to update targets altogether, describing it as a ‘waste of time and money’ or expressing concern that it might be used to evade responsibility for missed targets. Some oppose the use of secondary legislation, but without suggesting an alternative.

One respondent argues that allowing targets to be altered in the future undermines the rationale for setting binding targets in the first place – that of proper scrutiny of the targets and security for stakeholders. They comment that the proposal to allow targets to be updated represents a significant structural change in legal terms.

Other comments

Some respondents request that the Scottish Government seeks advice from bodies other than the CCC when updating targets and to organise a public consultation first.

Others request that any changes to targets be clearly communicated and explained to the Scottish people. They emphasise the need for

²⁰ The super-affirmative procedure is when the Scottish Parliament is given the opportunity to comment on proposals for draft legislation before the legislation is laid. Ministers have to make a statement on how the Parliament’s comments have been reflected in the legislation when it is formally laid.

businesses to be able to plan their decarbonisation efforts well in advance, and therefore request that businesses be given as much notice as possible of any changes of targets. They comment that this is particularly relevant to multinational businesses, as the different countries in which they operate will have different carbon reduction targets.

4.1.2. Criteria for setting or updating targets – question 7b

In response to this question, some respondents simply state the criteria which they believe to be the most important, without commenting further. The criteria of

- scientific knowledge about climate change
- technology relevant to climate change
- environmental considerations

are all frequently listed by respondents as important. Some respondents imply that they agree with the criterion of European and international law and policy, through comments on the importance of the Paris Agreement and the desire to limit climate change to 1.5°C. Other respondents comment that all the proposed criteria are applicable and important.

The criteria of tax and spending, and impact on energy policy, are rarely mentioned by respondents. However, comments on budgeting and on the renewable energy industry, reported on in [section 5.2](#) and [Chapter 6](#) respectively, may be considered relevant to these criteria.

Other criteria, however, receive more extended comments from respondents, with some criticising the criteria or suggesting modifications. These are described below.

The Scottish emissions budget

The consultation document acknowledges that the proposal to express all targets as percentage reductions from baseline levels will lead to the criterion of ‘the objective of not exceeding the fair and safe Scottish emissions budget’ becoming ‘redundant in its present form’ (Climate Change Bill – Consultation Paper, page 19). Some respondents express clear objection to this. Others argue that accounting for cumulative GHG emissions is vital to maintaining the principles of fairness and safety (see [section 6.1.5](#)). Other specific suggestions made regarding the criterion of a ‘fair and safe emissions budget’ are:

- defining a ‘fair’ emissions budget as Scotland’s share of the global emissions budget;

- defining a ‘safe’ emissions budget as one that limits global temperature increase to 1.5 °C; and
- adopting the Climate Fairshares Model, and the specific targets suggested within it (see [section 6.1.6](#)).

‘The Bill should not abandon reference to a cumulative emissions budget entirely. It must retain the principle that cumulative emissions are important and define a ‘fair and safe’ budget contribution in the Bill with a clearer focus on climate justice and historical responsibility.’ Organisation

Social circumstances

Many respondents quote this criterion and elaborate further, especially regarding broader issues of equality and fuel poverty. Some respondents comment that climate change targets can disproportionately affect the poorer and less advantaged in society, and that therefore this criterion should be paramount in order to avoid this happening. Others suggest that the principle of intergenerational and international equity should also be considered as important, as well as human rights.

‘With 31% of Scottish households in fuel poverty, these considerations are particularly important for energy policies that will affect all consumers in Scotland, especially those in fuel poverty.’ Organisation

Extended comments on the importance of social equality, including fuel poverty, are given in [section 5.1](#).

Economic circumstances

These criteria described in the consultation document are the most contested. Some respondents state clear agreement with them, and comment on the importance of maintaining business competitiveness in terms of technology, goods and staff.

‘It is vital that climate change ambitions do not jeopardise the competitiveness of Scottish businesses as this could lead to de-industrialisation and will require Scotland to import the goods and skills it requires for a low carbon economy.’ Private sector organisation

However, others comment specifically that the impact on the economy should not affect climate change targets, or that it should be of secondary consideration at best.

'I don't think emission reduction targets should be set with the "Scottish economy" in mind. Money and wealth is great but if climate change targets are reduced to benefit the economy then the environment will never recover.' Individual

Extended comments on the importance of businesses and the economy, are given in [section 5.2](#).

Impact on remote rural and island communities

Although only a few respondents highlight the importance of this criterion, comments on it tend to be more specific. Some of these respondents draw attention to the concept that different geographical areas have different abilities to meet targets, meaning that setting a single target for all areas could lead to some being disadvantaged compared to others. For example, a few respondents comment that the remoteness of some communities in the Scottish Highlands and Islands means that public transport, electric cars and district heating are less feasible options for residents. They comment that this will make it harder to meet GHG emission reduction targets in these remote communities than it is in other parts of Scotland.

'In addition, full recognition must be given to the additional constraints and challenges faced by island communities...' Public body

Other comments

Some respondents suggest additional criteria which they argue should be considered when setting or updating emission reduction targets. The most common of these suggestions are:

- the impacts on health;
- the impacts on future generations; and
- recent performance against targets.

Others suggest criteria such as sustainability and impacts on living standards. More broadly, many respondents emphasise their desire that targets be achievable, ambitious, or that the principle concern when setting targets is to ensure that the negative effects of climate change are kept to a minimum. Some respondents suggest setting targets that are geographically or industry specific (see [Chapter 2](#)). Others suggest dividing the criteria into two distinct groups – those to be considered in setting overall targets and those to be considered in the Climate Change Plans.

'The Council suggests that in a similar vein to the criteria relating to 'social circumstances', specific criteria is added to also consider 'health circumstances', which fits with the 'tackling inequality' element of wider ambitions. This would link to fuel poverty, active travel etc.' Public body

4.2. Future Climate Change Plans – questions 8 and 9

As well as legislation to set annual targets, Scottish Ministers are required to produce reports about plans for meeting these targets. These are called 'Report on Proposals and Policies' (RPP) and two have been produced, RPP1 in 2011 and RPP2 in 2013.²¹ It has recently been proposed that future reports be named 'Climate Change Plans'.

These plans follow the setting of annual targets. Currently, plans:

- are set every 5 years;
- last 16 years;
- are not aligned with the Paris Stocktake process; and
- have a 60-day period for Parliamentary consideration.

However, if annual targets cease to be set through legislation (see [section 2.3](#)) then the frequency and length of time covered by these reports is now free to be changed, as can the timing for Parliamentary consideration of the plans. It would also be possible to align these plans with the Paris Stocktake process.

The Climate Change (Scotland) Act 2009 requires that any excess GHG emissions that occur due to targets being missed must be made up through outperforming on future targets, and that Scottish Ministers must lay a report before the Scottish Parliament setting out proposals and policies to compensate in future years for the excess GHG emissions.

It is proposed that this requirement be retained, and would be implemented through:

- figures on under/over-performance being included in the statutory annual reports; and
- the requirement that any cumulative under-performance must be addressed through future Climate Change Plans.

²¹ RPP3 was scrutinised by Parliament in 2016, and the final version is expected to be published early 2018.

Questions 8a-d ask for respondents' views on the timing and length of Climate Change Plans. Question 9 asks for respondents' views on making up any shortfalls through future CCPs.

There were 194²² responses to question 8a, which asks:

Q8a. What are your views on the frequency of future Climate Change Plans?

There were 185²³ responses to question 8b, which asks:

Q8b. What are your views on the length of time each Climate Change Plan should cover?

There were 180²⁴ responses to question 8c, which asks:

Q8c. What are your views on how development of future Climate Change Plans could be aligned with Paris Stocktake Processes?

There were 188²⁵ responses to question 8d, which asks:

Q8d. How many days do you think the period for Parliamentary consideration of draft Climate Change Plans should be?

There were 200²⁶ responses to question 9, which asks:

Q9. What are your views on the proposal that any shortfall against previous targets should be made up through subsequent Climate Change Plans?

4.2.1. Frequency of future Climate Change Plans – question 8a

Many respondents who specify their preferred frequency of future Climate Change Plans (CCPs) suggest five years, as is currently the case. Other respondents make suggestions ranging from every six months to every 30 years, or simply state that plans should be updated 'frequently' or 'regularly'. Many respondents do not explain why they prefer a frequency of five years. Respondents who do explain, generally feel that five years constitutes the right balance of flexibility and long-term stability.

²² See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

²³ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

²⁴ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

²⁵ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

²⁶ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

4.2.2. Duration of future Climate Change Plans – question 8b

Many respondents who specify a preferred length of time that future CCPs should cover suggest 16 years, as is currently the case. Some respondents suggest other durations, with 5 years and 10 years being the most popular. Others suggest that multiple concurrent plans of different lengths be created, containing different levels of detail.

Respondents who favour short-term plans explain these would allow for urgent action to be taken and for quicker adaptation to changes in science, technology or progress against targets.

‘However, my instinct is that the urgency of delivering meaningful progress on climate change and the anticipated speed-up in technology and innovation may merit bringing the planning cycle into a shorter time-frame than the current 16 years.’ Individual

Respondents who prefer long-term plans comment on the need for certainty and stability, and that businesses and technological developments may require long-term planning and investment in order to implement plans.

‘Setting longer Plan durations allows investors to justify investments with long payback periods (e.g. forestry) whereas short plans may not provide adequate stability.’ Individual

4.2.3. Climate Change Plans and Paris Stocktakes – question 8c

Some respondents support the suggestion in the consultation document that CCPs take place after Paris Stocktakes. They point to the perceived need to take the Paris Stocktake findings into account when forming Scottish CCPs. Some suggest that, if Plans are produced before Stocktakes, that the Plans would have to be updated after the Stocktakes anyway. Some respondents who support alignment express the concern that this should not be allowed to introduce unnecessary delay in the process of producing CCPs, with some suggesting that Plans always be produced within one year of Stocktakes.

‘It is useful to align the timing of Climate Change Plans (or RPPs) with the Paris Stocktake Processes as this allows for the RPPs to address any new commitments or issues that arise during the Paris Stocktake Processes.’ Public body

Respondents who oppose the proposed alignment tend to see this as introducing unnecessary delay into Scotland's efforts to deal with climate change.

'We don't believe there is a need for Scotland to wait for the Paris Stocktake Process to develop strong Climate Change Plans. This is because we understand that the Paris Stocktake Process is likely to concentrate initially on ratcheting up commitments by countries with lower targets, and as Scotland's policy response and targets are at the higher end of the range we are unlikely to be affected in the short to medium term by the Paris stocktake process' Third sector organisation

As an alternative, some respondents suggest that provisional CCPs should be made before the Paris Stocktakes. These could then be updated after the Stocktakes if necessary. Some respondents feel that this would allow Scotland to set a positive example to the world at the Paris Stocktakes (see [section 6.2.3](#)).

4.2.4. Parliamentary consideration of Climate Change Plans – question 8d

Many respondents who specify a preferred length of time for Parliamentary consideration of CCPs suggest 90 days. Many others suggest 120 days, as suggested in the consultation document. Other specific suggestions range from one day to one year, or simply include that the parliamentary consideration time should either be as short as possible or, alternatively, as long as necessary.

Respondents who request that the consideration time be increased from the current 60 days typically believe this would allow for proper scrutiny and consideration of plans. They also comment that a longer period of consideration allows more time for negotiation and consensus-building where necessary.

'There is a strong case to extend the period for parliamentary scrutiny of draft Climate Change Plans from 60 days, to allow full debate and consideration of the supporting evidence.' Organisation

Respondents who request that the consideration time be decreased tend, as with other aspects of CCPs, to emphasise the urgency of dealing with climate change. Respondents highlight the need to account for parliamentary recesses when deciding on parliamentary consideration time.

'This would need to be fairly short so as not to delay the implementation of any new reduction targets.' Individual

4.2.5. Suggestions for the timing, length, and content of Climate Change Plans

Some respondents provide detailed suggestions for the timing and length of CCPs, including:

- coordinate CCPs with the setting of climate change targets, with a new CCP every 10 years;
- coordinate CCPs more with political planning processes, both local and national;
- the next CCP should be published within one year of the new Climate Change Bill receiving royal assent;
- publish final CCPs no later than nine months after the publication of the draft CCPs.

Some respondents provide detailed suggestions for the content of CCPs. They suggest that CCPs:

- incorporate pathways to long-term targets (for example, CCPs should cover 16 years and contain a pathway to meet the 2050 target);
- can receive interim updates if there are significant shifts in progress against targets, scientific understanding of climate change or technological developments;
- include details of how recommendations made by parliamentary committees have been addressed;
- be consulted on before publishing; and
- be written in a style accessible for the uninitiated.

4.2.6. Shortfalls and subsequent Climate Change Plans – question 9

Many respondents who express a clear position on the proposal to make up any shortfall against targets through subsequent CCPs, support it. A few respondents comment that this is essential to avoid future targets also being missed.

Some respondents object to this proposal. The most common objection made is the perception that, if CCPs are made every five years, this proposal will create too much of a time lag between the shortfall taking place and the action to make up for it.

'We do not support this proposal. We know that early action to curb emissions is vital if we want to meet the aims of the Paris Agreement. Waiting until the next CCP process to make up shortfalls in Scotland's progress towards its targets would unnecessarily delay action to curb emissions.' Organisation

As a result of this objection, some respondents make alternative suggestions as to when and how shortfalls should be dealt with. Common suggestions are that shortfalls should either be addressed immediately or within a year of the shortfall occurring. Respondents often express a sense of urgency to mitigate climate change, and feel that problems should be dealt with as quickly as possible. In contrast to this, other respondents comment that a failure to meet targets suggests that targets are incorrect and might need adjusting.

'Any such shortfall should be fully explained to the Scottish Parliament and people, and made up as soon as possible.' Individual

Some respondents indicate a desire for accountability for the occurrence of shortfalls. To this end, they request that, when a shortfall occurs:

- an assessment be carried out as to exactly how the shortfall occurred;
- that this assessment includes a performance breakdown of contributions towards targets (by geographical region and/or sector);
- that this assessment be published; and
- that, along with assessment, a plan should be published detailing precisely how a shortfall will be dealt with.

'As targets are sector by sector then there should be adequate data and information to respond to a lag in each sector. Any lag, the causes and action to resolve the shortfall in achieving targets should be published and made publicly available.' Individual

Some respondents, referencing Section 36 of the Climate Change (Scotland) Act 2009, argue that the Scottish Government has never provided the report on shortfalls referenced in this section of the Act while it is requirement. They comment that this requirement should therefore be strengthened. Some comment that setting annual targets on a linear trajectory between interim targets may make it more difficult to make up for shortfalls. Further details on setting annual targets and the trajectory between interim targets, can be found in [section 2.3](#).

Chapter 5: Assessing the wider impacts of the proposals

This chapter addresses responses to questions 10, 11 and 12 about the new Climate Change Bill's potential impacts on Scotland's people, businesses and environment.

5.1. Assessing impacts on people – question 10

There were 202²⁷ responses to this question which asks:

Q10. What are your views on these initial considerations of the impact of the Bill proposals on Scotland's people, both now and in future generations?

5.1.1. Potential impacts of the Bill proposals on Scotland's people

Some respondents explicitly express support for the Scottish Government's initial considerations regarding the impact of the Bill proposals on Scotland's people, both now and in future generations. Most of these comments simply highlight the considerations' importance before describing the more specific benefits which are described below.

Conversely, some respondents criticise the initial considerations. They believe that they lack sufficient detail to provide meaningful insight into the potential impacts on Scotland's people.

'We agree that it is hard to quantify the indirect impacts (and multiple co-benefits) of the Bill's proposals on Scotland's people, the international community and future generations but more should be done to assess and communicate these.' Third sector organisation

Many respondents, including several campaigns (see [section 7.2.6](#)), agree with the statement in the consultation document that the bill improve the quality of life. Some of these respondents do not elaborate on how quality of life would improve. However, others highlight specific improvements including warmer homes, equality and improved health. These points are described in more detail below.

Many respondents, including several campaigns (see [section 7.2.6](#)), argue that the Bill proposals will improve income equality in Scotland.

²⁷ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

They often cite the potential for a low carbon economy to reduce fuel poverty and increase people's disposable income.

'There are significant benefits to Scotland's people of acting on climate change – improved energy efficiency reducing fuel poverty...' Individual

Some respondents agree that Scotland's transition to a low carbon economy must be focused on equality and justice, ensuring that vulnerable and/or protected groups are not disproportionately affected by the Bill proposals. In contrast, a few respondents express different concerns regarding the Bill proposals' impact on equality:

- geographically remote areas such as the Highlands and islands that are more dependent on carbon-based energy and fuel; and
- those on lower incomes who may be charged with perceived 'Green taxes' or tariffs.

Some respondents also highlight the Bill proposals' potential for positive health impacts. Most of these, including several campaigns (see [section 7.2.6](#)), refer to these health impacts without elaboration.

'It will also have positive effects and influences on the environment and on the health and wellbeing of the Scottish people now and create a lasting legacy for future generations...' Public body

Some respondents go into more detail about positive health impacts of the proposed Bill, such as:

- reduced risk of respiratory conditions, winter deaths and mental health conditions as a result of reduced fuel poverty;
- improved health due to improved air quality; and
- improved fitness resulting from increased walking and cycling.

In contrast, a few respondents identify potential negative health impacts of the Bill proposals. This includes increased exposure to emissions due to increased walking and cycling, as well as poor health due to perceived 'green taxes' or tariffs.

5.1.2. Future generations

Some respondents focus on the second part of question 10 which asks about the impact on Scotland's people of future generations. Many of these respondents refer to the impacts described above and go on to describe the potential injustice that would be inflicted upon future generations.

'The decisions made today will impact future generations significantly, and thus we should be as ambitious as possible if we are to respect their rights.' Individual

A few respondents suggest different solutions to this issue:

- reference to intergenerational equity in legislation;
- remove discounting methods from the modelling of climate policy to give equal weight to future generations;
- include youth representation in the development of climate policy, such as a future generation's commissioner or guardian; and
- refer to the Welsh Wellbeing Future Generations Act as a possible model for the Scottish Government.

5.1.3. Behaviour change

Some respondents suggest that the Scottish Government considers people's differing levels of acceptance of transitioning to a low carbon economy. While these respondents do not refer to targets explicitly, they describe the potential challenges of people transitioning on achieving the aims of the Bill proposals. Some examples of potential barriers to behaviour change include:

- modal shift away from cars to public transport, walking and cycling;
- perceived 'green taxes' and tariffs;
- changes in diet; and
- reduced flying.

A few respondents also believe that people can struggle to see the link between their own energy consumption and the impact this has on climate change.

Some respondents also suggest potential mitigation for these barriers to behaviour change. A few respondents suggest a hard-line or regulatory approach of telling people that they must make sacrifices.

'I think that us people need to be made aware that we need to change. Things we take for granted might not be possible in the near future.' Individual

Other respondents prefer a softer method of education and communication. This includes reducing the bureaucracy of grants, loans and funds that facilitate transition, in addition to projecting the positive

impacts of the Bill proposals. Some more specific suggestions can be found in [Appendix B](#):

5.1.4. Suggestions for the initial considerations

A few respondents provide a variety of specific suggestions for how the Scottish Government could provide more detail to assess the impact of the Bill proposals on Scotland's people:

- assess impacts against UN Sustainable Development Goals;
- assess impacts against the Scottish Government's National Performance Framework;
- include a detailed Health Impact Assessment; and
- include a new document broadly explaining the delivery measures intended and their impacts for all groups.

5.2. Assessing impacts on businesses and regulation – question 11

There were 197²⁸ responses to this question which asks:

Q11. What are your views on the opportunities and challenges that the Bill proposals could present for businesses?

5.2.1. Opportunities for businesses and the wider economy

Respondents often state that Scotland's economy will improve and jobs will increase as a result of the Bill proposals. Some of these respondents do not elaborate on how the economy would improve, including several campaigns (see [Chapter 7](#)). Some respondents also relate the potential economic benefits to global leadership and setting an example for other nations (see [section 6.2.3](#)).

Some respondents also highlight different potential opportunities for businesses and the economy. These include:

- research and development (R&D), manufacturing and sales jobs for electric and fuel cell-powered transport;
- R&D, construction and distribution jobs for the renewable energy sector; and
- increased energy efficiency reducing business overhead costs.

²⁸ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

5.2.2. Challenges for businesses and the wider economy

Some respondents believe that the Bill proposals pose a challenge to Scotland's businesses and economy. While some use this as a means to criticise the Bill proposals, others see these challenges as inevitable or able to be mitigated.

'Certain businesses like oil, gas etc. will undoubtedly have to make way for the green businesses... The end of the industrial revolution had its casualties. Our society will have too.' Individual

In addition to more general observations of potential economic challenges, some respondents identify specific potential negative impacts to Scotland's businesses and economy. This includes the hydrocarbon industry, both for those who work directly for such businesses or those who have invested in this industry. Some respondents also express concerns around potentially increased transport or energy costs for businesses and employees. They believe these increases may come about as a result of tax increases or new and expensive technologies.

5.2.3. Transitioning to a low-carbon economy

Many respondents, including several campaigns (see [section 7.2.7](#)), request a "Just Transition Commission" that includes representatives from different stakeholders, including work unions, community representatives and environmental organisations. They believe that these stakeholders would be able to advise the government on how best to transition high-carbon industries and jobs to a low-carbon economy.

'The Scottish Gov should set up a Just Transition Commission to advise on moving businesses to a co-operative low carbon economy where costs and rewards are shared fairly.' Individual

In addition, a few respondents support the concept of a "just transition" without explicitly suggesting a Commission.

Some respondents believe that supporting businesses is the most effective way to successfully transition Scotland to a low carbon economy. Some respondents make different suggestions of how to do this:

- create industry strategy and policy that can ensure the long-term sustainability of Scotland's businesses;
- provide training and support for businesses and their employees; and

- provide incentives, including funding and tax breaks, especially for small and medium enterprises (SMEs) who may be most at risk of being impacted by potential taxes or tariffs.

A few respondents also suggest that the process of transitioning to a low carbon economy must involve a wide range of stakeholders, both large corporations and SMEs, in order to build trust and encourage a positive attitude to transformation.

'Small and local businesses have higher relative/percentage costs of compliance and managing change; and so measures need to be in place to enable and encourage smaller - and community - businesses to be part of the solution; rather than it being only larger corporations who can afford to adapt to new standards.' Individual

A few respondents are sceptical about the success of the Bill proposals' ability to transition to a low-carbon economy. They comment that businesses may be unwilling to change, or that measuring the financial success of companies may not be an effective way to gauge the success of the Bill proposals. Some respondents suggest a more hard-line regulatory approach to businesses who are unwilling to transition to a low carbon economy.

5.2.4. Comments on the partial Business and Regulatory Impact Assessment (BRIA)

Some respondents make comments on the partial BRIA which is an accompanying document to the main consultation document. A few of these respondents are supportive of the document. They agree with the document's conclusions that the Bill proposals create both opportunities and challenges to businesses. A few respondents also support 'Option 3' which intends to turn the threat of climate change into a competitive advantage.

In contrast, a few respondents are critical of the partial BRIA. These criticisms include a perceived lack of detail and a failure to account for the potential significant economic cost of choosing the 'Do Nothing' option which does not include more ambitious targets.

5.3. Assessing impacts on the environment – question 12

This section addresses responses to question 12 about the Strategic Environmental Assessment (SEA) carried out by the Scottish Government

to assess the impacts of the proposed Bill, as well as relevant comments in response to other questions and responses from letters or emails.

The Scottish Government published an Environmental Report and requested respondents' feedback on the evidence used to inform the report, the environmental effects of the proposals, and the conclusions and recommendations reached.

Responses to questions 12a-e are summarised together below, as respondents address the issues in a cross-cutting manner.

There were 149²⁹ responses to question 12a which asks:

Q12a. What are your views on the evidence set out in the Environmental Report that has been used to inform the assessment process? (Please give details of additional relevant sources).

There were 142³⁰ responses to question 12b which asks:

Q12b. What are your views on the predicted environmental effects as set out in the Environmental Report?

There were 133³¹ responses to question 12c which asks:

Q12c. Are there any other environmental effects that have not been considered?

There were 141³² responses to question 12d which asks:

Q12d. Do you agree with the conclusions and recommendations set out in the Environmental Report?

There were 127³³ responses to question 12e which asks:

Q12e. Please provide any other comments you have on the Environmental Report.

5.3.1. General comments

Across these questions, most respondents who express a view on the Environmental Report support its use of evidence, and agree with the

²⁹ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

³⁰ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

³¹ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

³² See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

³³ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

predicted environmental effects the Report sets out, as well as its conclusions and recommendations. Across all questions, some respondents comment on the potential positive environmental effects of the proposals, primarily referring to the effects of reduced emissions on air quality.

Of those respondents who criticise the Report in general terms, many respondents claim that the Environmental Report should consider the GHG emissions from production of goods and services elsewhere that are consumed in Scotland. Some respondents claim that the Environmental Report does not adequately address the urgency of climate change because the proposals are not ambitious enough. A few respondents say that the Report is unclear or biased, while others doubt the feasibility of the proposals it outlines. Specific criticisms or suggestions are summarised below.

'The Environmental Report quantifies Scotland's contribution to climate change in terms of territorial emissions but does not include any recognition of the greenhouse gas emissions induced by Scottish consumption of good and services produced in other territories.' Individual

Many respondents do not comment in detail on the Report, stating that they do not have an opinion, or that the document is too complex for them to understand.

5.3.2. Evidence and assessment process

Respondents who do give more feedback, describe the evidence used to inform the assessment process and set out in the Report as comprehensive, well-summarised and clear. They say that the approach taken, which includes a review of previous relevant assessments, is appropriate. Respondents welcome the inclusion of references to transport and planning strategies and evidence on the potential health impacts of the proposals (see [section 5.1.1](#) for more details on health impacts).

'The two stage process for gathering evidence for the Environmental Report was a suitable option to providing the overview of potential environmental effects associated with the Climate Change Bill.' Public body

Some respondents say that aspects of the Report require further consideration or that parts of it rely on assumptions or narrow evidence bases, limiting the scope for accurate predictions to be made. Some

respondents offer additional relevant sources to address perceived gaps in the evidence to inform the assessment process, including articles, Scottish and UK government publications and research from organisations like the Centre for Alternative Technology. A full table of suggested additional sources is included in [Appendix C](#).

Some respondents suggest topics that they feel could be included in greater detail in the evidence set out in the Report. These topics include:

- management planning for river basins and flooding;
- agriculture and land use;
- pollution and air quality;
- ocean acidification;
- the spread of human and animal diseases;
- the impacts of fossil fuel extraction; and
- emerging energy sources, such as hydrogen and bioenergy.

'We are broadly satisfied with the evidence used to inform the assessment process... However, the Report could also have made reference to River Basin Management Planning and Flood Risk Management Planning.' Public body

5.3.3. Predicted environmental effects

Respondents who comment on the predicted environmental effects set out in the Report accept that the proposals will impact positively on global climate, and often specify positive secondary impacts that could result from decreased GHG emissions, such as improved health and air quality, and increased biodiversity.

Some respondents welcome the inclusion of potential negative effects in the Report as well, specifically the impacts of new energy infrastructure. They often request the mitigation of these impacts through monitoring and project planning, for example through reuse of existing infrastructure. A few respondents claim that there are likely to be other environmental effects that have not been considered in the Report, but which cannot yet be predicted.

'I agree that potential negative effects as a result of low carbon infrastructure should be avoided or reduced where possible through careful planning, reuse of existing assets and appropriate mitigation measures.' Multiple respondents

While some respondents say that the predicted environmental effects are presented clearly in the Report, and are consistent with recent research on climate change, others identify gaps in the effects provided. Some respondents say that the environmental effects of renewable energy sources, Carbon Capturing and Sequestration (CCS) technologies and any other infrastructure required to meet the targets, will need to be considered further. They consider the possibility that negative environmental effects currently generated by traffic in one location could be replaced by negative effects from energy generation elsewhere, suggesting that a strategic approach may be required to monitor and address cumulative negative effects.

'It may be helpful to identify triggers for when strategic rather than project level assessment will be required. For example proposals for a number of bioenergy facilities in one area would benefit from strategic consideration rather than on a project-by-project basis.' Public body

Several respondents refer to the inclusion of references to CCS in the Report, with both opposition to and support for its proposed use. Respondents who favour this approach see a role for such technology in addressing air quality, and discuss 'blue carbon habitats'; they say that the impact of marine activities upon the carbon sequestration capacity of the sea needs to be understood, and ask why CCS applicability to coal has not been mentioned in the Report. Those who oppose CCS say that it would not end Scotland's use of fossil fuels and has not yet been proven economically viable or replicable.

'We note and support, in particular, two conclusions that have resonance with our views on the need for deployment of CCS as a CO₂ management and storage system, and the means by which this may be achieved.' Academic or research organisation

5.3.4. Other comments on the Environmental Report

Some respondents comment on features of the Report that they support, including the emphasis on adaptation, the use of renewable energy technologies and the need for planning and policy alignment across sectors. Respondents often emphasise the importance of additional assessments as proposals are put in place, requesting that the principle for the development of a monitoring scheme should be embedded in the Bill. They say that this monitoring must consider the achievement of national policy objectives alongside the proposed targets, with sector-specific accounting and policies, and consultation on strategic issues.

Other comments that some respondents offer on the structure and context of the Report include:

- provide the views of statutory consultees in an appendix;
- make links with relevant UN Sustainable Development Goals;
- examine reasonable alternatives to the proposed targets, such as tighter interim targets;
- assess the environmental effects of a range of scenarios for interim targets; and
- consider food production as its own category.

5.3.5. Effects of climate change

Question 12 was about the Environmental Report, but some respondents express views on predicted environmental effects of climate change more generally. Most of these respondents say that climate change will be more severe sooner than the Report sets out, emphasising the uncertainty in modelling any future climate change. They encourage the Scottish Government to prepare for worse outcomes than they say the Report demonstrates. A few of the respondents providing a view on this question however agree that the Report gives an accurate assessment of these effects. Some respondents provide suggestions to reduce emissions, to address the effects of climate change, these are provided in [Appendix B](#):

Chapter 6: Other issues regarding the new Climate Change Bill

This chapter addresses responses to question 13 that were not specific to any proposals referred in previous chapters; as well as overarching themes raised across multiple sections of the consultation, in response to other questions and responses from letters or emails. Responses to question 13 that are specific to the proposals of this consultation, are addressed in the relevant chapter.

There were 197³⁴ responses to question 13 which asks:

Q13. Please use this space to tell us any other thoughts you have about the proposed Climate Change Bill not covered in your earlier answers.

6.1. Climate change – targets and framework

6.1.1. Climate change and the new Climate Change Bill

Many respondents feel that the proposals in general are not ambitious enough. They often express concern about both the present and possible future impacts of climate change (such as sea level rise, poverty, and biodiversity loss) and express a strong desire for urgent action, above and beyond what is proposed in the Bill. Some respondents praise the Scottish Government for what they view as better than expected recent progress against current climate change targets.

'The coming decades are crucial to halt catastrophic global warming but the proposals set out in the consultation paper do not contain the ambition or action required to deliver the Paris Agreement or to keep temperature increases below 1.5°C.' Individual

Some respondents draw attention to the Paris Agreement, and ask that action taken by the Scottish Government be in line with the intention of the Agreement to limit global temperature rise to 1.5°C. Some respondents believe that Scotland, as an early industrialised country, has a historic responsibility for GHG emissions and has benefitted from the industries which produce them. They say that Scotland consequently has a responsibility to contribute as much as it can to GHG emission reduction.

³⁴ See breakdown: Number of responses per question. Responses to this question that address other issues are dealt with in the relevant chapter.

'Whilst the Paris Agreement sets a goal of reaching net-zero greenhouse gas emissions in the second half of this century, industrialised countries such as Scotland, with a historical responsibility of contributing to climate change by burning fossil fuels, should cut emissions faster and reach net-zero well before that date.' Organisation

A few respondents discuss climate change science, commenting that GHG emission reduction alone may be insufficient, given the existing greenhouse gasses present in the atmosphere from past human activity. They comment that effective GHG emission reduction may be complicated by poor understanding of natural carbon sinks.

Some respondents comment that the proposals are unlikely to have any effect on climate change globally, given Scotland's relatively small contribution to international GHG emissions. A few respondents feel that the proposals are simply unnecessary. They feel the focus should be on adaptation to the effects of climate change instead of mitigation of Scottish GHG emissions. All comments related to specific proposals are described in the relevant chapters.

6.1.2. Interaction between the new Climate Change Bill and future Climate Change Plans

Many respondents criticise the proposed Climate Change Bill for not containing plans or specific measures for how climate change targets are to be met. They provide suggestions for measures to include in Climate Change Plans, these are summarised in [Appendix B](#):

'The new Climate Change Bill should not be restricted solely to targets and accounting measures, but should include policies to cut our emissions.' Organisation

Some respondents comment more specifically on the interaction of the proposed Climate Change Bill with future Climate Change Plans. Comments on the timing of Climate Change Plans and possible alignment with the Paris Stocktakes are described in [Chapter 4](#). Some respondents suggest that the new Climate Change Bill introduce requirements related to the production of future Climate Change Plans. They suggest that the new Climate Change Bill:

- introduce a requirement for Ministers to seek and publish advice from the CCC when forming Climate Change Plans; and
- require the Climate Change Plans to include metrics for measuring the progress of policies and groups of policies.

6.1.3. Definition and calculation of targets

Many respondents query the territorial basis used for calculating Scotland's GHG emissions, referring to the carbon footprint of both importing and exporting, goods and services. Some respondents suggest that consumption-based GHG emissions should be measured, reported, and reduced. They express concerns that the rate of Scottish consumption GHG emissions may increase as territorial emissions are reduced. Others add that GHG emissions from exporting goods should also be accounted for, as well as emissions from the exporting process itself, such as shipping emissions.

'The Climate Change Bill should require Ministers to measure and report annually not only on Scotland's production emissions but also its consumption-based emissions. There should also be targets in the Bill for reducing consumption emissions, and strategic actions to meet these targets should be incorporated into the policy making process.'

Organisation

Some respondents say that if consumption and shipping GHG emissions were included in reduction targets, then Scotland would bear more of its responsibility for increased GHG emissions elsewhere, such as in poorer countries that may themselves be disproportionately affected by climate change. Some respondents feel that the Scottish Government should consider the impacts of its proposals on people outside Scotland, particularly in light of the UK Government's commitment to UN Sustainable Development Goals.

A few respondents query whether military operations, both domestically and internationally, are or should be included in GHG emission reduction targets.

6.1.4. Global emissions budget

Some respondents encourage the Scottish Government to adopt a different approach to setting targets. Instead of basing targets on a Scottish emissions budget, they say they should be based on allocating Scotland a portion of a global emissions budget instead (see [Chapter 4](#)). They say that if this approach was used, targets would be set to reduce Scotland's GHG emissions sooner, limiting the Scottish share of global GHG emissions. These respondents feel that a reduced emissions budget is important as there is a threshold of global GHG emissions beyond which changes in climate may be irreversible and have catastrophic consequences.

6.1.5. 'Fair' and 'safe' principles

Some respondents emphasise the importance of the Scottish Government taking a 'fair and safe' approach to setting and updating GHG emission reduction targets. These respondents generally see 'fair' as Scotland's share of the global emissions budget being in line with the principle of 'common but differentiated responsibilities and respective capabilities'. They consider 'safe' to be a global emissions budget that will limit global warming to 1.5°C.

'We therefore believe the Climate Change Bill should include clear definitions for, and mechanisms to achieve a 'fair and safe' budget for Scotland. The Paris Climate Agreement recognises that nations have common but differentiated responsibility and respective capabilities (CDRRC) 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.' Third sector organisation

6.1.6. Climate Fairshares Model

[The Climate Fairshares Model](#) is a model based on the principles of 'fair' and 'safe' as described above, to set specific targets for all countries. It is a measurement of what is a fair share for each country and is advocated for by many international organisations. Respondents who cite this model value the principles on which this model is based.

A conservative global emissions budget is divided between all countries, and then adjusted according to:

- Responsibility: the cumulative GHG emissions of each country since 1850 which directly reflects a nation's contribution to climate change;
- Capacities: the wealth and resources at a country's command; and
- Sustainable development: allowances and thresholds to give room for developing countries to make progress.

Some respondents see this model as essential to consider in setting, updating, and delivering on targets. The model sets a target for the UK, and respondents suggest that these figures be extrapolated for Scotland to use as the basis for proposals in the new Climate Change Bill. They are concerned that various proposals for the new Climate Change Bill are not aligned with the Climate Fairshares Model, and in some cases even work against it.

6.1.7. Scepticism

A few respondents believe the Scottish Government is not taking an objective approach to climate change. They say the planet's climate has always varied and that the dangers of climate change are exaggerated.

6.2. Broader political issues

6.2.1. UK withdrawal from the EU

Some respondents express concern about the possible effects of UK withdrawal from the European Union on implementation of the proposals, and seek more clarity on its possible impact. They express a sense of uncertainty about the future while negotiations are ongoing.

A few respondents refer to the possible effects of UK withdrawal on the EU ETS, and say that withdrawal could impact on UK policy and the balance of devolved and reserved matters. They say that the resourcing of sectors such as organic farming could be affected, and suggest that there may be a lack of workers with the skills required to implement the proposals. Further comments on the EU ETS are given in [Chapter 3](#).

6.2.2. Political context and consistency of policies

Some respondents suggest that the Climate Change Bill be used to ensure that Scottish Ministers take consideration of Scotland's climate change ambitions in all other areas of policy and budgeting. Some respondents give suggestions about how Scotland's climate change ambitions could be more consistent with its policies and budgeting:

- Use the Climate Change Bill to create new legislative duties requiring the Scottish Government to align its budget with its climate change targets and plans.
- Close the perceived loophole in Section 94 of the Climate Change (Scotland) Act 2009, which respondents argue will force the publishing of more information about the long-term effect of each part of the budget on GHG emissions.
- Establish a low-carbon infrastructure commission to advise the Scottish Government on aligning major infrastructure projects with climate change targets and plans.

'We believe the upcoming Climate Act could be used to ensure that Scottish Ministers have to consider the climate implications of Scotland's spending plans.' Organisation

Some respondents comment on the need for political will and a consistent national policy framework to ensure that targets are met. They say that wider collaboration is necessary, with allocation of responsibilities across sectors and localities. Some respondents call for strict legislation, including taxes and fines, to be put in place to ensure compliance with targets. Some of these respondents give different specific examples of where they feel Scottish Government policies are currently inconsistent with its climate change ambitions, and which therefore need to be altered:

- heating and waste management;
- road infrastructure projects;
- Air Departure Tax; and
- extraction of fossil fuels from the North Sea.

Some respondents say that future reductions in GHG emission will be more difficult than the reductions achieved to date, and as such feel that political action is important for meeting the proposed targets.

'It will be necessary for the Scottish Government to ensure consistent application and consideration of this target, ensuring emissions reduction is embedded throughout all aspects of decision making, including but not limited to policy development, planning, regulation review and controls around manufacturing.' Public body

6.2.3. Global leadership

Many respondents say that Scotland proved itself with the Climate Change (Scotland) Act 2009 to be a leading nation in addressing climate change. Some feel that Scotland is continuing to maintain a leading position, while others say that the Scottish Government's proposals should be more ambitious to keep showing leadership.

Some respondents refer to the importance of setting an example for other nations, and often claim that it is appropriate to do so since Scotland has benefitted from the use of fossil fuels. Some respondents identify potential economic benefits from demonstrating leadership in transitioning to a low-carbon economy.

'The legacy of our responsibility for historic emissions places an obligation on Scotland to take a lead in decarbonising our economy. Fortunately we are blessed with abundant renewable resources so are well placed to develop radically ambitious plans for climate action and re-establish Scotland as a true climate leader.' Community group or organisation

6.3. Consultation process

Consultation process

Some respondents praise the Scottish Government for providing the opportunity for them to share their views on the new Climate Change Bill, saying that they appreciate that the government is trying to engage people in a decision that will affect them.

Some respondents are pleased with the consultation process itself, and comment that it was well organised, comprehensive, and that the provision of workshops was valuable for engagement. However, other respondents criticise the consultation process for various reasons.

The most frequent criticism that respondents give regarding the consultation process is that it was not sufficiently publicised, with several saying that they found out about it less than one day before the deadline.

A few say that the full consultation period was too short for members of the public to understand such a complex topic and digest the technical documentation, and that this meant they did not have sufficient time to understand the materials and properly compile their response.

Some respondents raise their doubt in the intentions of the Scottish Government, questioning whether the consultation process was meant to discourage engagement from the general public or from young people.

Several respondents, mostly organisations, suggest further consultation either on the Bill itself or on any plans drawn up in the future to achieve the targets set in the Bill and to integrate other policies.

Suggestions to improve the accessibility of the consultation include:

- offline methods such as a mailshot for those that are not online or do not watch television;
- more support for community groups to reply; and
- more public engagement such as social science surveys, deliberative public events, and use of social media.

Consultation materials and events

A few respondents comment that the consultation paper is well put together, saying that it is reasonably easy to follow, contains the appropriate level of technical information, and asks relevant questions.

However, other respondents say they struggled with the consultation materials, and say that they are too long, technical, assume too much

existing knowledge, and are intimidating to the general public rather than user friendly.

Other respondents feel that the materials do not link to each other or relevant resources in a helpful way, and that it is difficult to navigate to reports and documentation referred to or to find the online resources from the hard copy materials. They suggest using hyperlinks in the text to address this issue.

A few respondents raise concerns that some charts are presented in a misleading way.

Several respondents feel that there is not enough detail, evidence or background in some of the sections of the consultation document. Some specifically mention the Environmental Assessment, suggesting that it should have been made available alongside the consultation, or that it should be hyperlinked to where relevant.

Other suggestions include:

- the document could have non-technical input to make it more user friendly; and
- a short summary of the relevant sections displayed alongside the questions.

Consultation questions

A few respondents praise the questions asked in the consultation, saying they are clear and that the open questions allow for further comments.

However, the majority of respondents who comment on the questions criticise the wording of the question text and/or the options available.

They complain that they are leading questions, or that the yes or no options were not suitable as they can be ambiguous given the wording of the question:

Other respondents say that the questions are too narrow, restrictive or may lead to answers being misinterpreted.

Several respondents say that they do not understand the question that they are answering, most commonly regarding question 7a (What are your views on allowing the interim and 2050 emission reduction targets to be updated, with due regard to advice from the CCC, through secondary legislation?). Some other respondents feel that the questions and the consultation document itself is not focused enough on how the targets will be achieved, and suggest more of a focus on plans and policy to move forward.

Chapter 7: Campaign responses

Several organisations coordinated campaign responses to the consultation³⁵ (see [section 1.2](#)). These campaign responses contain a standard text from the campaign organisation, which a respondent was free to alter. This chapter summarises the key points made by each of these campaigns. Any additional text entered by a respondent is considered in the chapter to which the comment was appropriate.

For brevity, most campaigns are referred to using their acronyms, which are given in Table 4 below.

Table 4: Campaign acronyms used in this report

Acronym	Organisation name
CA	Christian Aid
FOE	Friends of the Earth Scotland
GJN	Global Justice Now
SCCS	Stop Climate Chaos Scotland
SCIAF	Scottish Catholic International Aid Fund
WWF	World Wildlife Fund

7.1. General points made by campaigns

All the campaigns express a strong desire for urgent action from the Scottish Government to reduce GHG emissions, with most of the campaigns specifically referencing their desire to limit global temperature rises to a maximum of 1.5°C as specified in the Paris Agreement.

'Please make sure the new Climate Change Act commits Scotland to doing its fair share to tackle climate change and limiting global temperature rises to 1.5 degrees C, so we can ensure a better future for Scotland and for people around the world.' Christian Aid campaign

The FOE campaigns express a general disappointment regarding what they see as a lack of ambition in the Bill proposals by setting insufficient targets.

³⁵ See Table 1: Consultation responses received

'The proposed new 2020 target is the equivalent of the current 2020 goal under a new accounting system and the proposed 2030 figure is only the slightest of increases on the target already agreed by the Scottish Parliament last year.' Friends of the Earth Scotland campaign

However, the FOE campaign does praise past progress on targets, commenting that the original 2020 target is likely to be delivered ahead of schedule.

7.2. Specific points made by campaigns

In addition to the points described above, the 11 sets of campaigns responses to the consultation all make a series of specific requests and comments regarding the proposals as well as some which are outside the scope of the Bill proposals. These requests and comments are summarised below. For clarity, Table 5 shows which of the campaigns make each of several main points, with further details on these and other points made by campaigns below.

The FOE Scotland campaign amended its campaign text following the publication of the Scottish Government's Programme for Government in September 2017, while the consultation was still open. The amended text is referred to below as 'FOE Updated'. Because the campaign text is different to the original FOE campaign (set up in July 2017), it is considered separately in Table 5, but they are counted as a single campaign in all other respects.

7.2.1. Higher targets

All of the campaigns ask for the targets to reduce GHG emission to be higher and achieved sooner, as shown in Table 5.

'Create a strong Scottish Climate Change Act and a prosperous, healthy Scotland by doing the following: Set a target of zero greenhouse gas emissions by 2050 at the latest, and a reduction of 77% by 2030.' 38 Degrees campaign

Table 5: Specific points made in each campaign

	77% by 2030	Net-zero by 2040	Net-zero by 2050	Positive impacts on people*	Just Transition Commission*
38 Degrees	✓		✓		
CA Postcard	✓		✓		
FOE	✓	✓		✓	✓
FOE Postcard	✓	✓			✓
FOE Updated	✓	✓		✓	
GJN	✓	✓			✓
GJN Postcard	✓		✓		
Oxfam	✓		✓		
SCCS	✓		✓	✓	
SCCS Postcard	✓		✓		
SCIAF	✓		✓		
WWF	✓		✓		

* Please see below for full details

7.2.2. Budgeting

All the campaigns request that Scottish financial budgets are set in such a way as to support the ambitions in the Bill proposals.

'Ensure that future finance budgets are consistent with our climate targets: The annual Scottish Budget must allocate funding in a way that is consistent with delivering the required greenhouse gas emissions reductions targets.' World Wildlife Fund campaign

7.2.3. Building energy efficiency

All the campaigns request that all homes in Scotland be brought up to an EPC rating of C by 2025. Some of them argue that this will not only reduce GHG emissions but create jobs and reduce fuel poverty.

‘Ensure that all homes have at least Energy Performance Rating C by 2025. Heating our homes and buildings is responsible for 50% of our climate emissions. Bringing all homes up to EPC C by 2025 would not only reduce our greenhouse gas emissions, but would help tackle fuel poverty and create jobs all across Scotland.’ Stop Climate Chaos Scotland campaign

7.2.4. Farming

All the campaigns request that a nitrogen budget be set by 2020. They argue that this would promote more efficient use of fertilisers, which in turn would support carbon emission reduction measures.

‘Set a nitrogen budget for Scotland by 2020 Farming is responsible for almost a quarter of Scotland's climate pollution, and lots of this comes from the manufacture and use of nitrogen-based fertilisers.’ Scottish Catholic International Aid Fund campaign

7.2.5. Transport

All the campaigns except ‘FOE updated’ request that the sale of new fossil fuel cars be phased out by 2030. They argue that this will not only reduce GHG emissions, but would also clean up the air and consequently help improve the nation’s health.

‘Phase out the sale of new fossil fuel cars by 2030. Our emissions from transport have hardly gone down since 1990. Phasing out fossil fuel vehicles would reduce emissions, clean up air pollution and improve the nation's health.’ Oxfam campaign

7.2.6. Positive impacts on people

Three of the campaigns comment that action taken to reduce climate change will result in positive outcomes for the people of Scotland, such as improved health and equality. Further details on the predicted positive impacts on people of reducing GHG emissions can be found in [section 5.1](#).

‘Effective action to tackle climate change will help build a fairer and more equal Scotland, improve people’s daily lives and drive the transition to a low-carbon economy.’ Friends of the Earth Scotland campaign

7.2.7. Just Transition Commission

Three of the campaigns request that the government set up a ‘Just Transition Commission’, made up of groups which would advise the government on how to transition to a low-carbon economy. Further details of this suggestion and others related to transitioning the economy can be found in [section 5.2](#).

‘Establish a Just Transition Commission that includes union, community and environmental representatives, to advise the government on the transition from high-carbon industries and jobs to a low-carbon economy.’
Global Justice Now campaign

Appendix A: List of consultation documents

All consultation documents are available on the Scottish Government website:

www.gov.scot/Topics/Environment/climatechange/Newclimatechangebill

- Climate Change Bill – Consultation Paper
<http://www.gov.scot/Resource/0052/00521897.pdf>
- Climate Change Bill – Child Rights and Wellbeing Impact Assessment
<http://www.gov.scot/Resource/0052/00521910.pdf>
- Climate Change Bill – Partial Business and Regulatory Impact Assessment
<http://www.gov.scot/Resource/0052/00521892.pdf>
- Proposals for a New Climate Change Bill – Strategic Environmental Assessment Environmental Report
<http://www.gov.scot/Resource/0052/00522395.pdf>
- Separate Respondent Form For Hard Copies
<http://www.gov.scot/Resource/0052/00523711.pdf>

Appendix B: Suggestions for implementation of the new Bill

The table below summarises suggestions made by respondents for measures that the Scottish Government and/or Scotland's people should implement in order to achieve what is proposed for the new Bill. These suggestions are related to actions that could be implemented to achieve emission reductions, and are therefore outside of the scope of this consultation. These suggestions are grouped thematically by sector. Some of these suggestions are also made in campaign responses (see [Chapter 7](#)). It is worth noting that respondents often made general suggestions and did not provide any further detail or rationale.

Theme	Suggestion
Agriculture and food	Source food as locally as possible
	Increase organic farming
	Protect prime agricultural land
	Reduce livestock farming, and meat and dairy consumption
	Return to bottling/canning foods instead of refrigeration
	Reduce food packaging
	Reduce consumption of exotic produce
Business	Green accreditation schemes for businesses
	Subsidies to influence business behaviour change

	Use local supply chains
	Workplace Parking Levies
Economy and politics	Interventions to address disadvantage in former coalfield areas
	Policies designed to put higher burden on more privileged people
	Consider using behavioural science such as the ISM model (individual, social and material) to inform policy
	Use Local Place Plans to facilitate community-led behaviour change
	Bring energy generation into the public sector
	Provide support for local authorities to design carbon-neutral and future-proof projects
	Independence from the UK and its 'restrictive policies'
Education and culture	Increase focus of education on the dangers of climate change
	Provide support to help consumers change their behaviours
	Introduce climate change storylines into TV dramas
Energy	Ban hydraulic fracturing for hydrocarbons
	Increase nuclear power generation (conventional and thorium)
	Increase renewables including solar, tidal, wave, hydroelectric, geothermal and biomass

	Invest in fusion power generation technology
	Decommission nuclear power plants
Environment and biodiversity	New technologies to prevent birds striking wind turbines
	Tree planting/afforestation
	Restoration/development of green areas and peatland
	Maintain investment in peatland preservation
	Protect hedgerows as habitat for pollinators
	Soil use for carbon sequestration
	Set a nitrogen budget for Scotland to reduce pesticide use/ban use of pesticides
	Use the Land Stewardship Policy to ensure soil efficiency
Buildings and energy efficiency	Strengthen the Scottish Government's Land Use Policy by increasing accountability
	Install heat pumps in homes
	Combined heat and power systems for homes
	District heating systems to cover multiple residences
	Improve/retrofit insulation into homes

	Ensure that all homes have at least Energy Performance Rating 'C'
	Build zero carbon and energy efficient housing
	Interest-free loans and equity-based loans for homeowners to improve the energy efficiency of their homes
	Create a software tool to calculate baseline emissions of a building development and the impact of different possible measures of emission reduction
	Greater consideration of concrete as a building material, as its thermal mass could reduce heat loss from buildings
	Develop new building performance modelling tools to enable people to understand their future energy costs before purchasing a building
	Measures to penalise developers and designers who deliberately overstate the future performance of a building
	Government support for replacing existing heating systems, with clarity on the nature of the future energy network
	Improve building energy modelling
	Monitor implementation of energy efficiency measures, deferring payment of contractors pending checks
	Put in place a binding zero carbon standard within national building standards

Technology	Invest in negative emissions technologies such as carbon capture and storage
	Consider solutions from the Centre for Alternative Technology
Transport	Increase workplace provision of showers for cyclists
	Increase number of 20mph limited zones for safer streets
	Implement Low Emissions Zones in areas of high pollution
	Set targets for Local Authorities to spend on public transport and active travel
	Investment in rail infrastructure
	Cancel road-building projects
	Compensation/support mechanisms for vehicle owners to encourage modal shift to low carbon transport
	Increase cycle lane provision
	Promote electric and/or self-driving vehicles including cars, buses and trains
	Promote biofuel vehicles
	Promote hydrogen fuel cell vehicles
Phase out the sale of fossil fuel cars	
	Increase recycling facilities and initiatives

Waste and recycling

Reduce domestic and commercial waste

Increase use of biodegradable products, especially sanitary products

Appendix C: Environmental Report: suggested additional sources

Some respondents suggest additional sources to address perceived gaps in the evidence used in the Environmental Report including articles, government publications and research.

Websites

https://www.scientificamerican.com/article/drilling-for-earthquakes
http://www.psr.org/assets/pdfs/fracking-compendium-4.pdf
https://climate.nasa.gov
http://www.cpre.org.uk/what-we-do/energy-and-waste/climate-change-and-energy
https://www.theccc.org.uk
http://e360.yale.edu/features/taking-the-long-view-the-forever-legacy-of-climate-change
https://theconversation.com/the-latest-bad-news-on-carbon-capture-from-coal-power-plants-higher-costs-51440
http://www.lse.ac.uk/CATS/Home.aspx
http://www.ericathompson.co.uk/hawkmoth-effect/
http://advances.sciencemag.org/content/2/11/e1501923
http://daraint.org/climate-vulnerability-monitor/climate-vulnerability-monitor-2012/
http://www.carbonbrief.org/worlds-plants-and-soils-to-switch-from-carbon-sink-to-source-by-2100-study-shows

Publications

Aleksandrowicz L, Green R, Joy EJM, Smith P, Haines A (2016) The Impacts of Dietary Change on Greenhouse Gas Emissions, Land Use, Water Use, and Health: A Systematic Review. PLoS ONE 11(11).

G Leach et. al. 'A Low Energy Strategy for the United Kingdom' Science Reviews Ltd, London 1979

Smith A.C, Holland M, Korkeala O et al. Health and environmental co-benefits and conflicts of actions to meet UK carbon targets. Climate Policy 2014: 16(3): 253-263.

Smith A. C. The Climate Bonus: Co-benefits of climate change. Routledge. UK. 2013

Staatsen B, van der Vliet N, Kruize H et al INHERIT: Exploring triple-win solutions for living, moving, and consuming that encourage behavioural change, protect the environment, promote health and health equity. INHERIT. EU. 2017

Rockström et al. Science 24 Mar 2017: Vol. 355, Issue 6331, pp. 1269-1271.

UK National Ecosystems Assessment and Reports

Organisations

Centre for Alternative Technology: Zero Carbon Britain

Permaculture Scotland strategy

Scottish Communities Climate Action Network: Vision for Scotland 2024

SEFARI research



© Crown copyright 2017

OGL

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at www.gov.scot

Any enquiries regarding this publication should be sent to us at
The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

ISBN: 978-1-78851-520-7 (web only)

Published by The Scottish Government, December 2017

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS342746 (12/17)

w w w . g o v . s c o t