

of the report (attached separately). The report builds on a similar UK-wide report¹ commissioned by WWF UK, published last November.

4. WWF Scotland are holding an event in the Scottish Parliament on Wednesday to discuss the report with MSPs.

5. The Scottish Government has previously called on stakeholders seeking net-zero emission target dates to also set out credible pathways for achieving these. For example, in March 2018 evidence to the ECCLR Committee you said “.... it is incumbent on all organisations when they make such calls to be explicit about what will be required to get there. [...] I am very much up for us having an up-front debate about that. If the decision is that that is what people want to do, they need to understand the implications of it.”

Key messages

6. The Vivid report concludes that it would be technically feasible for Scotland to achieve net-zero emissions of all GHGs by 2050, potentially as early as between 2040 and 2045.

7. The scenarios in the report for net-zero of all GHGs go beyond the CCC’s high ambition” (i.e. 90% by 2050) scenario in three main areas; i) a greater assumed role for Greenhouse Gas Removal (GGR) technologies (e.g. Bioenergy with Carbon Capture and Storage, Direct Air Capture, biochar and the enhanced weathering of soils), ii) reduced emissions from domestic aviation and shipping (achieved through technological developments) and iii) somewhat larger reductions from agriculture. Further detail is at **Annex A**.

8. Beyond these three differences, the Vivid scenario has many similarities to the CCC advice - including in terms of what is technically feasible for other sectors and in suggesting a broadly linear emissions reduction pathway to 2050. These similarities reflect the Vivid analysis following a broadly similar approach to the CCC advice, in that it balances considerations of “what is needed from the global science” with those of “what is feasible in Scotland”. This is in contrast to the previous eNGO-commissioned Tyndall Centre report, which took “what is needed” as the sole starting point and arrived at very different conclusions to the CCC advice.

Paras 9 & 10 (REDACTED) as per ‘Regulation 10(4)(e) – internal communications in relation to Scottish Parliamentary Question (SPQ) background notes, Ministerial/media briefings, lines to take, etc.’

Recommendations

11. You are invited to note the key messages in the forthcoming report and agree the reactive press lines.

(REDACTED)

Decarbonisation Division

Ext (REDACTED)

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
Minister for Rural Affairs and the Natural Environment Leanne Dobson, Special Adviser Communications Rural Economy and Environment Kersti Berge, Director of Energy and Climate Change			X		

¹ <https://www.wwf.org.uk/sites/default/files/2018-11/NetZeroReportART.pdf>

Clare Hamilton, Deputy Director for Decarbonisation
 (REDACTED)
 Energy and Climate Change Business Management

Annex A – further summary of key messages

1. **Greenhouse Gas Removal (GGR)** – The Vivid scenario for net-zero emissions of all GHGs by 2050 includes similar levels of afforestation and Bioenergy with CCS (BECCS) deployment to the CCC, but assumes the significant deployment of biochar² as a further means of GGR through soil carbon sequestration (providing around 3 MtCO₂e of negative emissions by 2050).
2. The Vivid report’s conclusion that Scottish net-zero emissions of all GHGs could be reached earlier than 2050, potentially between 2040 and 2045, is based on the deployment of further GGR technologies – namely some combination of Direct Air Capture³ and the “enhanced weathering of soils”⁴. Like biochar, these technologies do not appear at all in the CCC’s current scenarios - due to the uncertainties associated with their current level of scientific and economic immaturity. The Vivid reports acknowledge that such GGR options would imply a “large shift” in Scottish land-use (up to 700,000 ha changing its primary use) and that these carry options carry further potential trade-offs, for example: *“GGR options such as enhanced weathering and biochar may have unintended impacts on soil or water quality”*.
3. **Aviation and shipping** – The Vivid scenario goes beyond the CCC in assuming that all domestic (UK) flights and shipping can be fully decarbonised by 2050 - through a combination of electrification, biofuel, and synthetic fuel use. This leads to emissions being around 1.2 MtCO₂e (c. 50% of the sector total) lower than in the CCC scenario.
4. **Agriculture** – Vivid agree with the CCC that agriculture will continue to be a substantial net emitter and the largest emitting sector in 2050. The Vivid scenario considers that if farmers are “required to adopt virtually all known mitigation measures” then emissions in 2050 could be around 1 MtCO₂e (c. 20% of the sector total) lower than in the CCC scenario. On-the-ground measures identified by Vivid for 2050 that are beyond the CCC’s scenario include *“Inoculations and radical [livestock] diet change such as seaweed”*. The Vivid report also notes the potential to further reduce emissions from this sector if substantial [human] dietary changes were to occur, but does not include this in their main scenario.
5. **Future peatland inventory revisions** - The Vivid report acknowledges that the expected future inclusion of peatlands in the greenhouse gas inventory would pose “a risk to our scenario as presented”. It considers that reaching net-zero could still be technically feasible, but that this would then require either even greater assumed deployment of GGR technologies and/or a further emphasis on dietary change.

https://www.wwf.org.uk/sites/default/files/2019-01/WWF_Report_VIVID_Jan_2019.pdf

² Biochar means burying partially combusted organic matter (char) in topsoil.
³ Direct Air Capture means absorption of CO₂ directly from the atmosphere using chemicals.
⁴ Enhanced weathering means spreading silicate minerals across soils to increase absorption of CO₂.

From: (REDACTED)

Sent: 07 October 2019 17:34

To: Cabinet Secretary for the Environment, Climate Change and Land Reform
<CabSecECCLR@gov.scot>

Cc: Minister for Rural Affairs and the Natural Environment <MinisterRANE@gov.scot>;
Communications Rural Economy & Environment

<CommunicationsRuralEconomy&Environment@gov.scot>; McAllister C (Colin)
<Colin.McAllister@gov.scot>; Berge K (Kersti) <Kersti.Berge@gov.scot>; Hamilton C (Clare)
<Clare.Hamilton@gov.scot>; (REDACTED); (REDACTED); (REDACTED); (REDACTED);
(REDACTED); (REDACTED); (REDACTED); (REDACTED); (REDACTED); (REDACTED)

Subject: Climate Change - WWF/ Vivid Economics report on net-zero - key messages

(REDACTED)

Please find attached the 'Delivering on Net Zero: next steps for Scotland' report that WWF will launch tomorrow, and accompanying submission on key messages.

Please note that the report is under a media embargo until 0001 on Tuesday 8 October. Reactive media lines will be provided separately.

Kind regards,
(REDACTED)

(REDACTED)
(REDACTED) | (REDACTED)

https://www.wwf.org.uk/sites/default/files/2019-10/WWF_Report_VIVID_Climate_2019_web.pdf

Submission

From: (REDACTED)
Climate Change Division
7 October 2019

Cabinet Secretary for the Environment, Climate Change and Land Reform

REPORT ON ACHIEVING NET-ZERO EMISSIONS FROM VIVID ECONOMICS

Purpose

1. To provide advice on the key messages in an eNGO-commissioned report that makes recommendations on action required to respond to the Global Climate Emergency and provide advice on handling the report's publication.

Priority

2. **IMMEDIATE.** The report is expected to publish on Tuesday 8 October.

Background

3. WWF Scotland have commissioned the consultancy Vivid Economics to produce a series of reports, of which the first will be published tomorrow, with specific recommendations on where Scottish Government can act immediately to deliver net-zero emissions. This follows on from a previous Vivid report in January 2019 on net-zero scenarios, after which you met with representatives of Vivid to discuss their findings.

- The new report is being launched at the Scottish Parliament on Tuesday. A Vivid team will also provide a more detailed presentation to officials.

Key messages

- Officials had sight of an embargoed draft of the Vivid report (online link attached). The report concludes that the 2045 net-zero date implies immediate deployment of mature decarbonisation technologies alongside significant incentives (such as investment in supporting infrastructure) for less certain options.
- The report focuses on sectors where Vivid suggest Scottish Government action can have most immediate impact – buildings, industry, transport, land use and forestry. There is limited focus on agriculture and energy supply, due to perceived uncertainties around the future relationship with the EU or devolution of powers. A further summary of key sectoral messages is at Annex A.
- The report proposes a mix of financial and regulatory actions. Substantial additional Scottish Government spending is proposed, totalling approximately £2-5bn per year. However, the report claims that such additional investment will have a “modest” net impact on Scotland’s GDP and “broadly balance” with the economic benefits of early decarbonisation⁵.

Paras 8 & 9 (REDACTED) as per ‘Regulation 10(4)(e) – internal communications in relation to Scottish Parliamentary Question (SPQ) background notes, Ministerial/media briefings, lines to take, etc.

Recommendations

- You are invited to note the key messages in the forthcoming report.**

(REDACTED)
Climate Change Division
Ext (REDACTED)

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
Minister for Rural Affairs and the Natural Environment Colin McAllister, Special Adviser Communications Rural Economy and Environment Kersti Berge, Director of Energy and Climate Change Clare Hamilton, Deputy Director for Decarbonisation (REDACTED) (REDACTED) (REDACTED) (REDACTED) (REDACTED) (REDACTED) (REDACTED) (REDACTED) (REDACTED)			X		

Annex A – further summary of key messages

1. **Buildings** - The report recommends significantly more funding for energy efficiency and renewable heat. It proposes additional spending of £0.9bn per year (a large proportion of that as public spending) on energy efficiency and low carbon heating in buildings. For renewable heating, multiple £100 million per year of up-front grants, mainly for heat pumps in households. It also proposes that the Scottish Government develop a national plan to regulate out fossil fuel heating using local strategies e.g. planning, as well as national building standards for new homes, and regulations for point of sale for existing homes.
2. **Transport** – The report supports regulating for a zero emissions zone in cities from 2030, supported by policy to improve the availability and attractiveness of alternative transport modes (e.g. cycling or public transport). Vivid recommends the Scottish Government immediately leverage procurement rules to rapidly transition to zero emission vehicle fleets directly owned by public bodies and local councils or operating with strong government support. Immediate procurement of zero emission ferries and a coastal shipping emission reduction strategy is recommended to be embedded within a wider strategy to develop the required infrastructure.
3. **Industry** – The report proposes substantial capital investment (several £100 million) in transport and storage infrastructure in the early 2020s to deliver a programme of carbon capture and storage projects. Additionally, it calls on the government to develop a Scottish industrial hydrogen strategy, with grant support for demonstration and commercialisation projects.
4. **Land use** - Funding for afforestation is proposed to be increased to £60-70 million per year, assuming current planting costs. There is acknowledgement that large-scale afforestation needs to be deployed sensitively with consideration for local land use trade-offs. Finally, the report recommends the Scottish Government immediately fund demonstration of land-based GGR at scale to establish CO2 removal monitoring processes, and understand environmental risks.

TITLE – CLIMATE CHANGE BILL – STAGE 2 – BRIEFING – GROUP B: NET-ZERO EMISSION TARGET YEAR (INCLUDING INTERIM TARGETS)**CLIMATE CHANGE (EMISSIONS REDUCTION TARGETS) (SCOTLAND) BILL: STAGE 2 BRIEFING**

GROUP B: Net-zero emission target year (including interim targets)

SUMMARY

Amendments on target levels, including large numbers of government amendments - most of which are consequential to the key target setting ones. Mark Ruskell amendments to change net-zero date to 2042 (1B) and Claudia Beamish amendment (92) to change 2030 target level to 76% (REDACTED). Further Mark Ruskell amendments to adjust annual targets in line with alternate headline targets (REDACTED). Also a Maurice Golden amendment to require regulations to define “net-zero” (REDACTED)

Mark Ruskell previously lodged, but withdrew, amendments to change the net-zero date to 2040 and the 2030 target to 80%. This means there is only one choice on each target, the SG’s position and what appears to be a combined Green / Labour position.

Amendments 6 (SG) and 92 (Claudia Beamish) regarding the level of the 2030 target are direct alternatives. The Mark Ruskell net-zero amendment (1B) is an amendment to the SG’s

amendment (1), presumably as he is content with the other provisions in that amendment other than the target date.

Amendment 39 (Mark Ruskell) pre-empts amendment 7 (SG) – this relates to the interim 2040 target, which Mark Ruskell’s amendment seeks to remove.

Amendment 41 (Mark Ruskell) pre-empts amendment 21 (SG) – this relates to the consequential amendments to annual targets.

You will speak first.

Link to Committee session added

<http://www.parliament.scot/parliamentarybusiness/report.aspx?r=12197&i=110178>

Paras (REDACTED) as per ‘Regulation 10(4)(e) – internal communications in relation to Scottish Parliamentary Question (SPQ) background notes, Ministerial/media briefings, lines to take, etc.

BRIEFING

Amendment number(s) 1, 1B, 2, 3, 105, 4, 5, 6, 92, 39, 7, 8, 9, 10, 11, 12, 13, 13B, 14, 15, 16, 17, 18, 19, 20, 40, 41, 21, 42, 22, 23, 43, 24, 44, 25, 26, 45, 27, 28, 28A, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 88

Subject Net-zero emission target year (including interim targets)

Text of amendment(s)

Roseanna Cunningham

1 In section 1, page 1, leave out lines 15 to 17 and insert—

<(2A) The “net-zero emissions target year” is 2045.

(2B) The Scottish Ministers may by regulations modify subsection (2A) so as to substitute for the year for the time being mentioned in that subsection—

(a) an earlier year, or

(b) a later year if—

(i) that later year is consistent with the most up-to-date advice they have received from the relevant body, and

(ii) that advice states that the later year is appropriate on the basis of either scientific knowledge about climate change or current international carbon reporting practice (or both).

(2C) In preparing a draft of regulations to be made under subsection (2B), the Scottish Ministers must have regard to—

(a) the target-setting criteria, and

(b) the most up-to-date advice they have received from the relevant body.>

Mark Ruskell

1B As an amendment to amendment 1, line 2, leave out <2045> and insert <2042>

Roseanna Cunningham

2 In section 1, page 1, line 20, leave out <specify> and insert <modify>

Roseanna Cunningham

3 In section 1, page 1, line 26, leave out from beginning to end of line 7 on page 2

Maurice Golden

105 In section 1, page 2, line 7, at end insert—

<(6) For the purposes of this section, the Scottish Ministers must by regulations specify a definition of “net-zero”.>

Roseanna Cunningham

4 Leave out section 2 and insert—

<The 2050 target

Section 1 of the 2009 Act and the italic cross heading immediately preceding it are repealed.>

Roseanna Cunningham

5 In section 3, page 2, line 12, at end insert—

<“The interim targets>

Roseanna Cunningham

6 In section 3, page 2, line 17, leave out <66%> and insert <70%>

Claudia Beamish

92 In section 3, page 2, line 17, leave out <66%> and insert <76%>

Mark Ruskell

39 In section 3, page 2, leave out line 18

Roseanna Cunningham

7 In section 3, page 2, line 18, leave out <78%> and insert <90%>

Roseanna Cunningham

8 In section 4, page 2, line 23, leave out <2050 and>

Roseanna Cunningham

9 In section 4, page 2, leave out line 26

Roseanna Cunningham

10 In section 4, page 2, line 29, leave out <section 1(1) or, as the case may be,>

Roseanna Cunningham

11 In section 4, page 2, line 31, leave out <for the 2050 target or>

Roseanna Cunningham

12 In section 4, page 2, line 33, at end insert—

<() not, in that advice, stated to be appropriate on the basis of either scientific knowledge about climate change or current international carbon reporting practice (or both),>

Roseanna Cunningham

13 In section 4, page 3, line 7, leave out <A1(2) which specify a net-zero emissions target year of 2050 or earlier> and insert <A1(2B) which modify the net-zero emissions target year to a year earlier than 2045>

Mark Ruskell

13B As an amendment to amendment 13, line 3, leave out <2045> and insert <2042>

Roseanna Cunningham

14 In section 4, page 3, leave out line 10

Roseanna Cunningham

15 In section 6, page 5, leave out line 7

Roseanna Cunningham

16 In section 6, page 5, line 31, leave out from beginning to <period,>

Roseanna Cunningham

17* In section 8, page 6, line 20, leave out from <, and> to end of line 26 and insert—

<(3) The Scottish Ministers must—

(a) within 3 months of receiving that advice publish a statement setting out how they intend to respond to that advice, and

(b) if they do not, within 12 months of receiving that advice, lay for approval a draft of regulations under section A1(2B) which modify the net-zero emissions target year to that year, make a statement to the Scottish Parliament setting out the reasons for not doing so.>

Roseanna Cunningham

18 In section 8, page 6, line 28, leave out <the 2050 target or>

Roseanna Cunningham

19 In section 8, page 6, line 30, leave out from <, and> to end of line 36 and insert—

<(5) The Scottish Ministers must—

(a) within 3 months of receiving that advice publish a statement setting out how they intend to respond to that advice, and

(b) if they do not, within 12 months of receiving that advice, lay for approval a draft of regulations under section 2A(1) to make the advised modification to that percentage figure, make a statement to the Scottish Parliament setting out the reasons for not doing so.”.>

Roseanna Cunningham

20 In section 9, page 7, line 4, leave out <2049> and insert <year before net-zero year>

Mark Ruskell

40 In section 9, page 7, line 9, leave out <2039 (the “2031-2039 period”)> and insert <the year which immediately precedes any net-zero emissions target year after 2036 (the “final annual target period”)>

Mark Ruskell

41 In section 9, page 7, leave out line 11

Roseanna Cunningham

21 In section 9, page 7, line 11, leave out <2049 (the “2041-2049 period”)> and insert <the year which immediately precedes any net-zero emissions target year after 2041 (the “final annual target period”)>

Mark Ruskell

42 In section 9, page 7, leave out lines 20 to 27

Roseanna Cunningham

22 In section 9, page 7, line 28, leave out <2041-2049> and insert <final annual target period>

Roseanna Cunningham

23 In section 9, page 7, line 30, leave out <figures> and insert <figure>

Mark Ruskell

43 In section 9, page 7, line 31, leave out <2040> and insert <2035>

Roseanna Cunningham

24 In section 9, page 7, line 31, leave out <the 2050 target> and insert <100%>

Mark Ruskell

44 In section 9, page 7, line 34, leave out <2040> and insert <2035>

Roseanna Cunningham

25 In section 9, page 7, line 35, leave out <2050> and insert <the net-zero emissions target year>

Roseanna Cunningham

26 In section 9, page 8, line 3, leave out from beginning to <target> in line 4 and insert <Subsection (2) applies where regulations made under section A1(2B) modify the net-zero emissions target year to a>

Mark Ruskell

45 In section 9, page 8, leave out line 6

Roseanna Cunningham

27 In section 9, page 8, leave out line 7

Roseanna Cunningham

28 In section 9, page 8, line 13, at end insert—
<(2A) Where regulations made under section A1(2B) modify the net-zero emissions target year to a year which is after 2041, the relevant target figure applying by virtue of section 3 for a year which is before the net-zero emissions target year (as set by those regulations) is modified in accordance with subsection (3).>

Mark Ruskell

28A As an amendment to amendment 28, line 3, leave out <2041> and insert <2036>

Roseanna Cunningham

29 In section 9, page 8, line 26, leave out <A1(2)> and insert <A1(2B)>

Roseanna Cunningham

30 In section 9, page 8, line 31, leave out from <A1(2)> to end of line 32 and insert <A1(2B)>

Roseanna Cunningham

31 In section 9, page 8, line 34, leave out <the 2050 target or for>

Roseanna Cunningham

32 In section 12, page 10, line 7, leave out from <if> to end of line 8

Roseanna Cunningham

33 In section 12, page 10, leave out line 9

Roseanna Cunningham

34 In section 12, page 10, line 24, leave out <is first specified or>

Roseanna Cunningham

35 In section 19, page 16, line 14, leave out <, the 2050 target>

Roseanna Cunningham

36 In section 20, page 18, line 14, leave out from beginning to <made,> in line 16

Roseanna Cunningham

37 In section 20, page 18, line 21, leave out <A1(2)> and insert <A1(2A)>

Roseanna Cunningham

38 In the schedule, page 20, leave out lines 5 to 8

Roseanna Cunningham

88 In the schedule, page 21, line 11, after <repealed,> insert—

< () the definition of “the 2050 target” is repealed,>

(REDACTED) as per ‘Regulation 10(4)(e) – internal communications in relation to Scottish Parliamentary Question (SPQ) background notes, Ministerial/media briefings, lines to take, etc.

Purpose and Effect Notes

Amendment 1

Amendment 1 replaces the power to specify a net-zero target year (section A1(2) of the Bill) with a new provision which specifies that the net-zero emissions target year is 2045 (section A1(2A)).

Amendment 1 inserts tighter restrictions, compared to those in section A1(2) of the Bill, on the Scottish Ministers when laying regulations to modify the net-zero target year to a later year (section A1(2B)). The effect of this amendment is that, if the Scottish Ministers propose to modify the net-zero emissions target year to a year later than 2045, they may only do so if the advice is consistent with the most-up-to-date advice they have received from the relevant body (i.e. the UK Committee on Climate Change)) and that advice is based on either scientific knowledge about climate change and/or current international reporting practice .

If the Scottish Ministers propose to modify the net-zero emissions target year, amendment 1 also introduces a duty on the Scottish Ministers to have regard to the target-setting criteria and the most up-to-date advice received from the relevant body (section A1(2C)). This ensures consistency with the provisions in section 4 of the Bill (modification of the interim targets).

Amendment 1B

Amendment 1B is a non-Government amendment. This is an amendment to amendment 1, the effect of which, if both amendments are accepted, would be to specify that the net-zero emissions target year is 2042.

Amendment 2

Amendment 2 is associated with amendment 1 and is consequential to the proposal to specify the net-zero emissions target year in the Bill. Amendment 2 substitutes “modify” for “specify” in section A1(3)(a) to reflect that the net-zero emissions target year is specified in the Bill and that the power conferred on the Scottish Ministers’ is to modify the net-zero emissions target year so specified in the Bill.

Amendment 3

Amendment 3 is consequential to amendment 1. The amendment omits sections A1(4) and (5). Section A1(4) sets out that the Scottish Ministers’ duty to meet the net-zero emissions target applies only after the first regulations are made to specify a net-zero emissions target year. That subsection is no longer required as it is proposed that the Bill will specify the net-zero emissions target year. The effect of the omission is that the Scottish Ministers’ duty to meet the net-zero emissions target year will apply upon commencement of section 1 of the Bill. Section A1(5) requires the Scottish Ministers, if proposing to modify the net-zero emissions target year specified in regulations, to revoke those regulations. That requirement is no longer necessary as the net-zero emissions target year is to be specified in the Bill and any modification of that date will be reflected in the Bill. Section A1(5) also provides that any regulations to modify the net-zero emissions target year for a later year cannot be made unless the later year is consistent with the most up-to-date advice from the relevant body. That condition is reinserted via amendment 1.

Amendment 105

Amendment 105 is a non-Government amendment. It amends section A1 of the Climate Change (Scotland) Act 2009 (to be inserted by section 1 of the Bill) to require the Scottish Ministers by regulations to specify a definition of “net-zero” for the purposes of section A1 (the net-zero emissions target). The regulations would be subject to the affirmative procedure.

Amendment 4

Amendment 4 is connected to amendment 1. It removes section 2 of the Bill, which had set 90% as the 2050 target figure, and inserts a new section which repeals section 1 of the Climate Change (Scotland) Act 2009, which had set 80% as the 2050 target. The effect of the amendment is that there is to be no 2050 target in the 2009 Act as amended. A 2050 target would fall after the net-zero emissions target year of 2045 being set by amendment 1.

Amendment 5

Amendment 5 is consequential to amendment 4, and inserts a new italic cross heading into the 2009 Act to reflect the repeal of section 1 of the Climate Change (Scotland) Act 2009 and the removal of the 2050 target.

Amendment 6

Amendment 6 substitutes a percentage figure for the 2030 target of 70%, instead of 66%, in section 3 of the Bill (the interim targets). The effect of the amendment would be to require the Scottish Ministers to ensure that the net Scottish emissions account for 2030 is 70% lower than the baseline.

Amendment 92

Amendment 92 is a non-Government amendment. It amends section 2(1)(a) (to be substituted by section 3 of the Bill) to modify the percentage figure for the 2030 target to a 76% reduction in emissions, instead of 66% as provided for in the Bill on introduction. The effect of the amendment would be to require the Scottish Ministers to ensure that the net Scottish emissions account for 2030 is 76% lower than the baseline.

Amendment 39

Amendment 39 is a non-government amendment. It removes the interim target of 78 percent emissions reduction for 2040 from section 2 of the 2009 Act (interim targets), to be substituted by section 3 of the Bill..

Amendment 7

Amendment 7 substitutes a percentage figure for the 2040 target of 90%, instead of 78% in section 3 of the Bill. The effect of the amendment would be to require the Scottish Ministers to ensure that the net Scottish emissions account for 2040 is 90% lower than the baseline.

Amendment 8, 9, 10, and 11

Amendments 8, 9, 10, and 11, are consequential to amendment 4 and the removal of the 2050 target from the Climate Change (Scotland) Act 2009. Section 4 of the Bill inserts a new section in the 2009 Act (section 2A) conferring powers on the Scottish Ministers to modify the 2050 and interim target levels. As amendment 4 repeals the 2050 target, these amendments remove

references to the 2050 target level in section 4 of the Bill, with the effect that this section now only concerns the modification of interim targets prior to the net-zero target year.

Amendment 8 removes reference to the 2050 target from the cross heading of section 2A (to be inserted by section 4 of the Bill).

Amendment 9 removes the power to modify the target level for 2050.

Amendment 10 removes a cross-reference to the 2050 target level.

Amendment 11 removes the power to substitute a lower percentage figure for the 2050 target.

Amendment 12

Amendment 12 amends section 2A(2) (to be inserted by section 4 of the Bill) to further restrict the circumstances in which the Scottish Ministers may lower any of the interim target levels. The effect is that the Scottish Ministers may not lower the interim target levels if the lower figure is not, in the advice from the relevant body, stated to be appropriate on the basis of either scientific knowledge about climate change or current international carbon reporting practice. This is equivalent to the restriction on the power to modify the net-zero emissions target year in amendment 1.

Amendment 13

Amendment 13 is consequential to amendment 1 and the replacement of the power to specify a net-zero emissions target year with a power conferred on the Scottish Ministers to modify the target year set out in the Bill. The amendment removes the reference to the enabling power for making regulations to specify a net-zero emissions target year of 2050 or earlier from section 2A(4) (to be inserted by section 4 of the Bill). The amendment is to reflect that a net-zero emissions target year has already been specified by virtue of amendment 1.

Amendment 13B

Amendment 13B is a non-Government amendment to amendment 13. It is consequential to amendment 13, the effect of which is to set a net-zero emissions target year of 2042 in the Bill. The effect of amendment 13B is that if the Scottish Ministers lay draft regulations to modify the net-zero emissions target year for a year which is earlier than 2042, they must at the same time or as soon as reasonably practicable afterwards lay draft regulations to modify any interim target for a year which is the same as or later than the proposed net-zero emissions year to 100%.

Amendment 14

Amendment 14 is consequential to amendment 4 and the removal of the 2050 target from the Climate Change (Scotland) Act 2009. Amendment 14 removes reference to the 2050 target from section 2A(4) (to be inserted by section 4 of the Bill).

Amendments 15 and 16

Amendments 15 and 16 are consequential to amendment 4 and the removal of the 2050 target from the Climate Change (Scotland) Act 2009. The amendments remove references to the 2050 target from section 2C(3) and (6) (to be inserted into the 2009 Act by section 6 of the Bill).

Amendment 15 removes the duty to seek advice from the relevant body on the 2050 target. The effect of the amendment 15 is that the Scottish Ministers are not required to seek the advice of the relevant body (i.e. the UK Committee on Climate Change) on the percentage figure applying for the purposes of the 2050 target.

Amendment 16 removes the 2050 target from the definition of a 'relevant target'. The effect of amendment 16 is that the 2050 target is not a "relevant target" for the purposes of an advice request by the Scottish Ministers to the relevant body on matters including the extent to which each relevant target should be met by action to reduce net Scottish emissions of greenhouse gases, and the respective contributions towards meeting each relevant target by sectors of the Scottish economy.

Amendment 17

Amendment 17 substitutes a new subsection (3) into section 8 of the Bill (ministerial duties following request for advice). The amendment places an obligation on the Scottish Ministers to publish a statement, within 3 months of receiving advice from the relevant body (i.e. the UK Committee on Climate Change) that an alternative year is the earliest achievable net-zero emissions target year. In that statement the Scottish Ministers must set out how they intend to respond to that advice. The amendment also retains the Bill requirement (under new section 2E(2)(c)) that if the Scottish Ministers do not lay draft regulations to modify the net-zero emissions target year to the year advised by the relevant body within 12 months of receiving that advice, they must make a statement to the Scottish Parliament setting out the reasons for not doing so.

Amendment 18

Amendment 18 is consequential to amendment 4 and the removal of the 2050 target from the Climate Change (Scotland) Act 2009. The amendment removes a reference to the 2050 target from section 2E(4)(a) (to be inserted by section 8 of the Bill) which concerns ministerial duties following receipt of advice from the relevant body.

Amendment 19

Amendment 19 substitutes a new subsection (5) into section 2E of the 2009 Act, being inserted by section 8 of the Bill. The amendment makes equivalent provision to amendment 17, but in relation to the modification of a percentage figure for an interim target. The effect of the amendment is to require the Scottish Ministers to publish a statement, within 3 months of receiving advice from the relevant body regarding an alternative percentage figure for any of the interim targets. That statement must set out how the Scottish Ministers intend to respond to that advice. The amendment also retains the Bill requirement (under section 2E(4)(b)) that if the Scottish Ministers do not lay draft regulations to modify the interim target to the figure advised by the relevant body within 12 months of receiving that advice, the Scottish Ministers must make a statement to the Scottish Parliament setting out the reasons for not doing so.

Amendments 20, 21, 22, 23, 24, and 25

These amendments are associated with the setting of a net-zero emissions target date of 2045 in the Bill by amendment 1 and the consequential removal of the 2050 target by amendment 4 as that target will post-date the net-zero emissions target year. Their purpose is to provide for calculation of the annual targets after 2040. The method by which these calculations are undertaken remains unchanged from the Bill as introduced.

Amendment 20 is consequential to amendment 21, and updates the title of section 3 of the Act (to be substituted by section 9 of the Bill) relating to the annual targets from 2021 until the year before the net-zero emissions target year. That section title in the Bill as introduced makes reference to annual targets until 2049.

Amendment 21 amends section 3(1)(c) (to be substituted by section 9 of the Bill) to make reference to a "final annual target period" for which annual targets must be calculated. This replaces the reference in the Bill as introduced to "the 2041 to 2049 period" as that period would

include years which post-date the net-zero emissions target year. The “final annual target period” is defined as being between 2041 and the year that immediately precedes the net-zero emissions target year.

Amendment 22 is consequential to amendment 21 and changes the reference in section 3(4) (to be substituted by section 9 of the Bill) to the relevant period from ‘2041-2049’ to ‘the final annual target period’ for the purposes of calculating the target figure for each year in that period.

Amendment 23 is consequential to amendment 24 and substitutes the word “figure” for “figures”, as only the percentage figure for 2040 is now referred to.

Amendment 24 changes the reference to the percentage figure for the target at the end of the “final annual target period” to be 100%. The net-zero emissions target is a 100% reduction in net emissions of greenhouse gases from baseline levels. The effect of this amendment is that annual targets in this period will now be calculated taking the difference between the percentage figure for 2040 (which, if amendment 6 is accepted, will be 90%) and 100% (i.e. the net-zero emissions target rather than the 2050 target).

Amendment 25 adjusts section 3(4)(b) so that any annual target in the final annual target period will be apportioned equally between the percentage figure for the 2040 interim target and the 100% reduction in the net-zero target year.

Amendments 40, 41, 42, 43, and 44

Amendments 40 to 44 are non-government amendments. The annual target period from 2021-2029 is unchanged, but that for 2031 – 2039 is replaced and that for 2041 – 2049 is removed. It would not be possible to set annual targets after 2030 if the net-zero emissions target year were to be modified to a date before 2035. The amendments also appear to rely on Government amendments 22, 23, 24 and 25.

Amendment 40

Amendment 40 is a non-government amendment. It amends section 3(1) (to be substituted by section 9 of the Bill) to set the period from 2031 until the year preceding any net-zero emissions target year after 2036 as the ‘final annual target period’. The effect of the amendment is that there would be no more annual targets after the year of the net-zero emissions target.

Amendment 41

Amendment 41 is a non-government amendment.. This amendment removes the duty on the Scottish Ministers to ensure that the annual targets are met for the 2041 to 2049 period.

Amendment 42

Amendment 42 is a non-government amendment. It amends section 3 to remove the provisions for the calculation of annual targets for the years in the 2031 to 2039 period.

Amendments 43 and 44

Amendments 43 and 44 are non-government amendments. These amendments substitute references in section 3(4) to 2040 with references to 2035. This means that annual targets in the final annual target period are calculated between a non-existent percentage figure for 2035 and the year before the net-zero emissions target year.

Amendments 26, 27, and 28

These amendments amend the provisions in new section 3A (to be inserted by section 9 of the Bill), which provide for recalculating annual targets if the net-zero emissions target year is set in certain periods.

Amendment 26 is consequential to amendment 1 which, if accepted, will specify the net-zero emissions target year in the Bill. The purpose of the amendment is to ensure that the recalculation mechanism will apply to any modification of the net-zero emissions target year by regulations made under section A1(2B) to a year earlier than 2040. The effect of the amendment is that, where any such regulations are made, the annual target figure will be calculated by taking the difference between the immediately preceding interim target and 100% (the net-zero emissions target) and apportioning that difference in a way which results in an equal percentage change for each consecutive year in the period between that interim target and the net-zero emissions target year as so modified.

Amendment 27 is consequential to amendments 1 and 21. Amendment 27 removes the reference to the period 2041-2049 from the list of periods to which new section 3A(2) applies. The effect of the amendment is that subsection (2) will now only apply to targets in the 2021-2029 period and 2031-2039 period, and the modification of the net-zero emissions target year to a year in one of those period will trigger the recalculation of annual targets as described above for amendment 26.

Amendment 28 inserts a new subsection (2A) into section 3A (to be inserted by section 9 of the Bill). The subsection provides for how annual targets will be calculated if regulations are made to modify the net-zero emissions target year to a different year which is after 2041. It sets out that annual targets between 2041 and the modified net-zero emissions target year will be calculated using the provisions at new section 3A(3). Annual targets in this period will be calculated as equally spaced between the percentage figure for 2040 (the immediately preceding interim target in such circumstances) and 100%.

Amendment 28A

Amendment 28A is a non-government amendment and substitutes 2041 with 2036 in amendment 28, thereby making the provisions in that amendment apply where the net-zero emissions target year falls after 2036 instead. The effect of the amendment is that, where any regulations are made to modify the net-zero emissions target year to a year which is after 2036, the annual target figure will be calculated by taking the difference between the immediately preceding interim target and 100% (the net-zero emissions target) and apportioning that difference in a way which results in an equal percentage change for each consecutive year in the period between that interim target and the net-zero emissions target year as so modified.

Amendment 45

Amendment 45 is a non-government amendment and removes the reference to the 2031-2039 period from the provisions which recalculate annual targets when the net-zero emissions target year falls within certain periods.

Amendments 29 and 30

Amendments 29 and 30 are consequential amendments to amendment 1 which, if accepted, will specify the net-zero emissions target year in the Bill and confer upon the Scottish Ministers a power to modify the net-zero emissions target year in accordance with regulations made under section A1(2B). The amendments update the cross-references to that power in sections 3A(4) and 3B(1)(a).

Amendment 31

Amendment 31 is consequential to amendment 4 which removes the 2050 target from the Climate Change (Scotland) Act 2009. The amendment removes the reference to the 2050 target in section 3B(1)(b) (to be inserted by section 9 of the Bill). The effect of the amendment is that the further rules on the recalculation of annual targets will continue to apply in the event that the Scottish Ministers make regulations to modify the percentage figures for any of the interim targets.

Amendment 32 and 34

Amendments 32 and 34 are consequential to amendment 1 which will set a net-zero emissions target year in the Bill. The amendments amend section 3C(1)(a) and (3)(b) (to be inserted by section 12 of the Bill) to remove references to the net-zero emissions target year being specified by regulations made under section A1(2). The effect of the amendment is that the Scottish Ministers must include the net-zero emissions target year that is set out in the Bill in the list of targets required by section 3C(1) and, if the net-zero emissions target year is modified, a revised list must be laid before the Scottish Parliament as soon as reasonably practicable after the net-zero emissions target year has been modified.

Amendment 33

Amendment 33 is consequential to amendment 4 which removes the 2050 target from the Climate Change (Scotland) Act 2009. The purpose of the amendment is to remove reference to the 2050 target from section 3C(1) (to be inserted by section 12 of the Bill). The effect of the amendment is that the Scottish Ministers will not be required to include the percentage figure for the 2050 target in the list of information about targets published in accordance with section 3C.

Amendment 35

Amendment 35 is consequential to amendment 4 which removes the 2050 target from the Climate Change (Scotland) Act 2009. The amendment removes reference to the 2050 target from the definition of the “plan period” in section 35(3) (to be inserted by section 19 of the Bill). The effect of the amendment is that plan period in respect of which the Scottish Ministers must set out policies and proposals for meeting the emissions reduction targets during that period may be 15 years from the year after the draft plan is laid, or such other period between 10 and 20 years as the Scottish Ministers may specify so that the period ends in the same year as an interim target or the net-zero emissions target year.

Amendment 36

Amendment 36 is consequential to amendments 1 which will specify a net-zero emissions target year in the Bill and amendment 4 which will remove the 2050 target from the Climate Change (Scotland) Act 2009 on the basis that the target would post-date the net-zero emissions target year. The amendment modifies the definition of “emissions reduction target” (to be inserted into section 98 of the 2009 Act by section 20 of the Bill). It amends the definition of “emissions reduction target” to mean an annual target, an interim target or the net-zero emissions target.

Amendment 37

Amendment 37 is consequential to amendment 1 which will specify the net-zero emissions target year in the Bill. The amendment updates a cross-reference in the definition of “net-zero emissions target year” (to be inserted into section 98 of the 2009 Act by section 20 of the Bill) to that the subsection to be inserted by amendment 1 which sets the net-zero emissions target year in the Bill.

Amendment 38

Amendment 38 is consequential to amendment 4 which removes the 2050 target from the Climate Change (Scotland) Act 2009. The amendment omits two minor modifications of the 2009 Act, which amended the cross heading immediately preceding section 1 of the 2009 Act (the 2050 target) and repealed the italic cross heading immediately preceding section 2 of the 2009 Act (the interim target). Equivalent amendments are made by section 2 and 3 of the Bill as amended by amendments 4 and 5.

Amendment 88

Amendment 88 is a minor and consequential amendment. It repeals the definition of “the 2050 target” in section 98 of the 2009 Act. This is a consequence of amendment 4, which removes the 2050 target from the 2009 Act.

Consultation

Net-zero: Amendments 1B, 1-5, 8-16, 18, 32-38

During public consultations prior to introducing the Bill, the vast majority of respondents supported increasing the ambition of climate change targets as proposed by the consultation paper, although many noted that they would support higher targets than those set out (including a net-zero emissions target). A majority also indicated support for the proposal to include provisions to allow Ministers to set a net-zero emissions target, although some concerns around feasibility of such a target were made.

Interim Targets: Amendments 6-7 and 92

The Committee on Climate Change (“the CCC”) advised (on 2 May 2019) that Scotland should set more ambitious targets for 2030 (70%, instead of 66% in the Bill as introduced) and 2040 (90%, instead of 70% in the Bill as introduced). They did not recommend any change to be made to the target for 2020, which remains at 56%.

In the original public consultation on the Bill, respondents were generally supportive of raising the ambition of the interim targets to 66% for 2030 and 70% for 2040 (although many called for more ambition). Some saw the interim targets as a useful tool for monitoring progress towards the 2050 target.

Modifying the net-zero target year and interim targets: Amendment 1 and 12

In its Stage 1 Report, the Committee recommended that the Scottish Government ensure that the Bill reflects a presumption against lowering of targets and provides only for modifications based on changes in the science rather than as a result of a failure of policy effort.

The Delegated Powers and Law Reform Committee also recommended that the Scottish Government bring forward amendments to make explicit that Ministers must have regard to the target-setting criteria and the most up-to-date advice when setting or modifying the net-zero target year.

Annual Targets: Amendments 20-31, 28A, 40-45

These amendments follow on from those setting a net-zero emissions target year of 2045 and removing the 2050 target. As noted for those amendments, in the public consultation in 2017, the vast majority of respondents supported increasing the ambition of climate change targets as proposed by the consultation paper, although many noted that they would support higher targets than those set out (including a net-zero emissions target). There has not been any specific consultation on removing targets for years between 2046 – 2050, but there have also not been

any calls for targets to be retained for these years or for them going beyond 100% net reductions for those years, so we are confident this will be seen as a sensible approach.

Reporting duties following advice: Amendment 17 and 19

In its Stage 1 Report, the ECCLR Committee recommended the SG bring forward amendments to provide clarity on what would happen in the 12 month timeframe following receipt of advice from the relevant body, where Ministers choose not to act on that advice.

Background notes

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Reporting duties following advice – p38

Net-zero: Amendments 1B, 1-5, 8-11, 13-16, 18, 32-38, 88

The Committee on Climate Change (“the CCC”) advised (2 May) that Scotland should set 2045 target for net-zero emissions of all greenhouse gases, achievable provided UK-wide ambition is increased to net-zero by 2050. The UK Government has laid secondary legislation to set such a target.

The 2045 net-zero date matches or exceeded previous calls from Stop Climate Chaos Scotland (2045) and Scottish Labour (2050). However, some are disappointed with the CCC advice, with Greens initially calling for net-zero by 2040, and Extinction Rebellion still calling for an earlier target date of 2025.

As such, the Greens originally lodged an amendment 1A to Amendment 1, in order to set an earlier net-zero emissions target year of 2040. This was later substituted by amendment 1B which sets a net-zero emissions target year of 2042.

The Welsh Government response to the CCC advice 12 June goes beyond the CCC’s recommendations, committing to setting a net-zero target for 2050 (rather than the advised 95% reduction). The Welsh Government’s announcement cited the declaration of a climate emergency as part of the rationale for going beyond the CCC’s advice.

On 20 May, the CCC wrote to the Convener of the ECCLR Committee with further information and analysis on how the CCC has arrived at its interim target recommendations, specifically with regards to ongoing revisions to the GHG inventory. This letter includes a table setting out what emissions reductions their Scottish scenario would have generated based on the current GHG inventory (i.e. without inclusion of the expected future revisions). This shows a 2030 reduction of 76% and a 2040 reduction of 96%, and a 106% target for 2045. Equally spaced annual targets would mean reaching net-zero by 2042. The Committee’s Stage 2 report asked for clarification of the SG’s approach to these matters.

Mark Ruskell introduced Amendment 1B to set a net-zero emissions target year of 2042 as a substitute for a previous amendment to set a target of 2040 as the net-zero emission target year.

Restrictions on modifying the net-zero target year: Amendment 1

Paras (REDACTED) as per ‘Regulation 10(4)(e) – internal communications in relation to Scottish Parliamentary Question (SPQ) background notes, Ministerial/media briefings, lines to take, etc.

DPLRC Recommendation: Amendment 1

Section A1 (inserted by section 1 of the Bill) makes provision for Ministers to set and amend by regulations the net-zero emissions target year and sets out additional duties on Ministers. Section 2A (inserted by section 4 of the Bill) makes provisions for Ministers to amend the interim targets by regulations, and sets out additional duties on Ministers. The provisions are similar, except that those in section A1 do not explicitly require Ministers to have regard to the target-setting criteria and the most up-to-date advice from the relevant body, but both require Ministers to publish a statement setting out the extent to which the proposal in the regulations takes account of the target-setting criteria and whether it is consistent with the most-up-to date advice from the relevant body.

These duties mean that it would be implicit that Ministers have had regard to both the target setting criteria and the most up-to-date advice in new section A1. However, the Delegated Powers and Law Reform Committee recommended that an amendment is brought forward to address this for consistency.

Recalculating Annual Targets: Amendments 20-31, 28A, 40-45

The approach with the Government amendments has been to make the net-zero emissions target year the 'end-point' of the Bill (even if the target year moves). For the annual targets, this has meant removing annual targets after the net-zero emissions target year (i.e. 2045), rather than setting any following that year up to 2050 as either 100% or even as greater than 100% (i.e. at a net negative emissions level, where Scotland's carbon sinks absorb more than we emit).

The approach taken allows for sensible calculation of annual targets if the net-zero emissions target year is modified to be a later year (as is possible under the Bill in narrow circumstances). In such a case, the annual targets would be evenly spaced between 2041 and the year before the net-zero emissions target year.

If the net-zero emissions target year is moved to a date earlier than 2040, all annual targets up to and including 2040 would be set at 100%. It would require further primary legislation to remove either the 2040 or 2030 targets from the Act, although they are automatically set at 100% if a year earlier is set as the net-zero emissions target year.

Non-Government amendments - Mark Ruskell's amendments 40-45 and 28A follow on from this amendment to make the net-zero emissions target year 2040. They are reliant on several of the Government's amendments passing to work effectively, including amendments 23, 24 and 25. If a net-zero emissions target year is set for 2031-2035, the effect of amendment 42 is that there is no provision for calculating annual targets in that period. The amendments appeared to be reliant on an interim target being set for 2035, but no amendments have been lodged to provide such a target.

Amendment 41 appears to suggest a similar approach to the Government's, as regards recalculating annual targets, as it refers to the year preceding "any net-zero emissions target year after 2036" and so would include their revised 2042 date. However, it appears that Mark Ruskell lodged an amendment to repeal the subsection about the calculation of the 2031 to 39 targets, rather than the years 2041-49 as officials suspect he had otherwise intended

Interim targets: Amendments 6-7 and 92

These amendments change the interim targets set out in section 3(2) (to be inserted by section 3 of the Bill) so they reflect the most recent advice provided by the UK Committee on Climate Change ("the CCC) on 2 May.

The Scottish Government moved immediately to lodge amendments giving effect to the CCC's advice on interim targets, which has been well received by the majority of stakeholders.

The proposal of a 70% target for 2030, in line with the CCC's advice, would be the most ambitious statutory target for this year in the world. This would also have been the case for the 66% target in the Bill as introduced, or indeed Scotland's current fixed annual target under the 2009 Act, which was only set in 2016.

The CCC's 2 May advice on the interim targets for 2030 and for 2040 advised by the CCC are based on a simple straight line approach from current emissions levels to the 2045 net-zero target date. The CCC has said that it may need to further revisit the level of these target, once it has undertaken more detailed analysis of UK level pathways (expected in 2020). The Bill is designed to allow the Scottish Ministers to respond response to any future advice that target levels should be modified as the evidence changes. On 14 May 2019 the CCC gave evidence to the ECCLR, where Mark Ruskell MSP asked whether the level of 2030 target represents "political choice", given the status of the evidence at this time. In response, the CCC said that they currently "weren't able to give a more comprehensive assessment" of the target, but that they had "pushed the modelling as far as it would go" and their recalculations so far only changed the level by 1-2%. Additionally, in this evidence session the CCC continuously highlighted that the importance is the net zero emissions target and how to achieve it, rather than what the 2030 target should be.

On 20 May, the CCC wrote to the Convener of the ECCLR Committee with further information and analysis on how the CCC has arrived at its interim target recommendations, specifically with regards to ongoing revisions to the GHG inventory. This letter includes a table setting out what emissions reductions their Scottish scenario would have generated based on the current GHG inventory (i.e. without inclusion of the expected future revisions). This shows a 2030 reduction of 76% and a 2040 reduction of 96%. The Committee's Stage 2 report asked for clarification of the SG's approach to these matters. Claudia Beamish has subsequently lodged an amendment (amendment 93) to revise the 2030 target to 76%.

A further rationale that has been used for higher emissions reduction target for 2030 lies within the "fair share approach", which take historic emissions contributions into account, when proposing emissions reduction targets. This approach, therefore, places an emphasis on global equity. The fair share approach was used for the Tyndall report, which presented a 87% emissions reduction target for 2030.

Modifying the Interim Targets: Amendment 12

Paras (REDACTED) as per 'Regulation 10(4)(e) – internal communications in relation to Scottish Parliamentary Question (SPQ) background notes, Ministerial/media briefings, lines to take, etc.

Reporting duties following advice: Amendments 17 and 19

Section 8 of the Bill inserts a new section 2E into the Bill, which has the intention of holding Ministers to account if they do not lay regulations to amend target levels / dates in line with advice from the Committee on Climate Change. The provision included a requirement to make a statement to Parliament after 12 months, as this time period was seen as a reasonable one in which the Government could undertake the process of consulting on and drafting regulations.

However, in its Stage 1 Report, the ECCLR Committee criticised the 12 month timeframe as being too lengthy. In the Scottish Government's response to the Stage 1 Report, it was explained that the timeframe is intended to reflect the time it would take for policy consideration and potential public and stakeholder consultation on responding to the advice. In practice, it is expected that Scottish Ministers set out their response well within that timeframe.

However, to offer reassurance, the Scottish Government agreed to bring forward amendments adding a further duty to section 8 to the effect that, within three months of receiving advice from the CCC that the net-zero target year or interim target levels/dates should be changed, the Scottish Ministers must publish a written statement setting out their initial response to this advice and their proposed next steps.

This would retain the spirit of the current provisions of holding Ministers to account if they do not follow advice from the relevant body, but also reassure Parliament that an earlier indication of the intended approach will be provided.

Contact (REDACTED)

From: (REDACTED)

Sent: 22 January 2019 14:24

To: Cabinet Secretary for the Environment, Climate Change and Land Reform

<CabSecECCLR@gov.scot>

Cc: (REDACTED); (REDACTED); (REDACTED); (REDACTED); Dobson L (Leanne)

<Leanne.Dobson@gov.scot>; (REDACTED); Clare Hamilton <Clare.Hamilton@gov.scot>;

(REDACTED)

Subject: RE: Deposit Return Scheme - Ministerial Engagement Briefing - Visit to Coca-Cola East Kilbride - Wednesday 23 January 2019

(REDACTED)

(REDACTED)

Grateful if you could draw the Cabinet Secretary's attention to the attached one page advert that was in The Herald last week. As you can see, Coca-Cola was one of 11 companies highlighting that it is shifting its own practices to reduce greenhouse gases, and calling on Scottish Parliament to set a net-zero emissions target by 2050 at the latest.

Officials advise that the meeting with Coca-Cola tomorrow provides a positive opportunity to welcome Coca-Cola's commitment to tackling climate change and pave the way for further discussion about how Coca-Cola is planning to achieve net-zero emissions within its own practices and supply- and distribution- chains, and how such leading practice can be shared amongst other major businesses.

We recommend that the Cabinet Secretary conveys this message and invites Coca-Cola to engage with Scottish Government officials to take forward these discussions.

(REDACTED)

(REDACTED) | **Decarbonisation Division** | Energy and Climate Change Directorate



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int.pdf

From: (REDACTED)

Sent: 01 May 2019 12:57

To: Cabinet Secretary for the Environment, Climate Change and Land Reform

<CabSecECCLR@gov.scot>; Cabinet Secretary for Finance, Economy and Fair Work

<CabSecFEFW@gov.scot>; Minister for Energy, Connectivity and the Islands

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Cc: DG Economy <DGEconomy@gov.scot>; Berge K (Kersti) <Kersti.Berge@gov.scot>;

Hamilton C (Clare) <Clare.Hamilton@gov.scot>; (REDACTED); (REDACTED); (REDACTED);

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(REDACTED)

Subject: Updated FMQ-style briefing on live climate change issues [EMBARGOED]
Importance: High

The contents of the CCC's advice is under strict embargo until 00:01 tomorrow (Thursday 2 May)

P/S Cabinet Secretary for the Environment, Climate Change and Land Reform
P/S Cabinet Secretary for Finance, Economy and Fair Work
P/S Minister for Energy, Connectivity and the Islands
Copy – as above

Please find attached an FMQ-style briefing note with up-to-date positions on the Committee on Climate Change's advice on targets (being published at 00:01 tomorrow morning) and other live issues around climate change. This represents an expanded version of the material that has been prepared for FMQs tomorrow. Leanne has reviewed for SpAd interests.

All relevant Cabinet Secretaries and Ministers will be receiving (by 15:00 today) initial briefing on the key messages and recommendations in the CCC's report and a summary set of top lines (drawn from those here). The present note provides more comprehensive sets of lines to take in preparation for engagements over the next few days.

Best regards,

(REDACTED)

(REDACTED)

(REDACTED) | Decarbonisation Division | Scottish Government

(REDACTED) | (REDACTED) | (REDACTED) Area 3F South, Victoria Quay, Edinburgh, EH6 6QQ
www.gov.scot/climatechange | [@ScotGovClimate](https://twitter.com/ScotGovClimate)

FMQ Brief

ISSUE: CCC ADVICE: Committee on Climate Change (CCC) advice on targets [2 May] says Scotland should set 2045 target for net-zero emissions of all greenhouse gases, provided UK-wide ambition is increased to net-zero by 2050. SG has lodged Bill amendments implementing the advice on targets. The 2045 net-zero date matches or exceeds current calls from Stop Climate Chaos Scotland (2045) and Scottish Labour (2050). Greens call for 2040 as part of 'emergency' Bill. Stop Climate Chaos Scotland call for even tougher 2030 target of 80%.

Paras (REDACTED) as per Regulation 10(4)(e) – internal communications in relation to general policy and decision-making.

Paras (REDACTED) as Regulation 10(4)(e) – internal communications in relation to Scottish Parliamentary Question (SPQ) background notes, Ministerial/media briefings, lines to take, etc.

From: (REDACTED)

Sent: 01 May 2019 14:46

To: Cabinet Secretary for Communities and Local Government <CabSecCLG@gov.scot>; Cabinet Secretary for Finance, Economy and Fair Work <CabSecFEFW@gov.scot>; Cabinet Secretary for the Environment, Climate Change and Land Reform <CabSecECCLR@gov.scot>; Cabinet Secretary for the Rural Economy <CabSecRE@gov.scot>; Cabinet Secretary for Transport, Infrastructure and Connectivity <CabSecTIC@gov.scot>; Minister for Energy, Connectivity and the Islands <MinisterECI@gov.scot>; Minister for Local Government, Housing and Planning <MinisterLGHP@gov.scot>; Minister for Rural Affairs and the Natural Environment <MinisterRANE@gov.scot>; Minister for Trade, Investment and Innovation <MinisterTII@gov.scot>; Minister for Public Finance and Digital Economy <MinisterPFDE@gov.scot>; Minister for Business, Fair Work and Skills

<MinisterBFWS@gov.scot>

Cc: First Minister <firstminister@gov.scot>; First Minister FMQs <FirstMinisterFMQs@gov.scot>; Director of Environment & Forestry <director.enfor@gov.scot>; Director for Housing and Social Justice <DirectorHSJ@gov.scot>; Campbell B (Bridget) <Bridget.Campbell@gov.scot>; Director of Budget and Sustainability <Directorofbudgetandsustainability@gov.scot>; Mitchell E (Elinor) <Elinor.Mitchell@gov.scot>; Gallagher S (Stephen) <Stephen.Gallagher@gov.scot>; Irvine A (Alison) <Alison.Irvine@transport.gov.scot>; McGillivray D (Donald) <Donald.McGillivray@gov.scot>; Signorini D (David) <David.Signorini@gov.scot>; (REDACTED) Gillespie G (Gary) <Gary.Gillespie@gov.scot>; Fuller S (Simon) <Simon.Fuller@gov.scot>; Garvin S (Stephen) (Dr) <Stephen.Garvin@gov.scot>; McNairney J (John) <John.McNairney@gov.scot>; McPherson C (Claire) <Claire.McPherson@gov.scot>; DG Economy <DGEconomy@gov.scot>; Permanent Secretary <PermanentSecretary@gov.scot>; Lloyd E (Elizabeth) <Elizabeth.Lloyd@gov.scot>; McAllister C (Colin) <Colin.McAllister@gov.scot>; Campbell J (Jeanette) (Special Adviser) <Jeanette.Campbell@gov.scot>; Higgins K (Kate) <Kate.Higgins@gov.scot>; McFarlane J (John) <John.McFarlane@gov.scot>; McCaig C (Callum) <Callum.Mccaig@gov.scot>; Dobson L (Leanne) <Leanne.Dobson@gov.scot>; Maxwell S (Stewart) (Special Adviser) <Stewart.Maxwell2@gov.scot>; (REDACTED); Communications Rural Economy & Environment <CommunicationsRuralEconomy&Environment@gov.scot>; (REDACTED); Berge K (Kersti) <Kersti.Berge@gov.scot>; Kearns SJ (Sue) <Sue.Kearns@gov.scot>; Hamilton C (Clare) <Clare.Hamilton@gov.scot>; (REDACTED); (REDACTED); (REDACTED); (REDACTED); (REDACTED); (REDACTED); (REDACTED); (REDACTED); (REDACTED); Chief Executive Transport Scotland <ceo@transport.gov.scot>; McAllan M (Mary) <Mary.McAllan@gov.scot>; Rollison R (Richard) <Richard.Rollison@gov.scot>; Gil O (Oonagh) <Oonagh.Gil@gov.scot>; Munro D (Dominic) <Dominic.Munro@gov.scot>; (REDACTED); DG Scottish Exchequer Mailbox <DGScottishExchequer@gov.scot>; (REDACTED); McLaughlin AC (Ainslie) <Ainslie.McLaughlin@gov.scot>; Archer N (Nikki) <Nikki.Archer@gov.scot>; O'Carroll L (Lucy) <Lucy.O'carroll@gov.scot>; Grisewood A (Aidan) <Aidan.Grisewood@gov.scot>; (REDACTED); (REDACTED); Cabinet Secretary for Government Business and Constitutional Relations <CabSecGBCR@gov.scot>; Minister for Parliamentary Business and Veterans <MinisterPBV@gov.scot>

Subject: Immediate: STRICTLY EMBARGOED UNTIL 00:01 2 MAY - Committee on Climate Change Advice

Cabinet Secretaries and Ministers as above

Copy to: as above

COMMITTEE ON CLIMATE CHANGE ADVICE

The Committee on Climate Change will publish advice to Scottish, Welsh and UK Governments on greenhouse gas emissions reduction targets at 00:01 tomorrow (Thursday). The report includes recommendations on when to set statutory target dates for net-zero emissions and advice on how reductions might be delivered across key sectors of the economy. The Scottish Government has committed to act on the Committee's advice on Scottish targets.

A factual summary of the advice - strictly embargoed until publication at 00:01 am on 2 May - is attached. This includes top lines to take and portfolio summaries of key recommendations.

Full report available at:

<https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

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BRIEFING ON COMMITTEE ON CLIMATE CHANGE ADVICE ON GREENHOUSE GAS EMISSIONS REDUCTION TARGETS

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Paras (REDACTED) Regulation 10(4)(e) – internal communications in relation to Scottish Parliamentary Question (SPQ) background notes, Ministerial/media briefings, lines to take, etc.

HEADLINE ADVICE ON TARGET LEVELS

UK

- The UK should legislate as soon as possible (and before the end of 2019) to reach net-zero greenhouse gas emissions by 2050.
- The Committee do not recommend changes to the UK's current carbon budgets (covering the period to 2032) at this time, but note that recent budgets were set to achieve an 80% target, and recommend that the Government aim to out-perform the budgets.

The following recommendations for Scotland are “contingent on the UK adopting a net-zero GHG target for 2050, given the importance of reserved UK policy levers alongside devolved action.”

Scotland

- The Scottish Government should legislate to reach net-zero greenhouse gas emissions by 2045. *[current Bill target is for a 90% reduction by 2050]*
- Increased interim targets should be set for Scottish emissions reductions (relative to 1990) of 70% by 2030 and 90% by 2040 against the 1990 baseline. *[current bill targets are 66% by 2030; 78% by 2040].*
- Scotland should not adjust the 2020 target already in the Bill for 56% emissions reduction, as there would be no time to implement additional policies to meet it.
- Scotland can go further than the rest of the UK because “Scotland has different capabilities, notably its larger land area per person and its significant CO2 storage potential, meaning it can credibly reach net-zero GHGs earlier”.

The recommended targets:

- Go beyond the reduction needed globally to hold the expected rise in global average temperature to well below 2°C and beyond the Paris Agreement's goal to achieve a balance between global sources and sinks of greenhouse gas emissions in the second half of the century.
- If replicated across the world, would deliver a greater than 50% chance of limiting the temperature increase to 1.5°C.
- Represent a “fair share” approach to the global effort needed – i.e. the targets recognise that the UK has contributed disproportionately to global warming in the past, and is a high-income economy, so can and should do more than many other countries.
- Are achievable, “albeit with strong leadership needed from government” and “extensive changes across the economy”. The level of change needed is unprecedented in its overall scale, but possible.
- A net-zero UK GHG target can be met at an annual resource cost of up to 1-2% of UK GDP to 2050 - the same cost as the previous expectation for an 80% reduction from 1990.

WHAT SCOTLAND CAN DO

- “The Governments of Scotland, Wales and Northern Ireland must make full use of the policy levers available to them and work with the UK government closely to ensure delivery in those areas that are not devolved. This means making particular use of devolved policy levers on the demand side even where supply-side policies are reserved to the UK government (e.g. encouraging walking and cycling), providing 'soft' support (e.g. advice on buildings retrofits) to support UK government policies, and use of planning and procurement powers to drive decarbonisation”
- The devolved administrations should focus on the following areas:
 - **Planning.** A useful lever over infrastructure that needs to be well aligned to objectives for emissions reduction (e.g. through encouraging walking, cycling and use of public transport, ensuring readiness for or installation of electric vehicle charging points in new developments, and a favourable planning regime for low-cost onshore wind).
 - **Procurement.** Use procurement rules positively to help drive emissions reductions in a number of areas (e.g. uptake of ultra-low-emission vehicles, energy efficiency and low-carbon heat in buildings, low-carbon products).
 - **Convening role.** Maximise the potential to bring stakeholders together, and facilitate dialogue and strengthen relationships, to enable the development of mutually-beneficial projects that contribute to decarbonisation.
 - **Work with the UK Government** to ensure that UK-wide policies work for devolved administrations.
 - **Access UK-wide funding.** Ensure that households and businesses have good access to UK-wide funding opportunities where possible and appropriate.

RECOMMENDATIONS TO THE UK IN AREAS WHERE SCOTLAND IS LEADING

- **Legislation.** The CCC recommend that the UK legislate as soon as possible. Scotland already has legislation passing through Parliament.
- **International aviation and shipping.** The CCC recommend that the UK should incorporate a fair share of international aviation and shipping emissions in their targets. Scotland has done so since 2010 and Wales recently amended their legislation to do so too.
- **Just Transition.** The CCC recommend that the UK must ensure a just transition with the costs and benefits of action “fairly shared between income groups, industries and regions – as well as between current and future generations”. The CCC note that Scotland has already made progress in establishing a Just Transition Commission.
- **Committing to domestic effort alone in the long term.** The CCC recommend that the UK should achieve the recommended targets through domestic effort, and not through international credit purchase. The UK Government currently focus on domestic effort, but have made no commitment to maintaining that position long term. The Scottish Bill establishes a long-term default zero level for credit use.

SCOTTISH EMISSIONS SOURCES IN 2050

CCC scenarios indicate that several sectors will continue to be significant emitters in 2050 including:

- Peat: around 6-7 Megatonnes of CO₂ equivalent (MtCO₂e)
- Agriculture: around 4-5 MtCO₂e
- Aviation: around 1-2 MtCO₂e
- Industry: around 1 MtCO₂e

Emissions can be more than offset by sinks, and engineered removals (bioenergy with carbon capture and storage) where the CCC say Scotland can deliver 22% of all UK removals:

- LULUCF (excluding peatland): around 10 MtCO₂e.
- Engineered removals: around 12 MtCO₂e

Portfolio Briefing: Communities and Local Government

Key Findings at UK level

- **Heating buildings.** An overhaul of the approach to low-carbon heating and energy efficiency is needed. The UK Government’s planned 2020 Heat Roadmap must establish a new approach that will lead to full decarbonisation of buildings by 2050. This must be fully-funded, following the Spending Review, and it is essential that the Treasury commits now to working with BEIS on this. Recent announcements on new build must be delivered. *(also included in Transport, Infrastructure and Connectivity portfolio summary)*

Advice to Scottish Government

- **Buildings energy efficiency.** Meeting the earliest possible date for net-zero emissions will require major improvements to the energy efficiency of new and existing buildings, in order to improve comfort levels, lower energy bills and prepare the building stock for a switch to low-carbon heating. Policy to achieve these results in Scotland, Wales and Northern Ireland will largely be delivered through devolved buildings standards and policy. *(also included in Transport, Infrastructure and Connectivity portfolio summary)*
- **Planning.** Planning frameworks are another useful lever over infrastructure that needs to be well aligned to objectives for emissions reduction in devolved administrations (e.g. through encouraging walking, cycling and use of public transport, ensuring readiness for or installation of electric vehicle charging points in new developments, and a favourable planning regime for low-cost onshore wind). *(also included in Transport, Infrastructure and Connectivity portfolio summary)*

Distribution of costs (at a UK level)

The distribution of costs during the transition is important. Some industries, regions and households could suffer if appropriate policies are not put in place to mitigate the effects of what will be major structural changes. Industry and heating in buildings stand out as sectors with potentially high annual costs that cannot simply be passed on. Therefore careful consideration is needed regarding where funding will come from:

- **Electricity** bill payers (households and businesses) currently pay around £7 billion a year towards the roll-out of low-carbon power. This is expected to rise to around £12 billion by 2030 then fall to 2050 as contracts for existing renewable generators come to an end and they are replaced by newer cheaper generation (e.g. CCC scenarios involve an annual resource cost of around £4 billion in 2050). For households, the average costs so far, of £105 per household per year in 2016, have been more than outweighed by savings from improved energy efficiency: energy bills fell £115 in real terms from 2008 to 2016. That balance will continue to 2030 (i.e. overall bills need not rise as a result of climate policy). *(also included in Finance, Economy and Fair Work portfolio summary)*
- **Switching homes to low-carbon heating** remains a major challenge. It is currently funded by Exchequer spending, but roll-out is limited and less than £100 million was spent in 2018. CCC estimates imply an annual cost, reflecting higher upfront costs, for switching to low-carbon heating of the order of £15 billion. Large-scale deployment must begin before 2030. It would be regressive, and probably restrict progress, to pass the cost on fully to households. This should be a key focus for the HMT funding review. The CCC note that in the long run this cost is similar to the combined saving from falling power costs (see above) and electric vehicles. *(also included in Finance, Economy and Fair Work portfolio summary)*.

Portfolio Briefing: Finance, Economy and Fair Work

Key Findings at UK level

- **Overall costs are manageable.** The CCC estimates total costs of meeting a net-zero GHG target at around 1 – 2% of GDP in 2050 based on a conservative set of assumptions. Many of these costs will be spread over the economy, implying relatively small changes set against a growing economy. A key policy challenge is to ensure that costs are (and are seen to be) spread fairly and do not disadvantage UK industry.
- HM Treasury should undertake a review of how the transition will be funded and where the costs will fall. It should develop a strategy to ensure this is, and is perceived to be, fair.
- The transition will necessitate a shift in employment, away from some inherently high-emitting activities (e.g. fossil fuel supply) to highly-skilled jobs to deliver the emissions reductions required. A strategy will be needed to ensure a just transition across society, with vulnerable workers and consumers protected.
- Many of the actions to reduce emissions will be paid for at UK level, and therefore any social costs for Scotland cannot be interpreted as fiscal costs to the Scottish Government or to Scottish businesses and consumers. The CCC estimate that “10 – 13% of total UK costs would go towards reducing emissions in Scotland” - broadly in line with current share of emissions.
- Capital cost increases in CCC scenarios are highest for the power and buildings sectors. Power sector annual investment rises to around £20 billion. Investment in buildings is around £15-20 billion higher in 2050 than it would have been without decarbonisation (the precise figure will depend on the mix of technologies deployed).

Advice to Scottish Government

- **Procurement.** The public sector in devolved administrations can use procurement rules positively to help drive emissions reductions in a number of areas (e.g. uptake of ultra-low-emission vehicles, energy efficiency and low-carbon heat in buildings, low-carbon products).

- **Access to UK-wide funding.** The devolved administrations should seek to ensure that households and businesses have good access to UK-wide funding opportunities where possible and appropriate.
- **Air Departure Tax.** Speaking about the Committee's advice, Chris Stark (CCC Chief Exec) has said [1 May] that not reducing Air Departure Tax would "help immensely with the emissions challenge in Scotland". *(also included in Transport, Infrastructure and Connectivity portfolio summary)*

Distribution of costs (at a UK level)

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- **Industry** decarbonisation in CCC scenarios has an annual cost of the order of £5-10 billion. Some of this could be passed on to consumers, where industry is not exposed to international competition or where the incremental costs are small. However, trade-exposed industries will require a level playing field to ensure that emissions are reduced, not offshored. That could involve schemes similar to those in place today - free allocation of allowances within the EU ETS and compensation for costs resulting from UK climate policies. Alternatively it could involve taxpayer funding, new schemes such as border tariff adjustments or product and building standards that drive demand for low-carbon goods. *(also included in Transport, Infrastructure and Connectivity portfolio summary)*
- **Electric vehicles** currently benefit from capital subsidies and lower fuel and vehicle taxation. Each of these can be phased out in the long run as electric vehicles reach cost parity. By 2050, the CCC expect the shift to low-carbon options like electrification to cut the annual costs of UK transport by around £5 billion. That can be achieved while maintaining transport's tax contribution and allows for the costs of charge-points and other infrastructure. *(also included in Transport, Infrastructure and Connectivity portfolio summary)*
- **Farmers** and land managers currently receive large subsidies from the EU's Common Agricultural Policy (CAP), but not for reducing GHG emissions. The UK Agriculture Bill intends to redirect subsidies towards public goods and could support the major transition in land use and farming practices required by a net-zero GHG target. CCC cost estimates for land and agriculture in their scenarios (under £2 billion annually) are lower than UK

payments under CAP (over £3 billion). *(also included in the Rural Economy portfolio summary)*

- **The annual costs of removing emissions from the atmosphere are potentially large** in CCC scenarios (e.g. of the order of £10 billion in 2050, possibly as high as £20 billion). These could be paid by industries, like aviation, that have not reduced their own emissions to zero. That would imply increasing costs (e.g. for flights) from 2035, as emission removals scale up in CCC scenarios. The distribution of these costs will be determined by Government policy and will be crucial to public acceptance. *(also included in the Transport, Infrastructure and Connectivity portfolio summary).*

Portfolio Briefing: Rural Economy

Key Findings at UK level

- **Agriculture.** Agriculture is already facing a period of considerable change. Future success will require diversification of incomes and taking the opportunities that come with transformational land use change. Policy to encourage farming practices that reduce emissions must move beyond the existing voluntary approach. Financial payments in the UK Agriculture Bill should be linked to actions to reduce and sequester emissions, to take effect from 2022.
- **Land use.** Consumer-facing policies should be used to support shifts to healthier diets with lower beef, lamb and dairy consumption. These would allow changes in UK land use without increasing reliance on imports. Forest cover should increase from 13% of UK land to 17% by 2050. Policy must support land managers with skills, training and information.

Advice to the Scottish Government

- **Agriculture and land use.** Low-carbon farming practices, afforestation, agroforestry and peatland restoration all have a crucial role to play in reducing emissions by 2050. The devolved administrations should ensure that effective policy is in place to support afforestation, agroforestry and peatland restoration on both private and public land. The framework to follow the Common Agricultural Policy in each devolved administration provides an opportunity to more closely link financial support to agricultural emissions reduction and increased carbon sequestration.

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Portfolio Briefing: Transport, Infrastructure and Connectivity

Key Findings at UK level

- **Heating buildings.** An overhaul of the approach to low-carbon heating and energy efficiency is needed. The UK Government's planned 2020 Heat Roadmap must establish a new approach that will lead to full decarbonisation of buildings by 2050. This must be fully-funded, following the Spending Review, and it is essential that the Treasury commits now

to working with BEIS on this. Recent announcements on new build must be delivered. *(also included in Communities and Local Government portfolio summary)*

- **CCS.** Carbon capture and storage is essential. The CCC previously recommended that the first CCS cluster should be operational by 2026, with two clusters, capturing at least 10 MtCO₂, operating by 2030. For a net-zero target it is very likely that more will be needed. At least one of the clusters should involve substantial production of low-carbon hydrogen. The UK Government will need to take a lead on infrastructure development, with long-term contracts to reward carbon capture plants and encourage investment.
- **Electric vehicles.** By 2035 at the latest all new cars and vans should be electric (or use a low-carbon alternative such as hydrogen). If possible, an earlier switchover (e.g. 2030) would be desirable, reducing costs for motorists and improving air quality. This could help position the UK to take advantage of shifts in global markets. The UK Government must continue to support strengthening of the charging infrastructure, including for drivers without access to off-street parking.
- **Low-carbon power.** The supply of low-carbon power must continue to expand rapidly, and increasingly, from around 2030, some may need to run for only part of the year. While many options no longer need subsidies, UK Government intervention may still be needed, for example by backing long-term contracts aligned to expected wholesale prices. Policy and regulatory frameworks should also encourage flexibility (e.g. demand response, storage and interconnection).
- **Industry.** Government must implement an approach to incentivise industries to reduce their emissions through energy and resource efficiency, electrification, hydrogen and CCS in ways that do not adversely affect their competitiveness. In the short-term, this is likely to imply a role for Exchequer funding. Longer term, it could involve international sectoral agreements (e.g. for industries like steel where there are relatively few global companies), procurement and product standards that drive change by requiring consumers to buy or use low-carbon products (e.g. where UK consumption is a large part of an industry's market) or through border-tariff adjustments that reflect the carbon content of imports. Wider infrastructure developments to support CCS and hydrogen roll-out will support industry to make the required changes.
- **HGVs.** The UK Government will need to make a decision on the required infrastructure for zero emission HGVs, with international coordination, in the mid-2020s ready for deployment in the late 2020s and throughout the 2030s. To help prepare for that, trials of zero emission HGVs and associated refuelling infrastructure are now needed. Vehicle and fuel taxation from the 2020s onwards should be designed to incentivise commercial operators to purchase and operate zero-emission HGVs.
- **Aviation and shipping.** ICAO and IMO, the international agencies for aviation and shipping, have adopted targets to tackle emissions. The CCC scenarios go beyond those targets, suggesting increased ambition and stronger levers will be required in the long run. The Committee will write to the UK Government later this year on its approach to aviation.
- **GHG removals.** The UK Government should expand support for early-stage research across the range of GHG removal options, including trials and demonstration projects. It should also signal the longer-term market, which is clearly needed to meet a net-zero target, by developing the governance rules and market mechanisms to pay for emissions removals. Aviation stands out as an obvious sector that could require removals to offset its emissions – either through CORSIA (the international aviation industry's planned trading scheme), the EU ETS or unilaterally the UK could support a net-zero target for aviation, requiring that all emissions are offset by removals.

Advice to Scottish Government

- **Buildings energy efficiency.** Meeting the earliest possible date for net-zero emissions will require major improvements to the energy efficiency of new and existing buildings, in order to improve comfort levels, lower energy bills and prepare the building stock for a switch to low-carbon heating. Policy to achieve these results in Scotland, Wales and

Northern Ireland will largely be delivered through devolved buildings standards and policy. *(also included in Communities and Local Government portfolio summary)*

- **Planning.** Planning frameworks are another useful lever over infrastructure that needs to be well aligned to objectives for emissions reduction in devolved administrations (e.g. through encouraging walking, cycling and use of public transport, ensuring readiness for or installation of electric vehicle charging points in new developments, and a favourable planning regime for low-cost onshore wind). *(also included in Communities and Local Government portfolio summary)*
- **Demand-side transport measures.** Devolved administrations must implement effective policies to provide low-carbon public transport and encourage active travel.
- **Air Departure Tax.** Speaking about the Committee's advice, Chris Stark (CCC Chief Exec) has said [1 May] that not reducing Air Departure Tax would "help immensely with the emissions challenge in Scotland". *(also included in the Finance, Economy and Fair Work portfolio summary)*.

Distribution of costs (at a UK level)

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From: (REDACTED)

Sent: 28 June 2019 13:31

To: Cabinet Secretary for the Environment, Climate Change and Land Reform

<CabSecECCLR@gov.scot>

Cc: Dobson L (Leanne) <Leanne.Dobson@gov.scot>; Berge K (Kersti) <Kersti.Berge@gov.scot>;

Hamilton C (Clare) <Clare.Hamilton@gov.scot>; (REDACTED); (REDACTED); (REDACTED);

(REDACTED); Communications Rural Economy & Environment

<CommunicationsRuralEconomy&Environment@gov.scot>

Subject: ROUTINE - Update on UK Government SI to set net-zero target

P/S Cabinet Secretary for the Environment, Climate Change and Land Reform

Please find below a routine, for-information update on the UK Government's net-zero target setting process.

The UK Government's Statutory Instrument setting a UK net-zero emissions target for 2050 is now in force (as of 27 June), following unanimous approval by the House of Commons (24 June) and the House of Lords (26 June).

The House of Commons debate was largely consensual, with a focus on the next steps around delivery planning and Labour making an offer to work with the UK Government in advance of proposals being brought forwards.

The House of Lords debate was somewhat more contentious and included the agreement of a Labour "motion to regret" (Greens, most Lib Dems and some cross-benchers supported). This does not prevent the Statutory Instrument from coming into force, but serves to express the House's regret that:

- The UK Government has not explained how the 2050 target will be met; and
- There has not been opportunity for full and proper scrutiny of the decision; and
- The UK Government has not introduced regulations to include greenhouse gases from international aviation or shipping as part of the target.

(REDACTED)

Decarbonisation Division

Ext (REDACTED)

From: (REDACTED)

Sent: 24 June 2019 16:56

To: Cabinet Secretary for the Environment, Climate Change and Land Reform
<CabSecECCLR@gov.scot>

Cc: Dobson L (Leanne) <Leanne.Dobson@gov.scot>; Hamilton C (Clare)
<Clare.Hamilton@gov.scot>; (REDACTED); (REDACTED); (REDACTED); (REDACTED);
(REDACTED); Communications Rural Economy & Environment
<CommunicationsRuralEconomy&Environment@gov.scot>

Subject: FOR INFORMATION: UK Statutory Instrument to set net-zero emissions target

Importance: High

P/S Cabinet Secretary for the Environment, Climate Change and Land Reform
Copy – as above

The Cabinet Secretary may wish to be aware of the following information prior to the ECCLR Committee session on the Climate Change Bill tomorrow morning.

A motion to approve the UK Statutory Instrument setting a UK net-zero emissions target for 2050 is scheduled to be debated in the House of Commons later today (Monday 24 June). It currently appears that the debate might not happen until late this evening. Supporting officials will be able to provide a verbal update on any key issues arising immediately prior to tomorrow's Committee session.

The UK Statutory Instrument is then also scheduled to be debated in the House of Lords on Wednesday (26 June), which will conclude the main parliamentary scrutiny steps.

(REDACTED)

(REDACTED)

From: (REDACTED)

Sent: 14 January 2019 15:30

To: Cabinet Secretary for Finance, Economy and Fair Work <CabSecFEFW@gov.scot>; Cabinet Secretary for the Environment, Climate Change and Land Reform <CabSecECCLR@gov.scot>

Cc: Dobson L (Leanne) <Leanne.Dobson@gov.scot>; (REDACTED); (REDACTED); (REDACTED); (REDACTED); Clare Hamilton <Clare.Hamilton@gov.scot>; Communications Rural Economy & Environment <CommunicationsRuralEconomy&Environment@gov.scot>; Communications Economy <CommunicationsEconomy@gov.scot>; (REDACTED)

Subject: just transition debate relevant media today

Private Offices,

Cabinet Secretaries may wish to be aware of the attached one-page advert in the Herald today, with accompanying article here <https://www.heraldsotland.com/news/17355689.global-giants-call-for-more-action-on-climate-change/>

The ad is a call from 11 large businesses for Scottish Government to set a net-zero target, but is within a fairly positive narrative about businesses altering their own behaviour.

The article is broadly positive highlighting that the majority of large businesses consider the response to climate change to be a business opportunity.

Kind regards
(REDACTED)



WWF_Herald_Ad_pr
int.pdf

(REDACTED)

(REDACTED) | **Decarbonisation Division** | Energy and Climate Change Directorate

(REDACTED) | (REDACTED)

From: (REDACTED)

Sent: 29 April 2019 13:01

To: Cabinet Secretary for the Environment, Climate Change and Land Reform <CabSecECCLR@gov.scot>

Cc: Hamilton C (Clare) <Clare.Hamilton@gov.scot>; (REDACTED); (REDACTED); (REDACTED); (REDACTED); (REDACTED)

Subject: Net Zero: The UK's contribution to stopping global warming - Embargoed copy of report

I have great pleasure in attaching our forthcoming report "Net Zero: The UK's contribution to stopping global warming" – and the accompanying technical annex. This report responds to the Ministerial request to the Committee on Climate Change in October last year.

We will launch this report on Thursday this week. **This document is embargoed until 00.01am on 2 May.**

I hope that advanced sight of the report will help with preparing your reaction.
Many thanks.

Links to reports

<https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

<https://www.theccc.org.uk/publication/net-zero-technical-report/>

(REDACTED)

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Committee on Climate Change, 7 Holbein Place, London SW1W 8NR

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www.theccc.org.uk | [@theCCCuk](https://twitter.com/theCCCuk)