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The Scottish Parliament
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12 June 2018

Dear Convener,

Climate Change (Emissions Reductions Targets) (Scotland) Bill

Thank you for your letter of 30 May requesting further information on aspects of the Climate Change (Emissions Reduction Targets) (Scotland) Bill. I apologise that we were not able to meet your requested response date, I hope this does not cause too much inconvenience.

Our response to each question is set out in the Annex to this letter.

Yours sincerely

Calum Webster
Bill Manager



RESPONSES TO QUESTIONS IN LETTER OF 30 MAY**SCOPE****Were other parts of the 2009 Act reviewed for inclusion in the consultation?**

The Bill proposals derive from the Government's commitment to set a new target to reduce emissions by more than 50 per cent by 2020 and to increase transparency and accountability by basing Scotland's targets on actual emissions from Scotland. The Bill's focus is therefore on Part 1 of the 2009 Act and increasing emissions reduction targets and improving the accountability of these targets. As amendments were being made to targets and reporting, it was sensible to make other changes to improve the target and reporting framework in Parts 1 and 3 of the 2009 Act.

What are the stakeholder views on the scope?

The written consultation on the Bill did not ask for views on the scope of the Bill, therefore some respondents did not express a view on scope. However some respondents chose to comment on issues wider than the policy proposed in the consultation paper and suggested that the Bill could be an opportunity to legislate more widely on issues that relate to climate change, for example by including delivery measures in the Bill. The campaigns that fed into the Bill consultation process made calls for delivery measures to be included in the Bill. We have undertaken some initial engagement with stakeholders on delivery proposals and will continue to work with them to understand their proposals. The Scottish Government's view is that the appropriate place to capture policies and proposals for delivery is in the Climate Change Plans that are produced regularly.

When is the next Intergovernmental Panel on Climate Change report due and how will this impact on the passage of the Bill?

The IPCC's special report on global warming of 1.5 degrees is due to be published in October 2018. The Scottish Government's approach has always been to base targets on the best scientific understanding, which is evolving all the time, and will continue to evolve. Ministers have written to the UK Government to request that the Committee on Climate Change (CCC) are commissioned jointly to provide advice on UK and Scottish targets in response to the special report. The Bill sets a strategic direction with provisions that are designed for the targets to be updated regularly in response to independent advice that takes into account evolving science and to our commitment to the Paris Agreement.

The next full IPCC Assessment Synthesis Report on all areas of climate science is expected in the first half of 2022, in advance of the first Paris Agreement stocktake process in 2023. The Bill provisions ensure that advice from the CCC on target levels will be sought and published at least every five years.

How does the Scottish Government intend to implement its commitment to create a Just Transition Commission, and why is this not included on the face of the Bill?

The Scottish Government is committed to establishing a Just Transition Commission to advise Scottish Ministers on adjusting to a more resource-efficient and sustainable economic model in a fair way which will help to tackle inequality and poverty, and promote a fair and inclusive jobs market.

The form that the Commission will take, and its membership, are currently being considered and will be announced later this year. We have considered carefully whether our resources at this time should be focused on setting up the commission and supporting it to begin its work or diverted into drafting the necessary measures to give it statutory effect, a process which will take up most of the year, before the Commission can begin its work. We consider the former approach to be the more effective one - providing a statutory basis for the Commission would delay the work we want it to undertake.

Our intended, non-statutory, approach to the Commission is in line with how other nations have sought to undertake just transition initiatives, for example the Canadian Just Transition Task Force and the New York State Environmental Justice & Just Transition Working Group, and will provide flexibility for the commissioners and stakeholders to guide the focus and priorities of the Commission's work.

What are the current requirements of, or what information does the Scottish Government currently receive from, the private sector in terms of its climate change mitigation activities?

There are a number of requirements on the private sector to report on their climate change activities.

The Scottish Environment Protection Agency (SEPA) collects a range of data on pollutants on a statutory (annual) basis, most notably site-specific emissions from large emitters of greenhouse gas emissions in Scotland under the EU-Emissions Trading System (EU ETS).

These EU ETS data are reported to the EU and are also used in the production of Scotland's greenhouse gas inventory. The GHG inventory also employs a range of additional data sources in its construction from official Government surveys, through administrative data collected by regulatory bodies, to data collected by trade bodies and industry associations. Some important data sources relating to the private sector in Scotland include: fuel supply and consumption, vehicle kilometres, livestock populations and waste management data.

There are a range of other ways in which information is currently gathered and reported in the UK. Examples include:

- The UK regulations requiring UK quoted companies to include greenhouse gas in their annual Strategic or Directors' reports to Companies House
- The Carbon Reduction Commitment (CRC) requires organisations to report emissions to Scottish Ministers. The UK Government intends to replace this in

2019 by extending reporting within annual Strategic or Directors' reports to unquoted companies of a certain size

- The Energy Savings Opportunity Scheme (ESOS) – a UK wide scheme which transposes part of the Energy Efficiency Directive. This requires the private sector to have an energy audit every 4 years including recommendations for measures to save energy

PART ONE – EMISSIONS REDUCTION TARGETS

Section 1 – Net Zero Emissions Target

A1(3)(b) – what is the “extent to which” the target setting criteria have been considered”? Is it envisaged this would be consistent throughout reports?

A1(3)(c) – Does this mean the reasons why it is not consistent with the advice or the reasons why the Government are choosing to do so despite the advice?

The requirement in new section A1(3)(b) to set out the ‘extent to which’ the net-zero emissions target year takes account of the target-setting criteria is consistent with new section 2A(6) (inserted by section 5) as regards the modification of the 2050 and interim targets. It is also consistent with the approach which applies currently in relation to the setting of annual targets under section 5(4) of the Climate Change (Scotland) Act 2009.

The Scottish Ministers currently meet this requirement (in relation to the setting of annual targets) by setting out the extent to which each proposed target takes account of each of the target-setting criteria. For example, a statement under section 5(4) of the 2009 Act would set out the extent to which the proposed target takes account of, among other things, “scientific knowledge about climate change”.

We would expect a similar approach to be adopted under new section A1(3)(b) in the event that the Scottish Ministers lay draft regulations before Parliament which propose to specify the net-zero emissions year. In addition, subsection (3)(b) of this new section, also requires the Scottish Ministers to set out their reasons for proposing to specify this year.

As regards “the reasons why” in new section A1(3)(c), this refers to the Scottish Ministers’ reasons for proposing a net-zero emissions target year that is different from the year set out in the advice received from the relevant body (the CCC).

A1(5) – What are the circumstances in which you might do this?

The Bill requires the Scottish Ministers to seek advice from the CCC on the earliest achievable net-zero emissions target year. This requirement applies even after a target year has been set through secondary legislation. If the advice is that the earliest achievable date has changed, this power allows the date to be moved accordingly. For example, if an unforeseen change in technology makes an earlier date achievable, then the net-zero emissions target year could be brought forward. The CCC could also advise that a net-zero emissions target year that has been specified is no longer achievable and recommend that a later year is set. Scottish Ministers could only propose setting a later net-zero emissions target year than has already been specified if this was consistent with

the advice from the CCC as to the earliest achievable year. Any proposals by the Scottish Ministers would be subject to affirmative procedure secondary legislation and subject to the agreement of Parliament.

Section 3 – Interim Targets

**Will the interim targets also be expressed in megatonnes of carbon?
The Committee requests a note of the annual targets in percentages and megatonnes of carbon.**

No targets in the Bill will be expressed in megatonnes. The CCC advised in March 2017 that all targets should be set as percentage reductions, so as to be consistent with one another if there are changes to the inventory (as you are aware, under the 2009 Act, some are set as percentages and some in tonnes, and these have diverged). The percentage reduction is considered less sensitive to changes in the greenhouse gas inventory and easier to understand. This change was supported by consultation respondents, as set out in our response under section 9 below.

Emissions will continue to be reported annually in tonnes of carbon dioxide equivalent in the Scottish emissions statistics, as certain of the reporting requirements in new sections 33 and 34 (as inserted by section 16 and 17 of the Bill) are required to be report in terms of tonnes of carbon dioxide equivalent.

A table showing the megatonne equivalents of the percentage reduction targets is provided in Appendix 1.

Section 6 – Duty to seek advice from the relevant body

Will an inventory change ever suggest an exceeded a target? Will it only ever identify further sources of carbon?

- **If so, do the targets take into account the fact they might find more?**
- **If not, would that represent a bonus (forestry example from the CCP draft to final)?**

A vital element of the CCC's proposal is that targets can be modified, in either direction, should re-alignment to substantial changes in measurement methods be needed. Data revisions can affect target achievability in both directions, they can either make them too easy, or so hard as to be unachievable regardless of the policies introduced. Inventory changes do not only involve identifying further sources of carbon.

We are clear that any lowering of target levels should not represent a drop in ambition. The Bill proposals therefore require that Ministers could only propose a lowering of target levels if the CCC has advised that this should occur. The final decision on any change in target levels would be for Parliament, through affirmative procedure secondary legislation.

The targets themselves cannot be set to take into account future inventory changes. The framework proposed in the Bill allows for a balance between responsiveness to science and the need for stability for strategic planning purposes. Targets are therefore fixed against a set inventory for five years. The Bill provides that Ministers must seek advice

from the CCC on target levels at least every 5 years. This will ensure that targets are regularly reviewed and that they are able to be aligned with the most up-to-date inventory at the time the advice is received. Advice from the CCC on target levels will be based on the most recent inventory available to them.

The CCC will consider the entire range of target-setting criteria, including inventory revisions, when providing advice on target levels in the future. The effect of an inventory change on future targets levels will depend on its impact relative to the other target-setting criteria.

Section 9 – Annual Targets – 2021 – 2049

What are the advantages and disadvantages of the approach to rounding up and down?

The advantages of rounding up or down a target are around transparency and consistency. The majority of annual target levels are unlikely to need to be rounded up or down because they are one-tenth the difference between two whole integers (i.e. the target of 66% for 2030 and 78% for 2040), a calculation which will never require more than one decimal place. However, it is possible that a net-zero emissions target year could be set for mid-decade which could lead to annual target levels ending in very long or endlessly recurring numbers of decimal places (e.g. 86.66666666 ... %). As an example, this could happen if annual targets were calculated as the difference between three years, e.g. between 2040 and 2043 (if the net-zero emissions target year had been set as 2043). In the absence of a rounding rule, it would be unclear how these levels are to be treated and they could become confusing.

Is tonnes of carbon not a more consistent measurement (as stated in the 2015 report on emissions?)

In its advice on the Bill, the CCC says: “The Committee’s assessment is that percentage reduction targets provide a more consistent, stable basis from which to drive decarbonisation, as changes to the emissions inventory have a smaller impact.” The Scottish Government agrees with this assessment, and is keen to follow the advice of the expert advisors on this and indeed, other matters. The written public consultation asked whether respondents agreed that annual emission reduction targets should be in the form of percentage reductions from baseline levels. 172 of the 196 non-campaign respondents (88%) who answered this question agreed with the proposal.

Section 10 - Annual Targets 2017, 18 and 19

The Committee requests the figures for these new proposals in megatonnes for comparison with the current regulations.

A table showing the megatonne equivalents of the percentage reduction targets is provided in the Appendix along with the other comparative figures requested.

Section 12 – Publication of the targets

What is the purpose of publication of a list of targets?

The Bill proposes that annual targets are calculated as the difference between interim targets; or the difference between interim targets and the 2050 target or net-zero emissions target year (if set). The annual targets will be recalculated if the interim or 2050 targets are amended. They will also be recalculated when a net-zero emissions target year is set. It was decided not to include a list of the annual targets on the face of the primary legislation as this could cause confusion if these targets are subsequently recalculated, to reflect shifts in science, knowledge and understanding in this field. Publishing a list of the targets will ensure up to date target levels are freely available and easily accessible to all at any time.

PART TWO – EMISSIONS ACCOUNTING

Section 13 – Net Emissions Account – Restrictions on the use of carbon accounting

Are there costs associated with the potential to purchase carbon credits?

The estimated cost of using credits to make up the gap between what is technically feasible domestically here in Scotland and a net-zero emissions target in 2050 could be around £15 billion over the period to 2050. This is derived from the annual difference in emissions between the CCC's 90% pathway and a pathway to 100%, based on linear interpolation, multiplied by the annual cost of permits as calculated by BEIS¹. Discounting reduces this value to £6bn. All values are in 2017 prices.

PART THREE – ANNUAL REPORTING CYCLE

Section 16 – Reports on emissions reduction targets

Has the requirement to explain how domestic effort contributed been omitted?

- **If so, why?**
- **What is the impact of this?**

The requirement to report on the domestic effort target is not in the revised reporting provisions under the Bill as the Bill establishes a default position that targets must be achieved through domestic effort alone (unless at some point in the future the Scottish Parliament passes legislation to allow for carbon units to be purchased and credited to the net Scottish emissions account). New section 34(1)(b)(iv), inserted by section 17 of the Bill, still requires the percentage of any year-on-year reduction due to domestic effort to be reported annually in a report under section 33.

New section 13A(2), inserted by section 14 of the Bill, provides that, should regulations be made to allow carbon credits purchased by the Scottish Ministers to be credited to the net Scottish emissions account for a year, the regulations cannot set a limit that would be

¹ table 3 in Data Tables 1-19: <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

greater than 20% of the planned reduction for that year (i.e. 20% of the difference between the target for year x and the following year, not 20% of the reduction from baseline). This limit effectively replaces the domestic effort target that currently requires the Scottish Ministers to ensure that net Scottish emissions account for at least 80% of reductions in the net Scottish emissions account.

What does “amount” mean – percent or tonnes?

Any reference to “amount” in section 16 refers to tonnes of carbon dioxide equivalent.

Section 18 – Provision of further information

Will there still be reports on all the same elements elsewhere?

What is the justification behind removing the requirement to report on these elements?

This section amends section 42 of the 2009 Act (Reports: provision of further information to the Scottish Parliament) to update references to the report required under section 33 of the 2009 Act which is amended by the Bill.

It also repeals section 42(2) of the 2009 Act which refers to the following reports:

- (a) section 33(1) (report on annual targets)
- (b) section 36(2) (report on proposals and policies to compensate for excess emissions)
- (c) section 40(1) (report on interim targets)
- (d) section 41(1) (report on interim targets)

The section 33 report will continue to be made, however the other three reports are no longer required.

The report required under section 36 of the 2009 Act is no longer required because alternative provision is made in new section 35(2) (inserted by section 19 of the Bill) to ensure that the proposals and policies in climate change plans compensate for any excess emissions.

The reports required under sections 40 and 41 of the 2009 Act are no longer required as the new reporting functions established by section 16 of the Bill require a report for every year for which an emissions reduction target has been set. This means there is no longer a requirement to have a separate provision covering the interim target or the 2050 target.

Section 19 – Climate Change Plans

What percentage of respondents thought that the time available for the CCP should be 60 to 120 days and what percentage considered that it should be open ended?

As this was a free text question, the consultation analysis report does not provide percentage figures. Officials have therefore separately analysed these responses and

have provided some figures below, noting that many responses are descriptive and do not always neatly answer the question.

Of the 165 responses to this question:

- 81 gave a response indicating support for a specific timescale of up to 120 days. The most common figure suggested was 90 days or at least 90 days
- 7 gave a response indicating support for a specific timescale of more than 120 days but which should not be open-ended
- 15 gave a response indicating support for an open-ended timescale
- 62 gave a response that either did not specifically answer the question or were unclear as to the specific timescale they supported

Are the statistics for the figures used in the draft plan available (2017 figures)?

We have committed to producing annual monitoring reports in respect of the Climate Change Plan, with the first report in October 2018. The monitoring framework will report progress against the indicators contained in the final Plan that was published on 28 February 2018.

PART FOUR – CONSEQUENTIAL

Why are the reporting requirements in sections 38 – 41 of the Climate Change (Scotland) Act 2009 (electricity consumption) being removed?

Will reporting on these elements take place elsewhere?

The sections referred to in this question are being repealed as they are no longer required, or they are reported on elsewhere.

Section 38 of the 2009 Act, which requires the Scottish Ministers to report on the impact on emissions of the exercise of electricity generation related functions, is being repealed as the information will be published in the annual Energy Strategy Statement. This also makes it possible to provide the statutory report, currently produced in October, on a statutory basis as soon as reasonably practicable after the greenhouse gas emissions statistics are available. This is because the information on electricity generation may not be available at the time the emissions statistics are reported. This approach was proposed by stakeholders and discussed in the Technical Discussion Group meetings with stakeholders ahead of the Bill being introduced.

Section 39 of the 2009 Act previously required a report to be laid before the Scottish Parliament by the end of December 2015, and is therefore no longer applicable.

The reports required under sections 40 and 41 of the 2009 Act are no longer required as the new reporting functions established by section 16 of the Bill require a report for every year for which an emissions reduction target has been set. This means there is no longer a requirement to have separate provision covering the interim target or the 2050 target.

FINANCIAL MEMORANDUM

The Committee requests detail of analysis the Scottish Government has done to arrive at indirect costs from the Bill of £13 billion?

The Scottish TIMES model is a high-level strategic model, covering the Scottish energy system (which includes Residential and Non-Domestic Buildings, Industrial Processes, Electricity Generation and Transport), as well as non-energy sectors, including Agriculture, Land Use, Land Use Change and Forestry, and Waste. The Scottish TIMES model, at its simplest, is a diagnostic tool to help understand the key inter-relationships across systems. Scottish TIMES belongs to a group of models that were developed by the International Energy Agency to examine long term energy dynamics. There are now more than seventy country versions of TIMES and TIMES modelling has underpinned a large number of studies in both environmental and energy economics, produced by governments, NGOs and in academia.

This approach captures the key characteristics of the Scottish energy system today, and considers the impacts on the future energy and emission flows that result from the deployment of a range of processes and technologies. There are over two thousand technologies and carbon abatement measures that the model can deploy to meet these final demands, and each has a series of associated technical variables, such as operating and investment costs, or technical efficiency, amongst others.

TIMES identifies the least-cost pathway of meeting a set of final energy demands, given a set of technical and policy constraints, including the Scottish Government's climate change targets.

The Scottish TIMES model has been used to derive the indicative cost of increasing the Greenhouse Gas reduction target from 80% to 90%, estimating it to be approximately £13 billion in the period 2030 to 2050. This is the additional net system cost (which consists of the cost of all technologies and energy sources over the period) of setting a 90% climate change target in comparison to an 80% target, discounted to 2017 prices. Critically, TIMES provides us with an estimate of the system cost of meeting a set of final demands. It therefore does not provide an assessment of how these costs will be allocated amongst businesses, individuals and government.

As with any model with a long term horizon up to 2050, the results are subject to uncertainty, in particular as we move further away from the present day. The pace of technological change and advances in engineering and information technology across the economy and the energy sector over the next three decades, will have a huge bearing on the energy system and the ways in which we interact with it.

Please provide the Committee with all costs associated with the policies and proposals in the most recent Climate Change Plan.

The Scottish TIMES approach helps identify the most efficient parts of the system to remove carbon and allocates sector envelopes accordingly. Sectors then develop their proposals and policies to ensure their emissions remain within these limits. Cost information from TIMES therefore relates to the technological resource costs; the cost of

purchasing the equipment and fuels to deliver the pathway. Critically, TIMES provides us with estimates of the system wide resource cost of meeting a set of final demands, and therefore does not provide an assessment of how these costs will be allocated amongst businesses, individuals and government.

We have estimated the system wide resource cost of meeting the Scottish Government climate change targets using Scottish TIMES. To do this, we have subtracted the system cost of a TIMES model run with no targets from the cost of the model run underpinning the Climate Change Plan (covering the period to 2050). This gives us the indicative cost of meeting the 80% climate change target over and above the cost of taking no action. The resulting indicative resource cost is the equivalent of approximately 1% of cumulative GDP out to 2050², and is in line with international estimates, such as those set out in Stern Review.

What are the costings of not acting to increase climate change mitigation targets?

If the targets are not amended, then the costings would be consistent with the current legislation (i.e. a target of 80% reduction by 2050). This is set out in the answer above.

The Financial Memorandum includes information from a review of key global assessments of the costs of climate change action, including the costs of the damages that will occur if climate change is not mitigated.

The review finds that, amongst studies looking at the impact of global warming of between 2.5 to 3 degrees higher than pre-industrial levels, and presenting the results in terms of GDP, the mean (average) estimate of costs is 2.2% of GDP. The median (middle value of the range) is 1.5%, and the 10th and 90th percentiles are 0.0% and 3.5% respectively. There are no estimates specifically for Scotland.

² Provided for the purpose of Bill consideration, this equates to approximately £33 billion between 2018 and 2050 (discounted to 2017 prices).

APPENDIX

TABLE SHOWING MEGATONNE EQUIVALENTS OF PERCENTAGE REDUCTION TARGETS

Year	Comparisons based on % reduction from baseline				Comparisons based on amounts of emissions (tCO ₂ e)		
	2009 Act (emissions adjusted for the EU-ETS)			Bill (actual emissions)	2009 Act (emissions adjusted for the EU-ETS)		Bill (actual emissions)
	Interim / 2050 Targets (as set)	Annual Targets (expressed as % reduction using original inventory)	Annual Targets (expressed as % reduction using current inventory)	All targets (as proposed)	Annual Targets (as set)	Interim / 2050 Targets (expressed as amounts based on current inventory)	All targets (expressed as amounts based on current inventory)
Baseline	0%	0%	0%	0%	70,201,000 (2008 inventory)	77,091,000 (2015 inventory)	77,091,000 (2015 inventory)
2010		23.6%	30.4%	N/A	53,652,000		N/A
2011		23.9%	30.7%	N/A	53,404,000		N/A
2012		24.2%	31.0%	N/A	53,226,000		N/A
2013		31.7%	37.8%	N/A	47,976,000		N/A
2014		33.1%	39.1%	N/A	46,958,000		N/A
2015		34.6%	40.4%	N/A	45,928,000		N/A
2016		36.0%	41.7%	N/A	44,933,000		N/A
2017		37.4%	43.0%	52.4%	43,946,000		36,695,000
2018		38.8%	44.3%	54.0%	42,966,000		35,462,000

Year	Comparisons based on % reduction from baseline				Comparisons based on amounts of emissions (tCO2e)		
	2009 Act (emissions adjusted for the EU-ETS)			Bill (actual emissions)	2009 Act (emissions adjusted for the EU-ETS)		Bill (actual emissions)
	Interim / 2050 Targets (as set)	Annual Targets (expressed as % reduction using original inventory)	Annual Targets (expressed as % reduction using current inventory)	All targets (as proposed)	Annual Targets (as set)	Interim / 2050 Targets (expressed as amounts based on current inventory)	All targets (expressed as amounts based on current inventory)
2019		40.2%	45.6%	55.0%	41,976,000		34,691,000
2020	42%	42.0%	47.2%	56.0%	40,717,000	44,712,780	33,920,000
2021		43.7%	48.8%	57.0%	39,495,000		33,149,000
2022		45.4%	50.3%	58.0%	38,310,000		32,378,000
2023		47.1%	51.8%	59.0%	37,161,000		31,607,000
2024		49.0%	53.6%	60.0%	35,787,000		30,836,000
2025		51.4%	55.7%	61.0%	34,117,000		30,065,000
2026		53.8%	57.9%	62.0%	32,446,000		29,294,000
2027		56.2%	60.1%	63.0%	30,777,000		28,524,000
2028		57.5%	61.3%	64.0%	29,854,000		27,753,000
2029		58.7%	62.4%	65.0%	28,958,000		26,982,000
2030		60.0%	63.6%	66.0%	28,089,000		26,211,000
2031		61.2%	64.7%	67.2%	27,247,000		25,286,000

Year	Comparisons based on % reduction from baseline				Comparisons based on amounts of emissions (tCO2e)		
	2009 Act (emissions adjusted for the EU-ETS)			Bill (actual emissions)	2009 Act (emissions adjusted for the EU-ETS)		Bill (actual emissions)
	Interim / 2050 Targets (as set)	Annual Targets (expressed as % reduction using original inventory)	Annual Targets (expressed as % reduction using current inventory)	All targets (as proposed)	Annual Targets (as set)	Interim / 2050 Targets (expressed as amounts based on current inventory)	All targets (expressed as amounts based on current inventory)
2032		62.4%	65.7%	68.4%	26,429,000		24,361,000
2033		Not yet set	Not yet set	69.6%	Not yet set		23,436,000
2034		Not yet set	Not yet set	70.8%	Not yet set		22,510,000
2035		Not yet set	Not yet set	72.0%	Not yet set		21,585,000
2036		Not yet set	Not yet set	73.2%	Not yet set		20,660,000
2037		Not yet set	Not yet set	74.4%	Not yet set		19,735,000
2038		Not yet set	Not yet set	75.6%	Not yet set		18,810,000
2039		Not yet set	Not yet set	76.8%	Not yet set		17,885,000
2040		Not yet set	Not yet set	78.0%	Not yet set		16,960,000
2041		Not yet set	Not yet set	79.2%	Not yet set		16,035,000
2042		Not yet set	Not yet set	80.4%	Not yet set		15,110,000
2043		Not yet set	Not yet set	81.6%	Not yet set		14,185,000
2044		Not yet set	Not yet set	82.8%	Not yet set		13,260,000

Year	Comparisons based on % reduction from baseline				Comparisons based on amounts of emissions (tCO2e)		
	2009 Act (emissions adjusted for the EU-ETS)			Bill (actual emissions)	2009 Act (emissions adjusted for the EU-ETS)		Bill (actual emissions)
	Interim / 2050 Targets (as set)	Annual Targets (expressed as % reduction using original inventory)	Annual Targets (expressed as % reduction using current inventory)	All targets (as proposed)	Annual Targets (as set)	Interim / 2050 Targets (expressed as amounts based on current inventory)	All targets (expressed as amounts based on current inventory)
2045		Not yet set	Not yet set	84.0%	Not yet set		12,334,000
2046		Not yet set	Not yet set	85.2%	Not yet set		11,409,000
2047		Not yet set	Not yet set	86.4%	Not yet set		10,484,000
2048		Not yet set	Not yet set	87.6%	Not yet set		9,559,000
2049		Not yet set	Not yet set	88.8%	Not yet set		8,634,000
2050	80.0%	Not yet set	Not yet set	90.0%	Not yet set	15,418,200	7,709,000