

# Scottish Greenhouse Gas Statistics 2018.

Annex A: Information required for reporting under sections 33 and 34 of the Climate Change (Scotland) Act 2009. This annex accompanies the publication “Scottish greenhouse gas emissions 2018”, where more details on the data and methodology can be found.

## Introduction

The following sections summarise, using data from the main sections of this statistics bulletin and other sources, the information required under the requirements of sections 33 and 34 of the Climate Change (Scotland) Act 2009. For ease, the information is interspersed with the wording of the requirements themselves.

## Under section 33

Subsection 2 requires the report must state—

(a) the emissions reduction target for the target year

The annual emissions reduction target for 2018 is a 54.0% reduction from the baseline.

(b) whether the emissions reduction target for the target year has been met

The target has not been met.

(c) the percentage by which the net Scottish emissions account for the target year is lower than the baseline,

For the purpose of assessing progress to the 2018 target (on the basis of the 1990-2016 inventory), the net Scottish emissions account was 50.0 per cent lower in 2018 than the baseline.

(d) the amount by which the net Scottish emissions account for the target year is lower or higher than the emissions reduction target for that year

The net Scottish emissions account for 2018 was 3.0 million tonnes of carbon dioxide equivalent (MtCO<sub>2</sub>e) higher than the target for that year.

(e) the cumulative amount by which the net Scottish emissions accounts are lower or higher than the corresponding emissions reduction targets, calculated by adding each amount by which an account is lower or higher than the corresponding target for each year in the period beginning with 2018 and ending with the target year.

The cumulative amount by which the net Scottish emissions accounts over the period from 2018 to the current target year (2018) was 3.0 MtCO<sub>2</sub>e higher than the target for those years.

Subsection 3 requires the report must specify the methods used to determine each figure and amount in subsection 2 in accordance with the most up-to-date advice provided by the relevant body (the UK Committee on Climate Change) on the methods to be used for that purpose:

The figure in 2(c) above has been derived using an identical calculation to that recommended by the Committee on Climate Change (CCC) in their advice on the future measurement and accounting of

emissions against Scotland’s climate change targets<sup>1</sup>. This calculation is shown below, using the 1990-2016 inventory as the reference inventory, and adjusting for cumulative revisions subsequently introduced in the 1990-2017 and 1990-2018 inventories:

Year	Baseline Period <sup>1</sup>	2016	2017	2018
<b>Inventory data</b>				
A. Base Inventory source emissions data (June 2018 data (1990-2016))	75.7	38.6	N/A	N/A
B. June 2019 source emissions data (1990-2017 inventory)	76.3	41.9	40.5	N/A
C. June 2020 source emissions data (1990-2018 inventory)	76.3	42.0	41.0	41.6
<b>Revisions between inventories<sup>2</sup></b>				
between A and B	0.6	3.3	3.3	3.3
between B and C	- 0.0	0.1	0.5	0.5
Combined revision between successive inventories	0.6	3.4	3.8	3.8
<b>GHG Account (latest inventory, less combined revision)</b>	<b>75.7</b>	<b>38.6</b>	<b>37.2</b>	<b>37.8</b>
<b>GHG Account figures, expressed as a percentage reduction from the baseline period.</b>	<b>0.0%</b>	<b>-49.0%</b>	<b>-50.9%</b>	<b>-50.0%</b>

1. The Baseline period uses a 1995 base-year for F-Gas emissions, and 1990 for all other greenhouse gases.

2. Where data do not exist for a particular year, revisions are carried over from the previous complete year (see shaded cells)

## Under section 34

Subsection 1 requires the report must state — (a) in relation to net Scottish emissions of greenhouse gases—

(i) the baseline,

The Baseline period uses a 1995 base-year for F-Gas emissions, and 1990 for all other greenhouse gases. In the 1990-2018 inventory the baseline amount of emissions was 76.3 MtCO<sub>2</sub>e.

(ii) the aggregate amount of net Scottish emissions of greenhouse gases for the year covered by the report,

On the basis of the 1990-2018 inventory, net Scottish emissions in 2018 were 41.6 million tonnes of CO<sub>2</sub> equivalent.

<sup>1</sup> <https://www.theccc.org.uk/publication/letter-lord-deben-roseanna-cunningham-msp-advising-scottish-climate-target-framework/>

(iii) the percentage by which the aggregate amount of net Scottish emissions of greenhouse gases for the year covered by the report is lower than the baseline,

On the basis of the 1990-2018 inventory, net Scottish emissions in 2018 were 45.5 per cent lower than the baseline<sup>2</sup>.

(iv) the percentage by which the aggregate amount of net Scottish emissions of greenhouse gases for the year covered by the report is lower or higher than the equivalent amount for the immediately preceding year, and

On the basis of the 1990-2018 inventory, net Scottish emissions in 2018 were 1.5 per cent higher than in 2017.

(v) the methods used to determine the aggregate amount of net Scottish emissions of greenhouse gases, together with details of any changes to those methods,

The aggregate amount of net Scottish emissions set out above has been determined from regional disaggregation of the UK Greenhouse Gas Inventory. Full details of the methodology used in the UK Inventory, together with further breakdowns, are provided in the National Inventory Report<sup>3</sup> submitted annually by the UK Government to the United Nations Framework Convention on Climate Change (UNFCCC).

(b) in relation to the net Scottish emissions account—

(i) its amount for the year covered by the report,

In 2018, the net Scottish emissions account was 41.6 million tonnes of CO<sub>2</sub> equivalent.

(ii) the percentage by which the account for the year covered by the report is lower than the baseline,

On the basis of the 1990-2018 inventory, the net Scottish emissions account in 2018 was 45.5 per cent lower than the baseline<sup>2</sup>.

(iii) the percentage by which the account for the year covered by the report is lower or higher than the equivalent account for the immediately preceding year, and

On the basis of the 1990-2018 inventory, the net Scottish emissions account in 2018 was 1.5 per cent higher than in 2017.

(iv) the percentage of any reduction in the account for the year covered by the report, relative to the equivalent account for the immediately preceding year, which is accounted for by reductions in net Scottish emissions of greenhouse gases,

There was no reduction in the net Scottish emissions account in 2018, relative to the immediately preceding year.

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<sup>2</sup> This figure is slightly different from the 1990 to 2018 reduction of 45.4%. This difference arises as the figure is reported against baseline year, not 1990. While almost all gases are reported with a baseline year of 1990, F-gases are reported with baseline year 1995, therefore figures reported against the baseline year will vary very slightly from those reported against 1990.

<sup>3</sup> [http://uk-air.defra.gov.uk/reports/cat09/2004231028\\_ukghgi-90-18\\_Main\\_v02-00.pdf](http://uk-air.defra.gov.uk/reports/cat09/2004231028_ukghgi-90-18_Main_v02-00.pdf)

(c) the total amount of carbon units that were—

(i) credited to or debited from the net Scottish emissions account for the year covered by the report,

No carbon units were credited or debited to the net Scottish emissions account for 2018.

(ii) purchased by the Scottish Ministers in the year covered by the report, and

No carbon units were purchased by Scottish Ministers in 2018.

(iii) held by the Scottish Ministers immediately after the end of the year covered by the report and which remained available to offset greenhouse gas emissions for other target years,

No carbon units were held by Scottish Ministers immediately after the end of 2018.

(d) for each target year preceding the year covered by the report—

(i) the aggregate amount of net Scottish emissions of greenhouse gases, and

Year	2010	2011	2012	2013	2014	2015	2016	2017
Net GHG emissions (MtCO <sub>2</sub> e)	58.9	52.1	52.5	50.8	47.3	46.2	42.0	41.0

(ii) the amount of the net Scottish emissions account \*

Year	2010	2011	2012	2013	2014	2015	2016	2017
Net Scottish Emissions Account (MtCO <sub>2</sub> e)	57.8	55.0	55.3	47.4	42.4	43.6	44.9	46.8

\* The figures set out here for the net Scottish emissions account during 2010 to 2017 are consistent with those published in previous statutory annual target reports and are on the basis of Scottish emissions adjusted for the operation of the EU ETS. The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 has subsequently altered the emissions accounting basis for assessing progress to targets from 2018 onwards, to remove that adjustment. As such, these figures are not directly comparable to those in other elements of this section of the report.

(e) the fair and safe Scottish emissions budget, and the aggregate amount of net Scottish emissions of greenhouse gases for the period from 2010 to the end of the year covered by the report.

The fair and safe Scottish emissions budget for emissions over the period 2010 to 2050<sup>4</sup> is 1,135 MtCO<sub>2</sub>e.

The total amount of net Scottish emissions of greenhouse gases over the period from 2010 to 2018 is 432.4 MtCO<sub>2</sub>e.

Subsection 3 requires that, if the methods used to determine net Scottish emissions of greenhouse gases change and that change is such as to require adjustment of an amount for an earlier target year, the report must —

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<sup>4</sup> The level of fair and safe Scottish emissions budget is determined directly from the advice of the UK Committee on Climate Change. The Committee's most recent advice on this matter was provided in December 2019: <https://www.theccc.org.uk/publication/reducing-emissions-in-scotland-2019-progress-report-to-parliament/>

(3)

(a) specify the adjustment required and state the adjusted amount, and (b) explain why the adjustment is required.

The 1990-2018 inventory involved no significant revisions to the measurement and estimation methods, relative to previous years. Some minor revisions arose from routine revisions to source data used in the compilation of the inventory. These are the source of the adjustments set out below.

Year	2010	2011	2012	2013	2014	2015	2016	2017
1990-2017 inventory	58.8	52.2	52.8	50.9	47.2	46.2	41.9	40.5
1990-2018 inventory	58.9	52.1	52.5	50.8	47.3	46.2	42.0	41.0
Revision	0.0	-0.1	-0.3	-0.2	0.1	0.0	0.1	0.5