

# ANNUAL STATEMENT OF EMISSIONS FOR 2018

Reporting UK 2018 emissions to Parliament under the Climate Change Act 2008

# Annual Statement of Emissions for 2018

Presented to Parliament pursuant to section 16 of the Climate Change Act 2008

April 2020

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## Introduction

- 1. The Climate Change Act 2008<sup>1</sup> requires that the Government reports greenhouse gas (GHG) emissions to Parliament annually. This is the eleventh Annual Statement of Emissions required under section 16 of the Climate Change Act 2008. It confirms emissions for 2018 the first year of the third carbon budget.
- 2. The third carbon budget covers the period 2018-2022, with an emissions cap of 2,544 million tonnes of carbon dioxide equivalent (MtCO<sub>2</sub>e)<sup>2</sup>; the fourth budget 2023-2027 (1,950 MtCO<sub>2</sub>e); and the fifth budget 2028-2032 (1,725 MtCO<sub>2</sub>e).
- 3. GHG emissions reported in Annual Statements of Emissions are based on the latest final UK GHG emissions National Statistics<sup>3</sup>. Since they take two years to be compiled, this annual statement covers emissions for the year 2018. The National Statistics used to compile this statement show that net UK emissions for the first year of the third carbon budget period were 451,463,569 tCO<sub>2</sub>e, a 43% reduction on net GHG emissions from the base year<sup>4</sup>.
- 4. After taking account of units debited from the UK net carbon account as a result of the EU Emissions Trading System (ETS), the 2018 net UK carbon account was 476,159,284 tCO<sub>2</sub>e.
- 5. The net UK carbon account for 2018 will be revised and published in subsequent annual statements of emissions.

http://www.legislation.gov.uk/ukpga/2008/27/contents.

<sup>&</sup>lt;sup>1</sup> Under section 16 of the Climate Change Act 2008 Government must lay an Annual Statement of Emissions:

<sup>&</sup>lt;sup>2</sup> This is the level of the third carbon budget, as legislated in 2009: <a href="https://www.legislation.gov.uk/uksi/2009/1259/contents/made">https://www.legislation.gov.uk/uksi/2009/1259/contents/made</a>. The level of the budget was raised to 2,631,930,284tCO<sub>2</sub>e, through the decision to carry forward 87,930,284tCO<sub>2</sub>e of over-achievement from the second carbon budget period, as set out at: <a href="https://www.theccc.org.uk/publication/letter-carry-forward-of-surplus-emissions-lord-deben-to-chris-skidmore-mp/">https://www.theccc.org.uk/publication/letter-carry-forward-of-surplus-emissions-lord-deben-to-chris-skidmore-mp/</a>.

<sup>&</sup>lt;sup>3</sup> The final 2018 estimates of UK greenhouse gas emissions were published on 4 February 2020: https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-to-2018

<sup>&</sup>lt;sup>4</sup> The base year varies by greenhouse gas (1990 for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O; 1995 for Fluorinated gases): http://www.legislation.gov.uk/ukpga/2008/27/part/1/crossheading/targeted-greenhouse-gases

### Structure of the report

- 6. **Part one** of this statement shows the total amount of UK GHGs emitted to and removed from the atmosphere in the base year, 2017 and 2018; the methods used to calculate those figures; and whether there was an increase or a decrease in emissions and removals between 2017 and 2018.
- 7. **Part two** of this statement sets out the steps taken to calculate the "net UK carbon account" for 2018, the UK's total GHG emissions after we have taken into account the effect of carbon trading.

### **Explaining the net UK carbon account**

- 8. Section 27 of the Climate Change Act defines the "net UK carbon account". This is what we compare against carbon budgets to determine whether we are meeting them. The net UK carbon account must not exceed the level of the carbon budget at the end of each budgetary period. The process for determining the net UK carbon account in each year is summarised in Figure 1.
- 9. The starting point is UK emissions for the year, using data from the annual statistical release of UK GHG emissions, published as National Statistics each February<sup>5</sup>. These comprise emissions from all sources in the UK, excluding those from land use, land use change and forestry (LULUCF). These are then adjusted to take account of emissions and removals by sources and sinks associated with LULUCF activity. The new total is referred to as net UK emissions.
- 10. Net UK emissions are then further adjusted to account for:
  - a. carbon units which have been brought in from overseas by Government and others (e.g. installations covered by the EU ETS) to offset UK emissions ("credits"), thereby reducing the net UK carbon account; and
  - b. UK carbon units which have been sold to a third party outside the UK or otherwise disposed of ("debits"), which increase the net UK carbon account as the recipient can use these units to offset their own emissions and it would lead to double counting if they were also used to offset UK emissions.

<sup>&</sup>lt;sup>5</sup> The final 2018 estimates of UK greenhouse gas emissions were published on 4 February 2020: <a href="https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-to-2018">https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-to-2018</a>

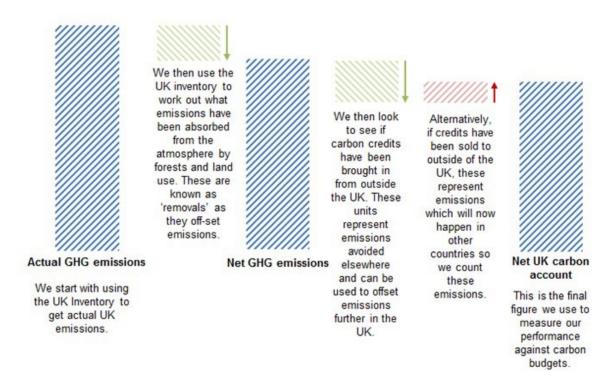


Figure 1: The UK net UK carbon account

### **Effort Sharing Decision**

- 11. The EU Effort Sharing Decision (ESD) establishes binding annual GHG emission targets for Member States for the period 2013–2020 and creates a new carbon unit to measure Member State compliance. The ESD covers emissions from most sectors not included in the EU ETS, such as transport (excluding domestic aviation), buildings, agriculture and waste, but excludes emissions from LULUCF. The UK remains committed to its 2013-2020 ESD target, and this framework was fully applicable during the 2018 emission period.
- 12. The first formal confirmation of the UK's compliance with the ESD began in 2017. To date the European Commission has confirmed that UK ESD emissions for years 2013-17 were 112.4 MtCO<sub>2</sub>e below the target for this period. Provisional 2018 ESD emissions<sup>6</sup> suggest the UK will continue to increase this surplus with emissions of 25.5 MtCO<sub>2</sub>e below its target for that year. The UK does not intend to trade its 'Annual Emissions Allocation' units associated with this surplus with other countries. As such, ESD trading will not be included in the net UK carbon account calculation.

<sup>&</sup>lt;sup>6</sup> All ESD emissions reported to the European Commission are reviewed before final performance is confirmed. We therefore expect final 2018 performance to be known towards the end of 2020.

# Part 1 – UK greenhouse gas emissions

13. The information contained in this part of the statement is derived from the UK GHG emissions statistics for 2018<sup>7</sup>, which were published on 4 February 2020. Emissions coverage under the Climate Change Act 2008 comprises UK territory only (i.e. England, Wales, Scotland and Northern Ireland)<sup>8</sup>. Unless otherwise stated, all figures in this section are stated in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)<sup>9</sup>.

### 1.1 Base year, 2017 and 2018 GHG emissions by gas

Section 16(2a), 16(2c), 16(3) and 16(8) of the Climate Change Act

- 14. Table 1 below sets out the base year<sup>10</sup> emissions the emissions in the year against which progress is measured for each GHG covered by the Climate Change Act. The table also sets out the total UK emissions for 2018, and whether any of those amounts represent an increase or decrease compared to the equivalent amount for the previous year. Emissions are grouped into:
  - a) emissions (excluding LULUCF)
  - b) net LULUCF emissions/removals
  - c) net emissions/removals

<sup>&</sup>lt;sup>7</sup> The final 2018 estimates of UK greenhouse gas emissions were published on 4 February 2020: <a href="https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-to-2018">https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-to-2018</a>

<sup>&</sup>lt;sup>8</sup> Section 89 of the Climate Change Act specifies that this includes UK coastal waters and the UK sector of the continental shelf. <a href="http://www.legislation.gov.uk/ukpga/2008/27/section/89">http://www.legislation.gov.uk/ukpga/2008/27/section/89</a>

<sup>&</sup>lt;sup>9</sup> This is the usual way of reporting greenhouse gases to account for the different global warming potentials of each gas. The global warming potential (GWP) of a gas is a measure of its impact on global warming relative to carbon dioxide. The GWPs used for each gas in the UK inventory are based on those published in the Intergovernmental Panel on Climate Change's (IPCC's) 4<sup>th</sup> Assessment report: http://www.ipcc.ch/report/ar4/.

<sup>&</sup>lt;sup>10</sup> The base year varies by greenhouse gas (1990 for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O; 1995 for Fluorinated gases): http://www.legislation.gov.uk/ukpga/2008/27/part/1/crossheading/targeted-greenhouse-gases

Table	1: Net UK GHG	emissions by	gas, base year,	2017, 2018 (tCO₂e	)			
Year	Emissions	Carbon dioxide (CO <sub>2</sub> )	Methane (CH <sub>4</sub> )	Nitrous oxide (N₂O)	Hydrofluoro- carbons (HFC)	Perfluoro- carbons (PFC)	Sulphur- hexafluoride (SF <sub>6</sub> )	Total
Base year	Net emissions (including net LULUCF emissions)	595,713,001	132,533,762	48,243,354	19,088,085	596,760	1,307,090	797,482,051
2017	Emissions (excluding net LULUCF emissions)	385,336,384	51,535,787	19,136,659	14,070,284	493,196	509,584	471,081,894
	Net LULUCF emissions	- 11,534,535	32,526	1,409,559	-	-	-	- 10,092,451
	Net emissions (including net LULUCF emissions)	373,801,849	51,568,313	20,546,218	14,070,284	493,196	509,584	460,989,443
2018	Emissions (excluding net LULUCF emissions)	377,357,915	51,512,766	19,040,442	13,022,103	256,839	545,887	461,735,951
	Net LULUCF emissions	- 11,699,936	34,389	1,393,165	-	-	-	- 10,272,382
	Net emissions (including net LULUCF emissions)	365,657,979	51,547,155	20,433,607	13,022,103	256,839	545,887	451,463,569
2017 to 2018 chan ge	Emissions (excluding net LULUCF emissions)	- 7,978,470	- 23,022	- 96,217	- 1,048,181	- 236,357	36,303	- 9,345,943
J	Net LULUCF emissions	- 165,401	1,863	-16,394	-	-	-	- 179,931
	Net emissions (including net LULUCF emissions)	- 8,143,870	- 21,158	-112,611	-1,048,181	- 236,357	36,303	- 9,525,875

Note - A negative value in 2017 and 2018 means the net effect is the removal of GHGs from the atmosphere, whereas a positive figure means the net effect is emissions to the atmosphere.

### 1.2 Method used to calculate GHG emissions and removals

Section 16(2b) of the Climate Change Act

- 15. The UK GHG inventory is compiled in line with international guidance from the Intergovernmental Panel on Climate Change<sup>11</sup> (IPCC). Each year the inventory is updated to include the latest data available. Methodological changes are made to take account of new data sources, or new guidance from the IPCC, relevant work by CORINAIR<sup>12</sup>, and new research, sponsored by BEIS or otherwise. Improvements to the methodology are backdated as required under the Climate Change Act. The United Kingdom's National Inventory Report<sup>13</sup> (NIR), which is submitted each year to the United Nations Framework Convention on Climate Change (UNFCCC), provides details of the methods used to estimate emissions.
- 16. Emission inventories will always have some uncertainty. It is not possible to measure directly all the emissions from a country, so inventories are largely based on statistical activity data as well as on emission factors 14, both of which are subject to uncertainty. The UK Greenhouse Gas Inventory assesses uncertainties according to internationally agreed good practice guidance 15, and this uncertainty information helps prioritise efforts to improve the accuracy of inventories in the future and guide decisions on methodological choice. The uncertainty analysis provides us with a high confidence that UK emissions of GHGs have declined since 1990. The uncertainty associated with estimates of emissions is small at approximately 3% based on 2017 emissions data published in 2019.
- 17. To ensure transparency and credibility in carbon budgets reporting, it is important that any methodological changes to GHG reporting made in accordance with international practice are clearly stated. Section 16(4) of the Climate Change Act requires that, where a change in methodology at the international level is such as to require an adjustment in the emissions figures for an earlier year in the same budgetary period, the Annual Statement of Emissions must specify the adjustment required and state the adjusted amount.

http://www.eea.europa.eu/themes/air/emep-eea-air-pollutant-emission-inventory-guidebook.

https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2019

Alternatively, further details on how the UK's greenhouse gas inventory is compiled can be accessed from: https://www.gov.uk/government/collections/uk-greenhouse-gas-emissions-statistics.

<sup>&</sup>lt;sup>11</sup> Further details on IPCC guidance is available from: https://www.ipcc-nggip.iges.or.jp

<sup>&</sup>lt;sup>12</sup> The air pollutant emission inventory guidebook, which provides guidance on estimating emissions from both anthropogenic and natural emission sources, are available from:

<sup>&</sup>lt;sup>13</sup> The NIR is accessible from the UNFCCC website:

<sup>&</sup>lt;sup>14</sup> The emissions factor is the emissions per unit of activity. Emission factors are typically derived from measurements on a number of representative sources and the resulting factor applied to all similar sources in the UK.

<sup>&</sup>lt;sup>15</sup> Intergovernmental Panel on Climate Change guidelines, as adopted by the UNFCCC.

### 1.3 Change of method

Section 16(4) of the Climate Change Act

As 2018 is the first year of the third carbon budget period, there are no changes in method affecting emissions reported in previous annual statements of emissions for the same budgetary period.

### 1.4 International aviation and shipping

Section 16(5) of the Climate Change Act

- 18. Emissions from international aviation and shipping can be estimated from refuelling from bunkers at UK airports and ports, whether by UK or non-UK operators. Under international reporting guidelines agreed by the UNFCCC, these emissions are not included in the UK's emissions total, but are reported as memo items in the UK GHG inventory. Table 2 below shows GHG emissions from these sources in the base year, 2017 and 2018.
- 19. Table 2 shows GHG emissions from international aviation and shipping totalled 44,575,938 tCO<sub>2</sub>e in 2018.

Table 2: International aviation and shipping GHG emissions by gas (tCO₂e)					
Emissions	GHG	Base year	2017	2018	2017 to 2018 change
International aviation	Carbon dioxide (CO <sub>2</sub> )	15,365,594	35,912,780	36,325,724	412,944
	Methane (CH <sub>4</sub> )	8,997	2,697	2,620	- 77
	Nitrous oxide (N <sub>2</sub> O)	145,361	339,779	343,688	3,909
	Total	15,519,951	36,255,255	36,672,032	416,777
International shipping	Carbon dioxide (CO <sub>2</sub> )	8,029,513	7,807,247	7,794,860	- 12,388
	Methane (CH <sub>4</sub> )	2,944	2,495	2,512	18
	Nitrous oxide (N <sub>2</sub> O)	112,927	106,679	106,534	- 145
	Total	8,145,385	7,916,421	7,903,906	- 12,515
International aviation and shipping	Carbon dioxide (CO <sub>2</sub> )	23,395,107	43,720,027	44,120,583	400,556
	Methane (CH <sub>4</sub> )	11,941	5,192	5,133	- 59
	Nitrous oxide (N <sub>2</sub> O)	258,288	446,458	450,222	3,764
	Total	23,665,335	44,171,676	44,575,938	404,262

## Part 2 - the net UK carbon account

20. This part sets out the amount of carbon units which are to be credited to and debited from the net UK carbon account in 2018. Government must follow the rules set out in the regulations when working out the net UK carbon account and so the calculations in this part of the statement are based on the methodologies established by the Carbon Accounting Regulations 2009<sup>16</sup> and the Carbon Accounting (Provision for 2018) Regulations 2020<sup>17</sup>. Unless otherwise stated, all figures in this section are stated in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e).

# 2.1 Total amount of units credited to and debited from the net UK carbon account

Section 16(6) of the Climate Change Act

- 21. The net UK carbon account for a given year is calculated by taking net UK emissions for that year, with an adjustment made to reflect the number of units to be credited to, and debited from, the UK net carbon account for that year. Carbon units that are counted as credits reduce the level of the net UK carbon account, while carbon units that are counted as debits increase the level of the UK net carbon account.
- 22. The amounts of units to be counted as credits and debits in respect of 2018 should be calculated based on three elements:
  - units in the credit account which have been declared as credits to the net UK carbon account in respect of 2018
  - effect of the EU ETS (including domestic aviation)
  - determining whether the Government disposed of any carbon units during 2018.

### 2.1.1 Units in the credit account

23. The Government set up a "credit account" in the UK Registry in 2009 which is the dedicated route through which carbon units can be credited voluntarily to the net UK carbon account. In 2018, zero units are to be credited to the net UK carbon account under this mechanism.

<sup>&</sup>lt;sup>16</sup> http://www.legislation.gov.uk/uksi/2009/1257/contents/made

<sup>&</sup>lt;sup>17</sup> http://www.legislation.gov.uk/uksi/2020/115/contents/made

### 2.1.2 Accounting for the EU Emissions Trading System (EU ETS)

- 24. The net UK carbon account reflects the operation of the EU ETS. We call the portion of emissions covered by the EU ETS the 'traded sector'.
- 25. The UK participated in the EU ETS for the 2018 and 2019 scheme years. Following the UK's exit from the European Union, the UK will continue to participate in the EU ETS during the transition period for the 2020 scheme year. Future carbon pricing policy from 1st January 2021 will be confirmed in due course.
- 26. The EU ETS is a cap and trade system that sets a limit on the total amount of GHGs that can be emitted by installations in the system<sup>18</sup>. This cap is reduced over time so that emissions decrease across the EU. If EU ETS participants in the UK collectively exceed the UK cap, the amount of emissions in excess of the cap must be considered as a 'credit', as operators must have bought units from other EU ETS participants to cover these emissions or used previously retained units. If on the other hand EU ETS participants in the UK collectively reduce their emissions below the UK cap, then the difference between reported emissions from the EU ETS sector and the cap must be considered a 'debit', as operators must have sold or retained excess units which are not required to cover emissions in the UK.
- 27. The EU ETS is currently in its third phase, which runs from 2013 to 2020. In this phase Member States do not receive a fixed cap at the national level as was the case during the first carbon budget<sup>19</sup>; the ETS instead operates at installation level<sup>20</sup>.

### 2.1.3 UK share of the EU ETS cap (stationary installations)

28. The methodology for calculating the UK share of the EU-wide ETS cap is set out in table 3. The cap is created by adding together the volume of EU allowances freely allocated to UK stationary operators<sup>21</sup>, the volume of allowances in the EU-wide

https://www.gov.uk/participating-in-the-eu-ets.

<sup>&</sup>lt;sup>18</sup> http://ec.europa.eu/clima/policies/ets/index en.htm.

<sup>19</sup> Details of this calculation can be found in the end of budgetary statement found here:

https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/310648/final\_statement\_first\_c arbon\_budget\_period.pdf.

 $<sup>^{\</sup>rm 20}$  Detailed guidance on Phase 3 of the ETS can be found here:

<sup>&</sup>lt;sup>21</sup> European Union Registry, verified emissions report 2018 (April 2019): https://ec.europa.eu/clima/policies/ets/registry\_en#tab-0-1

auction pot to be auctioned by the UK to stationary operators<sup>22</sup>, and the volume of EU allowances allocated to the UK from the New Entrants Reserve (NER)<sup>23</sup>.

Table 3: Calculating the UK share of the EU ETS cap	2012
(stationary installations) (tCO₂e)	2018
Allowances freely allocated	49,449,564
Allowances auctioned	101,053,000
Allowances allocated under the New Entrants Reserve	1,808,943
UK share of the EU ETS cap	152,311,507

29. As shown in table 3, the UK share of the EU ETS cap for 2018 was 152,311,507 tCO<sub>2</sub>e. Table 4 sets out the number of units surrendered in 2018 by UK operators, thus showing the effect of the EU ETS on the net UK carbon account in 2018.

Table 4: Net effect of the EU ETS (stationary				
installations) (tCO₂e)	2018			
Allowances surrendered	128,001,146			
UK share of the EU ETS cap	152,311,507			
Difference	24,310,361			

30. As the number of units surrendered by UK operators at stationary installations was less than the UK share of the EU ETS cap, a corresponding number of units must be counted as debits to the net UK carbon account. This means 24,310,361 units are to be debited from the net UK carbon account in 2018 as a result of the EU ETS (stationary installations).

### 2.1.4 Domestic aviation accounting

- 31. Under the Climate Change Act, the net UK carbon account must include emissions from domestic aviation (flights between UK airports). Since 2012, carbon dioxide emissions from domestic aviation have been part of the EU ETS and so included in the "traded sector" part of the budgets.
- 32. In order to determine whether units should be credited to or debited from the net UK carbon account each year, domestic aviation emissions are compared with the domestic aviation emissions cap.

https://www.theice.com/marketdata/reports/148

<sup>&</sup>lt;sup>22</sup> Intercontinental Exchange:

<sup>&</sup>lt;sup>23</sup> European Union Registry, verified emissions report 2018 (April 2019): https://ec.europa.eu/clima/policies/ets/registry\_en#tab-0-1

### 2.1.4.1 Methodology to estimate the domestic aviation cap

- 33. Using the latest available civil aviation data from the EU GHG inventory published on the European Environment Agency website<sup>24</sup>, the steps listed below set out how we estimate a cap against which we report carbon dioxide emissions from UK domestic aviation. The calculation is shown in table 5.
- 34. This approach uses **a baseline** of total European Economic Area (EEA) domestic flights (i.e. total flights within individual EU countries plus Norway, Liechtenstein and Iceland), and an estimate of what **share of this total** can be attributed to the UK. The cap during each year of the third phase of the EU ETS (2013-20) is equivalent to 95% of the baseline, reflecting the ambition to reduce emissions from aviation.
- 35. There are three steps to the calculation:

### 1. Calculate a baseline of total EU domestic aviation

The baseline is the average of 2004–06 EEA domestic aviation carbon dioxide emissions<sup>25</sup> (flights within individual EEA countries). 2004–06 is used as this is a common baseline used for EU environmental targets.

### 2. Calculate UK share and apply to the baseline

The UK's share of EEA domestic aviation carbon dioxide emissions is taken from 2010. The UK's domestic aviation emissions are compared to total EEA domestic aviation emissions in this year (data for both are taken from the EU inventories as reported by EEA). 2010 is used because this was the benchmarking year for the allocation of free allowances to aircraft operators. This UK share of EEA domestic aviation is then applied to the 2004–06 EEA average.

### 3. Set a declining trajectory in line with ambitions to reduce emissions

For 2013-20, the cap will be 95% of this annual average.

<sup>&</sup>lt;sup>24</sup> EEA website: <a href="https://www.eea.europa.eu/data-and-maps/data/national-emissions-reported-to-the-unfccc-and-to-the-eu-greenhouse-gas-monitoring-mechanism-15">https://www.eea.europa.eu/data-and-maps/data/national-emissions-reported-to-the-unfccc-and-to-the-eu-greenhouse-gas-monitoring-mechanism-15</a>.

<sup>&</sup>lt;sup>25</sup> The total EEA figure will differ slightly from that published on the EEA website due to the removal of emissions attributable to UK flights to and from Gibraltar, which are included in the UK submission for the EU inventory, but which are not applicable to UK domestic aviation emissions under the Climate Change Act. This ensures that the UK figures used within the cap are calculated on an equivalent basis to that used for the 2018 UK domestic aviation emissions used to assess performance.

### 2.1.4.2 Methodology to assess performance against the cap

- 36. The UK's carbon dioxide emissions from domestic aviation in 2018 are taken from the UK inventory.
- 37. To assess the UK's emissions against this cap, the following methodology is used:
  - Compare the national inventory figure for annual UK domestic aviation carbon dioxide emissions with the domestic aviation cap, then
  - If emissions exceed the cap then the difference is counted as a credit to the net UK carbon account.
  - If emissions are below the cap then the difference is counted as a debit to the net UK carbon account.

### 2.1.4.3 Calculations

Table 5: Estimating the UK domestic aviation cap			
(tCO₂e)	2018		
Average 2004-06 EEA domestic aviation emissions	20,213,699		
From 2013 onwards, the cap will be 95% of this average	19,203,014		
UK share of 2010 EEA domestic aviation emissions	9.7%		
Domestic aviation cap	1,868,766		

38. As shown in table 5, the cap for domestic aviation in 2018 is estimated as 1,868,766 tCO<sub>2</sub>e. Table 6 sets out domestic aviation emissions, thus showing the effect of domestic aviation accounting on the net UK carbon account in 2018.

Table 6: Net effect of EU ETS domestic aviation accounting (tCO₂e)	2018
Domestic aviation emissions	1,483,412
Domestic aviation cap	1,868,766
Difference	385,355

39. As carbon dioxide emissions from domestic aviation were less than the domestic aviation cap for 2018, a corresponding amount of emissions will be counted as debits. This means that 385,355 tCO<sub>2</sub>e will be debited from the net UK carbon account in 2018, as shown in table 6.

## 2.2 Net UK carbon account for the year

Section 16(7) of the Climate Change Act

40. The net UK carbon account is calculated by taking net UK emissions and adjusting them to account for units debited from and credited to the net UK carbon account. Table 7 shows how after taking account of units debited from the UK net carbon account (as a result of the EU ETS), the net UK carbon account in 2018 is 476,159,284 tCO<sub>2</sub>e.

Table 7: Calculating the Net UK carbon account (tCO₂e)	2018
Net emissions (including net LULUCF emissions)	451,463,569
Units to be debited from EU ETS stationary installations	24,310,361
Units to be debited from EU ETS domestic aviation accounting	385,355
Net UK carbon account	476,159,284

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