

# National Report by the United Kingdom 2018

Enhanced Black Carbon and Methane Emissions  
Reductions – Arctic Council Framework for Action



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Chair of the Arctic Council Expert Group  
on Black Carbon and Methane

10 June 2018

*Dear Professor Hildén*

**UK SUBMISSION OF NATIONAL REPORT ON  
BLACK CARBON AND METHANE EMISSIONS TO THE EGBCM**

1. Since the UK was accredited with Observers status at the first meeting of the Arctic Environmental Protection Strategy in 1991, we have retained a close interest and engagement in the Arctic. In 1996, our engagement was recognised through UK listing as an Observer state in the initial Rules of Procedure of the Arctic Council, and our continued active and committed position was further recognised in the renewal of our Observer status in the Fairbanks Ministerial Declaration in 2017.
2. The UK is committed to addressing our impact on the global climate in several ways, at both an international and domestic level. We played a major role when the world came together in Paris in 2015 to reach an ambitious deal to reduce global CO<sub>2</sub> emissions. Having ratified the landmark Paris climate agreement on 18 November 2016, we are fully committed to it.
3. The 2008 UK Climate Change Act is the basis of our approach to tackling and addressing global climate change. It enshrines emission reduction into UK law through a process of setting five year caps on greenhouse gas emissions termed 'Carbon Budgets'. The Committee on Climate Change (CCC) provides independent advice to the UK and Devolved Administrations of Northern Ireland, Scotland and Wales on preparing and adapting for climate change. The UK Government response<sup>1</sup> in 2017 to the CCC's most recent report set out legislation and policies it would implement in order to meet carbon budgets.
4. The UK has already made significant progress towards our legally binding 2050 target to reduce emissions by at least 80 per cent against 1990 levels. UK emissions in 2016 were 42 per cent lower than in 1990 and six per cent below

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<sup>1</sup> Government Response to the Committee on Climate Change

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/651148/20171005\\_-\\_Progress\\_report\\_response.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/651148/20171005_-_Progress_report_response.pdf)

those in 2015<sup>2</sup>. The UK's Clean Growth Strategy<sup>3</sup> explains our plans to cut greenhouse gas emissions while increasing our national income. In addition, on 22 May, the UK government launched a consultation for its new Clean Air Strategy<sup>4</sup>. The strategy sets out our ambition to exceed EU targets in reducing human exposure to particulate matter pollution.

5. The National Physical Laboratory (NPL) manage and operate the UK Black Carbon Network for the Department for the Environment, Food and Rural Affairs (DEFRA) and the Devolved Administrations. Real time information on black carbon emission levels is available via the UK Black Carbon Network from various sites across the UK<sup>5</sup>. The 2015 Black Carbon Network Annual Report<sup>6</sup> was published in June 2016, this is the most recent available.
6. The UK National Atmospheric Emissions Inventory (NAEI) estimates annual UK pollutant emissions<sup>7</sup> from 1970 to 2016 (the most current period) for the majority of pollutants. The 13<sup>th</sup> Informative Inventory Report<sup>8</sup> from the NAEI Programme accompanies the UK's 2018 data submission under the revised EU Directive 2016/2284/EU on National Emissions Ceilings and CLRTAP. Black Carbon is reported on a voluntary basis. The detailed reported data is available at <http://cdr.eionet.europa.eu/gb/un/clrtap/inventories/envwnwqhw>.
7. The UK submitted its UK Greenhouse Gas Inventory under the Framework Convention on Climate Change to UNFCCC in April 2018<sup>9</sup>. It contains national greenhouse gas emission estimates for the period 1990-2016, and descriptions of the methods used to produce the estimates. The report is prepared in accordance with decision 24/CP.191 and includes elements required for reporting under the Kyoto Protocol, as outlined in the Annotated outline of the National Inventory Report including reporting elements under the Kyoto Protocol. Annex A is an extract of the report to illustrate the trend in emissions of methane, broken down by source.
8. I trust that this information provides the EGBCM with information that demonstrates the UK's commitment to alleviate the impact of black carbon and methane on the atmosphere and as a consequence from its damaging impact on the Arctic. If you require clarification on any points contained within the report please do not hesitate to contact me.

*Yours ever,*

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<sup>2</sup> BEIS (2017) BEIS provisional UK emissions statistics 1990-2016 <https://www.gov.uk/government/statistics/provisional-uk-greenhouse-gas-emissions-national-statistics-2016>

<sup>3</sup> The Clean Growth Strategy: Leading the way to a low carbon future [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/700496/clean-growth-strategy-correction-april-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf)

<sup>4</sup> Launch of UK Clean Air Strategy <https://www.gov.uk/government/news/new-clean-air-strategy-to-be-launched-by-environment-secretary-michael-gove>

<sup>5</sup> <https://uk-air.defra.gov.uk/data/exceedence>

<sup>6</sup> 2015 Annual Report for the UK Black Carbon Network [https://uk-air.defra.gov.uk/assets/documents/reports/cat13/1611011539\\_2015\\_Black\\_Carbon\\_Network\\_Annual\\_Report\\_Final\\_18082016.pdf](https://uk-air.defra.gov.uk/assets/documents/reports/cat13/1611011539_2015_Black_Carbon_Network_Annual_Report_Final_18082016.pdf)

<sup>7</sup> UK National Atmospheric Emissions Inventory <http://naei.beis.gov.uk/data/data-selector>

<sup>8</sup> The 13<sup>th</sup> Informative Inventory Report [https://uk-air.defra.gov.uk/assets/documents/reports/cat07/1803161032\\_GB\\_IIR\\_2018\\_v1.2.pdf](https://uk-air.defra.gov.uk/assets/documents/reports/cat07/1803161032_GB_IIR_2018_v1.2.pdf)

<sup>9</sup> [https://uk-air.defra.gov.uk/assets/documents/reports/cat07/1804191054\\_ukghgi-90-16\\_Main\\_Issue1.1\\_UNFCCC.pdf](https://uk-air.defra.gov.uk/assets/documents/reports/cat07/1804191054_ukghgi-90-16_Main_Issue1.1_UNFCCC.pdf)

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## Annex A

The figure below illustrates the trend in emissions of methane, broken down by source. Methane is the second most significant greenhouse gas in the UK after CO<sub>2</sub>, and has decreased by 61% since 1990. There is not a significant trend between 2016 and 2015 methane emissions. In 2016, methane emissions were 52 Mt CO<sub>2</sub> equivalent.

The major sources of methane are agriculture, waste disposal, leakage from the gas distribution system and coal mining. Emissions from all these sources have declined since 1990, and the main reasons for these are:

- In the energy sector, emissions have reduced by 81% since 1990 and 12.2% since 2015. The main causes for the long term reduction are reduced coal mining activity and improvements to the gas distribution network. Decreases in this sector have contributed 37% to the total decrease in methane emissions since 1990;
- Total emissions in the waste sector have decreased by 71% from 1990 to 2016 due to increased implementation of methane recovery systems at landfill sites. Since 2015, emissions have increased by 5%, due to a reduction in the amount of methane captured and flared at UK landfill sites. The reduction in emissions in this sector is responsible for 57% of the total decrease in methane emissions since 1990;
- Emissions from agriculture have decreased by 16% since 1990 and increased by 0.1% since 2015, following the trend of livestock numbers.

Emissions from LULUCF and Industrial Processes and other product use are not significant sources of methane in comparison to the other sectors.

### UK CH<sub>4</sub> Emissions (Mt CO<sub>2</sub>e) Trend by Sector for 1990 to 2016

