



netzero

Carbon reduction plan

Rolls-Royce UK



We believe in the positive, transforming potential of technology. We pioneer the power that matters. Power that has an impact and is central to the successful functioning of the modern world. To combat the climate crisis, we know that power must be made compatible with net zero carbon emissions.

In 2020, we joined the UN Race to Zero coalition and pledged to play a leading role in enabling the sectors in which we operate to reach net zero by 2050. We have targets in place to reach net zero emissions from operations and facilities by 2030, ensure our new products will be compatible with net zero operation by 2030, and all our products compatible by 2050. Through these targets Rolls-Royce UK plc is committed to achieve net zero carbon across scopes 1, 2 and 3 by 2050 at the latest.

Emissions

The following emissions relate to Rolls-Royce UK plc specifically, unless otherwise stated. These have been calculated and reporting as carbon equivalents for the simplicity of reporting. For scopes 1 + 2 data this is recorded at an individual site level and consolidated at a Rolls-Royce UK plc level. Scope 3 data is calculated at a whole company level and has been allocated to Rolls-Royce UK plc as an estimate only¹.

Baseline year emissions (2019)

| | |
|---------------------------------------|-----------------------------|
| Scope 1 | 92,355 t CO ₂ e |
| Scope 2 | 86,803 t CO ₂ e |
| Scope 3 (categories 4, 5, 6, 7 and 9) | 176,800 t CO ₂ e |

Reporting year emissions (2021)

| | |
|---------------------------------------|----------------------------|
| Scope 1 | 65,800 t CO ₂ e |
| Scope 2 | 55,320 t CO ₂ e |
| Scope 3 (categories 4, 5, 6, 7 and 9) | 74,256 t CO ₂ e |

¹ Scope 3 emissions data is calculated at a whole company level and has been allocated to Rolls-Royce UK as a proportion of total emissions equivalent to proportion of headcount based in the UK, i.e. 48%. For baseline year data scope 3 emissions has been calculated as part of a comprehensive emissions inventory exercise. For reporting year data scope 3 emissions have been estimated as a proportion of 2019 data based on production volumes, i.e. 42%. This is an estimate which will be refined over time as mature our calculation methodology and tools.

Emissions reductions targets

The following climate-related targets have been set at a Rolls-Royce Group level:

- Achieve net zero greenhouse gas emissions from operations and facilities by 2030 (scope 1 + 2 emissions, excluding emissions associated with product test activities);
- Conduct 10% of our engine testing activities on sustainable fuels by 2023 (relates to scope 1 emissions, emissions associated with product test activities);
- Reduce normalised energy consumption by 50% by 2025 (relates to scope 1 + 2 emissions);
- Reduce solid and liquid waste by 25% by 2025 and increase the recycling and recovery rate to 68% by 2025 (relates to scope 3 emissions, emissions associated with waste generated in operations).

We are in the process of establishing validated Science-Based Targets which will replace or supplement these targets in due course; draft targets have been submitted to the Science-based Targets Initiative and are expected to be validated and published in early 2023.

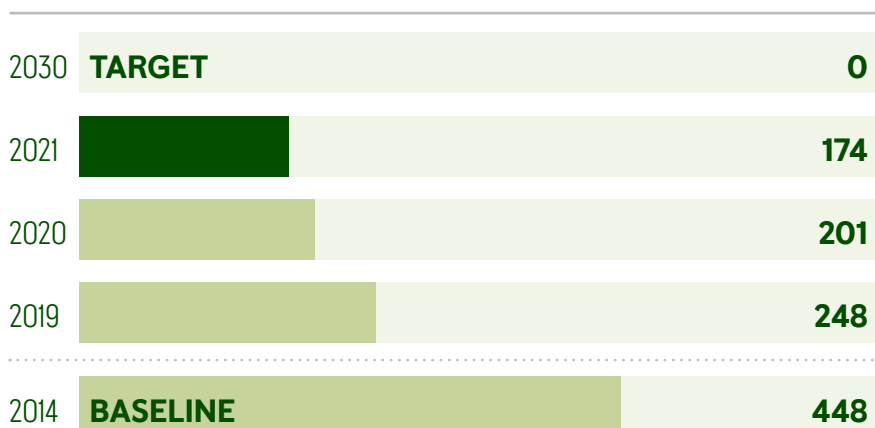
Progress on emissions reduction target

We have made considerable progress to date towards meeting this target, including reducing our emissions by 60% since our 2014 baseline. This has been achieved through a range of measures, which also form the basis of our plan to meet the target by 2030. This includes: reducing our energy demand through the continued investment in energy efficiency improvement projects and equipment upgrades; development and introduction of on site renewable power generation, including on site solar and ground source heating; and, procurement of green energy.

For example, in 2021 we commenced installation of a second ground source heat pump project at our Bristol, UK site. Due to become fully operational in 2022, this will deliver annual cost savings of approximately £0.7m, and reduce operational emissions by 0.8 ktCO₂e, per annum.

During 2021 a number of our UK sites participated in a voluntary baseload reduction campaign, aimed at optimising the energy consumption during non-operational times to deliver further energy, GHG and cost savings. Through smart metering and the use of a benchmark and league table to incentivise and reward engagement, savings of around £550k have been realised.

ABSOLUTE GHG EMISSIONS (ktC₂e)^{1 2 3 4}



Declaration and sign off

This carbon reduction plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for carbon reduction plans.

We have used the GHG Protocol Corporate Accounting and Reporting Standard (revised edition) as of 31 December 2014 utilising the operational control approach, supplemented by the GHG Reporting Guidance for the Aerospace Industry (version 3) and emission factors from the UK Government's GHG Conversion Factors for Company Reporting 2021. We report our emissions of: carbon dioxide; methane; nitrous oxide; hydrofluorocarbons and perfluorocarbons on a carbon dioxide equivalent basis. We had no emissions of sulphur hexafluoride or nitrogen trioxide. Further details on our methodology for reporting and the criteria used can be found within our basis of reporting, available to download at [rolls-royce.com](https://www.rolls-royce.com)

This carbon reduction plan has been reviewed and signed off by



Tom Bell
President - Defence