

## **Rolls-Royce UK**

### **UK Carbon Reduction Plan**

23 June 2025

### **Commitment to achieving Net Zero**

Rolls-Royce is a force for progress, committed to playing our part in the energy transition for a more sustainable world. We recognise the important role we play in the global energy transition and it continues to be a strategic priority.

We recognise the important role we play in the global energy transition and it continues to be a strategic priority. In 2024, we completed the first phase of a sustainability strategic review with a focus on energy transition. The review focused on key areas that are within our control as well as those that we need to support, influence and partner within our sectors. The review reconfirmed our commitment to reaching net zero by the end of 2050.

### **Baseline and Current emissions reporting**

This Rolls-Royce UK Carbon Reduction Plan (CRP) relates to all UK operations of Rolls-Royce plc.

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emission reductions can be measured.

The emissions presented below cover Scope 1 and Scope 2 market-based emissions and the following Scope 3 categories required by PPN 006:

- Category 4. Upstream transportation & distribution
- Category 5. Waste generated in operations
- Category 6. Business travel
- Category 7. Employee commuting
- Category 9. Downstream transportation & distribution



#### Notes:

- This 2024 UK CRP does not include Rolls-Royce SMR as this is now a separate legal entity.
- Scope 1 and 2 emissions: In 2024, Rolls-Royce completed the first phase of a sustainability strategy review focusing on the energy transition. Following completion of this first phase, we announced a new interim target to reduce our total Scope 1 and 2 emissions by 46% by 2030, from a 2019 baseline. This target brings product test into the scope of our emissions reduction targets for the first time and is aligned with a 1.5°C emissions reduction trajectory. To recognise the inclusion of product test, our Scope 1 and 2 baseline position has been updated. Detailed methods of calculation can be found online in our basis of reporting. All scope 2 emissions are market based.
- Scope 3 emissions: In line with the GHG Protocol's Corporate Value Chain¹ guidance, we have not yet set a Scope 3 baseline. The next phase of our sustainability strategic review, referenced above, will include Scope 3 emissions and include defining our baseline for Scope 3 in line with GHG Corporate Value Chain guidelines at an appropriate time.

Baseline year emissions (2019)	
Scope 1	90,522 tCO₂e
Scope 2	21,594 tCO <sub>2</sub> e
Scope 3, Categories 4, 5, 6, 7 & 9	See note above

Reporting year emissions (2024)	
Scope 1	135,246 tCO₂e
Scope 2	24,268 tCO <sub>2</sub> e
Scope 3, Categorise 4, 5, 6, 7 & 9	52,335 tCO₂e

https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard 041613 2.pdf

2



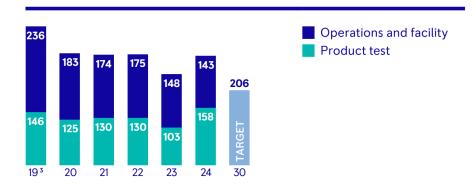
### **Emissions reduction targets**

We are committed to reaching net zero by the end of 2050 by delivering the interim and long-term targets which now include product testing. These targets apply globally to Rolls-Royce plc:

- reduce Scope 1 and 2 emissions by 46% by the end of 2030 against a 2019 baseline;
- reduce Scope 1 and 2 emissions to a net zero position by the end of 2050:
- demonstrate that all our products are compatible with net zero operations by the end of 2050;
- support the achievement of the industry net zero Scope 3, category 11 (use of sold products) greenhouse gas emissions by the end of 2050 in line with a sciencebased trajectory

Recognising the importance of decarbonising our own operations, 10% of our 2025 long-term incentive plan (LTIP) will be linked to delivering progress to the 2030 reduction target for Scope 1 and 2 emissions.

# Rolls-Royce plc global operations, facility, and test emissions (ktCO<sub>2</sub>e)<sup>124</sup>



<sup>&</sup>lt;sup>1</sup> External assurance over Scope 1 + 2 data is provided by Bureau Veritas (see annual report <sup>2</sup> page 211 for their sustainability assurance statement

<sup>&</sup>lt;sup>2</sup> Data has been reported in accordance with our basis of reporting <sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Baseline year 2019

<sup>&</sup>lt;sup>4</sup> Scope 2 emissions are market based

<sup>&</sup>lt;sup>2</sup> https://www.rolls-royce.com/~/media/Files/R/Rolls-Royce/documents/annual-report/2025/2024-annual-report.pdf

 $<sup>^3\,\</sup>underline{\text{https://www.rolls-royce.com/}^{\sim}/\text{media/Files/R/Rolls-Royce/documents/sustainability/basis-of-reporting-sustainability-2024.pdf}$ 



### **Current & Future Carbon Reduction Projects**

#### Decarbonising our operations, facilities, product testing and business activities

We will achieve decarbonise our operations, facilities, product testing and business activities through a combination of procuring clean energy, reducing overall energy demand and clean power generation. This latter element will utilise our own technology portfolio.

We have a detailed costed plan to achieve our 2030 Scope 1 and 2 target. There are five main areas of focus between now and 2030:

- decarbonising electricity;
- decarbonising heating;
- improved operational efficiency;
- reducing test emissions; and
- decarbonising transport.

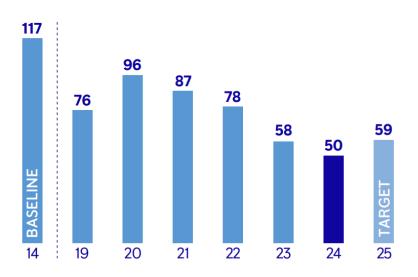
The largest contribution to our emissions reduction will come through a move to renewable and low carbon electricity sources. Our strategic priority in this area is on-site generation, supplemented by a multi-year Energy Attribute Certificate (EAC) strategy. This strategy includes multi-year options to secure compliant EACs including Private wire Power Purchase Agreements (PPAs), Sleeved PPAs, VPPAs and bundled contracts. By 2030, we plan to be powered by 100% renewable and low carbon electricity sources with a few geographical exclusions where this is not technically feasible.

To reduce test emissions we will continue to use sustainable fuels and as greater volumes become available, we will gradually increase the volume of the fuels used at a rate that does not impact the validity of the testing. Both Civil Aerospace and Defence UK testing activities use sustainable fuels to help mitigate some of these test emissions. We are always looking at ways to improve the efficiency of testing through the deployment of new technology and methods. We will continue to do this to reduce the time on test, therefore reducing fuel burn, while maintaining the high standards and credibility of the testing itself. The ancillary electricity emissions allocated to testing will be decarbonised in line with the electricity strategy above.

Reducing our energy demand is integral to our success in delivering our decarbonisation goals and reducing our exposure to energy-related risk. We measure this at a global Rolls-Royce plc level and our 2024 normalised energy consumption has reduced significantly since 2014.



### Energy consumption (MWh/£m)



# Enabling our customers to operate their products in a way that is compatible with low or net zero carbon emissions

To enable our customers to operate their current products in a low carbon or net zero way, we are focusing on improving product efficiency to burn less fuel and proving sustainable fuel compatibility.

#### For example:

- In 2024, our UltraFan team were awarded a Royal Aeronautical Society team gold medal for their major contribution to the advancement of aerospace engineering. UltraFan is the world's largest demonstrator aero engine containing a suite of scalable new technologies that deliver greater fuel efficiency. By enabling lower emissions and advancing sustainable practices, UltraFan contributes significantly to the aerospace industry's goal of achieving net zero carbon emissions by 2050. The demonstrator was successfully tested using 100% sustainable aviation fuel.
- In 2024, we worked in partnership with the Royal Air Force as part of the Defence Suppliers Forum, looking at steps that can be taken to improve the uptake of sustainable aviation fuel within defence aviation. This work has been done with a range of Ministry of Defence, industrial and academic stakeholders. Key conclusions have included changing the mindset about energy security, rethinking value propositions and identifying new commercial models.



#### - In 2023<sup>4</sup>:

- We proved all in-production commercial Civil Aerospace engine types are compatible with 100% sustainable aviation fuel
- We proved all major Defence engines in production are compatible with 100% sustainable aviation fuel
- We released 80% of our Power Systems portfolio for use on sustainable fuels

As well as improving product efficiency and proving sustainable fuel compatibility, in 2024, we supported the UK Ministry of Defence, Defence Equipment Sales Authority (DESA) as part of the Tornado 2 Tempest circular economy pilot. We worked with Additive Manufacturing Solutions Ltd. to recycle old RB199 titanium fan blades into a metal powder as part of an atomisation process. This powder was then used as a feedstock to 3D print a new engine component that was installed and ran as part of a wider engine test. In addition to demonstrating the resilience and sustainability benefits of recycling and reusing old material, we provide the users of our products with a comprehensive programme for spare parts and service solutions to maximise the performance and value of our products in use.

#### Delivering new products and solutions that can accelerate the global energy transition

Beyond mitigating emissions associated with existing products and markets, we continue to develop technologies that can support the acceleration of the energy transition. Through the provision of low carbon and net zero technologies, we can help to abate emissions outside of our own emissions footprint in support of national and international climate policy goals.

The incentive for circularity is deeply embedded in our business model given the significant aftermarket and maintenance requirements of our products. We are focused on the remanufacturing and reuse of components and pay particular attention to the responsible use of chemicals, waste and water.

# Support the necessary enabling environment, with public and policy support, to achieve our collective climate goals

We understand that a successful energy transition requires the necessary enabling environment. This requires the right external policies to be in place and for us to collaborate with industry peers and partners to achieve our collective climate goals.

Rolls-Royce plc is a member of trade associations and industry bodies that represent our sector and group interests and we inform their work to help shape the most attractive environment in which to operate our business. As stated in the 27 February 2025 Annual report we were members of 146 trade associations and industry bodies, excluding Power

 $<sup>^{4}\ \</sup>underline{\text{https://www.rolls-royce.com/}\sim/\text{media/Files/R/Rolls-Royce/documents/annual-report/2024/2023-annual-report.pdf}} - \textbf{See p42, note that the provided for the provide$ 



Systems. Our memberships are concentrated in the countries in which we have a significant footprint and reflect the range of business interests we are pursuing. We will continue to review these memberships to ensure we are maximising for best value and strategic fit.

In addition to trade associations, we will continue to engage in aligned partnerships, such as the UK-Qatar climate technology partnership, to identify ways to accelerate our plans through technology and industry collaborations. We will work closely with customers and suppliers to enable the transition throughout our value chain in the knowledge that approximately 99% of our emissions footprint is upstream and downstream of our own operations.

### **Declaration and Sign Off**

This Carbon Reduction Plan has been completed in accordance with PPN 006 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard<sup>5</sup> and uses the appropriate government emission conversion factors for greenhouse gas company reporting<sup>6</sup>.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements (where required), and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain<sup>7</sup> (Scope 3).

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

This carbon reduction plan has been reviewed and signed by

**Nikki Grady-Smith** 

Grady

**Chief Transformation Officer** 

June 2025

<sup>&</sup>lt;sup>5</sup> https://ghgprotocol.org/corporate-standard

<sup>&</sup>lt;sup>6</sup> https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

<sup>&</sup>lt;sup>7</sup> https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard\_041613\_2.pdf