

# PPN 06/21

# Carbon Reduction Plan

## Reporting Year 2024



## Commitment to achieving Net Zero

Alexander Dennis Limited (AD) is committed to reaching a target of net zero emissions across our UK operations by 2045. The target aligns with the Scottish Government's Net Zero Roadmap which is five years ahead of the requirements set out in the standard Carbon Reduction Plan (CRP) guidance.

AD is at the forefront of providing a range of pioneering technology solutions to deliver significant fuel efficiencies and emission reductions within the public and private transport sector, supporting its customers in achieving their own climate reduction goals with the market's widest range of low and zero emissions products.

AD is part of NFI Group Inc. (NFI), recognised as a leader in propulsion-agnostic bus and motor coach mobility solutions.

## GHG Emissions Footprint

AD's greenhouse gas (GHG) emissions footprint was calculated in accordance with the best practice methodologies set out within the GHG Protocol Corporate Standard<sup>1</sup>. The GHG emissions are categorised into *Direct* (scope 1), *Indirect* (scope 2) and *Other Indirect* (scope 3) emissions.

In alignment with the requirements of Procurement Policy Notice (PPN) 06/21<sup>2</sup>, AD's Carbon Reduction Plan reports on scope 1 and 2 emissions along with five categories of scope 3 emissions. The scope 3 categories reported on in this CRP are:

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

AD's GHG emissions have been tracked and reported on an annual basis since the 2019 baseline. Within this scope are emissions from AD's UK activities only.

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<sup>1</sup> <https://ghgprotocol.org/corporate-standard>

<sup>2</sup> <https://www.gov.uk/government/publications/procurement-policy-note-0621-taking-account-of-carbon-reduction-plans-in-the-procurement-of-major-government-contracts>

## Baseline Year: 2019

AD's baseline year was calculated for the period 1<sup>st</sup> January to 31<sup>st</sup> December 2019. AD continues to measure its GHG footprint on an annual basis to capture progress against its target of reaching net zero by 2045. Table 1 gives AD's 2019 baseline emissions footprint, split by emissions scope.

**Table 1:** 2019 Baseline GHG emissions footprint by scope and scope 3 category

2019 Baseline year emissions	
Emissions Category	Total emissions (t CO <sub>2</sub> e)
Scope 1	6,267
Scope 2	3,223
Scope 3 (see breakdown below)	11,304
Category 4: Upstream transportation and distribution	9,171 <sup>3</sup>
Category 5: Waste generated in operations	50
Category 6: Business travel	129
Category 7: Employee commuting	1,954
Category 9: Downstream transportation and distribution	NA <sup>4</sup>
<b>Total emissions</b>	<b>20,794</b>

<sup>3</sup> Note that 2019 Category 4 emissions have been re-calculated to bring the baseline figures into alignment with the 2024 footprint where more granular data is available, and therefore a more advanced calculation process is followed.

<sup>4</sup> Manufactured vehicles are driven directly to customers. Emissions from the fuel consumed in this activity are accounted for in scope 1, therefore, there are no downstream distribution activities. Emissions from aftermarket freight deliveries are included upstream, this aligns with the GHG Protocol scope 3 guidance which states that distribution services paid for by the reporting company should be included in category 4.

## Current Emissions Reporting

AD will continue to update its CRP as stipulated in the PPN 06/21 guidance on an annual basis. The latest GHG emissions assessment for the reporting period of 1<sup>st</sup> January to 31<sup>st</sup> December 2024 are included in table 2 below alongside the previous reporting year (2023) and the 2019 baseline for comparison purposes.

**Table 2:** AD's GHG emissions footprint for 2024 compared to the previous year (2023) and baseline (2019), split by emissions scope and scope 3 category

Emissions Reporting (baseline to current reporting year)					
Emissions Category	Total emissions (t CO <sub>2</sub> e)			% change	
	2019 (Baseline)	2023	2024 (Current reporting year)	from previous year	from Baseline
Scope 1	6,267	3,979	4,405	+11%	-30%
Scope 2 (Location-based)	3,223	1,542	1,519	-1%	-53%
Scope 3 (see breakdown below)	11,304	12,200	6,514	-47%	-42%
Category 4: Upstream transportation and distribution	9,171	10,036 <sup>5</sup>	4,241	-58%	-54%
Category 5: Waste generated in operations	50	70	28	-60%	-44%
Category 6: Business travel	129	380	718 <sup>6</sup>	+89%	+457% <sup>6</sup>
Category 7: Employee commuting	1,954	1,714	1,527	-11%	-22%
Category 9: Downstream transportation and distribution	NA	NA	NA	—	—
<b>Total emissions</b>	<b>20,794</b>	<b>17,721</b>	<b>12,438</b>	<b>-30%</b>	<b>-40%</b>

<sup>5</sup> Note that 2023 Category 4 emissions have been re-calculated to align with the 2024 footprint where more granular data is available, and therefore a more advanced calculation process is followed.

<sup>6</sup> Please note that the year-on-year increase in Category 6 emissions is due largely to improvements in data quality. In 2023, 100% of emissions calculations were based on spend data. In 2024, this fell significantly to 0.2%, with 99.8% of emissions calculations being derived from distanced-based data.

## Emissions Reduction Targets

AD operations in the United Kingdom is committed to making progress towards achieving net zero by 2045 from a 2019 baseline year. This aligns with the Scottish Government's net zero ambition for 2045.

### Carbon Reduction Modelling

AD's net zero target is aligned with the Paris Agreement objective to limit the global temperature increase to 1.5°C above pre-industrial levels. This requires AD to achieve at least an average annual 4.2% reduction of total operational and value chain emissions year-on-year up to 2045, relative to the baseline.

As such, AD has modelled its emissions reduction trajectory according to this minimum rate of reduction. This pathway is presented in comparison to AD's confirmed emissions footprint from the 2019 baseline to the current reporting year 2024 in figures 1 and 2 on the following page.

Figure 1 shows the carbon reduction projected for scopes 1 and 2 when aligned with a 1.5°C pathway. On this pathway, AD's total GHG emissions will decrease by approximately 46% by 2030 compared to baseline. The bars overlying the emissions projections, represent the actual 2019 (baseline) to the 2024 GHG emissions trajectory to demonstrate emissions reduction progress to date.

AD acknowledges that it is unlikely to reduce its gross emissions down to zero. Once AD has reached the point achieving the maximum possible abatement of their emissions, at minimum a reduction of 90% compared to baseline, AD will offset the residual emissions by investing in high-quality, verified carbon removal credits to reach the net zero goal.

AD's emissions reduction pathways have been modelled in accordance with the Science Based Targets Initiative (SBTi) guidelines for a 1.5°C-aligned science-based target with a near-term 2030 target and a long-term 2045 net zero target.

### Business-as-Usual Modelling

In addition to the modelling described above, in 2020 AD modelled a business-as-usual (BAU) emissions scenario to guide its emissions reduction strategies. The BAU scenario forecasted AD's emissions growth in the fictional absence of any emissions reduction actions. It accounts for business growth in line with an average UK economic growth forecast and for forecasted decarbonisation of the UK electricity grid<sup>7</sup>. This BAU scenario showed the emissions gap between AD's forecasted emissions pathway and the 1.5°C-aligned emissions reduction

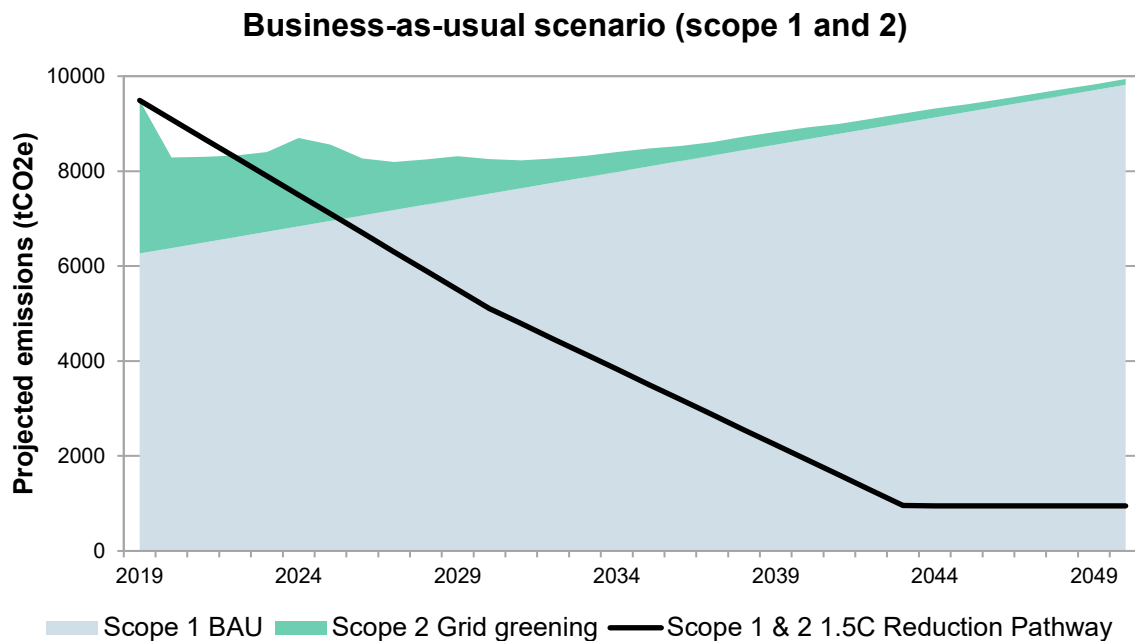
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<sup>7</sup> <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

pathway. This allowed AD to understand and plan the emissions abatement required to reach net zero by 2045.

Figure 1 shows the BAU scenario for scopes 1 and 2 against AD’s projected emissions reduction pathway.

**Figure 1:** Business-as-usual scenario against AD’s 1.5C-aligned reduction pathway, modelled from 2019 baseline to 2050. Modelling conducted in 2020.



## Actual Versus Projected Emissions

Figures 2 and 3 show AD’s progress against its projected emissions reduction pathways for scopes 1 and 2, and scope 3 respectively. Bars on the graphs display AD’s actual footprints since the 2019 baseline, while the areas behind the bars show AD’s 1.5°C-aligned reduction trajectory.

In 2020 and 2021, AD saw a significant reduction in total scope 1 and 2 emissions against the 2019 baseline. This was consequence of the global COVID-19 pandemic and the reduction in some operational activities during this period. In 2021 emissions increased compared to 2020 as AD, and the UK economy, began its recovery from the pandemic. In 2022, AD’s scope 1 and 2 emissions continued to fall relative to baseline, a result of AD’s continuing energy efficiency actions towards its net zero target.

As demonstrated in Figure 2, AD’s scope 1 and 2 emissions for 2024 remained ahead of its emissions reduction pathway. Yet, compared to 2023, scope 1 increased by 11% due to a rise in consumption of natural gas and by fuel use associated with company vehicles. Meanwhile, scope 2 emissions decreased by 1% with a slight reduction in electricity consumption.

Deviations along the pathway are to be expected, and the overall trend remains in line with AD’s net zero pathway.

**Figure 2:** Actual scope 1 and 2 emissions against AD’s 1.5C-aligned pathways for scopes 1 and 2, modelled from 2019 baseline to 2050.

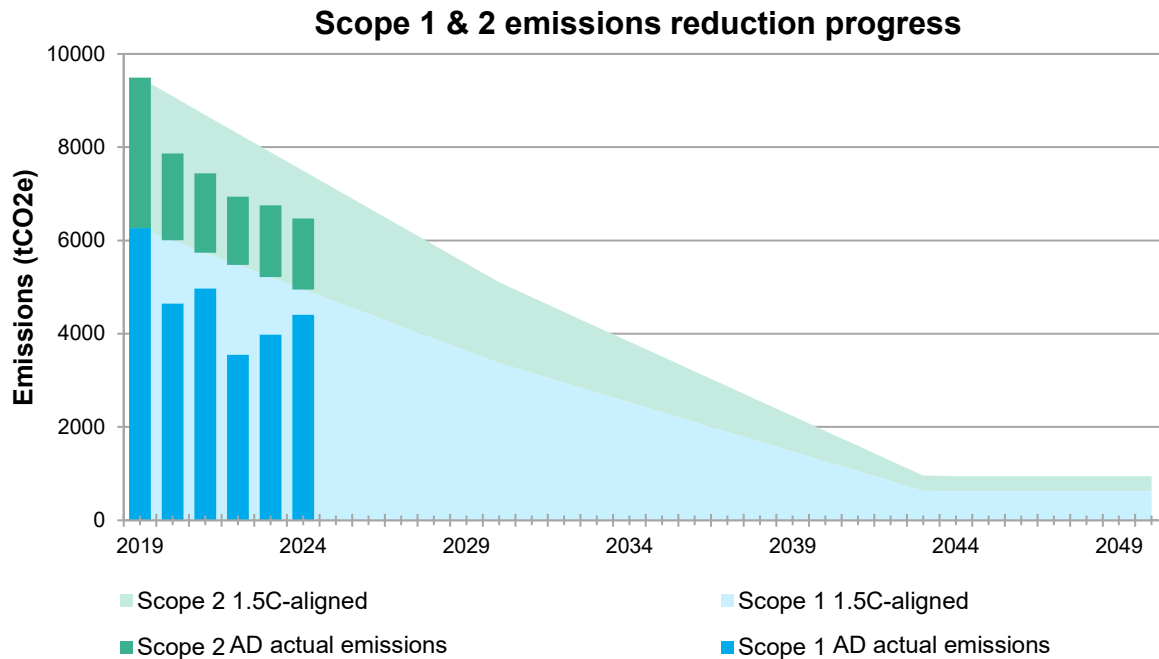
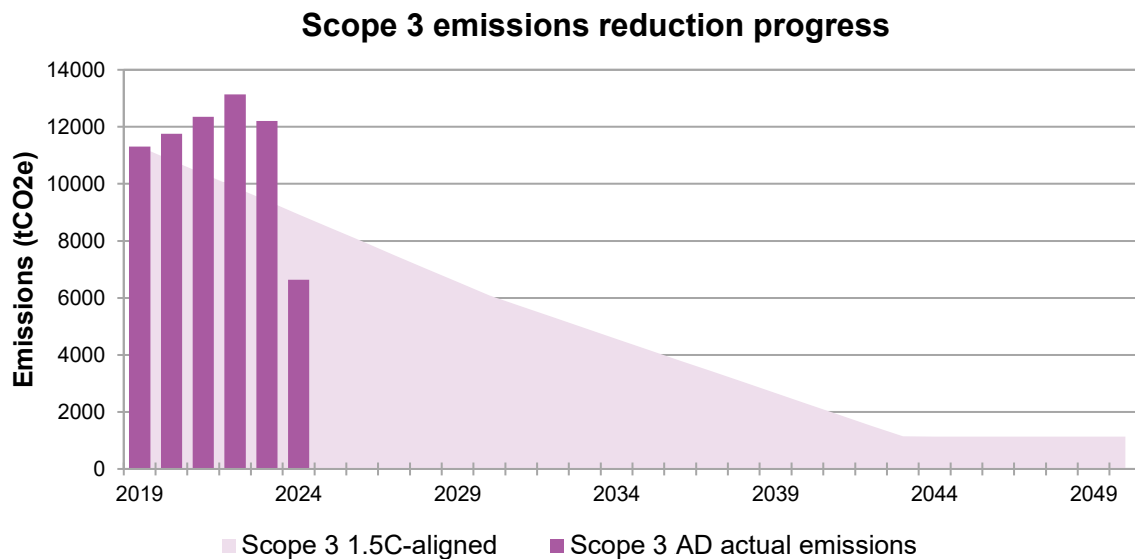


Figure 3 shows AD’s value chain or scope 3 emissions. It shows a decrease in total scope 3 emissions of 47% from 2023 to 2024 in AD’s indirect emissions. This decrease follows reduced business activity through 2024. Despite a rise in business travel emissions – on account of improved data quality with a transition from a largely spend-based to a distance-based approach – Alexander Dennis is now ahead of their trajectory towards their scope 3 emissions reduction target.

**Figure 3:** Actual scope 3 emissions against AD's 1.5C-aligned pathway for scope 3, modelled from 2019 baseline to 2050.



## Carbon Reduction Projects

Alexander Dennis has implemented a number of carbon emission reduction projects with the goal of reducing the company's overall carbon footprint in line with its targets. The following environmental management measures and projects have been completed or implemented since the 2019 baseline.

### Completed Carbon Reduction Initiatives

#### Energy Efficiency On-Site

Since 2019, AD has completed multiple initiatives to reduce emissions from electricity and gas used across its operational sites. Some of the highest impact initiatives are listed below, saving a total of 268 tCO<sub>2</sub>e.

- In 2019, AD completed investment grade energy audits to identify opportunities to improve energy efficiencies.
- In 2020, AD completed the installation of LED lighting systems, providing a reduction in electricity consumption of 382,740 kWh. This equated to a savings of 97.8 tCO<sub>2</sub>e within the scope 2 baseline.
- In 2022, AD completed the installation of further LED lighting systems, providing a reduction in electricity consumption of 176,337 kWh, equating to 34.1 tCO<sub>2</sub>e (1.1% reduction versus the scope 2 baseline).
- In 2023, further LED lighting installation provided an electricity saving of 355,131 kWh, equating to about 74 tCO<sub>2</sub>e. Additionally, AD consolidated two of their office sites into their Larbert office saving around 319,103 kWh of gas heating and electricity.

- In 2024, various initiatives were implemented, including further LED lighting installation, paint booth re-fits and compressor and energy efficient air-conditioning installation. Altogether, this provided a 515,741 kWh reduction in electricity consumption, amounting to 62 tCO<sub>2e</sub>.
- In 2024, renewable energy contracts were procured for the first time, leading to a substantial 94% reduction in market-based Scope 2 emissions.

Ongoing improvements through facility retrofitting efforts and operational process design efficiencies will continue to be evaluated.

### Energy Governance Committee and Energy Management Framework

In 2024, AD built and implemented an Energy Management Framework across all its UK sites. This framework benchmarks AD’s monthly energy consumption against industry standards, allows annual reduction targets to be set, and identifies trends and inefficiencies, on a site-by-site basis.

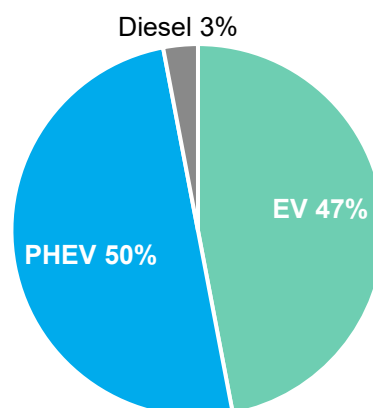
The AD Energy Governance Committee, established in 2022, meets regularly to review the framework, and discuss the performance of each site in detail. In addition, the Committee actively reviews all current, planned, and potential energy reduction activities to ensure they are aligned with AD’s sustainability goals and drive energy reduction through continuous improvement activities.

### Fleet Transition to EV

In 2022, AD’s Company Car Policy was updated to allow only electric (EV) and plug-in hybrid (PHEV) car choices for drivers, with the exception of those with no access to charging technologies. Since the inception of the new Policy, all company cars ordered by drivers, with the exception of one diesel car, have been either EV or PHEV.

**Figure 4:** AD company car fleet as of December 2024

#### AD Fleet as of December 2024



Alexander Dennis has seen a significant increase in the number of drivers opting into the Company Car Scheme by offering cash allowance drivers incentives to move away from their personal diesel/petrol cars to an EV company car.

## **Future Projects**

In the future, AD aims to implement further measures in line with the wider group business sustainability strategy and decarbonisation goals. AD will continue to explore opportunities to reduce scope 1, 2 and 3 emissions.

In the coming years, AD will undertake further analysis to identify future physical and transitional risks and opportunities to the business. The analysis work or framework selected will aim to optimise carbon reduction initiatives and ease the burden of climate change across the business.

### **Reducing Fossil Fuel Usage**

AD aims to reduce scope 1 emissions by evaluating its emissions-intensive operational practices and explore potential opportunities to replace older, less efficient equipment at its end of life with newer, more efficient models, or those that run on fossil fuel alternatives.

### **Extending Company Fleet to Vans**

AD is currently trialling two electric vans within its service fleet, as part of its commitment to reducing carbon emissions and supporting the transition to low-emission vehicles. This pilot will help assess the operational viability and inform future decisions on wider adoption of electric fleet vehicles during our next major fleet renewal.

### **Improved Data Collection**

AD will continue to improve its measurement and reporting of carbon emissions. In 2020, AD worked with EcoAct, an external climate consultancy, to develop a tool to aid the internal environmental data collection processes. Since then, AD has continued its work with EcoAct, ensuring data collection processes continue to improve year-on-year, and using their expert knowledge in calculating an emissions footprint that is aligned with the guidance of the GHG Protocol. AD will continue to evaluate the availability of data to identify opportunities to use more granular data for calculations.

AD is in the process of upgrading their site meters to AMR to enable collection of data on a half-hourly basis. Once fully complete, this will enable energy use to be analysed and tracked more effectively.

## Supply Chain Engagement

AD understands the importance of the supply chain when it comes to reducing scope 3 carbon emissions. AD will look to engage with its supply chain with the ambition to understand, manage and reduce wider environmental impacts associated with their purchased goods and services.

In the coming years, AD will engage with their largest suppliers to gather more reliable GHG emissions data and to work directly with those suppliers to support the reduction of embodied carbon within the parts and materials used in AD's direct operations where possible.

## 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.

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>8</sup> and using the appropriate Government emission conversion factors for greenhouse gas company reporting<sup>9</sup>.

Scope 1 and scope 2 emissions have been reported in accordance with SECR<sup>10</sup> requirements, 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 (Scope 3) Standard<sup>11</sup>.

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

Signed on behalf of the Supplier:



**Paul Davies**

President & Managing Director  
Alexander Dennis Limited

11<sup>th</sup> December 2025

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<sup>8</sup> <https://ghgprotocol.org/corporate-standard>

<sup>9</sup> <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

<sup>10</sup> <https://www.gov.uk/government/publications/academy-trust-financial-management-good-practice-guides/streamlined-energy-and-carbon-reporting>

<sup>11</sup> <https://ghgprotocol.org/standards/scope-3-standard>