CAE (UK) plc
Defence & Security
Innovation Drive
Burgess Hill
West Sussex RH15 9TW
England

Tel +44 (0)1444 247535

Project 127115

CARBON REDUCTION PLAN

14-003-2935

Issue 02

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Prepared by:

Shaun Kite

Environmental Officer

CAE (UK) plc Defence & Security

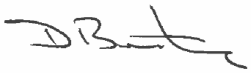
Approved by:

Dave Bentley

General Manager CAE UK; Managing Director CAE (UK) plc & CAE ATS plc

Defence & Security

Document History Sheet

Issue Number	DCR Number	Amended Pages	Approved By (Signature)	Date
1	-	None (First Issue)	 Matt Disney	July 2022
2	4285	Approver modified to Dave Bentley. Changes made to Electric Car Leasing scheme.	 Dave Bentley	November 2022

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1 Introduction

The UK Government amended the Climate Change Act 2008 in 2019 by introducing a target of at least a 100% reduction in the net UK carbon account (i.e. reduction of greenhouse gas emissions, compared to 1990 levels) by 2050. This is known as the 'Net Zero' target.

This Carbon Reduction Plan (CRP) will provide details on CAE's carbon emissions and any current / future carbon reduction initiatives as well as CAE UK plc's commitment to achieving Net Zero in UK operations by 2050.

1.1 Declaration and Sign Off

CAE confirms that this Carbon Reduction Plan has been completed in accordance with the UK Government document PPN 06/21 and the associated guidance and reporting standard for Carbon Reduction Plans (CRPs).

Emissions have been reported and recorded in accordance with the published reporting standard for CRPs and the Greenhouse Gas (GHG) Corporate Accounting and Reporting Standard and use the appropriate Government emission conversion factors for GHG company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for CRPs and the Corporate Value Chain (Scope 3) Standard.

This CRP has been reviewed and signed off by the Senior Management Team, as per the Document History Sheet (page ii).

2 REFERENCE DOCUMENTS

This document is based on or references the documents shown in the following sections.

2.1 External Documents

Table 2-1 External Documents

Document Ref.	Title	Revision
PPN 06/21	Taking Account of Carbon Reduction Plans in the procurement of major government contracts	05/06/2021
	CAE FY22 Annual Activity and Corporate Social Responsibility Report	Latest

2.2 Internal Documents

Table 2-2 Internal Documents

Document Ref.	Title	Revision
14-003-2424	CAE (UK) plc, Environmental Manual	Latest
CAE360	CAE Intranet	-
	Quality Management System	Latest

3 Commitment to Achieving Net Zero

CAE recognises climate change as a defining global issue and understands that creating a sustainable future takes collective action. We remain committed to building sustainability into everything we do and to developing sustainable solutions.

In 2020, CAE became carbon neutral, compensating for its direct GHG emissions (scope 1), electricity indirect GHG emissions (scope 2) and emissions related to business travel of its employees by plane (partial scope 3) first through reduction initiatives and then through the purchase of renewable energy certificates (RECs) and carbon offset credits (COCs).

Over this period, CAE also undertook environmental measures to reduce its overall emissions, such as increasing the energy efficiency of our buildings. All CAE sites are now 100% sourced with renewable energy or covered by RECs. We are on track to meet our five-year target of 100% LED lighting in the buildings we operate (with control of lighting), with installation completed on 81% of our total floor area worldwide. Completion of our objective represents a potential emission reduction of more than 6,000 tonnes of carbon dioxide equivalent (tCO_2e) per year.

Aviation fuel is a fundamental component of our global decarbonisation plan. Our strategy to reduce aviation fuel consumption targets the progressive integration of electric aircraft in CAE academies.

As part of the £560 million investment in innovation announced in July 2022 under Project Resilience, CAE is working with industry partners in the development of electric aircraft technologies and taking concrete decarbonisation actions to reduce CAE's overall emissions. A concrete step was announced at the Farnborough International Airshow 2022: a partnership with Piper Aircraft to develop a conversion kit via a Supplemental Type Certificate (STC) for in-service Piper Archer aircraft and bring an electric variant option of the aircraft to market. CAE expects to convert two-thirds of its Piper Archer training fleet and develop a curriculum for new pilots to train on the operation of electric aircraft. CAE and Piper Aircraft intend to work together on an electrical conversion kit for third parties.

CAE also continually invests to make our full-flight simulators more energy efficient, therefore allowing our customers worldwide and ourselves to reduce our respective carbon footprints.

To further progress on our commitment, our Global Environment and Climate Change experts conducted a deep-dive analysis on CAE's carbon footprint to set a multi-year carbon reduction strategy with long-term targets. We are completing our full inventory of scope 3 emissions to be able to make a global net zero commitment. So far, we have calculated an estimate of the most important scope 3 categories. The analysis will contribute to the Environment, Social and Governance (ESG) five-year roadmap currently in development and to be published in FY23.

CAE UK plc is putting in place environmental management measures to reduce emissions over time, and make a commitment for UK Operations to achieve Net Zero by 2050. CAE's ESG roadmap will include environmental targets inspired by Net Zero commitments.

By nature, our simulation products and services contribute to the decarbonisation efforts of our industries through the substitution of real flight training with full-flight simulators. To illustrate the benefits, it is estimated that, in FY21, more than five million tonnes of CO_2e emissions were avoided (associated with the combustion of aviation fuel) through the substitution of real flight training with full-flight simulators in CAE Civil training centres. This is particularly impactful for our Defense & Security branch: military training, unlike our Civil business, is not regulated. There is no regulatory obligation to train in a simulator vs. live flight training. With our products, we support our customers in reducing their environmental impact with our simulator and synthetic environments that also offer safer forms of multi-domain training. Together, we contribute to mitigating climate change on a global scale while enhancing training effectiveness and efficiencies.

See section 5.1 for details of CAE's emissions reduction targets.

Under project SimÉco 4.0, CAE developed next-generation technologies for fixed-base simulation platforms aimed at reducing the carbon footprint of training by replacing hours of in-flight training with time on simulation platforms. CAE aimed to develop technologies to transfer live flight training hours to simulators on the ground through innovations in various domains (ex: immersive environments, simulation platforms, instructor operator stations, visual systems). Through these technological innovations, it is now possible to increase the use of simulators in pilot training with the following advantages: improved training efficiency, independence in the face of weather conditions, increased safety, reduced wear and tear of expensive assets such as aircraft and, above all, a substantial reduction in the carbon footprint. The NFTC (NATO Flight Training in Canada) facility was used as typical use case for defense and security market applications of the technologies developed under project SimEco 4.0.

CAE (UK) plc is putting in place environmental management measures to reduce emissions over time and make a commitment for UK Operations to achieve Net Zero by 2050.

4 Carbon Inventory: Emissions

4.1 Baseline Emissions Footprint

CAE understands that baseline emissions act as a reference point against which future emissions reductions are measured and provide a record of GHGs produced prior to the introduction of any formal reduction strategies.

In 2021, Global Environment and Climate Change experts conducted a deep-dive analysis on CAE's carbon footprint:

- Scopes 1 and 2 — The findings helped us further identify the primary sources of CAE's emissions with 80% of Scope 1 and 2 emissions related to energy consumption from buildings and 69% of Scope 1 emissions related to aviation fuel. We have achieved a reduction of 14% for Scope 1 & 2 emissions over the last 3 years.

- Scope 3 — We also determined the approach required to obtain a complete profile of Scope 3 carbon emissions along CAE's supply chain, covering all activities upstream (sources of raw material) and downstream.

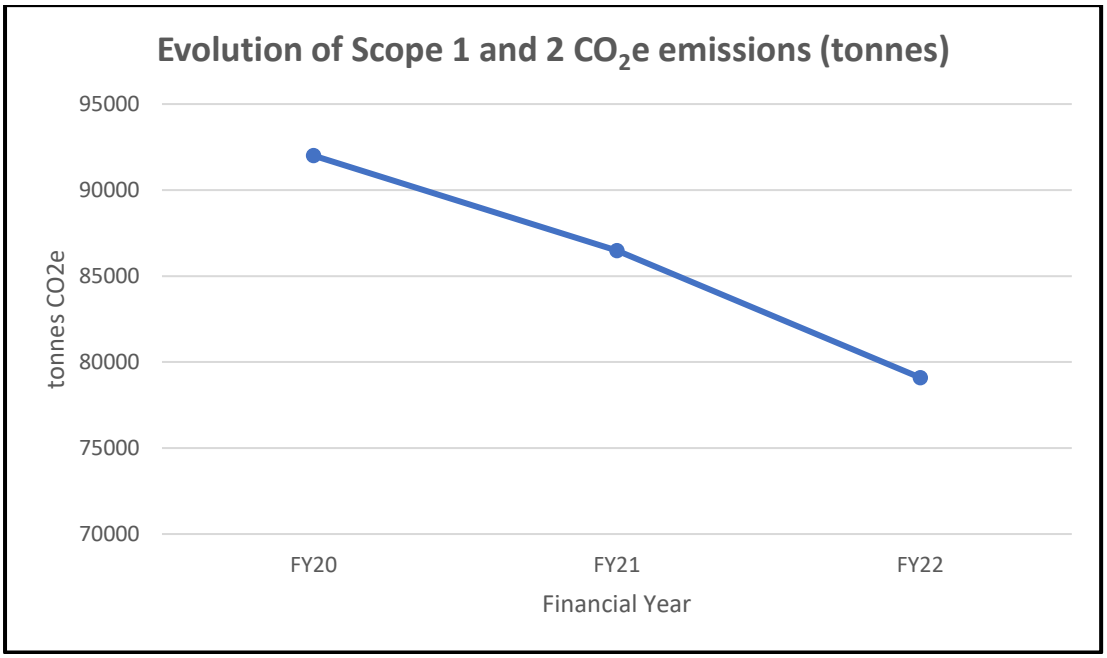

Figure 1 - Scope 1 & 2 Emissions Reduction by Financial Year

In 2022, CAE expanded its future Scope 3 reporting beyond business air travel to purchased goods and services, capital good and fuel and energy-related emissions not included in Scopes 1 and 2. We plan to report on additional carbon emissions categories in coming years: upstream transportation (truck/plane) and employee transportation (business travel/commuting). Gaining access to this information represents a long and complex process, given the scale, depth and diversity of CAE's global supplier network. We are taking action to coordinate with our suppliers.

Table 4-1 Baseline Emissions Footprint

Baseline Year:	
Additional Details related to baseline emissions calculations:	CAE has not set public baseline yet since CAE is still in the process of expanding Scope 3 emissions inventory and getting a complete carbon inventory. Once achieved, CAE will have a baseline to be able to set reduction targets. However, we have been sharing our carbon emissions data publicly in our CSR report since year 2015 and with CDP since 2010 and have been showing these numbers.
Baseline Year Emissions:	See above
EMISSIONS	**tCO_2e**
Scope 1: All direct emissions from sources CAE owns or controls.	**See above**
Scope 2: All indirect emissions from the generation of purchased electricity, steam, heating and cooling	**See above**
Scope 3: Other indirect emissions that occur in a company's value chain	**See above**
Total Emissions:	**See above**

4.2 Current Emissions Reporting

Table 4-2 Current Emissions Reporting

Reporting Year:	**FY22** (April 1st, 2021 to March 31st 2022)
EMISSIONS	**tCO_2e**
Scope 1:	**20,039**
Scope 2:	• Scope 2, Location-based emissions: **59,055 tonnes** • Scope 2, Market-based emissions **5**,**128 tonnes**

Scope 3:	• Business travels (air, train and leased vehicles) by employees: **6,221 tonnes** • Fuel and energy-related activities not included in Scopes 1 or 2: **15,739 tonnes** • Purchased goods and services: **148,877 tonnes** • Capital goods: **18,994 tonnes**
Total Emissions:	**268,925 tonnes** (including Scope 2 Location-based emissions and partial Scope 3 as specified above) and 214,998 tonnes (including Scope 2 Market-based emissions and partial Scope 3 as specified above). Please see above for the emissions breakdown

5 Carbon Reduction

5.1 Emissions Reductions Targets

As indicated above, CAE is still in the process of expanding Scope 3 emissions inventory and getting a complete carbon inventory. Once achieved, we will set reduction targets.

CAE is pursuing a decarbonisation strategy organized in four streams:

- Green buildings
- Simulators and products upgrades
- Electric aircraft
- Green sourcing

To date, the potential emission reductions associated with projects assigned to these streams are estimated at 12,000 tonnes of CO_2e, the equivalent of 15% of CAE's FY22 Scope 1 and Scope 2 location-based emissions.

5.2 Carbon Reduction Initiatives

5.2.1 Green Buildings

- United Kingdom
  - All facilities for which CAE has operational control source their renewable electricity from sources with Guarantees of Origin.
  - Defence & Security became ISO 14001:2015 certified in January 2015 and has maintained certification since (see Annex A).
  - CAE UK D&S facilities are equipped with LED lighting and use motion activation outside of core office hours.
  - The CAE Cycle to Work allotment increased; the maximum amount that can be claimed for a bicycle is now £3,000.
- Other regions
  - In order to address building-related carbon emissions, a standard has been defined for the layout of CAE's offices. This standard called "Agora" has a significant impact on energy consumption in workspaces. This standard has been developed and implemented in Montreal first and is now deployed on global scale. It allows a better sharing of space, reduces CAE's energy footprint, improves environmental management of building through easier maintenance, encourage the ongoing transition to a more digitalized environment (less paper) and helps achieve a resilient workforce able to work anywhere, including from home, contributing to a smaller commuting footprint.
- Globally
  - As CAE buildings are its primary source of energy consumption (lighting, HVAC systems), CAE is effecting change with the introduction of a new building construction guidelines, developed to integrate environmental and energy efficiency

requirements. Green features are part of that new standard; they include building management systems, high-efficiency HVAC systems, LED lighting and more. We estimate that this programme will deliver a reduction of 6,000 tonnes of CO_2e. As of end of Q1 FY23, we had reached 84% of LED lighting covering in our sites. This dynamic building design approach introduces emissions reduction measures at the pre-design phase, involves independent third-party analysis, and applies an evolutive and scalable engineering model. CAE's new training Centre in Savannah, Georgia, to open in FY23, served as a pilot project to apply our new building standards, resulting in an 18% reduction in carbon emissions compared to traditional construction methods.

- A Best Practices Energy Guide, was created to support the energy efficiency management at site level.
- CAE-designed Royal Canadian Air Force (RCAF) training Centre awarded LEED certification. Under a three-phase contract awarded by Airbus in 2017: CAE delivered a C295W aircrew and maintenance training solution to support the RCAF Fixed-Wing Search and Rescue (FWSAR) program. CAE led the design and building of the RCAF training Centre facility at 19 Wing Comox, Vancouver Island, British Columbia. The Comox FWSAR Training Centre conforms to the Leadership in Energy and Environmental Design (LEED) silver level, integrating green building concepts and sustainability into the building's planning and design.
- Sustainable commuting options with appropriate infrastructures and incentive programs (charging station for electric vehicles, refunding of a portion of the public transportation fees, etc.) are also offered in several sites.

5.2.2 Simulators and Product Upgrades

- CAE continually invests to make its full-flight simulators more energy efficient. Product upgrades to existing and new simulator products will serve both CAE and our customers through optimisations and efficiencies. These greener simulators retrofit upgrades will involve, Re-use of waste heat from on-board electronics for environmental comfort, Software enhancements and hardware redesign for power savings and Reduction in hardware components for power savings (high-volume simulators).
- In 2021, CAE launched various innovative R&D projects to develop energy conservation solutions for our full-flight simulators. One opportunity CAE is looking into is the assessment of water, energy and mineral consumption attached to the upstream process portion of the simulator lifecycle, which CAE oversees.

5.2.3 Electric Aircraft

- Under Project Resilience, a £750 million investment in innovation, CAE is exploring actions to go beyond compensation and take concrete

action to further reduce the carbon footprint generated by the aviation fuel consumption of its fleet of aircraft operated by CAE's cadets at CAE flight training operations (FTOs) worldwide. In FY21, aviation fuel consumed by CAE's fleet of planes produced 14,438 tonnes of carbon dioxide equivalent (CO_2e).

- CAE is working with industry partners in the development of electric aircraft technologies and taking concrete decarbonisation actions to reduce CAE's overall emissions.
- A concrete step was announced at the Farnborough International Airshow 2022: a partnership with Piper Aircraft to develop a conversion kit via a Supplemental Type Certificate (STC) for in-service Piper Archer aircraft and bring an electric variant option of the aircraft to market. CAE expects to convert two-thirds of its Piper Archer training fleet and develop a curriculum for new pilots to train on the operation of electric aircraft. CAE and Piper Aircraft intend to work together on an electrical conversion kit for third parties.
- This project will contribute to a projected reduction of 45% of our scope 1 emissions by FY27.

5.2.4 Green Sourcing

- CAE invests in renewable energy certificates (RECs) in the countries where it operates to offset our use of electricity. All CAE sites are now 100% sourced with renewable energy or covered by RECs.
- In 2022, CAE issued a Supplier Code of Conduct including environmental commitments.
- CAE is also working on a review of its value chain to identify carbon reduction opportunities in cooperation with our suppliers.
- CAE further embedded environmental, social and governance (ESG) in the sourcing processes, starting with the sourcing templates (i.e. request for proposal, request for information) as needed to achieve appropriate level of granularity on ESG criteria. CAE Purchasing General Terms and Conditions were also updated.

5.2.5 Others

- Other initiatives of reduction of CAE's carbon emissions:
    - Various operational improvement projects are deployed. These initiatives encompass optimising real estate services, further digitalising the processes, and ultimately generating significant and recurring economies of scale for CAE, including energy consumption and carbon emission reductions.
    - CAE has been observing Earth Day and Earth Hour for several years with different local environmental activities to raise the environmental awareness of the employees and of the community.
    - As part of its commitment to carbon neutrality, in FY20, CAE embarked on a more formal process to comprehensively address climate change risks. CAE's Climate Change Committee (CCC), has been tasked with conducting a full

assessment of climate-related risks and opportunities. The CCC's ultimate purpose is to oversee the integration of climate-related issues into CAE's business strategy, and to identify and manage risks and opportunities. The comprehensive climate risk assessment has been completed in FY22 on a set of selected sites representative of CAE's services portfolio and of the global footprint with various levels of exposure to climate risks. This completed exercise allowed CAE to update the list of climate-related risks and opportunities with an initial time horizon of 2030.

- The introduction of an Electric Vehicle leasing scheme to all UK employees - employees are able to lease electric vehicles and pay for them through the payroll and benefit from salary sacrifice.

- Indirect carbon reduction impact across the industry:

  - CAE contributes to preventing millions tonnes of CO_2e from being emitted each year by training pilots in simulators. It is estimated that, in FY21, more than five million tonnes of CO_2e emissions were avoided (associated with the combustion of aviation fuel) through the substitution of real flight training with full-flight simulators in CAE Civil training centres.
  - Also under project Resilience, through partnerships announced in FY22, CAE is also taking an active role in Advanced Air Mobility and the development of green light aircraft technologies.
  - CAE is also developing a digital ecosystem to offer end-to-end flight operations management services to its customers. Our solution determines the best route for optimal aviation fuel and time savings, taking into consideration the age of the plane, engine type, day of flight, weather, navigation considerations and weight/number of passengers. These factors contribute to lowering aviation fuel consumption and reducing carbon emissions.

5.2.6 Future Carbon Reduction Initiatives

In the future CAE also explores the possibilities to implement further carbon reduction measures such as:

- The provision of Electric Charging Points at the UK head office.
- The provision of virtual meeting rooms.

5.2.7 Future Carbon Reduction Targets

CAE has set future carbon reduction targets:

- A reduction of 45% of Scope 1 emissions by FY27.

Annex A - ISO 14001 Certificate

DNV·GL

MANAGEMENT SYSTEM CERTIFICATE

Certificate No:
173098-2015-AE-GBR-UKAS

Initial certification date:
20 January 2015

Valid:
02 November 2020 - 01 November 2023

This is to certify that the management system of

CAE (UK) Plc Defence and Security
Innovation Drive, York Road, Burgess Hill, West Sussex, RH15 9TW, United Kingdom

and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Environmental Management System standard:

ISO 14001:2015

This certificate is valid for the following scope:

Design, supply and maintenance of training equipment and synthetic environments and the provision of associated training. Customer requirements analysis and through life support.

Place and date:
London, 01 October 2020

UKAS MANAGEMENT SYSTEMS
0013

For the issuing office:
DNV GL - Business Assurance
4th Floor, Vivo Building, 30 Stamford Street, London, SE1 9LQ, United Kingdom

Doug Milne
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV GL Business Assurance UK Limited, 4th Floor, Vivo Building, 30 Stamford Street, London, SE1 9LQ, United Kingdom.
TEL: +44(0) 203 816 4000. www.dnvgl.co.uk

Figure 2 – ISO 14001 Certificate (Burgess Hill)

DNV·GL

Certificate No: 173098-2015-AE-GBR-UKAS
Place and date: London, 01 October 2020

Appendix to Certificate

CAE (UK) Plc Defence and Security
Locations included in the certification are as follows:

Site Name	Site Address	Site Scope
RAF Brize Norton	24 Squadron HQ RAF Brize Norton Carterton Oxfordshire OX18 3LX United Kingdom	Design, supply and maintenance of training equipment and synthetic environments and the provision of associated training. Customer requirements analysis and through life support.
Burgess Hill HQ	Innovation Drive York Road Burgess Hill West Sussex RH15 9TW United Kingdom	
RNAS Culdrose	Sea King & Merlin Training Facility RNAS Culdrose Helston Cornwall TR21 7RH United Kingdom	
RAF Benson	Medium Support Helicopter Air Training Facility RAF Benson Wallingford Oxfordshire OX10 6AA United Kingdom	

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
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Figure 3 – ISO 14001 Certificate (UK Military Sites)