

CAE
TECHNOLOGY ON POINT



CARBON MANAGEMENT PLAN

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A message from the CEO and COO

We at CAE, believe that together we can create a better future for the new generations by leaving behind us a green technology footprint in everything we do.

To achieve this, we must continuously look at ways to improve our environmental impacts by reducing our own direct and indirect carbon dioxide (CO₂) emissions as efficiently and effectively as possible.

Our experience with the ISO 14001:2015 environmental management certification made us realise how environmental issues were embedded in the solutions provided to our customers as well as the actions to continuously improve our system towards the reduction of our carbon dioxide (CO₂) emissions.

We acknowledge the carbon dioxide (CO₂) emissions generated through the delivery of our services and as signatory of the government's Net Zero emissions by 2050, CAE has committed to set a common target to reduce its carbon emissions gradually by 25% every five years to reach zero (CO₂) emissions by 2050 .

And it is with real pleasure that we will accompany this Carbon Management Plan to its final destination by providing a strategy plan towards meeting the aspirational zero CO₂ emissions by 2025. It will also pave the path for a long term programme of action to meet future targets under the Climate Change Act 2008 to achieve a cut in emissions by at least 70% by 2050.



Justin Harling

Justin Harling
Chief Executive Officer



Richard Behan

Richard Behan
Chief Operation Officer

Foreword from the Net Zero Scheme

In 2019 the UK Government amended the Climate Change Act 2008¹ by introducing a target of at least a 100% reduction of greenhouse gas emissions² (compared to 1990 levels) in the UK by 2050. This is otherwise known as the 'Net Zero' target.

The Climate Change Act introduced legally binding carbon budgets which set a ceiling on the level of UK GHG (greenhouse gas) emissions and in order to meet these budgets we have to collectively reduce our total emissions.

The Government recognises that for organisations to take action to reduce their emissions they must have the appropriate tools and guidance. Measuring the GHG emissions is the first step to effectively managing them.

¹ *Climate Change Act 2008*: <https://www.legislation.gov.uk/ukpga/2008/27/contents>

² *When the reporting of GHG emissions is measured, it is often done so in carbon dioxide equivalent units (CO₂e). The use of CO₂e allows for more accessible reporting and straightforward tracking and reporting of emissions over time.*

Executive Summary

We are aware that reducing our carbon emissions (CO₂) represents significant benefits for us, our customers and the community.

Translated into this Carbon Management Plan are the strategies and frameworks of CAE's ongoing commitment to the management and reduction of the carbon emissions.

More particularly, it outlines CAE's baseline, sets a target for reducing this baseline within a defined period, and finally, lists the projects to be implemented for the carbon neutral achievement and source of funding for taking these projects to the right destination.

Outlined below lays our journey to successfully realise the carbon reduction by 2050:

- CAE aims to reduce its CO₂ emissions by 25% by 2025 based on its 2019/20 baseline;
- CAE CO₂ baseline emissions were 387.43 tonnes in 2019/20, taking into account fuel combustible, transport related and waste disposal;
- Failure to take action would result to a rise from 387.43 tonnes in 2019/20 to 581.14 tonnes in 2030. If CAE achieves its target reduction of 25% then the CO₂ emissions would fall to 281 tonnes, saving a cumulative total of 98 tonnes over a period of 5 years;
- Over 10 energy saving projects have been identified that will encourage culture change for our organisation and the implementation of these projects will achieve the net zero emissions by 2050.

Our Low Carbon Vision

CAE's Sustainability Policy states that the organisation is committed to integrating sustainable development into everyday practice by minimising environmental impact wherever possible and supporting community opportunities.

To that extent, CAE is committed to achieving Net Zero emissions by 2050.

During the process of developing this Carbon Management Plan, a number of key areas have been selected that will allow us to demonstrate significant reduction of the carbon emissions generated by our activities.

Baseline Emissions Footprints

During the years of 2019/20, the carbon emissions generated by CAE were 387.43 tonnes while the Business Sector carbon emissions as a whole were 59.4 Mt for the 2020 period³.

We noticed that for the 2020 period there was a decrease of our carbon emissions by 19% due to improved monitoring of the waste generation and recycling process.

The baseline emissions provide explanation on how the 25% reduction in CO₂ target will be set.

Scope

The scope of this carbon emissions plan will be categorised by the type of emissions emit from our activities:

Scope 1 comprises direct energy such as:

- Fuel's combustion: boiler;
- Owned transport: carpool;
- Process emissions: waste processing;
- Fugitive emissions: HVAC.

Scope 2 includes the energy consumed through the purchasing of:

- Electricity;
- Heat;
- Water.

³Department for Business, Energy & Industrial Strategy-2020 UK greenhouse gas emissions, provisional figures, 25 March 2021.

Scope 3 outlines other direct energy such as:

- Purchased material;
- Transport related: commuting, business travels, distribution
- Waste disposal: waste, recycling.

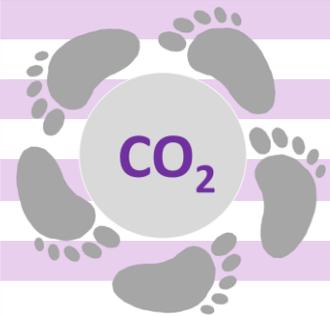
Method of data collection:

The data is obtained from bills, maintenance sheets, waste transfer and collection notes, and assets specification manuals. The key data is focused on the kilowatt hours (kWh) used for electricity and gas, the total water supplied in cubic metres (m³) for water and the waste quantity collected from sites in Kg or Tonne.

Data For Baseline Year 2019 & Reporting Year 2020

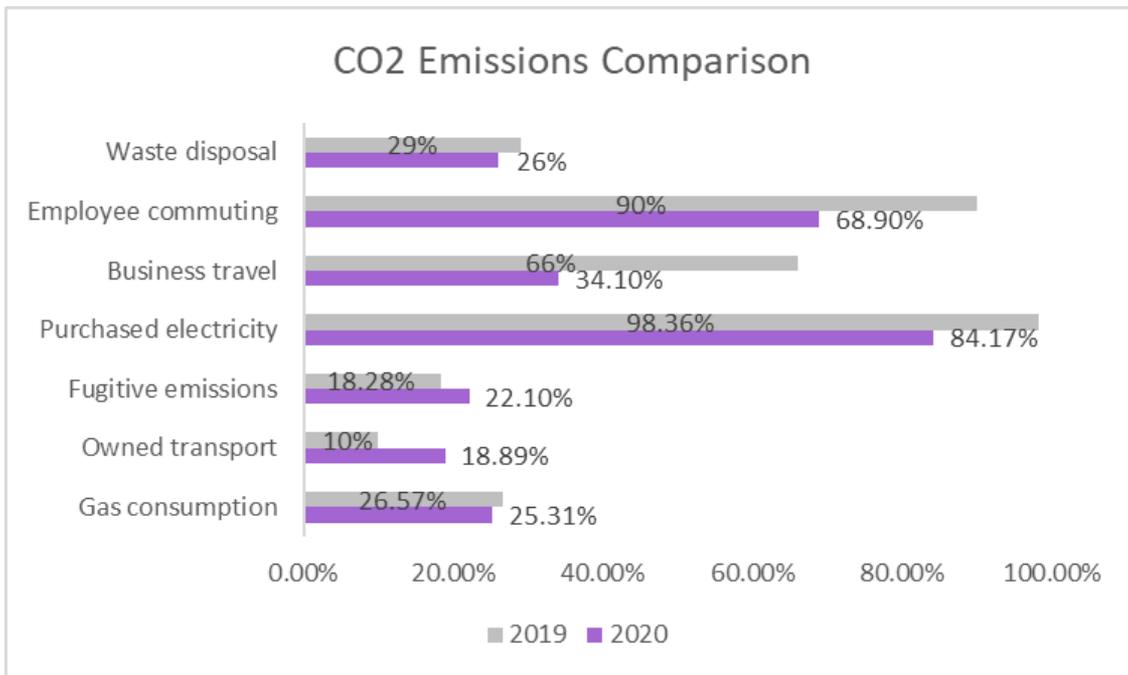
The largest contribution of CAE’s CO₂ emissions was from electricity and natural gas accounting for 39% of the baseline emissions, transport was responsible for 12% of the CAE’s CO₂ emissions and the employees commuting for 25%. (See table 1 for details)

CAE Carbon Footprint Emissions		
	Tonnes of CO ₂	
	Reporting Year 2020	Baseline Year 2019
Scope 1		
Gas consumption	25.31	26.57
Owned transport	18.89	10
Fugitive emissions	22.1	18.28
Total Scope 1	66.3	54.85
Scope 2		
Purchased electricity	84.17	98.36
Total Scope 2	84.17	98.36
Scope 3		
Business travel	34.1	66
Employee commuting	68.9	90
Waste disposal	26	29
Total Scope 3	129	185
Total gross emissions	279.47	338.21
Carbon offsets	(0.506)	(0.375)
Green tariff	(105.28)	(124.10)
Total annual net emissions	173.68	213.73



Examining the breakdown of the emissions in the graph below, we noticed that several CO₂ emissions reductions had happened, compared to the previous year and the slight increase for own vehicle and fugitive emissions, were due to equipment age and business reorganisation activities.

However, these two services will be addressed in the actions to the CO₂ emissions reduction at the end of the plan.



Strategies for CAE Carbon Reduction

The carbon saving opportunities within this plan once fully implemented will reduce CAE's CO₂ emissions to up to 25% every 5 years to achieve the zero CO₂ emissions by 2050 as per the CO₂ emissions reduction projects described as follow:

Fixes assets

1. Increase by 21% the number of electric & hybrid cars for your carpool by 2030;
2. Increase by 20 % the number of electric car charging socket by 2022;
3. Install 162 solar panels that will generate more 50K Kwh per year by 2022;
4. Increase by 100% the usage of LED light for the entire building by 2022;
5. Increase by 98% the usage of light sensor for the entire building by 2022;
6. Replacing the usage of plastic cup for glass by 2023;
7. Diverting annually, 100% of waste by promoting recycling and the use of recycling products to avoid the burden of landfill;
8. Decrease the energy consumption for the Watford office by 17% annually;
9. Equipped all the toilets with the dual flush toilet system to save 1.9 gallons per flush;
10. Equipped all the toilets with new high speed hand dryer using cool air;
11. Equipped all the toilets with touchless water sink to save between 4 to 9 litres per minute;
12. Evaluate the potential benefits of carbon offsetting such as collecting the rainwater to water the plants inside the CAE office;
13. Using a licenced IT charity to donate all the decommissioned laptops.

Transport

14. Evaluate and where possible adopt means of reducing travelling including ideas such as video conferencing to achieve a reduction of 50% annually;
15. Implement the flexible working program for all the employees for the reduction of the number of cars on the roads and thereby the reduction of CO₂ emissions by 70%.

Embedding climate change

16. Comply with all current energy legislation and seeking to meet legislative targets;
17. Seeking the ISO 14061-1:2012 or PAS 2060 Greenhouse gases certification or equivalent.

Communication

18. Work with key partners and other stakeholders to achieve a better understanding and support on the waste emission categories and how to control them;
19. Raise the environmental awareness for all the employees through the training program by end of 2023.

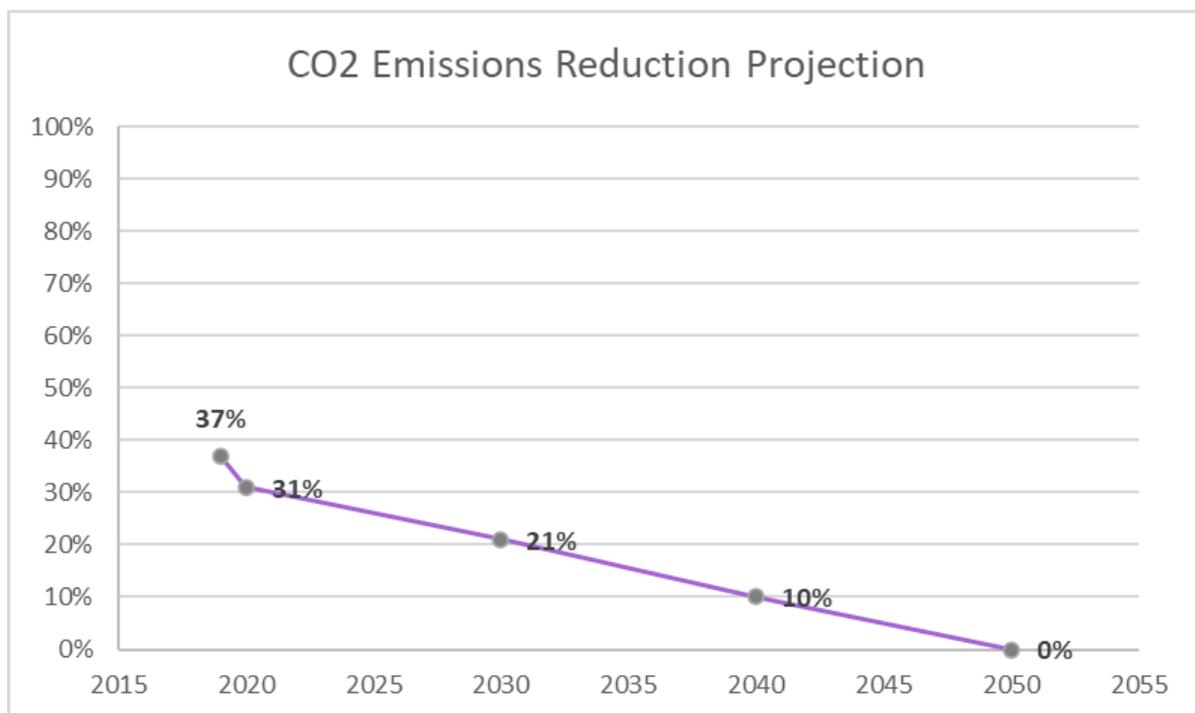
Leadership

20. Support the business charity program by providing free support to the persons in need of IT skills and knowledge.

Progress against the CO₂ Emissions Reductions Projects

As per the chart below the projection for the CO₂ emissions reduction will gradually diminish by 25% every five years to reach the zero CO₂ emissions by 2050.

This will be achieved with the assistance of independent third parties, and the carbon offset plan from the amount of CO₂ emissions saved through the recycling program and finally the purchase of the green tariffs energies scheme.



In conclusion, we can assume that the CO₂ emissions project funding will be mainly prioritised on acquiring environmentally friendly assets and environmental projects implementation to constantly measure them against the business' CO₂ emissions targets in a bid to quantify their effectiveness.

And finally, invest on the employee's environmental awareness to encourage positive behaviour against the business' overall CO₂ emissions reduction.

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 and uses the appropriate Government emission conversion factors for greenhouse gas 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 Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

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

Date: **09 August 2021**

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