BAE SYSTEMS

Basis of reporting
Sustainability review 2024

2024 Basis of Reporting

Introduction

The data reported includes BAE Systems' wholly owned subsidiaries and includes data for our four key markets (Australia, Kingdom of Saudi Arabia, UK and US). Greenhouse gas (GHG) emissions data includes non-wholly owned subsidiaries.

Basis of Reporting – Diversity

Basis of calculation

Total number of employees, recorded on our HR Information Systems (HRIS) as well as off system employees for recent acquisitions not on our HRIS systems. Data is gathered as an extract from the HRIS and summarised in a dashboarding tool (Tableau) to support simple and consistent data visualisation and reporting.

Number of employees

Description

Total number of employees, permanent and fixed term at 31 December 2024, captured on our HR Information Systems (HRIS) as well as off system employees for recent acquisitions not on our HRIS'. The data does not include temporary workers, sub-contractors and agency staff. Data is captured and pulled from various HR Information Systems across our four key markets by a nominated point of contact who manages the data.

Unit of Measure

Total number of employees.

Gender diversity

Description

Total number of employees, permanent and fixed term at 31 December 2024, split across gender groups of male and female. Gender reporting is also split between number of members of the Board and Senior Managers (Senior Managers are defined as employees (excluding executive directors) who have responsibility for planning, directing or controlling the activities of the Group or a strategically significant part of the Group and/or who are directors of subsidiary companies).

The data does not include sub-contractors, agency staff or temporary workers.

Data is captured and pulled from various HR Information Systems across our four key markets by a nominated point of contact who manages the data.

Unit of Measure

Total number of employees split by gender.

Basis of Reporting – Ethics

Basis of calculation

For data definitions and unit of measurement, see the tables below. All contacts are logged in the case management database as a report. Any contact that raises a concern or makes an allegation of inappropriate conduct may be closed as guidance if appropriately resolved with guidance and advice. Contacts which are requests for advice or guidance are either addressed by the ethics team or referred onwards, for example to HR. Feedback is provided, when possible, to those making contact or seeking guidance through the various ethics reporting channels. All ethics contacts are reported via our case management database.

Ethics Contacts	Description for Calendar Year 2024
An Ethics Contact includes enquiries, concerns or allegations made to the Ethics Helpline. **The Ethics Helpline** includes Ethics Officers, Ethics Helpline emails, Ethics Helpline web-reports, Ethics Helpline Call Centre and letters. Contacts can come from anyone, regardless of their affiliation: employees, contractors, customers, suppliers etc.	
Basis of Calculation	The total number of ethics contacts is based on each contact to the **Ethics Helpline**.
Unit of Measurement	Number of ethics helpline contacts logged in the case management database.

Ethics Multiple Contacts	Description for Calendar Year 2024
Where, having considered the criteria, we are reasonably persuaded that multiple contacts to our Ethics Helpline relate to a single matter of concern, then we log this as a single report. In evaluating whether multiple contacts to our Ethics Helpline relate to the same matter, we consider: o the severity of the reported issue; o internal and external interest in the reported issue (i.e. if heightened internal or external interest is noted in a particular reported issue, these cases will not be aggregated for external reporting); o the length of time within which the contacts were made (e.g. contacts made within a brief period on the same minor issue may qualify for reporting purposes as a single contact); and o the channel of contact. A log of each individual contact is noted in the report and all contacts are followed up with individually.	
Basis of Calculation	The total number of ethics contacts is based on contact to the **Ethics Helpline** based on the above consideration.
Unit of Measurement	Number of ethics contacts logged in the case management database.

Further definitions

Guidance	Contacts made requesting guidance or clarification on minor concerns; no formal investigation required; contacts that are best resolved through advice or guidance.
Investigations	Contacts that allege misconduct and require a formal investigation.

Basis of Reporting – Dismissals

Basis of calculation

For data definitions and unit of measurement, see the tables below. Dismissals are the number of permanent and fixed term employees dismissed from the business for breaches of ethical policies or misconduct on matters covered in the Global Code of Conduct. Dismissals are recorded on either HR Information Systems or on HR records. For the Annual Report, dismissal data was provided by a nominated point of contact that manages the data captured on systems/records.

Dismissals - For Reasons Relating to Unethical Behaviour	Description for Calendar Year 2024
Dismissals are the number of permanent and fixed term employees dismissed from the business for breaches of ethical policies or misconduct on matters covered in the Global Code of Conduct.	
Basis of Calculation	The figure it calculated by totalling the number of employees dismissed for breaches of ethical policy that have been entered on to HR Information Systems or on HR records.
Unit of Measurement	Number of dismissed employees on our HR Information Systems / HR records.

Basis of Reporting – Health and Safety

Basis of calculation[4, 5, 6, 7, 8 and 9]

For data definitions and unit of measurement, see the tables below. Safety data is captured on a global system – CR Desktop – and data is entered by a nominated point of contact who manages the data at their site or business.

Fatality	Description for Calendar Year 2024
A death resulting from any work related injury or occupational illness, regardless of the time intervening between the incident causing the injury or exposure causing illness and the death. This number includes BAE Systems employees and those individuals who whilst being employed by a third party, are under the direct control of BAE Systems i.e. 'Labour Only Contractors'. Fatalities are recorded within CR Desktop in the calendar year that the fatality occurred.	
Basis of Calculation	The number of fatalities reported by businesses globally recorded on CR Desktop.
Unit of Measurement	Number of occurrences.

Major Injuries	Description for Calendar Year 2024
Major Injuries are defined as: • A fracture, other than to fingers, thumbs and toes • Amputation of an arm, hand, finger, thumb, leg, foot or toe • Permanent loss of sight or reduction of sight • Crush injuries leading to internal organ damage • Serious burns (covering more than 10% of the body, or damaging the eyes, respiratory system or other vital organs). • Scalpings (separation of skin from the head) which require hospital treatment • Unconsciousness caused by head injury or asphyxia	

- Any other injury arising from working in an enclosed space, which leads to hypothermia, heat-induced illness or requires resuscitation or admittance to hospital for more than 24 hours

Major injury definitions are in line with the UK RIDDOR definition http://www.hse.gov.uk/riddor/ that came into force in October 2014. This definition came into effect at BAE Systems on 1 January 2017 to give closer alignment to the current Regulations in force.
Causes of major injuries recorded are categorised on our systems as:

- Acts of Violence
- Contact with electricity or electrical discharge
- Contact with moving machinery
- Drowning or asphyxiation
- Exposure to an explosion
- Exposure to fire
- Exposure to, or contact with, a harmful substance
- Falls from height – height not stated
- Falls from height – over two metres
- Falls from height – up to and including two metres
- Injured by an animal
- Injured while handling, lifting and carrying
- Road traffic accident
- Slips, trips and falls on same level
- Strike against something fixed or stationary
- Struck by moving vehicle
- Struck by moving, including flying / falling, object
- Trapped by something collapsing / overturning
- Exposure to hot liquid / surface / materials
- Radiation (ionising or non-ionising)

Major injuries are recorded within CR Desktop in the calendar year that the work related major injury occurred.

Basis of Calculation	The total number of major injuries recorded on CR Desktop.
Unit of Measurement	Number of occurrences.

Employee	Description for Calendar Year 2024
The total number of BAE Systems employees working at a site / location on behalf of the Organisation Group / Line of Business responsible for the data being submitted. This number should also include those individuals who whilst being employed by a third party, are under the direct control of BAE Systems i.e. 'Labour Only Contractors' NOTE: Contract, agency / rental and temporary staff not under direct control of BAE Systems who are employed directly by a contractor are included in the - Total Non-BAE Systems Employees category e.g. security, catering and cleaning contractors. These incidents are not reported externally, but are monitored internally.	
Basis of Calculation	The number of employees reported by businesses globally recorded on CR Desktop.
Unit of Measurement	Number of employees.

2024 Basis of Reporting

Recordable Injuries Per 100,000 Employees	Description for Calendar Year 2024
An *Injury* is recordable if it results in one or more of the following: • Fatality as already defined by BAE Systems • Days away from work (Lost Work-Day Case) – A work related injury, resulting from a single identifiable event that renders the injured person unable to perform their normal work activities for more than one working day. This does not include the day of the injury but does include all successive days including rest days, weekends, scheduled holidays and public holidays. • Medical treatment beyond first aid – medical treatment does not include first aid procedures, but would, for example, include the use of sutures (stiches or glue applied by Licensed Health Care Professional (PLHCP) to seal a wound). Any physical therapy, including physiotherapy and chiropractic manipulation is considered medical treatment where performed by a PLHCP. All first, second and third degree burns that require medical treatment are recordable. • Restricted work or transfer to another job for medical reasons associated with the injury sustained (following medical treatment beyond first aid) • Loss of consciousness during any work-related activity not already covered by the definition of Major Injury • Significant injury diagnosed by an Occupational Health Physician or other Licensed Health Care Professional (PLHCP) • Major Injury as already defined by BAE Systems • Pre-existing injuries may become recordable if aggravated under certain circumstances.	
Basis of Calculation	Number of recordable injuries reported by businesses globally recorded on CR Desktop.
Unit of Measurement	Rate per 100,000 employees
Calculation	(Total number of Recordable accidents/total average number of employees[9]) X 100,000.

Footnotes:

4. Since the 2009 data capture, the definitions relating to data points for safety have been reviewed and changes made to add clarity to the collection process. The definition of Major Injury changed for the 2017 reporting year to more closely reflect the definitions of major injuries within the Reporting of Injuries, Diseases and Dangerous Occurences Regulations 2014. Prior year figures have not been restated to meet the new definition.

5. Sites which have less than 150 personnel, and are considered a low risk e.g. office environments, are not required to submit safety data on a site by site basis. This data can be aggregated into a 'miscellaneous section' should the parent business wish to do this.

6. The method of data collection at a site level is not mandated. In some home markets, national legislation requires data to be recorded in prescribed formats which prevents the use of a standard BAE Systems format across the whole of the Company.

7. Data is collected locally at a site level, entered onto the CR Desktop database and is then validated by a manager within the parent business who is responsible for the accuracy of the data. At a corporate level, the ESG Department carry out further checks of data entered using previous data sets as a guide so that potential 'rogue' data can be captured and queried with the source site.

8. Data is captured in each home market and other countries of business and where required presented to the following legislative bodies:

   - Home market or country of business Legislative body - safety
   - UK (plc) Health and Safety Executive
   - US (Inc.) OSHA
   - Australia - Commonwealth Australian Safety and Compensation Council (ASCC) and Comcare
   - Australia - Australian Capital Territory ACT Workcover
   - Australia - New South Wales NSW Workcover
   - Australia - Northern Territory NT Worksafe

- Australia - South Australia Worksafe SA
- Australia - Queensland Queensland Workplace Health and Safety
- Australia - Victoria Worksafe Victoria
- Australia - Western Australia Worksafe WA
- Saudi Arabia (KSA) 'Labour Law' issued by the Ministry of Labour under royal decree
- South Africa (RSA) South African Department of Labour
- Sweden Swedish Work Environment Authority
- India Ministry of Labour supported by Directorate General, Factory Advice Service & Labour Institutes (DGFASLI)

9. The total number of employees here is an average over the last twelve months from CR Desktop.

Basis of Reporting – Community Investment

Basis of calculation

Community investment (CI) for BAE Systems is defined as its contributions to the communities in which the Company is based and namely through donations, fundraising, sponsorships, in-kind giving and volunteering. Data is collated using the Grants by Benevity tool. The Company uses the Business for Societal Impact (B4SI) Framework methodology to define the value of our support and its impact on our community partners, in comparison with our peers and other organisations.

As a UK based company, all data is converted into Great British Pounds (GBP). This is done using the Cash (GBP) spot rate as at 31 December 2024, applied retrospectively. This is the last date in the year where rates are available.

Total CI contribution	
The total value of donations + charitable sponsorships + fundraising + volunteering + in-kind giving + payroll giving as recorded across our global footprint (primarily focusing on UK, Australia, US, KSA and others).	
Basis of Calculation	Sum of donations + charitable sponsorships + fundraising + volunteering + in-kind giving + payroll giving
Unit of Measurement	British Pound

Basis of Reporting – Environment – Greenhouse Gas (GHG) Emissions

Basis of calculation

Greenhouse Gas (GHG) emissions data is reported in line with an operational control method. We use the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard as guidance to support our approach to reporting. Our reporting boundary for Streamlined Energy and Carbon Reporting (SECR) is the same as our reporting boundary for the purposes of our financial statements.

Data covers a 12-month period between the 1st January to 31st December. Pro-rated (estimation) methods have been used for the data as follows:

All businesses (excluding BAE Systems Inc.):

- Scope 1, 2 and 3 business travel data has been prorated over twelve months based upon 10 months of actual data for the period January to October.

BAE Systems Inc.:

- **Scope 1 and 2 Emissions:** Data is received quarterly, spanning November (prior period) to October (current period). To align with the reporting period, the November to January data is adjusted to represent a single month's emissions. This adjusted figure, along with the subsequent actuals to October, forms the basis for a 10-month dataset, which is then extrapolated to cover the full 12-month reporting period.
- **Scope 3 Travel Emissions:** Data is received bi-annually, spanning November (prior period) to October (current period). The November to April data is adjusted to represent January to April emissions. This adjusted figure, along with the subsequent actuals to October, forms the basis for a 10-month data set, which is then extrapolated to cover the full 12-month reporting period.

2024 Basis of Reporting

Organisational and Operational Boundaries

The GHG protocol allows participants to arrange their organisational boundaries using two different methodologies. One using the equity share or two the control approach. The business has chosen to use the control approach. Furthermore, the control approach selected allows for two further methodologies to be applied to define control either a financial approach or operational approach. The business uses the latter.

As a business, we utilise a tool called the Global Property Database (GPD) to record and monitor locations which we either own or lease. Prior to this reporting period, all locations listed in GPD we had deemed were within our organisational boundary and we had operational control. In 2023 we reviewed our definition of operational control in order to ensure we are not accounting for emissions which are outside of our business control and where we don't have the ability to influence.

This means that locations listed within the GPD are now excluded from the operational boundary where they fall into one of the following tenure categories and where we do not receive an invoice either directly from the gas or electricity supplier or are not indirectly invoiced for the energy consumption:

- Customer locations – Customer sites are those in which we have a contractual requirement to work from but are not owned or leased by the business. Our presence at these locations is dictated to us by the customer.
- Licenced sites – we have permission to be on a customer site or licence for serviced occupancy but not exclusive possession, we may share this space with others.
- Other – An address virtual office or post-box, no known energy consumption associated with these locations
- Service agreements – These arrangements cover desks in buildings they may be REGUS serviced occupancy – we have use of desk but cannot influence policies or environment at site
- *Leased properties where we are not directly billed for energy usage based on a meter read for the space occupied.

*Relates to the Inc business – difference in definitions of operational control

Direct (Scope 1): Greenhouse Gas Emissions

Description – for calendar year 2024

Direct (Scope 1) GHG emissions come from sources (physical units or processes that release GHG into the atmosphere) that are owned or controlled by the organisation.

BAE Systems report direct GHG emissions related to the combustion of energy from usage data measured in our Scope 1 fields (Natural Gas, Liquefied Petroleum Gas or Propane Gas, Light Fuel Oil, Petrol, Heavy Fuel Oil, Aviation Fuel, Diesel), plus:

- Natural Gas usage estimates for facilities at which we have a presence but do not process the utilities – based on known parameters within the BAE Systems Global Property Database for the reporting year (see estimation methodology below). This does not include the US business see section on organisational boundaries.
- Petrol / Diesel – purchased and consumed within BAE Systems controlled road vehicles (i.e. hire cars) where the fuel does not come from stores at the facility. In line with application guidance IFRS16 HM Treasury hire cars have been identified as scope 1 emissions as the contract between the business and the hire car firms convey a right of control to the lease. Further guidance is available in IFRS 16.
- Fuel consumed by Rental cars hired within the United States are recorded as scope 3.
- Aviation fuel – purchased and consumed within BAE Systems controlled aircraft or for testing of combat vehicles (i.e. Corporate Air Travel aircraft)

- Renewable electricity – generated by on-site renewable technologies such as solar panels and where BAE Systems use 100% of the electricity generated on-site. The emissions from this source are disclosed as $0tCO_2e$.
- Emissions from the combustion of Biomass are not included in scope 1 reporting.
- All liquid fuel detailed in **Fig 1** are based on delivered rather than consumed volumes.

Basis of calculation – converting to CO_2 equivalent (CO_2e) – for calendar year 2024

BAE Systems direct GHG emissions are derived by calculation and expressed as CO_2 equivalent using either the BEIS (previously DEFRA) Scope 1 GHG emission factors as listed in **Fig 1** below or emissions factors from the United States Environmental Protection Agency (US EPA) in **Fig 2**. Both represents the latest factors available for the majority of the reporting period.

Scope 1 natural gas emission factors for AUS are country specific and have been utilised from 2022 reporting onwards to improve the accuracy of the calculations as listed in **Fig 3**. If country specific factors could not be obtained for the reporting period then the UK factors have been used.

				Energy - Gross CV
Activity	**CR Desktop Name**	**BEIS Fuel**	**Unit**	**kg CO_2e**
Gaseous fuels	LPG or Propane Gas	LPG	kWh	0.21450
	Natural Gas	Natural gas	kWh	0.18290
Liquid fuels	Aviation Fuel	Aviation turbine fuel	kWh	0.24758
	Heavy Fuel Oil	Fuel oil	kWh	0.26814
	Light Fuel Oil	Gas oil	kWh	0.25649
	Petrol	Petrol (average biofuel blend)	kWh	0.22013

Figure 1 - Table showing factors used to convert CR Desktop energy data into tCO_2e (Conversion factors from Gov.UK published July 2024)

Utility	Emissions Factor MT CO2e/ MMBTU)
Natural Gas	0.05311
Propane	0.06171
Diesel/Kerosene	0.07421
Gasoline	0.07047
Fuel Oil #6/Bunker Oil	0.07535
Aviation Fuel	0.07247
District Steam	0.06640
District Hot Water	0.06640
District Chilled Water - Electric	0.05270
District Chilled Water - Absorption (NG)	0.07389
District Chilled Water - Engine (NG)	0.04931

Coal (bituminous)	0.09403
HVO 100	0.00002
District Heat - Ornskoldsvik (2022)	0.015
District Heat - Karlskoga (2022)	0.019

Figure 2- Table showing factors used to convert the US business data into tCO2e(Conversion factors from GHG Protocol)

Activity	Region	Unit	kgCO2e	Source
Natural Gas	AUS	kWh	0.1855	Australian Government. Natural Greenhouse Accounts Factors - August 2023 p16

Figure 3 – Table showing factors used to convert natural gas to tCO2e for AUS.

Where the Scope 1 emissions are associated with BAE Systems-controlled vehicles, **Fig 4** shows the BEIS conversion factors utilised.

			Diesel	Petrol	Plug in Hybrid	Battery Electric	Unknown
Activity	Type	Unit	kg CO_2e	kg CO_2e	kg CO_2e	kg CO_2e	kg CO_2e
Cars (by size)	Small car	km	0.13994	0.14370	0.11274	0	0.14262
		miles	0.22522	0.23126	0.18143	0	0.22953
	Medium car	km	0.16807	0.17726	0.11490	0	0.17256
		miles	0.27050	0.28526	0.18492	0	0.27771
	Large car	km	0.20729	0.26885	0.15486	0	0.22472
		miles	0.33362	0.43267	0.24921	0	0.36164
	Average car	km	0.16984	0.16450	0.12607	0	0.16691
		miles	0.27334	0.26473	0.20288	0	0.26860

Figure 4 - Table showing factors used to convert hire car and executive-lease car mileage data to tCO_2e (Conversion factors from Gov.UK published July 2024)

Method of calculation – for calendar year 2024

For facilities where we process the utilities, direct energy emissions are calculated from the actual energy data recorded either within CR Desktop in kWh multiplied by the corresponding CO_2e emissions factor, as listed in either the Table in **Fig 1** or from MMBTU for the US business using the conversion factors listed in **Fig 2**.

In the UK, Australia, Kingdom of Saudi Arabia and across our International sites for facilities at which we have a presence and we have operational control but do not process the utilities (and therefore which are not recorded within CR Desktop), an estimate of the natural gas usage in kWh is made using the building type for that facility within the Global Property Database (GPD) and the look up estimate values in the table in **Fig 5** below.

For facilities where the floor area is unknown, a reference value according to property/site type is applied. The kWh value is then multiplied by the corresponding CO_2e emissions factor, as listed in **Fig 1** above. To note, the estimation calculations are for Scope 1 and 2 emissions. Scope 2 emissions are discussed in more detail in the next section. We do not estimate sites where we do not have operational control for example locations where we have a presence on a customer location and are contracted to be in a that specific area/building. In these cases, our employees can't be moved from these buildings without customer authorisation.

Estimates for this reporting period are based on a variety of sources of information detailed in **Fig 5,** including both internal and external sources. Where internal data is available CR Desktop data has been utilised to benchmark similar locations, the data covers a 12-month period, and the year is specified in **Fig 5**. Where internal data is not available, externally available sources have been used including, The Chartered Institute of Building Services Engineers 2008 (CIBSE) TM46, Building Better Partnerships Real Estate Environmental Benchmarks 2019 (BBP_REEB Benchmarks) and ofgem reports.

For petrol / diesel / electricity (from hybrids and fully electric vehicles – EVs) associated with BAE Systems-controlled road vehicles, data is gathered centrally where available for three regions (UK, US and Australia) for hire/rental cars. In both the UK and Australia, mileage data is provided directly from the hire car suppliers. Trip distances are multiplied by the relevant emissions factor to create a value of tCO_2e for all journeys.

For aviation fuel associated with BAE Systems-controlled aircraft in the UK and International data is gathered from the CR Desktop system. The data is, processed into a kWh value and then converted to tCO_2e using the aviation fuel conversion factor in **Fig 1** above and for the US business using the conversion in **Fig 2**.

GPD Planning Category	Gas (kWh / m2 / year)	Average Floor area (m2)	Estimated Annual Gas (kWh) if no floor area data available	Source of Estimate(s)
Car parking	0	0	0	2020 Metered data from 400 space car park.
Hangar	160	6,226	996,160	CIBSE TM46 2008 - storage facility
Industrial	52	73,991	3,838,960	KWh from industrial site in CRD 2023
Laboratory	160	426	68,160	CIBSE TM46 - laboratory or operating theatre
Land				Assume no consumption as surplus land
Manufacturing	384	26,027	9,991,445	Average of 2 manufacturing sites with data in CRD . Jan-Dec 2023
Mixed	364	13,924	5,064,010	Average of an office and manufacturing
Offices	75	1,821	136,575	BBP_REEB Benchmarks 2019 (non-air-conditioned office) p3
Offices US	288	3,000	864,000	The Climate Registry 2020 default Emission Factors - Office (source specific to US sites)
Other	171	2,172	254,917	Same as 'Unknown'
Recreational use	330	500	165,000	CIBSE TM46 - Dry sports and leisure facility

Residential	-	-	11,500	Ofgem typical medium household (class 2) consumption figures 2020
Shipyard	11	263,043	2,854,969	kWh and floor area from shipyard with data Jan-Dec 2023
Storage	160	2,186	349,760	CIBSE TM46 - Storage facility benchmark
Test Site			0	CRD data for test sites
Training	150	1,294	194,100	CIBSE TM46 - schools and seasonal public buildings
Unknown	171	2,172	254,917	Floor area is an average of all types (except manufacturing, mixed and industrial, shipyard, car parks, test site or land)
Warehouse	35	3,198	111,930	CIBSE TM46 Storage Facility warehouse or depot
Workshop	180	899	161,820	CIBSE TM46 - workshop or open working area (not office)

Figure 5 - Benchmark Estimate Values for Gas Usage

Total estimated emissions from natural gas are 4,149 tCO_2e and represent 4% of scope 1 emissions.

Benchmark values and sources are reviewed on a three year period the next review being due 2026.

Unit of measure – for calendar year 2024

tCO_2e

Fugitive Emissions (Scope 1)

Fugitive emissions were calculated in 2022 using a sample of several locations Fluorinated Greenhouse gas records. The results were scaled up using number of employees to provide an estimated total volume of losses. The total losses amount to less than 5% of scope 1 emissions and were therefore considered to be immaterial, and not disclosed. The business will conduct reviews of fugitive emissions every three years to ensure losses remain immaterial. The next review is due in 2025.

Energy indirect (Scope 2) Greenhouse Gas Emissions – Location-Based Method

Description – for calendar year 2024

An organisation's energy indirect (Scope 2) GHG emissions result from the generation of the electricity, heating, cooling, and steam which it purchased from other organisations for its own consumption.

The GHG Protocol's 'Location-Based' method requires the calculation of emissions associated with Scope 2 GHGs using data related to 'grid average emissions profiles' for the locations where the electricity is consumed.

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BAE Systems reported Scope 2 'Location-Based' emissions relate to the data in our Scope 2 fields (grid electricity, steam and grid electricity used by EVs), plus electricity usage estimates for facilities at which we have a presence but do not process the utilities - based on known parameters within the BAE Systems GPD for the reporting year (see estimation methodology below).

Scope 2 electricity emissions for the UK are calculated by multiplying the kWh of electricity by the BEIS conversion factor, as per the basis of calculation below. Scope 2 electricity emissions for KSA, and for International sites are calculated by multiplying the relevant IEA conversion factor by the kWh of electricity.

Scope 2 electricity emissions for AUS are from the Australian Government. There are separate emission factors for each region, however as we are unable to disaggregate the locations of the sites under each CR Desktop site, the national average emission factor has been used in the calculation.

Scope 2 electricity emissions for the commercial locations in the US are derived by using US EPA's eGRID factors applied to electricity MMBtu, as per the basis of calculation below. In Sweden commercial emissions factors are derived from the AIB European Residual Mix report. For the very small proportion of residential estimates these are derived from EIA emissions factors.

Scope 2 electricity emissions for UK hybrid vehicles are calculated by multiplying the miles travelled by the relevant conversion factor published by BEIS.

Note that in most cases, BAE Systems is using the location-based approach to calculate Scope 2 emissions. For regions where supplier-specific or residual mix emissions factors are available, the GHG Protocol 'Market-Based' Method will be applied. Additionally, if sites have grid electricity backed by REGOs then the 'Market-Based' Method will be applied. Please refer to the Energy Indirect (Scope 2) Greenhouse Gas Emissions – Market-Based Method section below.

Basis of calculation – converting to CO_2 equivalent (CO_2e) – for calendar year 2024

BAE Systems indirect 'Location-Based' GHG emissions for the UK are calculated using the BEIS Scope 2 GHG emissions factor for Grid Electricity, as listed in **Fig 6** below. Indirect 'Location-Based' GHG emissions for KSA are calculated using the IEA GHG emission factors for Grid Electricity for the country in which the facility is located. For International sites, the IEA 'Memo: IEA Total' emission factor is used as this is deemed the most appropriate factor based on the countries within the International category and the countries used within the 'Memo: IEA Total' factor. GHG emissions for AUS are calculated using the national average figure published by the Australian Government's National Greenhouse Gas Accounts. The AUS emission factors are listed in **Fig 8** below.

BAE Systems indirect 'Location-Based' GHG emissions for the INC business in the US are derived by calculations using emission factors that are specific to each eGRID region. The US sites are categorised into an eGRID region based on the state, which determines the relevant eGRID factor to use. This method takes into consideration the different fuel mixes and plant-specific data across the whole of the US which varies considerably. The eGRID emission factors can be downloaded from the following location https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid. The eGRID emission factors that are required each year will depend on the locations of the US sites and may vary from year to year. The current factors are based on eGRID2021. GHG Emissions for the INC business in Sweden are derived using calculations from Association of Issuing Bodies report available at European Residual Mix | AIB (aib-net.org)

GHG emissions from the use of steam and other district utilities are calculated by the INC business using regional specific emissions factors these vary and records are kept locally detailing the factors.

In order to complete the calculations for international locations (including Saudi Arabia, Sweden and the US), we have used the International Energy Agency's electricity emissions factors.

Activity	CR Desktop Name	Country	Unit	kg CO_2e
Electricity generated	Grid Electricity	Electricity: UK	kWh	0.20705

Figure 6 - UK Grid Electricity Emissions Factor (Conversion factors from Gov.UK published July 2024)

State, Territory or grid description	Unit	kgCO_2e
National	kWh	0.63

Figure 8 – Australian Electricity Emission Factor (Conversion factors from Australian National Greenhouse Accounts - Nov 2023).

Method of calculation – for calendar year 2024

For facilities where we process the utilities, grid electricity emissions are calculated from the actual or estimated energy data recorded within CR Desktop in kWh multiplied by the corresponding CO_2e emissions factor according to the country, or by using the correct eGRID factor.

For ease of calculation, the final tCO_2e figures and the creation of the final GHG Location Based calculator should be calculated once all Scope 1, 2 and 3 activity data has been collated.

In the UK, Australia, Kingdom of Saudi Arabia and International locations for facilities at which we have a presence and we have operational control but do not process the utilities (and therefore which are not recorded within CR Desktop), an estimate of electricity usage in kWh is made using the building type for that facility within the Global Property Database (GPD) and the look up estimate values in the table in **Fig 10** below.

For facilities where data is available on internal floor area this is multiplied by electricity in kWh/m2/year detailed in Fig 10. For facilities where the floor area is unknown, a reference value according to property/site type is applied from the table below using estimated annual electricity. The kWh value is then multiplied by the corresponding CO_2e emissions factor, as listed in **Fig 6 and 8** above, and in accordance with the International Energy Agency (IEA)'s emissions factors.

We do not estimate sites where we do not have operational control for example locations where we have a presence on a customer location and are contracted to be in a that specific area/building. In these cases, our employees can't be moved from these buildings without customer authorisation.

GPD Planning Category	Electricity (kWh / m2 / year)	Average Floor area (m2)	Estimated Annual Elec (kWh) if no floor area available	Source of Estimate(s)
Car Parking	4	10,118	36,014	2020 Metered data from 400 space car park.
Hangar	35	6,226	217,910	CIBSE TM46 2008 - storage facility
Industrial	193	73,991	14,277,723	kWh from industrial site in CRD 2023
Laboratory	160	426	68,160	CIBSE TM46 - laboratory or operating theatre

Land				Assume no consumption as surplus land
Manufacturing	261	26,027	6,800,695	Average of 2 manufacturing sites with data in CRD. Jan-Dec 2023
Mixed	252	13,924	3,513,250	Average of an office and manufacturing
Offices	124	1,821	225,804	BBP_REEB Benchmarks 2019 (non-air conditioned office) p3
Offices US	171	3,000	513,000	The Climate Registry 2020 default Emission Factors - Office (source specific to US sites)
Other	86	1,955	279,633	Same as 'Unknown'
Recreational use	95	500	47,500	CIBSE TM46 - Dry sports and leisure facility
Residential	-	-	2,700	Ofgem typical medium household (class 2) consumption figures 2020
Shipyard	52	263,043	13,632,652	kWh and floor area from shipyard with data Jan-Dec 2023
Storage	35	2,186	76,510	CIBSE TM46 - Storage facility benchmark
Test Site	1	1,736,784	1,573,101	CRD data for test sites
Training	40	1,294	51,760	CIBSE TM46 - schools and seasonal public buildings
Unknown	86	2,172	279,633	Floor area is an average of all types (except manufacturing, mixed and industrial, shipyard, car parks, test site or land)
Warehouse	160	3,198	511,680	CIBSE TM46 Storage Facility warehouse or depot
Workshop	35	899	31,465	CIBSE TM46 - workshop or open working area (not office)

Figure 10 - Benchmark Estimate Values for Electricity Usage

2024 Basis of Reporting

Total estimated emissions from electricity are 6,637 tCO_2e and represent 3% of scope 2 emissions.

Benchmark values and sources are reviewed on a three-year period. The next review is due in 2026.

2024 Basis of Reporting

Unit of measure – for calendar year 2024

tCO_2e

Energy Indirect (Scope 2) Greenhouse Gas Emissions – Market-Based Method

Description

An organisation's energy indirect (Scope 2) GHG emissions result from the generation of the electricity, heating, cooling, and steam which it purchased from other organisations for its own consumption.

The GHG Protocol's 'Market-Based' method requires the calculation of emissions associated with Scope 2 GHGs using data provided by relevant energy suppliers that is specific to their supplies. If relevant supplier information is not available, then residual mix factors can be used for the calculation as per the GHG Protocol.

BAE Systems reported Scope 2 'Market-Based' emissions related to the data in our Scope 2 fields (grid electricity, steam), plus:

- Electricity usage estimates for facilities at which we have a presence but do not process the utilities – based on known parameters within the BAE Systems Global Property Database for the reporting year (see estimation methodology below).

Basis of calculation – converting to CO_2 equivalent (CO_2e)

For the current year the BAE Systems indirect 'Market-Based' GHG emissions are derived using residual mix conversion factors for the UK and US where available along with green tariff/renewable attribute certification information. **Fig 11** below denotes the residual mix factors used for the current year. For the regions KSA, AUS,SWE and International, 'location based' emissions factors are used as supplier emissions factors or residual mix factors are not currently available. In these scenarios the method statements associated with the 'Energy Indirect (Scope 2) Greenhouse Gas Emissions – Location Based' apply, and therefore the resulting GHG values will not differ from those published for that category.

Associated certificates or contracts which detail renewable attribute claims are retained as evidence and meet the scope 2 quality criteria described in GHG protocol scope 2 guidance.

Region / Supply Type	Relevant Supplier (s)	Fuel Mix	Emissions Factor to Apply	Emissions Factor Applies to
UK / Purchased Electricity	Unknown	N/A	No contractual arrangements in place for the reporting period. Location based factors applied for the full data set.	Location based method Used
US / Purchased Electricity	Several	NA	Supplier specific emission factors are used where they are available. The UPS EPA Calculator notes where supplier specific emissions factors and residual mix factors are not available it utilises eGRID subregion factors. Residual mix factors availability is limited.	US electricity
SWE/ Purchased Electricity	Övik Energi AB	NA	AIB residual mix factors utilised for commercial locations, for residential estimates the location based factor has been used.	SWE

KSA / Purchased Electricity	Saudi Electricity Company (SEC) are a monopoly supplier in KSA. This has not been checked for the FY21 calculations.	As KSA grid-average (only electricity supplier in the country)	No residual mix factors provided for KSA, therefore in line with the GHG Protocol, the location-based factor has been used.	NA – 'Location Based Method Used
Australia / Purchased Electricity	Multiple suppliers, no 'GreenPower' contracts	Suppliers in Australia use the government's 'location-based' emissions factor, unless formally supplying 'GreenPower'	Residual Mix emissions factor should apply, but Australian government advises that this factor is within the uncertainty range associated with the standard 'location-based' emissions factor in Australia, and therefore the latter should apply.	NA – 'Location-Based Method Used'

Figure 11 – Supplier Emissions Data for deriving our Scope 2 'Market-Based' GHG emissions

Method of calculation

For facilities where we process utility data, grid electricity emissions are calculated from the actual or estimated energy data recorded within CR Desktop in kWh multiplied by the corresponding CO_2e emissions factor according to the suppliers green energy tariff, REGOS, residual mix factor or location based factor as listed in **Fig 11** above.

Unit of measure – for calendar year 2024

tCO_2e

Other indirect (Scope 3): Greenhouse Gas Emissions

Description – for calendar year 2024

Other indirect (Scope 3) emissions are a consequence of the activities of the organisation, but occur from sources not owned or controlled by the organisation. Some examples of Scope 3 activities are the extraction and production of purchased materials; the transportation of purchased fuels in vehicles not owned or controlled by the organisation; and the end use of products and services.

BAE Systems reported Scope 3 emissions currently related to category 6 business travel and include data related to commercial flights, rail, and grey fleet vehicle travel (as described as company car and personal car vehicle travel within the data calculations).

Travel data is obtained from a number of sources such as, the business internal expense system and various travel providers. Journeys are included if they fall within the reporting period. At the time of preparing the report personal car data was not available for the Australian business, 2023 data was utilised for the purposes of completeness.

Scope 3 emissions are derived by using published (BEIS) conversion factors and the data related to distance travelled (and also class of the flights for the flight data if available).

Basis of calculation – converting to CO_2 equivalent (CO_2e) – for calendar year 2024

BAE Systems Scope 3 (Other Indirect) GHG emissions are derived by calculation and expressed as CO_2 equivalent using the BEIS tables in **Figs 12, 13 and 14** below that show conversion factors for commercial flights, rail and grey fleet travel, which represent the latest factors available at the start of the reporting year.

				With RF
Activity	**Haul**	**Class**	**Unit**	**kg CO_2e**
Flights	Domestic	Average passenger	passenger.km	0.27257
	Short-haul	Average passenger	passenger.km	0.18592
		Economy class	passenger.km	0.18287
		Business class	passenger.km	0.27430
	Long-haul	Average passenger	passenger.km	0.26128
		Economy class	passenger.km	0.20011
		Premium economy class	passenger.km	0.32015
		Business class	passenger.km	0.58028
		First class	passenger.km	0.80040

Figure 11 - Air Travel Emissions Factors (Conversion factors from Gov.UK published July 2023)

Activity	**Type**	**Unit**	**kg CO_2e**
Rail	National rail	passenger.km	0.035463

Figure 12 - Rail Travel Emissions Factors (Conversion factors from Gov.UK published July 2024)

			Diesel	**Petrol**	**Pug in Hybrid**	**Battery Electric Vehicle**	**Unknown**
Activity	**Type**	**Unit**	**kg CO_2e**	**kg CO_2e**	**kg CO_2e**	**kg CO_2e**	**kg CO_2e**
Cars (by size)	Small car	km	0.13994	0.14370	0.06031	0.04284	0.14262
		miles	0.22522	0.23126	0.09706	0.06895	0.22953
	Medium car	km	0.16807	0.17726	0.09245	0.04625	0.17256
		miles	0.27050	0.28526	0.14878	0.07443	0.27771
	Large car	km	0.20729	0.26885	0.11846	0.04925	0.22472
		miles	0.33362	0.43267	0.19065	0.07925	0.36164
	Average car	km	0.16984	0.16450	0.10781	0.04745	0.16691
		miles	0.27334	0.26473	0.17350	0.07636	0.26860
Motorbike	Average	km	-	-	-	-	0.11367
		miles	-	-	-	-	0.18293

Figure 13 – Vehicle Travel Emission Factors (Conversion factors from Gov.UK published July 2024

2024 Basis of Reporting

Method of calculation – for calendar year 2024

Business travel data is collected for commercial flights, rail travel and grey fleet across our four main regions (UK, US, Australia, Saudi Arabia) where available. The data is a mixture of booked versus actual travel, in the US Air and Rail data is booked and does not take into account cancellations/changes made by the traveller nor does Air travel in KSA or AUS. Rental and personal car travel in the US is based on actual travel. In the UK flight data is based on actual travel and takes into consideration changes and amendments. All hire car, private car and personal car miles are based on actual travel.

Commercial flight data is gathered from the flight booking partner in the UK and US about the distances and flight class associated with each individual journey. Similar flight data is gathered from local BAE Systems contacts in Australia, Saudi Arabia and Sweden. The distances and classes associated with each journey are then processed into 'Short Haul'; 'Medium Haul'; and 'Long Haul' flights so that the conversion factors in **Fig 11** can be applied. To note, the Domestic conversions are used for 'Short Haul' BAE flights, Short Haul conversions are used for 'Medium Haul' BAE flights and Long Haul conversions for 'Long Haul' BAE flights. The MH and LH distance thresholds have been taken from UK BEIS conversion factors. The SH (also known as 'domestic') distance threshold has been verified against the GHG Protocol and US Environmental Protection Agency distance thresholds. The departure date is used to collate the flights to ensure all flights taken in the reporting year are included in the calculations. Flight data should be requested per flight leg in order to accurately map the haul class to the distance data. Additionally, flight data is only included in the calculations if the departure date is within the reporting period.

As an exception KSA and SWE flight data is not available as individual flight legs therefore the total distance has been classified as long haul representing a worst case scenario in terms of emissions conversion rates.

Rail travel data is available in the UK and US and Sweden. In the UK, data is gathered from the rail booking partner in relation to the distances associated with each individual journey. In the US, data is gathered direct from Amtrak in relation to the distances associated with each individual journey. These distances are then applied to the 'type' of rail travel in **Fig 12** and converted to tCO_2e.

Grey fleet travel data is available for the UK, US and AUS and is gathered internally. The data is provided in separate company car and personal car mileage spreadsheets. These distances are then categorised into fuel type and converted to tCO_2e using the conversion factors in **Fig 13**.

Unit of measure – for calendar year 2024

tCO_2e

Tracking emissions over time

For the purposes of developing our scope 1 and 2 Net Zero road maps, a baseline year of 2020 was selected for the UK/International businesses for our US businesses this is 2019.

Recalculating base year emissions

The business has defined its recalculation policy as:

Where any structural changes take place within the business which has a significant impact on the base year emissions. E.g. transfer of ownership or control of emissions-generating activities or operations from one company to another, the base year will be recalculated. This will take place for the following activities:

- Mergers, acquisitions, and divestments
- Outsourcing and insourcing of emitting activities
- Changes in calculation methodology or improvements in the accuracy of emission factors or activity data that result in a significant impact on the base year emissions data
- Discovery of significant errors, or a number of cumulative errors, that are collectively significant.

We do not set a numerical threshold for significance but will consider the impact of the activities above and the need for recalculation on an annual basis.

Basis of Reporting – Environment - Waste

Description

BAE Systems reports non-hazardous and hazardous waste generated at locations where the business either process the consignment and / or transfer notes (as defined by home market laws and regulations) or where data is made available via a third party.

This data covers all non-hazardous and hazardous waste generated at our locations unless covered by a standalone contractual agreement that defines the contractor / customer is responsible as the producer of the waste.

Excludes locations at which we have a presence but do not have operational control or have separately provided waste data. Examples include offices in office blocks where waste is part of the lease agreement hence a standalone contractual agreement is in place or a customer location.

For the UK and ROW locations, data is added to the CR Desktop. Where data has not been added to CRD, it is accepted that a 'null entry' for any field will be interpreted as a statement that the field is not relevant to that particular location or business unit.

(Note: Inc. data is separately collated and validated (within Inc.) and then provided in spreadsheet format for collation at a Group level).

Reporting period 1 January 2024 to 31 December 2024.

Basis of calculation

Figures for non-hazardous and hazardous waste do not include construction or remediation waste. Any construction or remediation waste is recorded separately as it does not reflect normal business operations.

The waste figures are derived by taking the total volume hazardous and non-hazardous waste recorded on CRD, removing any locations that have reported figures where we do not have operational control from the total.

Remediation and construction waste are not included in the hazardous or non-hazardous waste figures. Remediation waste usually refers to work being conducted under construction or demolition projects to remediate soil where degradation may have occurred. Construction waste usually reflect either sold land or facilities or building of new facilities. Neither reflects normal business operations and occur infrequently.

Recycled waste includes both hazardous and non-hazardous waste where the consignment / transfer notes donate it has subsequently been recycled.

Method of calculation

For facilities where we process the waste notes, the total volume of hazardous and non-hazardous waste is taken from CRD and combined with data provided by Inc. Locations where we do not have operational control are removed.

For facilities at which we have a presence but do not process the waste notes and receive waste data (and therefore which are not recorded within CRD), no account is made to summarise consumption.

Unit of measure – for calendar year 2024

Tonnes - t

2024 – Pro-rated approach

For the 2024 Annual Report and/or other external reporting, we use January to October data and then pro-rata this for the full year. This aligns with the approach taken for Energy related data, and meets the requirement to use a calendar year reporting period. The pro-rated approach will be used for the following data points:

- Non-hazardous waste
- Hazardous waste
- Recycled waste

This approach is considered acceptable based on analysis of the same data points over the last few years, which show that the variances between actual Full Year data and Jan to Oct pro-rated data are < +/-2%. (Analysis uses CR Desktop, UK & International data).

Whilst we do not have analysis for the same period for the Inc. business, we consider that the UK & International business to be a good representation of the whole Group.

The method will be monitored and reviewed during Q4 2025, for the next reporting period.