INTRODUCTION
The data reported includes BAE Systems’ wholly-owned subsidiaries and includes data for our four key markets (i.e. Australia, Kingdom of Saudi Arabia, UK and US).

DIVERSITY
Basis of calculation – for calendar year 2019
Total number of employees, recorded on our HR 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 – for calendar year 2019
Total number of employees, permanent and fixed term, captured on our HR systems. The data does not include temporary workers, sub-contractors and agency staff. Data is captured and pulled from various HR Systems across our four key markets by a nominated point of contact who manages the data.

Unit of Measure – for calendar year 2019
Total number of employees.

AGE DIVERSITY
Description – for calendar year 2019
Total number of employees, permanent and fixed term at 31 December 2019, split across the following age groups:

- 24 years and younger
- 25-34 years
- 35-49 years
- 50-59 years
- 60 years and older

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

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

Unit of Measure – for calendar year 2019
Total number of employees by age.

GENDER DIVERSITY
Description – for calendar year 2019
Total number of employees, permanent and fixed term at 31 December 2019, 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 Systems across our four key markets by a nominated point of contact who manages the data.

Unit of Measure – for calendar year 2019
Total number of employees split by gender.
ETHICS

FORMAL ENQUIRIES

Description – for calendar year 2019

These are the number of enquiries raised as a result of contacts with our Ethics Office. The contacts include calls, emails, web-reports, letters and walk-in contacts made to our Ethics Officers directly or via the Ethics Helplines across the Group. All contacts are logged. Contacts of the nature of requests for advice or guidance are addressed or referred onwards (for example, in the case of general HR enquiries). Any contact that raises a concern or makes an allegation of inappropriate conduct is recorded as an enquiry but may be closed as guidance if appropriately resolved with guidance and advice.

Where, having considered the criteria noted below, we are reasonably persuaded that multiple contacts to our Ethics Office relate to a single matter of concern, then we report this as a single enquiry.

In evaluating whether multiple contacts to our Ethics Office relate to the same matter, we must give consideration to: the severity of the reported issue; 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); the length of time within which the contacts were made (e.g. contacts made within a brief period on the same minor issue will qualify for reporting purpose as a single contact); and the channel of contact. It is noted that all contacts are followed up with the individual concerned. Any issues which requires reinvestigation are re-entered as a separate contact and investigated further, with the categorisation of the contact amended accordingly.

Contacts can come from any individual, regardless of their affiliation: employees, contractors, customers, suppliers etc. Ethics Helpline contact details are posted in our facilities, shared via email, posted on our intranets and included on our website. Users of our externally managed Ethics Helplines are given a unique reference number so that they can monitor the progress of their contact and, when wishing to remain anonymous, in jurisdictions in which it is legal and appropriate receive feedback. Appropriate feedback is provided to all those making reports or seeking guidance through the various ethics channels.

BAE Systems, Inc.

The BAE Systems, Inc. Ethics Helpline includes a 24x7 call centre and a web-based intake form administered by an external service provider, NAVEX Global. The Ethics Office may receive contacts from a variety of avenues including Ethics Officers, Human Resources, management, the Board of Directors and our Ethics Helpline. All contacts are recorded in the BAE Systems, Inc. NAVEX Global database. The matter is triaged and escalated as appropriate. The case is assigned to the appropriate Ethics Officer for investigation, documentation, resolution, and case closure. Ethics Officers may partner with the appropriate functional subject matter experts to conduct the investigation. Oversight, consistency and quality assurance are provided by the BAE Systems, Inc. Ethics Oversight Committee (EOC), Inc. Ethics Office, Sector Ethics Directors and Sector Ethics Steering Committees. The Ethics Oversight Committee includes: the Chief Operating Officer; Senior Vice President & General Counsel; Senior Vice President, Human Resources; Senior Vice President, Finance; Vice President, Internal Audit; Vice President and Chief Ethics Officer and an outside Director from the BAE Systems, Inc. Board of Directors. The EOC meets at least twice a year and is responsible for reviewing the Company’s overall ethics compliance and awareness program and reviewing any significant ethical issues.

BAE Systems plc (all BAE Systems less BAE Systems, Inc.)

The helpline service and web reporting service is run by an external service provider, Expolink (a NAVEX Global Company), who forward call details to the Ethics leadership team at Head Office. The Ethics leadership team at Head Office also receive contacts to our dedicated ethics helpline email address, postal letters and by other means. The Ethics leadership team opens a case for each report received, triage the severity of the report and either escalates the report, in accordance with our escalation process or disseminates contacts to the appropriate businesses, via Ethics Officers, for investigation/resolution. Ethics Officers across the businesses also receive contacts directly by
telephone, email and walk-in (face to face). The day-to-day management of all ethics contacts is the responsibility of the Head of Ethical Business Conduct, their staff and the Ethics Officers, using a centralised case management tool to do so. Oversight of all ethics contacts is the responsibility of the Ethics Review Committee (ERC), chaired by the Group Director Governance, Conduct & Sustainability with permanent members of Group Audit Director; Chief Counsel, Compliance & Regulation; HR Director, Head Office; Group Security Director; Head of IT Security, Office of the CIO; Head of Employee Relations, UK Head Office and Head of Ethical Business Conduct. The ERC meets quarterly reviewing contacts management performance, significant trends and actions taken in response to ethical concerns raised, ensuring thoroughness and consistency. They also review inputs from the other functions represented by committee members, including investigations; emerging risks; and a success, opportunities, failures and threats (SOFT) report.

Basis of calculation – for calendar year 2019
The total number of ethics enquiries is based on the number of calls to our Ethics Helplines; reports and queries sent to our ethics email addresses; via the internet and contacts to our Ethics Officers, whether they be by telephone, email or walk-in. All ethics cases are reported via our case management tools.

Unit of Measure – for calendar year 2019
Each formal enquiry made to the Ethics Office (unless classed as a multiple contact on the same incident – see above description).

TYPES OF CONTACTS TO ETHICS HELPLINE/CONTACT WITH ETHICS OFFICERS RESULTING IN ENQUIRIES

FORMAL ENQUIRY TYPES
Description – for calendar year 2019
Contacts to Ethics helpline and email address and contact with Ethics Officers are categorised using the primary and secondary enquiry types:

Accounting Charge practices:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:

- Accounting Charge Practices (Major) – Directed or intentional charging of labour or related expenses, including travel expenses, to an improper account; systemic or excessive irregularities or errors in charging; pattern of charging the wrong cost objective; contract cost shifting or allocation not in accordance with disclosure statements, etc.

- Accounting Charge Practices (Minor) – Inappropriate charging of labour or related expenses, including travel expenses, to an improper account where such charges are not indicative of a significant or consistent pattern of abuse; minor timekeeping infractions or misuse of business unit time where cost accounting adjustments are indicated (i.e. the employee did not make up the time); malingerer or sleeping while assigned to work and charging the time on accounting records; infrequent, unauthorised late arrivals or early departures where the time is charged on accounting records; other improper time charging incidents or patterns not indicative of gross mischarging or cost to the customer.

- General Accounting Practices - Inaccurate, false, or misleading financial records or statements including, but not limited to, general ledgers, profit and loss statements, cost, schedule and control accounting records; financial planning or budgeting issues; failure to properly account for receivables or payables; improper billing practices; property accounting; actions that are not consistent with the letter or spirit of BAE Systems financial policies.

Company ethical practices:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:

- Issues relating to the Company’s policies – Implementation or exercise of the Company’s policies or procedures.

Conflicts of interest:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:
• Conflict of Interest - Misc. – Due to other activities or relationships, BAE Systems is unable or potentially unable to render impartial assistance or advice to the government or other customer, or where objectivity in performing the contract work is or might be otherwise impaired, or where an unfair competitive advantage exists (i.e. organisational conflict of interest); or other conflicts of interest not described above.
• Gifts, Gratuities, Other Courtesies – Receiving or offering any gift, gratuity, or other business courtesy in violation of corporate policy.
• Former Government Employees – Prohibited employment actions (e.g. hiring, discussions of potential employment, etc.) pertaining to former government employees.
• Kickbacks or Bribes - Providing, or attempting to provide, or offering to provide any kickback; or soliciting, accepting, or attempting to accept any kickback; or including, directly or indirectly, the amount of any kickback:
  (1) in the contract price charged by a BAE Systems subcontractor to a higher tier subcontractor or to BAE Systems; or
  (2) in the contract price charged by BAE Systems. A kickback means any money, fee, commission, credit, gift, gratuity, thing of value, loan, entertainment, services, or compensation of any kind which is provided, directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favourable treatment in connection with a prime contract or a subcontract.
• Outside Business Activities – Direct or indirect personal interest in a transaction or situation with a supplier, customer, competitor, shareholder or other which might reasonably appear to affect the judgment the employee exercises on behalf of the Company, influence the employee's actions, or lead the employee to neglect the Company's business. This includes dual employment adverse to BAE Systems' interest, certain ownership interests (i.e. securities), and other actions and relationship interests.

Employee relations and conduct:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:
• Compensation, Benefits, and Pay – Salary or wages; overtime; merit; payroll issues; relocation, field service, or foreign allowance compensation; pay for military duty or jury duty; group insurance matters (e.g. medical, dental, life); severance pay; pension; leave of absence provisions; workers' compensation; tuition reimbursement; vacation; bereavement; holidays; COBRA.
• Discrimination – Employment decisions or treatment based on race, sex, age, religion, colour, national origin, disability, veteran status, or on any other unlawful basis; also see Equal Employment Opportunities.
• Employee Misconduct - Misc. – Insubordination; violence, threats, fighting; gambling; soliciting; unauthorised absence; smoking in prohibited areas; profanity; and other inappropriate conduct not covered elsewhere.
• Hiring or Placement Practices – Matters pertaining to recruiting; hiring; job posting; selection; promotion; demotion; placement; job classification issues; external applicants; recalls.
• Intimidating or Threatening Conduct – Harassing, frightening, annoying, or tormenting behaviour (e.g. “nitpicking”).
• Layoff or Other Terminations – Matters pertaining to reduction in force decisions, layoff or other termination issues.
• Records Falsification (Non-Finance) – Falsification of personnel or other non-financial records including, but not limited to, resumes, applications, letters of recommendation, disciplinary records, health records, benefit applications or filings, and certain operations records such as manufacturing, quality, engineering drawings, etc.; also see Product Substitution and Accounting and Charging Practices.
• Sexual Harassment - Any unwelcome sexual advance(s), request(s) for sexual favours or other unwelcome verbal or physical conduct of a sexual nature. Sexual harassment exists when any one or more of the following occurs;
  (1) submission to the sexual conduct is a term or condition of employment;
  (2) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual;
the sexual conduct has the purpose or effect of interfering with a person's work;
(4) or the sexual conduct creates an intimidating, hostile, abusive, or offensive work
environment.
• Substance Abuse - Alcohol; drugs; controlled substances; possessing, selling, or being under
the influence on business unit time or premises where the business unit conducts its
business.

International business issues:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:
• Export or Import Issues - Violations of export or import rules or regulations; improperly or
unlawfully shipping, mailing, hand-carrying, or in any other way exporting or importing any
commodity or technical data or causing or permitting any other person to do so; exporting or
importing without the appropriate license or exemption, payment of fees, and/or appropriate
documentation.
• International Law - Violation of statutes, regulations, or policies pertinent to the conduct of
international business.

Procurement, trade and marketing:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:
• Boycotting or Trade Restraint – Entering into agreements or practices in restraint of trade;
price fixing; boycotts of suppliers or customers; monopoly; tie-in sales; disparaging,
misrepresenting, or harassing a competitor.
• Competitive Sensitive Data – Solicitation, acceptance, use or possession of
(1) document(s) containing a legend indicating that such document(s) originated with or
belong to another business unit, that such document(s) are of a competitive nature, and
the receipt, possession and/or use of the information is prohibited by the legend;
(2) document(s) (whether or not containing legends) or information which constitute part of,
or relate to the contents of, another business unit's proposal at any stage of competition;
(3) government document(s) of a source selection or procurement planning nature which
contain a legend indicating that release outside the government is not authorised;
(4) government document(s) or extracts there from which contain source selection or
procurement planning information not containing a restrictive legend, if there is reason to
believe release has not been approved by the government;
(5) any information of the government or of a business organisation, whether a competitor
or not, where it is clear that release of that information is unauthorised or in
circumstances where there is reason to believe that such information cannot lawfully be
in BAE Systems' possession.
• Political or Lobbying Activity – BAE Systems funds, property, services, or other items of value,
improperly contributed, loaned, or made available, directly or indirectly, to any political party,
committee, or candidate, or to the campaign of any candidate; improper activity on the part
of an employee or representative to influence the decision making of any executive or
legislative branch member or government employee.
• Procurement Issues – Miscellaneous misconduct pertaining to the procurement of goods or
services such as favouritism toward a supplier based on personal friendship or other non-
business related reason(s); poorly justified sole source decisions; tailoring specifications to
favour a single vendor; late payments; contracting without a purchase order; failing to follow
procurement procedures; issues related to selection of subcontractors and contractors.
• Proprietary Data and Intellectual Property – Mishandling data that are valuable assets either
of the company or its collaborators or customers such as proprietary data, intellectual
property, patents, trade secrets, "know how," and technical information. Misconduct may
include, but is not limited to, misuse of proprietary data, violation of non-disclosure
agreements, or improper technology transfer.
• Securities and Insider Trading – Buying or selling stock based on material, non-public
information concerning the Company such as transactions in which the Company proposes to
engage or information about other entities with which the Company does business (i.e.
"inside information"); using non-public information for personal gain, supplying others with
"inside information" (i.e."tipping"); other securities violations.
• Software Licensing – Unauthorised distribution, possession, use or copying of copyrighted software or documentation.

Quality or manufacturing issues:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:
• Manufacturing Methods or Practices – Improper use of tools; failure to follow work instructions; inadequate, unclear, or ambiguous work instructions; schedule delays; skill or efficiency problems.
• Quality or Reliability – Excessive scrap or rework; poor workmanship; poor attention to detail; may also apply to administrative work.

Scientific Integrity:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:
• Improper Research Practices – Issues related to improper publication and peer-review practices; authorship and credit practices; data collection and research project management; mentoring of trainees. Actions include, but are not limited to, multiple submissions of articles for publication, improper treatment of information acquired during peer review, untimely release of research results, improper assignment of authorship to publications, omission of credit, misrepresentation or omission of citations, refusal to share scientific data on a timely basis, improper retention of data, irresponsible supervision of junior research staff, improper representation of the standards of scientific conduct. Such actions, although generally not directly damaging to the integrity of the research itself or related findings, violate traditional values in research and may be detrimental to the research process.
• Scientific Misconduct – Wilful fabrication, falsification of scientific or technical research data or plagiarism in proposing, performing, or reporting research.

Security and misuse of assets:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:
• Misuse or Abuse of Assets – Unauthorised personal use of business unit or customer resources (i.e. phones, computers, equipment, vehicles, etc.); misuse or abuse of business unit or customer facilities; improper use of the Internet or other telecommunications; also see Theft.
• Security - Computer – Actions that undermine security measures dedicated to computing and related assets, such as physical safeguards, access authorisation, data encryption, virus prevention/detection, data backup, and disaster, recovery planning.
• Security – Government or Customer – Violations of procedures pertaining to classified, secret, or otherwise sensitive documents or data; espionage; computer security involving classified data (use in conjunction with Security – Government or Customer).
• Security – Plant Protection – Physical security of facilities; traffic and parking control; possession of weapons or firearms on business unit property.
• Theft – Unauthorised removal of business unit, customer, or vendor assets or property; stealing, embezzlement.

Contract compliance:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:
• Contract Compliance - Misc. – Violating or failing to meet terms and conditions of a contract, or the spirit of a contract, that are not covered elsewhere in this glossary (e.g. failing to meet schedules, not adhering to management structure or cost commitments, contractual performance matters pertaining to customers or subcontractors’).
• Defective Pricing – Submission of a proposal, quotation, or other document or statement that is incomplete or incorrect; improper estimating practices; improper certifications of current cost and pricing.
• Product Substitution – Physical, non-compliance with contract technical specifications that could impact form, fit or function; product integrity or product safety issue; delivering materials where required testing/inspection is not performed, is questionable, or without appropriate waiver/deviation.
Management practices:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:

- Application of Policy or Procedure – Whimsical, wrong, or inconsistent application of employment-related policy, procedure, or practice.
- Interpersonal Skills – Poor or inadequate communication; rudeness, insensitivity to employee morale.
- Intimidation or Harassment by a manager – Threatening, frightening, coercive, discouraging, annoying, or tormenting behaviour (e.g. “nit-picking”) of a non-sexual nature; also see Sexual Harassment.
- Management Practices – Misc. - Inadequate or unfair assignment of work duties; failure to monitor work areas; ineffective or poor budgeting, staffing, controlling; inadequate career development of subordinates; whimsical application of discipline.
- Nepotism or Favouritism – Employment decisions based on family or another significant relationship(s); treating one employee differently from another without a sound business basis; favouritism generally means preferential treatment without a sound business basis; nepotism is the special case of favouritism shown by relatives or close friends in the assignment of work, compensation, training or other work-related decisions.
- Performance Appraisal – Unfair, biased, or inadequate performance appraisal practices.
- Retribution or Retaliation – Threats or punishment (i.e. “payback”) for utilising the Ethics Helpline or reporting misconduct to management through any means.
- Reward or Recognition – Inconsistent, unfair, whimsical application of reward and recognition (other than compensation).

Environmental, Safety and Health:
Concerns or complaints (that require more than advice or guidance to resolve) relating to:

- Storage or Handling of Hazardous Material – Improper storage, handling, transportation, or disposal (including emissions) of hazardous materials, or other violation(s) of environmental law or regulations.
- Safety or Health – Unsafe or unhealthy work conditions or practices; placing or failing to protect an employee(s) from exposure to chemical, physical or biological hazards likely to result in injury or damage to business unit property; failing to adhere to statutory or regulatory safety or health requirements.

Guidance and Advice:
Reports that do not allege misconduct; request is for guidance or clarification on minor concerns; no investigation required; reports that are best resolved through advice or guidance.

Basis of calculation – for calendar year 2019
The total number of ethics enquiries is based on the number of calls to our Ethics Helplines; reports and queries sent to our ethics email addresses; via the internet and contacts to our Ethics Officers, whether they be by telephone, email or walk-in. All ethics cases are reported via our case management tools.

Unit of Measure – for calendar year 2019
Each individual Ethics Report (unless classed as a multiple contact on the same incident – see above FORMAL ENQUIRIES description) categorised under global headings.

DISMISSALS – FOR REASONS RELATING TO UNETHICAL BEHAVIOUR
Description – for calendar year 2019
Dismissals are the number of full and part time 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.
Basis of calculation – for calendar year 2019
This figure is 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 Measure – for calendar year 2019
The number of dismissed employees on our HR Information systems / HR records.

COMMUNITY
COMMUNITY INVESTMENT FIGURE
Description – for calendar year 2019
Total value of community investment by BAE Systems through its Community Investment and employee fundraising and volunteering programmes.

The figure is based on:
- Donations and charitable sponsorships made through the Community Investment programme globally to local, national and international charities and other not-for-profit organisations. These include financial contributions and in-kind donations - donation/gift of either an asset or service to an organisation or individual, which is not cash. Examples of in-kind contributions may include a product such as a tank to a museum, or our technology and skills in the form of an employee's time working for that organisation.
- Funds raised from employee charitable activities and BAE Systems matched contributions in Australia, India, Kingdom of Saudi Arabia, the UK and the US through the employee fundraising, volunteering and our payroll giving programmes. Data for employee fundraising and volunteering is input into two reporting tools (one US and one for the rest of the world) by nominated points of contact across the business globally, apart from in the US where a separate recording tool is used for volunteering. Employees in the US are able to enter their own volunteering time, using an honour process. The Payroll giving data is provided via our payroll systems, apart from in the US where employees have control to manage their contributions online and the data is reported from the tool directly.

The central reporting tool is based on the London Benchmarking Group methodology for calculating donations and charitable sponsorships, except for the inclusion of payroll giving. Data for company sponsorships and donations is input in to one reporting tool.

Basis of calculation – for calendar year 2019
Employee fundraising – total amount raised from our Australia, India, Kingdom of Saudi Arabia, the UK, the US and other International markets during the 2019 calendar year and recorded through two reporting tools (one for the US and one for the rest of the world).

Company Sponsorships and donations – total amount of donations and charitable sponsorships (which includes payments to non-charitable organisations, but which have a community investment focus e.g. sponsorship to an educational institution) from the 2019 budget from across the business and recorded through the central reporting tool.

Payroll giving – total amount of money donated to charity from our Australia, UK and US home markets via payroll giving during 2019 calendar year and recorded through our payroll systems and for the US via an online tool to which employees have access to control and manage their contributions.

Volunteering – the value of employee time spent during working hours on activities organised or approved by the Company which directly aims to benefit a charitable organisation, calculated using a standard hourly rate of £35.12.

Unit of Measure – for calendar year 2019
Cash (GBP) spot rate as at 31 December 2019 applied retrospectively. This was the last date in the year where rates were available.
HEALTH & SAFETY 4, 5, 6, 7, 8 and 9

FATALITY
Description – for calendar year 2019
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 – for calendar year 2019
The number of fatalities reported by businesses globally recorded on CR desktop.

Unit of Measurement – for calendar year 2019
Number of occurrences.

MAJOR INJURIES RECORDED
Description – for calendar year 2019
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'

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

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.

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

**Basis of calculation – for calendar year 2019**
The total number of major injuries recorded on CR desktop.

**Unit of Measurement – for calendar year 2019**
The total number of occurrences.

**RECORDABLE ACCIDENTS PER 100,000 EMPLOYEES**
**Description – for calendar year 2019**
The definition for employee is as follows:

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 should be 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.

Recordable Accident definition is –

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 (stitches 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.

In each home market data is captured in accordance with national requirements.
This category includes injuries to 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'.

Safety data is captured on a global system – CR desktop – and is entered by a nominated point of contact who manages the data at their site or business.

Recordable accidents are recorded within CR desktop in the month that the work related injury occurred. Work-relatedness is presumed for injuries resulting from events or exposures occurring in the work environment unless an exception specifically applies. A case is presumed work-related if, and only if, an event or exposure in the work environment is a discernible cause of the injury or is a significant aggravation to a pre-existing condition.

**Basis of calculation – for calendar year 2019 (as at 31 December 2019)**

Recordable accidents recorded on CR desktop.

Calculation:

\[
\text{(Total number of Recordable accidents/total average number of employees)} \times 100,000.
\]

**Unit of Measurement – for calendar year 2019**

Rate per 100,000 employees.

**ENVIRONMENT – GREENHOUSE GAS (GHG) EMISSIONS**

**METHOD STATEMENTS**

The greenhouse gas emissions data is reported in line with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard 'Operational Control' method, and emission factors for fuels and electricity are published at www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

For the 2019 reporting cycle, the 2019 emissions factors have been utilised as opposed to the 2018 factors. In previous years the emissions factors used for the Group’s greenhouse gas emissions reporting have been a year behind, mainly due to the factors not being released in time for half year assurance (for example, 2016 emissions factors used for 2017 reporting cycle). Going forward, the emissions factors used will coincide with the year of the reporting cycle as these are the latest factors available for the majority of the Group’s reporting period.

The CO2e associated with carbon dioxide, methane and nitrous oxide is reported. Greenhouse gas emissions associated with hydro fluorocarbons, per fluorocarbons and sulphur hexafluoride are estimated to be immaterial to total emissions and are therefore not reported.

The principal record of the Group's worldwide facilities is its legal department’s Global Property Database.

Greenhouse gas emissions are primarily calculated from energy consumption records reported via the Group’s global environmental database. Where actual usage data is not available for facilities and residences within the Global Property Database, an estimated consumption is used based on the type of building.

Greenhouse gas emissions related to business travel include air travel data for the majority of the global business and rail data for business units operating in the UK and US. These data are taken from suppliers' procurement records.

Emissions from joint ventures and pension scheme properties not occupied by the Group are not included. Where a business or facility is acquired during a reporting year, it will be included in our reporting in the next full reporting year after the change.
The Scope 2 Greenhouse Gas Emissions associated with the GHG Protocol ‘Market-Based’ Method have been calculated as 517,035 tCO2e. Supplier-specific emission factors have been sought for our most significant operating regions, but were either deemed of insufficient quality to use at present, or were unavailable. Therefore, in line with the GHG Protocol Guidance, this figure has been calculated using residual-mix emission factors where available for our UK, US and Swedish operations. In our other significant operating regions, residual mix emission factors are either unavailable or the resulting absolute emissions at group level are within the margin of error and therefore country-specific emissions factors have been used in line with the GHG Protocol Guidance.

**DIRECT (SCOPE 1): GREENHOUSE GAS EMISSIONS**

**Description – for calendar year 2019**

*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, Coal, Liquefied Petroleum Gas or Propane Gas, Light Fuel Oil, Petrol, Heavy Fuel Oil, Aviation Fuel), 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)
- Petrol / Diesel – purchased and consumed within BAE Systems controlled road vehicles (i.e. hire cars and executive-lease cars) where the fuel does not come from stores at the facility
- Aviation fuel – purchased and consumed within BAE Systems controlled aircraft (i.e. Corporate Air Travel aircraft) where the fuel does not come from stores at the facility

**Basis of Calculation – Converting to CO2 Equivalent (CO2e) – for calendar year 2019**

BAE Systems direct GHG emissions are derived by calculation and expressed as CO2 equivalent using the BEIS (previously DEFRA) inclusive of Scope 1 & 2 GHG emission factors as listed in Fig 1 below which represent the latest factors available for the majority of the reporting period.

Where the Scope 1 emissions are associated with BAE Systems-controlled vehicles (i.e. hire cars and executive-lease cars), Fig 2 shows the BEIS conversion factors that are used if vehicle-specific emissions factors for the make and model cannot be used.

<table>
<thead>
<tr>
<th>Activity</th>
<th>CR Desktop Name</th>
<th>DEFRA Fuel</th>
<th>Unit</th>
<th>Energy - Gross CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaseous fuels</td>
<td>LPG or Propane Gas</td>
<td>LPG</td>
<td>kWh</td>
<td>0.21447</td>
</tr>
<tr>
<td></td>
<td>Natural Gas</td>
<td>Natural gas</td>
<td>kWh</td>
<td>0.18385</td>
</tr>
<tr>
<td>Liquid fuels</td>
<td>Aviation Fuel</td>
<td>Aviation turbine fuel</td>
<td>kWh</td>
<td>0.24776</td>
</tr>
<tr>
<td></td>
<td>Heavy Fuel Oil</td>
<td>Fuel oil</td>
<td>kWh</td>
<td>0.26782</td>
</tr>
<tr>
<td></td>
<td>Light Fuel Oil</td>
<td>Gas oil</td>
<td>kWh</td>
<td>0.25676</td>
</tr>
<tr>
<td></td>
<td>Petrol</td>
<td>Petrol (100% mineral petrol)</td>
<td>kWh</td>
<td>0.24099</td>
</tr>
<tr>
<td>Solid fuels</td>
<td>Coal</td>
<td>Coal (industrial)</td>
<td>kWh</td>
<td>0.33183</td>
</tr>
<tr>
<td>Heat and steam</td>
<td>Steam</td>
<td>Heat and steam</td>
<td>kWh</td>
<td>0.18746</td>
</tr>
</tbody>
</table>

*Figure 1 - Table showing factors used to convert CR Desktop energy data into tCO2e (Conversion factors from Gov.UK published July 2019)*
Method of Calculation – for calendar year 2019

For facilities where we process the utilities, direct energy emissions are calculated from the actual or estimated energy data recorded within CR Desktop in kWh multiplied by the corresponding CO$_2$e emissions factor as listed in the Table in Fig 1. For facilities at which we have a presence 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 parameters of Planning Category and Floor Area held for that facility within the Global Property Database (GPD) applied to the look up estimate values in the table in Fig 3 below. For facilities where the floor area is unknown, a reference value according to planning category is applied from the table below. The kWh value is then multiplied by the corresponding CO$_2$e emissions factor as listed in Fig 1 above.

For Petrol / Diesel associated with BAE Systems-controlled road vehicles, data is gathered centrally where available for each of our four regions (UK, US, Australia, KSA), for both hire cars and executive lease cars. For hire cars, data is available in the UK, US and Australia. In both the UK and Australia, mileage data is provided directly from the hire car supplier (Avis), along with the make/model of car. Trip distances are then multiplied by the licensed emissions factor in grams/km to create a value of tCO$_2$e for each journey. All journey totals are then summed to produce a Scope 1 GHG value associated with UK and Australian Car Hire. In the US, mileage data is provided directly from the hire car suppliers (Avis and Enterprise). This is then converted to tCO$_2$e using the emissions factor for an ‘average car’ in Fig 2 above.

For executive-lease cars, data is currently only available in the UK, and this comes direct from the supplier (Arval). Arval supply data on the contract miles associated with each individual vehicle. An estimation of contracted miles is then taken for the entire executive fleet. This total number of miles is then split between petrol and diesel vehicles, and the emission factors are then applied using numbers in Fig 2 above.

For aviation fuel associated with BAE Systems-controlled aircraft in the UK and US, data is gathered centrally to understand the amount of aviation fuel consumed that is not purchased or stored on site (i.e. that has been consumed at 3rd party airfields). These totals are gathered, processed into a kWh value and then converted to CO$_2$e using the aviation fuel conversion factors in Fig 1 above.

<table>
<thead>
<tr>
<th>GPD Planning Category</th>
<th>Gas (kWh / m2 / year)</th>
<th>Average Floor area (m2)</th>
<th>Estimated Annual Gas (kWh)</th>
<th>Source of Estimate(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airfield</td>
<td>-</td>
<td>1,000,000</td>
<td>Same as ‘Hangar’</td>
<td>LightingDirectory</td>
</tr>
<tr>
<td>Car Parking</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>Same as ‘Hangar’</td>
</tr>
<tr>
<td>Hangar</td>
<td>100</td>
<td>10,000</td>
<td>1,000,000</td>
<td>MOD Benchmarks (Cat 4 Hanger)</td>
</tr>
<tr>
<td>Industrial</td>
<td>50,000</td>
<td>10,000,000</td>
<td>Same as ‘Manufacturing’</td>
<td>Laboratory</td>
</tr>
<tr>
<td>Laboratory</td>
<td>-</td>
<td>615,000</td>
<td>Same as ‘Test Site’</td>
<td>Land</td>
</tr>
<tr>
<td>Land</td>
<td>-</td>
<td>-</td>
<td>Assume no consumption as surplus land</td>
<td></td>
</tr>
<tr>
<td>Surplus Land</td>
<td>-</td>
<td>50000</td>
<td>10,000,000</td>
<td>Assume no consumption as surplus land</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-</td>
<td>50000</td>
<td>10,000,000</td>
<td>Average of UK medium manufacturing sites (i.e. except Barrow, Samlesbury &amp; Warton)</td>
</tr>
<tr>
<td>Mixed</td>
<td>200</td>
<td>3000</td>
<td>600,000</td>
<td>MOD Benchmarks (Multi Occupancy) &amp; BAE UK average office size</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>200</td>
<td>3000</td>
<td>600,000</td>
<td>MOD Benchmarks (Multi Occupancy) &amp; BAE UK average office size</td>
</tr>
<tr>
<td>Offices</td>
<td>95</td>
<td>3000</td>
<td>285,000</td>
<td>MOD Benchmarks (Cat 2 Office) &amp; BAE UK average office size</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>392,773</td>
<td>Same as 'Unknown'</td>
</tr>
<tr>
<td>Playing fields</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Recreational use</td>
<td>-</td>
<td>-</td>
<td>16,500</td>
<td>Ofgem typical medium household consumption figures</td>
</tr>
<tr>
<td>Shipyard</td>
<td>-</td>
<td>-</td>
<td>545,000</td>
<td>Average of known Aus Shipyards</td>
</tr>
<tr>
<td>Social Clubs</td>
<td>-</td>
<td>-</td>
<td>369,000</td>
<td>Same as 'Training Centre'</td>
</tr>
<tr>
<td>Storage</td>
<td>54</td>
<td>5000</td>
<td>270,000</td>
<td>MOD Benchmarks (Unoccupied Storage)</td>
</tr>
<tr>
<td>Support</td>
<td>-</td>
<td>-</td>
<td>20,000</td>
<td>Estimate based on 10 employees</td>
</tr>
<tr>
<td>Test Site</td>
<td>123</td>
<td>5000</td>
<td>615,000</td>
<td>MOD Benchmarks (Training Facility) &amp; Estimated Floor Area</td>
</tr>
<tr>
<td>Training Centre</td>
<td>123</td>
<td>3000</td>
<td>369,000</td>
<td>MOD Benchmarks (Training Facility) &amp; Preston ATC Floor Area</td>
</tr>
<tr>
<td>Unknown</td>
<td>-</td>
<td>-</td>
<td>392,773</td>
<td>Average of all types (except manufacturing)</td>
</tr>
<tr>
<td>Workshop</td>
<td>-</td>
<td>-</td>
<td>392,773</td>
<td>Same as 'Unknown'</td>
</tr>
</tbody>
</table>

*Figure 3 - Benchmark Estimate Values for Gas Usage*

**Unit of Measure – for calendar year 2019**

tCO2e

**ENERGY INDIRECT (SCOPE 2) GREENHOUSE GAS EMISSIONS – LOCATION-BASED METHOD**

**Description – for calendar year 2019**

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 energy is consumed.

BAE Systems reported Scope 2 ‘Location-Based’ emissions relate 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 GPD for the reporting year (see estimation methodology below).

They are derived by using annually published (BEIS) conversion factors applied to the sources above, as per the basis of calculation below.

Note that in most cases, BAE Systems is using the location-based approach to calculating Scope 2 emissions. For regions where supplier-specific or residual mix emissions factors are available the GHG Protocol ‘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 CO₂ Equivalent (CO₂e) – for calendar year 2019

BAE Systems indirect 'Location-Based' GHG emissions are derived by calculation using the BEIS inclusive of Scope 2 GHG emission factors for Grid Electricity as listed in Figs 4 and 5 below for the country in which the facility is located. Please note, as of 2015, BEIS ceased to release factors for overseas grid electricity use. Therefore, BAE Systems have not updated the non-UK grid electricity emissions factors since the 2016 reporting period. The variance in emissions factors are within the margin of error.

Please note that the emissions from non-UK electricity (Fig 5) are in CO₂ only (not CO₂e), as the data for overseas electricity does not include the associated CH₄ and N₂O emissions.

<table>
<thead>
<tr>
<th>Activity</th>
<th>CR Desktop Name</th>
<th>Country</th>
<th>Unit</th>
<th>kg CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity generated</td>
<td>Grid Electricity</td>
<td>Electricity: UK</td>
<td>kWh</td>
<td>0.2556</td>
</tr>
</tbody>
</table>

*Figure 4 - UK Grid Electricity Emissions Factor (Conversion factors from Gov.UK published July 2019)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>CR Desktop Name</th>
<th>Country</th>
<th>Unit</th>
<th>kg CO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity generated</td>
<td>Grid Electricity</td>
<td>Electricity: Australia</td>
<td>kWh</td>
<td>0.8136</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electricity: Saudi Arabia</td>
<td>kWh</td>
<td>0.75293</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electricity: South Africa</td>
<td>kWh</td>
<td>0.85728</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electricity: Sweden</td>
<td>kWh</td>
<td>0.0165</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electricity: United States</td>
<td>kWh</td>
<td>0.49845</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electricity: ROW Average</td>
<td>kWh</td>
<td>0.47174</td>
</tr>
</tbody>
</table>

*Figure 5 - Non UK Grid Electricity Emissions Factors 2015 (Not updated by BEIS in 2019)*

Method of Calculation – for calendar year 2019

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 CO₂e emissions factor according to country as listed in Figs 4 and 5 above.

We apply a ‘rest of world’ average emissions factor to our sites located in countries not specifically listed in the table above in order to make the process for calculating our emissions simpler to understand. These sites only represent 1.5% of our total energy use and therefore this simplification does not materially affect the accuracy of our emissions reporting for the group.

For facilities at which we have a presence but do not process the utilities (and therefore which are not recorded within CR Desktop), an estimate of the Electricity usage in kWh is made using parameters of Planning Category and Floor Area held for that facility within the GPD applied to the look up estimate values in the table in Fig 6 below. For facilities where the floor area is unknown a reference value according to planning category is applied from the table in Fig 6. The kWh value is then multiplied by the corresponding CO₂e emissions factor as listed in Figs 4 and 5 above.

<table>
<thead>
<tr>
<th>GPD Planning Category</th>
<th>Electricity (kWh / m² / year)</th>
<th>Average Floor area (m²)</th>
<th>Estimated Annual Elec (kWh)</th>
<th>Source of Estimate(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airfield</td>
<td>-</td>
<td>-</td>
<td>90,000</td>
<td>Same as ‘Hangar’</td>
</tr>
<tr>
<td>Car Parking</td>
<td>-</td>
<td>-</td>
<td>500,000</td>
<td>LightingDirectory</td>
</tr>
<tr>
<td>Employment Designation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Hangar</td>
<td>9</td>
<td>10000</td>
<td>90,000</td>
<td>MOD Benchmarks (Cat 4 Hanger)</td>
</tr>
<tr>
<td>Industrial</td>
<td>50000</td>
<td>-</td>
<td>5,000,000</td>
<td>Same as ‘Manufacturing’</td>
</tr>
<tr>
<td>Laboratory</td>
<td>180,000</td>
<td>-</td>
<td>0</td>
<td>Same as ‘Test Site’</td>
</tr>
<tr>
<td>Land</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>Assume no consumption as surplus land</td>
</tr>
</tbody>
</table>

2019 Basis of Reporting
### Figure 6 - Benchmark Estimate Values for Electricity Usage

**Surplus Land**  
Assume no consumption as surplus land

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>-</td>
<td>50000</td>
<td>5,000,000 Average of UK medium manufacturing sites (i.e. except Barrow, Samlesbury &amp; Warton)</td>
</tr>
<tr>
<td>Mixed</td>
<td>100</td>
<td>3000</td>
<td>300,000 MOD Benchmarks (Multi Occupancy) &amp; BAE UK average office size</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>100</td>
<td>3000</td>
<td>300,000 MOD Benchmarks (Multi Occupancy) &amp; BAE UK average office size</td>
</tr>
<tr>
<td>Offices</td>
<td>100</td>
<td>3000</td>
<td>300,000 MOD Benchmarks (Cat 2 Office) &amp; BAE UK average office size</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>182,000</td>
<td>Same as 'Unknown'</td>
</tr>
<tr>
<td>Playing fields</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>-</td>
<td>-</td>
<td>5,000 Ofgem typical medium household consumption figures</td>
</tr>
<tr>
<td>Shipyard</td>
<td></td>
<td></td>
<td>306,000 Average of known Aus Shipyards</td>
</tr>
<tr>
<td>Social Clubs</td>
<td></td>
<td></td>
<td>108,000 Same as 'Training Centre'</td>
</tr>
<tr>
<td>Storage</td>
<td>3</td>
<td>5000</td>
<td>15,000 MOD Benchmarks (Unoccupied Storage)</td>
</tr>
<tr>
<td>Support</td>
<td>-</td>
<td>-</td>
<td>10,000 Estimate based on 10 employees</td>
</tr>
<tr>
<td>Test Site</td>
<td>36</td>
<td>5000</td>
<td>180,000 MOD Benchmarks (Training Facility) &amp; Estimated Floor Area</td>
</tr>
<tr>
<td>Training Centre</td>
<td>36</td>
<td>3000</td>
<td>108,000 MOD Benchmarks (Training Facility) &amp; Preston ATC Floor Area</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>182,000</td>
<td>Average of all types (except manufacturing)</td>
</tr>
<tr>
<td>Workshop</td>
<td></td>
<td>182,000</td>
<td>Same as 'Unknown'</td>
</tr>
</tbody>
</table>

**Unit of measure – for calendar year 2019**

tCO2e

**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.

BAE Systems reported Scope 2 ‘Market-Based’ emissions relate 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).

They are derived by using supplier emissions data where available for our relevant energy supplies, which are applied to the sources above for the quantities used, as per the basis of calculation below.

**Basis of Calculation – Converting to CO₂ Equivalent (CO₂e)**

BAE Systems indirect ‘Market-Based’ GHG emissions are derived using supplier emissions data where available for our relevant energy supplies as listed in Fig 8 below for the current year.

<table>
<thead>
<tr>
<th>Region / Supply Type</th>
<th>Relevant Supplier (s)</th>
<th>Supplier Fuel Mix</th>
<th>Emissions Factor to Apply</th>
<th>Emissions Factor Applies to</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK / Purchased Electric Power</td>
<td>Npower (Npower Ltd Tariff)</td>
<td>Coal – 9.8% Gas – 52.3% Nuclear – 15.9% Renewable – 18.7% Other – 3.3%</td>
<td>Npower publish information about the emissions-intensity of their electricity supplies <a href="http://www.npower.com/Home/About-npower/Our-responsibility/How-we-source-our-fuels/index.htm">http://www.npower.com/Home/About-npower/Our-responsibility/How-we-source-our-fuels/index.htm</a>, but the information was deemed to be of insufficient quality to use as it disagrees with the emissions intensity of the UK grid average as published by BEIS and does not appear to meet all of the Scope 2 Quality Criteria as set out in the GHG Protocol Guidance. As such, in line with the GHG Protocol Guidance, we have used the ‘residual mix’ emissions factor for the UK published by the European Union of 0.3805</td>
<td>All UK electricity (CRD + Estimates)</td>
</tr>
<tr>
<td>US / Purchased Electric Power</td>
<td>Over 40 electricity suppliers to US sites in 2018</td>
<td>NA</td>
<td>Given the lack of supplier-specific emission factors available, in line with the GHG Protocol Guidance, we have used the 10 regional residual mix values published for the US (<a href="https://www.green-e.org/docs/energy/Residual%20Mix%202018.pdf">https://www.green-e.org/docs/energy/Residual%20Mix%202018.pdf</a>). Due to a highly dispersed electricity supply across our US operations (as noted in the Relevant Suppliers section) we have used the average of the residual mix values published across the 10 regions, resulting in an emissions factor of 0.4825. The figure used this year is still the figure used in 2018 as the US govt has yet to publish the figures for 2019. They are expected in Q1 2020</td>
<td>All US electricity (CRD plus estimates)</td>
</tr>
<tr>
<td>Country / Energy Source</td>
<td>Supplier</td>
<td>Method of Calculation</td>
<td>Emissions Factor</td>
<td>Unit of measure – for calendar year 2018</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------</td>
<td>-----------------------</td>
<td>-----------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>SWE / Purchased Electricity</td>
<td>Övik Energi AB</td>
<td>In line with the GHG Protocol Guidance, we have used the 'residual mix' emissions factor for Sweden published by the European Union of 0.0405</td>
<td>All SWE electricity (CRD + Estimates)</td>
<td></td>
</tr>
<tr>
<td>KSA / Purchased Electricity</td>
<td>Saudi Electricity Company (SEC) are a monopoly supplier in KSA</td>
<td>As KSA grid-average (only electricity supplier in the country)</td>
<td>0.75293kgCO2/kWh</td>
<td>NA – ‘Location Based Method Used’</td>
</tr>
<tr>
<td>Australia / Purchased Electricity</td>
<td>Multiple suppliers, no 'GreenPower' contracts</td>
<td>Suppliers in Australia use the government’s ‘location-based’ emissions factor, unless formally supplying ‘GreenPower’</td>
<td>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.</td>
<td>NA – ‘Location-Based Method Used’</td>
</tr>
<tr>
<td>US / Purchased Steam</td>
<td>2 US sites purchase steam (1 via landlord, other direct)</td>
<td>Landlord provided – unknown Other – Coal</td>
<td>Unknown</td>
<td>NA – ‘Location Based Method Used’</td>
</tr>
</tbody>
</table>

**Figure 7 – 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 CO2e emissions factor according to the suppliers as listed in Fig 7 above. Note that in many cases, ‘location based’ emissions factors are used as supplier emissions 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.

**Unit of measure – for calendar year 2019**
tCO2e

**OTHER INDIRECT (SCOPE 3): GREENHOUSE GAS EMISSIONS**

**Description – for calendar year 2018**

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 relate to business travel and include data related to commercial flights and rail travel where available.

They are derived by using published (BEIS) conversion factors and the data related to distance travelled.

**Basis of Calculation – Converting to CO₂ Equivalent (CO₂e) – for calendar year 2019**

BAE Systems Scope 3 (Other Indirect) GHG emissions are derived by calculation and expressed as CO₂ equivalent using the BEIS tables in **Figs 7 and 8** below that show conversion factors for commercial flights and rail travel, which represent the latest factors available at the start of the reporting year.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Haul</th>
<th>Class</th>
<th>Unit</th>
<th>With RF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flights</td>
<td>Domestic</td>
<td>Average passenger</td>
<td>passenger.km</td>
<td>0.25493</td>
</tr>
<tr>
<td></td>
<td>Short-haul</td>
<td>Average passenger</td>
<td>passenger.km</td>
<td>0.15832</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Economy class</td>
<td>passenger.km</td>
<td>0.15573</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business class</td>
<td>passenger.km</td>
<td>0.2336</td>
</tr>
<tr>
<td></td>
<td>Long-haul</td>
<td>Average passenger</td>
<td>passenger.km</td>
<td>0.19562</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Economy class</td>
<td>passenger.km</td>
<td>0.14981</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Premium economy class</td>
<td>passenger.km</td>
<td>0.2397</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business class</td>
<td>passenger.km</td>
<td>0.43446</td>
</tr>
<tr>
<td></td>
<td></td>
<td>First class</td>
<td>passenger.km</td>
<td>0.59925</td>
</tr>
</tbody>
</table>

**Figure 7 - Air Travel Emissions Factors (Conversion factors from Gov.UK published July 2019)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Type</th>
<th>Unit</th>
<th>kg CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>National rail</td>
<td>passenger.km</td>
<td>0.04115</td>
</tr>
<tr>
<td></td>
<td>International rail</td>
<td>passenger.km</td>
<td>0.00597</td>
</tr>
<tr>
<td></td>
<td>Light rail and tram</td>
<td>passenger.km</td>
<td>0.03508</td>
</tr>
<tr>
<td></td>
<td>London Underground</td>
<td>passenger.km</td>
<td>0.03084</td>
</tr>
</tbody>
</table>

**Figure 8 - Rail Travel Emissions Factors (Conversion factors from Gov.UK published July 2019)**
Method of Calculation – for calendar year 2019

Business travel data is collected for commercial flights and rail travel across our four main regions (UK, US, Australia, Saudi Arabia) where available.

Commercial flight data is gathered from the flight booking partner in the UK and US (Carlson Wagonlit Travel (CWT) and BCD Travel respectively) about the distances associated with each individual journey. Similar flight data is gathered from local BAE Systems contacts in Australia and Saudi Arabia. The distances associated with each journey are then processed into ‘Domestic’; ‘Short Haul’; and ‘Long Haul’ flights so that the conversion factors in Fig 7 can then be applied.

Rail travel data is available in the UK and US. In the UK data is gathered from the rail booking partner (CWT) 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 categorised according to the ‘type’ of rail travel in Fig 8 and converted to tCO2e appropriately.

Unit of measure – for calendar year 2019

tCO2e

Footnotes:
1. In countries where there are no legal restrictions on the implementation of our helpline.
2. All reports prior to 2014 were previously called accounting charging practices.
3. Headcount is based on the number of employees including those individuals who whilst being employed by a third party, are under the direct management control of BAE Systems.
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 Occurrences 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 Corporate Responsibility 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.