

## C0. Introduction

---

### C0.1

---

#### **(C0.1) Give a general description and introduction to your organization.**

At BAE Systems plc ("BAE Systems" or "the Group"), our advanced defence technology protects people and national security, and keeps critical information and infrastructure secure. We search for new ways to provide our customers with a competitive edge across the air, maritime, land and cyber domains.

We employ a skilled workforce of 93,100 people in around 40 countries and work closely with local partners to support economic development by transferring knowledge, skills, and technology. We are the largest defence contractor in both the UK and Australia, and a top ten defence prime contractor in the US and the number one in-country defence supplier in Saudi Arabia. The Group has a strong international presence with well-established relationships across the globe, supported by regional sales offices. 16,900 employees work within the Electronic Systems reporting segment; 12,200 within Platforms and Services; 24,400 in Air; 24,200 in Maritime, 10,500 in Cyber and Intelligence, 4,900 in HQ/other.

In 2022 BAE Systems reported sales of £23,256 million across its six principal reporting segments of Air; Maritime; Electronic Systems; Platforms and Services, Cyber and Intelligence, and HQ/other. As of 31 December 2022 the Group had a strong order backlog of £58.9 billion.

As a major manufacturer, our operations have an impact on the environment – from the energy and resources we use to the products we manufacture and the waste we generate. We are committed to high standards of environmental management and undertake activities which reduce the environmental impact of our operations, products and supply chain. Such activities range from considering direct combustion of fossil fuels on sites; to realizing energy efficiencies in the operation of major platforms; to controlling and reducing hazardous materials in the supply chain. These activities, and more, will aid to reduce the greenhouse gas emissions that BAE Systems produces and will contribute towards mitigating climate change as a whole.

### C0.2

---

#### **(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.**

##### **Reporting year**

###### **Start date**

November 1 2021

###### **End date**

October 31 2022

##### **Indicate if you are providing emissions data for past reporting years**

No

##### **Select the number of past reporting years you will be providing Scope 1 emissions data for**

<Not Applicable>

##### **Select the number of past reporting years you will be providing Scope 2 emissions data for**

<Not Applicable>

##### **Select the number of past reporting years you will be providing Scope 3 emissions data for**

<Not Applicable>

### C0.3

---

**(C0.3) Select the countries/areas in which you operate.**

- Australia
- Bahrain
- Brazil
- Canada
- China
- Czechia
- Egypt
- Finland
- France
- Germany
- Greece
- India
- Indonesia
- Iraq
- Ireland
- Isle of Man
- Japan
- Kuwait
- Malaysia
- Netherlands
- Norway
- Oman
- Poland
- Qatar
- Republic of Korea
- Saudi Arabia
- Singapore
- Slovakia
- South Africa
- Spain
- Sweden
- Thailand
- Turkey
- United Arab Emirates
- United Kingdom of Great Britain and Northern Ireland
- United States of America

**C0.4**

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

- GBP

**C0.5**

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

- Operational control

**C0.8**

**(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	GB0002634946

**C1. Governance**

**C1.1**

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

- Yes

**C1.1a**

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	<p>Responsibility for climate and environment sits with our Chief Executive Officer (CEO) who chairs the executive committee. He is responsible for our Operational Framework (OF), which includes our global policies and processes. Our Environmental policy which details our commitment to addressing environmental impacts related to our products and activities, including climate change, is included within our OF. He is supported by the Board and ESG Committee in ensuring that an appropriate environmental programme and performance objectives are set and flowed down across the business. These objectives are intended to mitigate the Group's environmental impact, including in relation to climate change in the immediate and long term, and to enable the Group to deliver against its environmental commitments within its business model. The ESG Committee monitors progress in this area.</p> <p>Our sustainability agenda is fundamental to the success of our business. It supports our global business and provides a framework on how we do business. It is driven from the top with input from a wide range of stakeholders. When we think about what is material, we consider how our approach to sustainability will drive success, contribute to our wider communities and reduce our impact on the environment. Environment and climate change are considered principal risks and are managed as part of our sustainability agenda.</p> <p>An example of a climate-related decision made by the CEO in 2022 was setting bonus related objectives for EC members to support our net zero initiatives and appointing a Group ESG, Culture and Business Transformation Director at group level to drive progress in net zero programme. The ESG Committee approved ESG-related objectives which form part of the executive director' incentives. Delivery of the next phase of the net zero plan was included within the non-financial element of the executive directors' objectives.</p>

**C1.1b**

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Overseeing major capital expenditures Overseeing and guiding employee incentives Reviewing and guiding the risk management process	<Not Applicable>	<p>Reviewing and guiding the risk management process - The Board has the responsibility to ensure that climate-related risks and opportunities are appropriately addressed. We understand that without effective climate governance structures, it will be difficult to make informed strategic decisions, manage climate transition risks and monitor the associated metrics to achieve our climate related goals. The Committee supports the Board in overseeing the progress of the executive in ensuring that the Company takes an integrated, strategic approach to addressing climate related risks and opportunities.</p> <p>Overseeing major capital expenditure- The Board has responsibility to incorporate climate-related matters when setting overall strategy, including climate-related expenditure and investments as part of the IBP (Integrated Business Plan) process. The IBP incorporates the potential impact and associated costs of addressing climate change and identifies investment to achieve net zero across our operations (Scope 1 and 2) by 2030. This is reviewed annually by the Board. Examples of investment activities which are incorporated into the IBP include; long-term power purchase agreements, site consolidations, improving energy efficiency of buildings, on-site renewable energy installations, LED lighting and wider use of electric vehicles.</p> <p>Overseeing and guiding employee incentives- The Remuneration Committee, under the direction of the Board, shall use the strategy and financial plans agreed by the Board to assist in designing Executive Director and senior management remuneration policy and practices that support the Board's strategic aims and promote the Company's long-term sustainable success. We have an Executive Committee Objective which states that we will 'Mature the management of water and waste during 2023, improve disclosures and set targets for 2024'.</p> <p>The achievement of this objective, along with the other EC Objectives, is linked to the bonus for all UK executive grade employees.</p>

**C1.1d**

**(C1.1d) Does your organization have at least one board member with competence on climate-related issues?**

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Our Board is comprised of directors who have an understanding of climate change and the Company's climate transition strategy. We have seven directors who are skilled and experienced in environmental and social matters.	<Not Applicable>	<Not Applicable>

**C1.2**

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

**Position or committee**

Chief Executive Officer (CEO)

**Climate-related responsibilities of this position**

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)

Assessing climate-related risks and opportunities

Managing climate-related risks and opportunities

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

Reports to the board directly

**Frequency of reporting to the board on climate-related issues via this reporting line**

Quarterly

**Please explain**

The Chief Executive Officer is responsible for the leadership and operational management of the Company strategy and business plan agreed by the Board. Specifically, the CEO is responsible for keeping the Board informed regularly of any matters that materially affect or are capable of materially affecting the performance of the Company and the achievement of its strategy, including risks relating to climate change or the environment. In addition, the CEO takes a managerial stance over environmental risks, ensuring that effective operational, financial and compliance controls and risk management processes are in place across the Company.

The CEO is also responsible for the production and delivery of business plans, including the IBP (Integrated Business Plan) which incorporates investment activities relating to low-carbon products or services, for the Board to approve on an annual basis.

---

**C1.3**

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

---

**C1.3a**

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

**Entitled to incentive**

Director on board

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary  
Shares

**Performance indicator(s)**

Progress towards a climate-related target

**Incentive plan(s) this incentive is linked to**

Long-Term Incentive Plan

**Further details of incentive(s)**

During 2022 the members of our Corporate Executive Committee (CEC), including CEO and CE who are executive board directors, were set bonus-related objectives in support of our net zero initiative including supporting the development of business sector-specific net zero roadmaps.

Another key role of the ESG Committee is to approve ESG-related objectives and targets which form part of the executive directors' incentives – see page 151 - 156. In 2022, delivery of the next phase of the net zero plan was included within the non-financial element of the executive directors' objectives and other elements specifically set within the non-financial element of the executive objectives are related to employee engagement, delivery of the next phase of the net zero plan.

For 2023, the ESG metric, which is based on the reduction of Group greenhouse gas (GHG) emissions (scope 1 and 2) aligned to a science-based pathway, will have a 10% weighting on directors incentives.

Objectives are supported by 8 behaviours, which complement our Company values – Trusted, Innovative and Bold, and focuses on how we do things across the business. One behaviour is focused on 'Strategic Vision – anticipates and plans for future business landscape'. Employees are assessed via performance reviews during the year, regarding how they demonstrate and advocate behaviours, ensuring employee's performance is assessed on not only what is achieved, but also how it was achieved. The Performance Development Review (PDR) process is where the behaviours and achievement of objectives are assessed. The PDR influences the multiplier applied to all-employee bonuses and any additional individual bonuses. Also, certain employees with direct environmental responsibility will have relevant performance metrics included in their PDR.

The 'Chairman's Award' process includes Sustainability - Chairman's Award categories include "Building a Sustainable Future". It states "Sustainability is about more than the environment. It's everything we do holistically to ensure the long-term success of our business. This category celebrates colleagues whose outstanding efforts demonstrate our commitment to being a forward-looking, inclusive and responsible business. Colleagues who have come up with great ways to reduce our environmental footprint, inspire the next generation or to help our people, and the communities where we live and work, thrive.

**Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan**

This incentive is linked to our commitment to achieving net zero greenhouse gas emissions across our operations (Scope 1 and 2) by 2030 and working towards a net zero value chain by 2050.

**C2. Risks and opportunities**

**C2.1**

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

**C2.1a**

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	0	2	Risk is a regular agenda item at Board meetings, and the Board reviews risk as part of its annual strategy review process. The Board assigns oversight of certain risk management activities to the Audit and ESG Committees who monitor the Group's key risks identified by the risk assessment processes and report their findings to the Board twice a year. One key short term risk that we continually monitor relates to acute risks associated with changing climate and in turn weather extremes. Extreme weather events, primary flood risks, have the potential to directly impact our operations. BAE Systems have conducted loss estimates for our flood vulnerable locations and will survey the most significant sites, whilst taking greater account of how these risks could change under different climate scenarios.
Medium-term	3	10	Annually the Board approves the Integrated Business Plan (IBP) which allows for a consistent approach for strategic planning, aligning resources with the delivery forecast of financial performance and strategic objectives. The IBP not only contains a financial forecast for the current year but also projections for the next ten years, with consideration of environmental risks and opportunities and their potential financial impact to the business. BAE Systems faces a number of medium term risk associated with the shift to a low carbon economy, a significant risk over the medium to long term, is the cost of substituting existing products and services with lower emissions options and disposal of legacy assets. Associated with this are potential risks around our ability to attract and retain future talent.
Long-term	10		Within BAE Systems, due to the long lifecycle of our products, we have to be aware of the long term risks to our business and products, inclusive of environmental factors. Solving the challenge of climate change requires all of us to act together, with urgency. One of the focus areas of our sustainability agenda is to play our part in addressing the significant and lasting impact of climate change. As a defence and security company, technology is at the core of our business and we must leverage this while progressing our ambition of net zero greenhouse gas emissions. Our goal is to develop and implement a long-term strategy that reduces the impact of our activities, supply chain and products on the environment. A long-term risk that we have identified relates to changing climate and in turn weather extremes. Chronic physical risks such as sea level rises, or water scarcity are relevant to our business due to many of our site's locations near rivers or within coastal regions.

## C2.1b

---

### **(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

Substantive financial or strategic impact on our business is defined as an event, that may occur, that will have a negative impact on the achievement of the objectives within the Group Strategic Framework and underpinning Integrated Business Plans (IBP). These can be categorized as either Financial or Non-Financial Risks. Financial risks expose the Group to potential costs which are quantifiable on the basis that their probability and impact can be understood adequately and related to the financial statements. Non-financial risks cannot be assessed readily in financial terms and, therefore, cannot be reflected reliably in the financial statements. Our overall risk management process is applicable to both financial and non- financial risks and is tailored to accommodate the differences in the management of these risks. Climate change risks may feature as financial or non-financial risks depending on the extent to which their impacts can be quantified, and how they have been classified. The definition of Substantive impact is determined locally for each business and is typically based upon a financial impact level and a probability. For example, it could be a £1M impact at a 20% probability.

## C2.2

---

## (C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

### Value chain stage(s) covered

Direct operations  
Upstream  
Downstream

### Risk management process

Integrated into multi-disciplinary company-wide risk management process

### Frequency of assessment

More than once a year

### Time horizon(s) covered

Short-term  
Medium-term  
Long-term

### Description of process

Our approach to identifying, assessing and managing environmental risks and opportunities, including those that would have a substantive financial or strategic impact, are embedded within our approach to risk management via our business and project risk registers. Climate and environmental risks and opportunities may present as financial or non-financial depending on the extent to which their impacts can be quantified, and how they have been classified.

In 2020, as part of the Board's ongoing assessment of emerging and principal risks for the Group, climate change and environmental impacts were recognised as a principal risk for the Group. Principal risks include those that would threaten the Group's business model, future performance, solvency, liquidity or reputation. Risks have been identified as principal based on the likelihood of occurrence, the potential impact on the Group and the timescale over which they might occur. The timescales for risks are defined as short term (0-2 years), medium term (3-10 years) and long term (10 years and beyond).

Material climate and environmental risks were identified in 2021, as part of the Group's materiality assessment, with further work undertaken during 2021 to develop our qualitative understanding of material climate-related risks and opportunities via scenario planning and the impact on the Group. During 2022, we progressed material physical risk and transition risks quantification and continued qualitative analysis on transition opportunities. Material risks and opportunities identified are mitigated and managed as part of our sustainability agenda.

Climate-related risks include those identified in our materiality assessment, scenario planning and decarbonisation strategy. Incorporation of climate-related risk within our registers will progress in 2023 supported by the maturing over time of sector net zero roadmaps and physical risk climate scenarios for Tier 1 critical suppliers. Associated climate-related risks are also embedded in our sector Environmental Management Systems.

The potential impact and associated costs of addressing climate change are incorporated into our Integrated Business Plans (IBP), which identifies investment to achieve our net zero aspiration across our operations (Scope 1 and 2) by 2030. This is reviewed annually by the Board. Our financial statements and viability statement reflect our best estimate of the impact of climate change on future business performance, based on currently available information and taking into account the mitigation measures we have in place. Additionally, the financial implications of the gross risk exposure identified in the Integrated Business Plans (IBP) are comprehensively reviewed and the risks prioritized in relation to the achievement of business objectives. The key financial and non-financial risks identified by the businesses from the risk assessment processes are collated and reviewed by the Executive Committee to identify those issues where the cumulative financial or transition risk, for example possible reputational impacts, could be significant.

In addition, every six months, the businesses and Group functions complete an Operational Assurance Statement (OAS), which is a mandated policy under the Operational Framework. The OAS is in two parts: a self-assessment of compliance with the Operational Framework; and a report showing the key financial and non-financial risks, including climate related risks, for the relevant business and Group functions. Together with reviews undertaken by Internal Audit and the work of the external auditors, the OAS forms the Group's process for reviewing the effectiveness of the system of internal controls.

We are exposed to a number of risks associated with a shift to a low carbon economy, including the cost of substituting existing products and services with lower emissions options and disposal of legacy assets over the medium to long-term. Associated with this are potential risks around our ability to attract and retain future talent.

While we recognise these risks, the opportunity around the transition is also significant for BAE Systems over the medium to long term. There is an opportunity for us to play a key role in enabling the low carbon transition through our development of innovative new technologies.

Through the physical risk scenario analysis, we identify and assess the impact of physical climate risk on our facilities (direct operations and critical first tier supplier manufacturer locations in 2022) worldwide through our climate scenario analysis process using the Swiss Re Tool. We use RCP 2.6, 4.5 and 8.5 scenarios for 2030, 2050 and 2085. This has enabled us to identify which locations carry the greatest natural catastrophe risk today and how this will change over the long term (beyond ten years). We have identified the list of sites that have a high-risk exposure to natural hazards and physical climate risk and have prioritised these for survey visits, working with the climate team from our risk engineering survey provider. Following pluvial flood losses at one site in 2020 we conducted a site visit in July 2022 to evaluate planned drainage mitigations, adequacy of existing flood defences to 2050 and to identify further flood resilience measures. New drainage solutions have now been implemented mitigating the biggest pluvial risk at site. Additionally, this analysis allows us to identify and assess opportunities for the company, for example identifying sites where their current locations have low risk in the short, medium to long term where the company can have an opportunity to expand operations and therefore increase revenue.

The risk management process remains the same for different value chain stages. Additionally, different time horizons are reviewed and include short term (0-2 year), medium term (3-10 years) and long term (beyond 10 years).

---

## C2.2a

---

**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

	Relevance & Inclusion	Please explain
Current regulation	Relevant, always included	Current climate-related regulations, such as those related to Emissions Trading (e.g. UK/EU ETS) are relevant to our business and are identified as a principal risk for the Group- 'the Group is subject to risk from a failure to comply with laws and regulations'. The Group operates in a highly regulated environment across many jurisdictions and is subject to regulations relating to environmental factors. Failure by the Group, or others acting on its behalf, to comply with these regulations could result in fines and penalties and consideration of current and emerging regulation within our climate-related risk assessments is key.
Emerging regulation	Relevant, always included	Emerging climate-related regulations, such as low emissions or reporting standards, are relevant to our business and are identified as a principal risk for the Group- 'the Group is subject to risk from a failure to comply with laws and regulations'. The Group operates in a highly regulated environment across many jurisdictions and is subject to regulations relating to environmental factors. Failure by the Group, or others acting on its behalf, to comply with these regulations could result in fines and penalties, therefore consideration of current and emerging regulation within our climate-related risk assessments is key. For example, in the UK, the government's Streamlined Energy and Carbon Reporting (SECR) framework was put into law during 2019. This emerging legislation was monitored, and the business implemented the requirements in the relevant reporting period and will continue to do so in future years. Additionally, as a premium listed company, BAE has been required by the Listing Rules to report climate-related information in alignment with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations since 2021.
Technology	Relevant, sometimes included	Technology risks, such as low emissions products, are relevant to our business. The Group's largest customers are governments and the Group has long-standing relationships and security arrangements with a number of its government customers. In the complex and fast changing environment in which we work, harnessing technology and innovation is key to developing the most effective and efficient solutions for our products and ensuring that our long-standing customer relationships are maintained. One example of this is the development, in collaboration with Prismatic Ltd, of a Persistent High Altitude Solar electric aircraft (PHASA-350) that has the potential to stay airborne for a year.
Legal	Relevant, always included	Legal risks, such as failure to comply with environmental regulations, are relevant to our business and are identified as a principal risk for the Group- 'the Group is subject to risk from a failure to comply with laws and regulations'. The Group operates in a highly regulated environment across many jurisdictions and is subject to regulations relating to environmental factors. Failure by the Group, or others acting on its behalf, to comply with these regulations could result in fines and penalties and consideration of current and emerging regulation within our climate-related risk assessments is key. Examples of environmental regulations that are relevant to the business includes SECR, ESOS, EU Energy Efficiency Directive Article 8 and UK ETS.
Market	Relevant, sometimes included	Market risks, such as differing legislation, regulations and government policy in different geographies, are relevant to our business and have potential impacts on our operations if we were unable to comply with the requirements of a specific region. Each region will respond to the risks of climate change differently and hence the legislation, regulations and policies will vary and change independently. Non- compliance with these poses the risk of fines and the termination of permits, further restricting our ability to operate. Additionally, risks associated with the increased cost of raw materials (e.g. steel, natural gas) used for our manufacturing purposes has been identified as a risk in the organisation's risk assessments. The increased costs will lead to a financial burden for the company if costs only continue to increase and alternative materials cannot be sourced.
Reputation	Relevant, sometimes included	Reputation risks, such as changing customer perceptions and expectations are relevant to our business. Stakeholders have higher expectations of how businesses respond to climate change issues, for example GHG reduction targets (specifically net zero) and expect to see the business meeting this target by the set deadline. For BAE Systems, this is 2030. Risks in this area can lead to loss of revenue or market share if these expectations are not addressed.
Acute physical	Relevant, always included	Acute physical risks, such as flooding, are relevant to our business and are becoming increasingly frequent. As a company, we have already experienced the impact of a flooding event and are therefore aware of the impact it can have on our sites and operations. . In response to the flood at, a site in the UK, BAE Systems have implemented new drainage infrastructure to protect the site from future flash flooding. After a 2011 flood at a US site in BAE Systems shifted its site location, moving away from a high-risk flooding area to minimize the likelihood of such an event impacting the same operations going forward. In 2020, we conducted a refresh of this data and during 2021 we modelled climate scenarios for 2030, 2050 and 2085, which gives us a portfolio-level understanding of the Group's exposure to natural hazards, both current and future. In addition to informing business continuity planning and decisions regarding new facility locations, these risk assessments have helped us to focus on prioritised sites requiring hazard-specific surveys, which is intended to lead to the identification and implementation of risk improvement recommendations, which may include investments to improve facilities, for locations not previously assessed. We are also modelling climate scenarios for Tier 1 critical suppliers.
Chronic physical	Relevant, always included	Chronic physical risks, such as sea level rises, or water scarcity are relevant to our business due to many of our site's locations near rivers or within coastal regions. One example of this, identified at one site in the UK, is the risk that water abstraction rules may change due to water stress issues near the site. This site uses abstracted river water for processing purposes and may not be able to abstract at the same levels in future.

**C2.3**

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

**C2.3a**

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Current regulation	Carbon pricing mechanisms
--------------------	---------------------------

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

A key risk driver is that of energy and carbon schemes - one of the most relevant to our business is the EU ETS Emission Trading System (now UK ETS) which applies to two of our largest sites within the UK and our corporate air travel business. Current and emerging climate legislation is a factor that the Group considers in its climate risk assessments. It is noted that the Group operates in a highly regulated environment across many jurisdictions and is subject to regulations relating to environmental factors. Failure by the Group, or others acting on its behalf, to comply with the UK/EU ETS regulations could result in fines and penalties, however, current controls include engaging a specialist consultant and third-party assurance.

**Time horizon**

Short-term

**Likelihood**

Unlikely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

87000

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Based on an average of the civil penalties published by the government in April 2021 relating to the failure to surrender sufficient allowances or submit a verified report for EUK ETS. An estimated average of all the civil penalties published came to £87,000. It is impractical to list all figures used in the calculation, please see the government's published list for figures.

**Cost of response to risk**

100000

**Description of response and explanation of cost calculation**

Company's response to risk and cost of response to EU UK ETS is estimated £50,000-100,000. The company's response to the risk includes engaging specialist consultants and third-party assurance to ensure the sites are meeting the UK ETS requirements, such a site in Wales.

**Comment****Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)
----------------	--

**Primary potential financial impact**

Increased capital expenditures

**Climate risk type mapped to traditional financial services industry risk classification**

&lt;Not Applicable&gt;

**Company-specific description**

Extreme weather (primarily flood risks) has the potential to cause damage to our operations and is therefore considered a risk to our direct operations. It is recognised within the business that climate change is taking place and in turn extreme weather events, such as flooding, are becoming increasingly frequent. Examples of extreme weather impacts include fluvial flooding events in the US (2011) and UK (2020) and the subsequent interruptions to our operations. We have implemented flood defences and drainage systems at a Southeast UK site- storm surge risk and another UK site – (pluvial, fluvial and storm surge risk) which take into account the risks today and out to 2050.

**Time horizon**

Short-term

**Likelihood**

Unlikely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

1000000

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

The actual amount at risk will depend upon the nature of the event, the effectiveness of any mitigations, the facilities impacted and the extent of insurance cover in place. The £1m figure is the deductible we have on property claims for which the businesses are responsible for.

**Cost of response to risk**

350000

**Description of response and explanation of cost calculation**

The £350,000 includes the cost of the annual survey programme, including natural hazard and climate specific surveys and software licensing for analytical tools. The cost of resulting risk improvement recommendations will vary depending on the requirement and will be determined on a site by site survey basis. This figure also includes the estimated costs of implementing new drainage and water storage systems at a UK site with the pluvial, fluvial and storm surge risk. Sea defence improvements have been implemented by the City Council at no cost to BAE Systems bringing protection to one of our south-eastern sites. The site suffered no impact during the storms in December 2021. BAE has assessed the future physical risk of extreme weather on all sites valued at over £1m globally in around 40 countries. Risks have been quantified for seven hazards to 2100

## Comment

### Identifier

Risk 3

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type & Primary climate-related risk driver

Emerging regulation	Other, please specify (Increased water resource shortages, drought, areas of water stress )
---------------------	---

### Primary potential financial impact

Increased capital expenditures

### Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

### Company-specific description

It is recognised that various locations experience water stress and access to water is vital for the industry. Without access to water the business would see severe interruptions in terms of manufacturing our products. In the UK NRW, Defra and the EA have consulted on moving abstraction licencing to environmental permitting regulations. Without a permit under the regulations water would have to be supplied directly from mains. This would result in potential costs associated with moving from abstraction to main water based on a single Land UK site.

### Time horizon

Short-term

### Likelihood

More likely than not

### Magnitude of impact

Medium-low

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

1500000

### Potential financial impact figure – minimum (currency)

<Not Applicable>

### Potential financial impact figure – maximum (currency)

<Not Applicable>

### Explanation of financial impact figure

This is the estimated annual cost associated with the site moving away from abstracted water and procuring all its water via the mains water supply. Based on 2022 abstracted volumes being procured at the current rate of £1.81 per m3 (this does not include service charge of circa £400 per year).

Based on current mains water costs £1.81 per m3 and 2022 abstracted volumes it would be:

950,243m3x £1.81 = £1.7million per year

This estimate does not take into account the amount saved from the license fee to abstract and is an estimate only.

### Cost of response to risk

### Description of response and explanation of cost calculation

The cost of the response to the risk is the additional cost to procuring water at a higher price from the mains supply, as well as the changes to pipelines to redirect the supply of water from the abstraction source to the mains supply. This has not been calculated at present.

## Comment

### Identifier

Risk 4

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms
---------------------	---------------------------

### Primary potential financial impact

Increased direct costs

### Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

### Company-specific description

We have assessed the transition risk of tightening environmental laws and regulations in relation to carbon pricing globally. Carbon pricing is an approach used to reduce carbon emissions through market mechanisms. It passes the societal cost of climate change from the emissions of greenhouse gases back to the organisations responsible for emitting them. As a result, it has the purpose of discouraging the use of greenhouse gas-emitting activities in order to protect the environment, address the causes of climate change, and meet national and international climate agreements. Carbon pricing instruments can take many forms, with the most common being carbon taxes, taxes on fuels, and trading schemes/levies. The cost of carbon to 2050 was calculated using Scope 1 and 2 measured emissions. This was performed using prices modelled in three IEA transition scenarios: STEPS, APS and NZE. The cost of carbon assumes a 100% passthrough from energy suppliers, and has been analysed under two pathways: (a) static emissions; and (b) decarbonisation to net zero by 2050.

For our UK businesses, carbon pricing has the potential to increase operational costs via carbon taxes and levies to the business for energy and fuel use; and indirect taxes

which are passed to the businesses through purchased energy.

**Time horizon**

Long-term

**Likelihood**

More likely than not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

7900000

**Potential financial impact figure – maximum (currency)**

10100000

**Explanation of financial impact figure**

The minimum figure for our UK businesses is the in-year cost of carbon at 2030 under an IEA Stated Policies (STEPS) transition scenario and static emissions. The maximum figure for our UK businesses is the in-year cost of carbon at 2045 under an IEA Stated Policies (STEPS) transition scenario and static emissions.

**Cost of response to risk**

220000000

**Description of response and explanation of cost calculation**

The total cost of the response is an estimate to deliver our decarbonisation strategy and operational low carbon pathway which will lower our exposure to carbon taxes. We will continue to monitor environmental laws and regulations in relation to carbon pricing, including any potential financial impacts on the business.

**Comment**

---

**Identifier**

Risk 5

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Technology	Substitution of existing products and services with lower emissions options
------------	---

**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

In the UK, nearly half of BAE Systems' emissions come from heating buildings. The decarbonisation of our heating systems is a key component of our journey to net zero. We are currently evaluating the most effective and efficient options to implement lower emission heating technology, including heat pumps and electrified heating systems. The decarbonisation of heating poses a challenge, as most cost-effective solutions are currently expensive and subscale for our industrial operations. This could result in increased costs arising from the need to replace existing plant and equipment to incorporate lower-emissions technologies. We have reviewed the roll-out of heat pumps as a potential option to replace current gas-fired heating systems and this was assessed under three IEA pricing scenarios to 2050.

Introducing alternative energy sources such as renewable energy-powered heat pumps will lower our emissions, but at this point would require significant capital expenditure to retrofit our sites and install the devices. Due to the difficulties of switching fuels and maintaining legacy systems, installing heat pumps is considered one of the best transition solutions over the long term. This is because heat pumps are more efficient than other heating systems in producing more heat energy than the amount of electricity consumed. Heat pump technology is currently expensive, as the technology and market is still developing.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

2700000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

£2.7mil per year is the estimated total of costs to offset the gas related heat generation emissions based on a 2019 baseline (UK only).

**Cost of response to risk**

28000000

**Description of response and explanation of cost calculation**

In the UK, we have considered the feasibility of introducing renewable energy-powered heat pumps over the long term, as part of the decarbonisation strategy. We will continue to monitor the development of lower-emissions heating technology, over the long term, as a way to support the delivery of our net zero ambitions. This is the estimated total CapEx to implement heat pumps by 2050 within the UK. The figure is based upon an IEA Sated Policies (STEPS) transition scenario. Further, detailed investments are planned to further develop the heat decarbonisation plan.

**Comment**

## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.****Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Use of more efficient production and distribution processes

**Primary potential financial impact**

Reduced direct costs

**Company-specific description**

BAE's sites have opportunities to improve efficiency and reduce energy consumption across multiple business units. As an example, during 2022 we made improvements across some of our sites globally which included improving the controls on existing HVAC equipment. This improves the efficiency of equipment, reducing unnecessary usage and leading to a reduction in natural gas consumption which also reduced risks of climate change.

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

100900

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Estimated annual cost savings from improving HVAC controls. The energy savings in kWh were multiplied by the energy cost per kWh.

**Cost to realize opportunity**

22000

**Strategy to realize opportunity and explanation of cost calculation**

To realise the opportunity, BAE's sites evaluate projects based on emissions reduction potential and return on investment. The costs were determined from the estimated cost of implementation of several efficiency improvement projects in 2022.

**Comment****Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Use of more efficient production and distribution processes

**Primary potential financial impact**

Reduced direct costs

**Company-specific description**

BAE's System's sites have opportunities to improve efficiency and reduce energy consumption across multiple business units by replacing current inefficient fluorescent lighting with efficient LED alternatives. Reducing energy consumption at site, reducing the risks of climate change and reducing direct operation costs due to reduced energy consumption.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

17900

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Estimated annual cost savings from implementing process improvements. The energy savings in kWh were multiplied by the energy cost per kWh.

**Cost to realize opportunity**

119200

**Strategy to realize opportunity and explanation of cost calculation**

To realise the opportunity for process improvements and resource efficiency, BAE's sites evaluate projects based on emissions reduction potential and return on investment. The costs were determined from the estimated cost of implementation of LED lighting replacement projects across a number of UK sites.

**Comment**

---

**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Ability to diversify business activities

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

BAE Systems have developed synthetic training for tomorrows armed forced. Our training teams are using their insight into operational training, while leveraging innovations from the gaming industry, to create a military metaverse that will train the armed forces of tomorrow. We are working with companies such as Hadean, as well as virtual reality and artificial intelligence specialists VRAI, to deliver a synthetic environment alternative to large-scale military exercises. Our collaboration will help us work alongside military forces across the world to deliver more secure, affordable and sustainable ways to equip them with the skills they need on the frontline. This work builds on our prior experience of virtual training in the UK. In 2022, we supported the Typhoon Force flying 6,336 synthetic missions, which would have burned 34,380 tonnes of fuel, releasing 107,600 tonnes of CO2, had the missions been flown live. Our R&D activities have allowed us to diversify our business activities and release low carbon products for our customers, reducing GHG emissions and climate change risk.

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Financial opportunity from sales.

**Cost to realize opportunity**

**Strategy to realize opportunity and explanation of cost calculation**

Strategy to realise opportunity and explanation of cost calculation: Cost of doing business, so no additional cost to produce and sell systems to customers.

**Comment**

**C3. Business Strategy**

**C3.1**

**(C3.1) Does your organization’s strategy include a climate transition plan that aligns with a 1.5°C world?**

**Row 1**

**Climate transition plan**

Yes, we have a climate transition plan which aligns with a 1.5°C world

**Publicly available climate transition plan**

No

**Mechanism by which feedback is collected from shareholders on your climate transition plan**

We have a different feedback mechanism in place

**Description of feedback mechanism**

General engagement with shareholders at shareholder meetings which are not specific to 'transition plan'.

**Frequency of feedback collection**

**Attach any relevant documents which detail your climate transition plan (optional)**

**Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future**

<Not Applicable>

**Explain why climate-related risks and opportunities have not influenced your strategy**

<Not Applicable>

**C3.2**

**(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?**

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

**C3.2a**

**(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.**

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices		
<table border="1"> <tr> <td>Transition scenarios</td> <td>IEA NZE 2050</td> </tr> </table>	Transition scenarios	IEA NZE 2050	Company-wide	<Not Applicable>	<p>During 2022, we have continued to develop our understanding of the climate-related risks and opportunities with the potential to impact BAE Systems' business model and strategy. We have built upon our qualitative scenario planning work, and have progressed with quantification of material risk and opportunities against identified scenarios to enable us to develop our views in relation to the resilience of our strategy. In 2022, we undertook quantification of several global, material climate-related risks (physical and transition) and developed our qualitative understanding of transition opportunities. Materiality of risk and opportunities was based on the likelihood of occurrence and potential impact on the Group. For each area, sub-risks and opportunities were identified for quantification. Analysis of these risk and opportunity areas has helped BAE Systems to understand the scale of the unmitigated impact, through the development of a methodology and calculation of the possible financial impact. RCP scenario data has been used, due to its relevance to the Group's decarbonisation strategy, global and regional coverage, timeframes considered and information on drivers and frequency of scenario updates. We continue to evaluate climate-related scenarios across our global portfolio of sites to be aware of the potential for a range of natural hazards and climate impacts. Our initial focus is on flooding as our biggest facilities exposure outside of fire to ensure we manage the risk to our people and operations. We use the Swiss Re Climate Assessment Tools to look at the impact of natural catastrophes on our portfolio which then informs our risk engineering strategy and engagements with the business around responding to different natural hazards. Although there are many natural hazard and climate software solutions available to us, we work with insurer tools as these give the highest level of accuracy as they are built on years of experience handling natural catastrophe events as well as driving their underwriting pricing where inaccurate modelling would result in notable losses. We have modelled climate scenarios for 2030, 2050 and 2085 which gives us portfolio level understanding of the Group's exposure to natural hazards, both current and future. As a result, we have identified 20 flood vulnerable locations where we are conducting loss estimate modelling and will go on to schedule in person surveys where the damage potential is high.</p>
Transition scenarios	IEA NZE 2050				

Climate-related scenario		Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios	IEA APS	Company-wide	<Not Applicable>	<p>During 2022, we progressed the quantification of three global, material climate-related risks (physical and transition) and developed our qualitative understanding of transition opportunities. For transition risks and opportunities, IEA scenario data has been used, due to its relevance to the Group's decarbonisation strategy, global and regional coverage, timeframes considered and information on drivers and frequency of scenario updates. The IEA Announced Pledges Scenario was one of the three used for this scenario analysis.</p> <p>We have used the following key assumptions within our scenario analysis:</p> <ol style="list-style-type: none"> <li>1. No action is taken by BAE Systems to mitigate or limited the impacts of each risk being assessment. The rationale behind this assumption is that it uncovers what the implications are if climate risks are left unmitigated to help facilitate a response plan. These results can be used by the business to test whether current mitigation is sufficient.</li> <li>2. Mutual exclusivity is applied to the scenarios and underlying climate attributes (i.e. impacts are not aggregated or offset). The rationale behind this assumption is that it ensures that no impacts are cancelled out. We do not assess scenarios where both transitions risks and physical risks take place at the same time (although this is inevitable).</li> <li>3. Business activities are static over the future period (revenue streams, operating model, emissions, etc). The rationale behind this assumption is that it isolates the climate element of the risks to show implications on strategy in a world where business as usual remains.</li> </ol>
Transition scenarios	IEA STEPS (previously IEA NPS)	Company-wide	<Not Applicable>	<p>During 2022, we progressed the quantification of three global, material climate-related risks (physical and transition) and developed our qualitative understanding of transition opportunities. For transition risks and opportunities, IEA scenario data has been used, due to its relevance to the Group's decarbonisation strategy, global and regional coverage, timeframes considered and information on drivers and frequency of scenario updates. The IEA Stated Policies Scenario was one of the three used for this scenario analysis.</p> <p>We have used the following key assumptions within our scenario analysis:</p> <ol style="list-style-type: none"> <li>1. No action is taken by BAE Systems to mitigate or limited the impacts of each risk being assessment. The rationale behind this assumption is that it uncovers what the implications are if climate risks are left unmitigated to help facilitate a response plan. These results can be used by the business to test whether current mitigation is sufficient.</li> <li>2. Mutual exclusivity is applied to the scenarios and underlying climate attributes (i.e. impacts are not aggregated or offset). The rationale behind this assumption is that it ensures that no impacts are cancelled out. We do not assess scenarios where both transitions risks and physical risks take place at the same time (although this is inevitable).</li> <li>3. Business activities are static over the future period (revenue streams, operating model, emissions, etc). The rationale behind this assumption is that it isolates the climate element of the risks to show implications on strategy in a world where business as usual remains.</li> </ol>
Physical climate scenarios	RCP 8.5	Company-wide	<Not Applicable>	<p>During 2022, we have continued to develop our understanding of the climate-related risks and opportunities with the potential to impact BAE Systems' business model and strategy. We have built upon our qualitative scenario planning work, and have progressed with quantification of material risk and opportunities against identified scenarios to enable us to develop our views in relation to the resilience of our strategy. In 2022, we undertook quantification of several global, material climate-related risks (physical and transition) and developed our qualitative understanding of transition opportunities. Materiality of risk and opportunities was based on the likelihood of occurrence and potential impact on the Group. For each area, sub-risks and opportunities were identified for quantification. Analysis of these risk and opportunity areas has helped BAE Systems to understand the scale of the unmitigated impact, through the development of a methodology and calculation of the possible financial impact. RCP scenario data has been used, due to its relevance to the Group's decarbonisation strategy, global and regional coverage, timeframes considered and information on drivers and frequency of scenario updates. We continue to evaluate climate-related scenarios across our global portfolio of sites to be aware of the potential for a range of natural hazards and climate impacts. Our initial focus is on flooding as our biggest facilities exposure outside of fire to ensure we manage the risk to our people and operations. We use the Swiss Re Climate Assessment Tools to look at the impact of natural catastrophes on our portfolio which then informs our risk engineering strategy and engagements with the business and response to different natural hazards. Although there are many natural hazard and climate software solutions available to us, we work with insurer tools as these give the highest level of accuracy as they are built on years of experience handling natural catastrophe events as well as driving their underwriting pricing where inaccurate modelling would result in notable losses. We have modelled climate scenarios for 2030, 2050 and 2085 which gives us portfolio level understanding of the Group's exposure to natural hazards, both current and future. As a result we have identified 20 flood vulnerable locations where we are conducting loss estimate modelling and will go on to schedule in person surveys where the damage potential is high.</p>
Physical climate scenarios	RCP 4.5	Company-wide	<Not Applicable>	<p>During 2022, we continued to develop our understanding of the climate-related risks and opportunities with the potential to impact BAE Systems' business model and strategy. We built upon our qualitative scenario planning work, and progressed with quantification of material risk and opportunities against identified scenarios to enable us to develop our views in relation to the resilience of our strategy. We undertook quantification of several global, material climate-related risks (physical and transition) and developed our qualitative understanding of transition opportunities. Materiality of risk and opportunities was based on the likelihood of occurrence and potential impact on the Group. For each area, sub-risks and opportunities were identified for quantification. Analysis of these risk and opportunity areas has helped us to understand the scale of the unmitigated impact, through the development of a methodology and calculation of the possible financial impact. RCP scenario data has been used, due to its relevance to the Group's decarbonisation strategy, global and regional coverage, timeframes considered and information on drivers and frequency of scenario updates. We continue to evaluate climate-related scenarios across our global portfolio of sites to be aware of the potential for a range of natural hazards and climate impacts. Our initial focus is on flooding as our biggest facilities exposure outside of fire to ensure we manage the risk to our people and operations. We use the Swiss Re Climate Assessment Tools to look at the impact of natural catastrophes which then informs our risk engineering strategy and engagements with the business on responding to natural hazards. Although there are many natural hazard and climate software solutions available to us, we work with insurer tools as these give the highest level of accuracy as they are built on years of experience handling natural catastrophe events as well as driving their underwriting pricing where inaccurate modelling would result in notable losses. We have modelled climate scenarios for 2030, 2050 and 2085 which gives us portfolio level understanding of the Group's exposure to natural hazards, both current and future. As a result we have identified 20 flood vulnerable locations where we are conducting loss estimate modelling and will schedule in person surveys where the damage potential is high. Our main focus is on RCP 4.5 as a more likely reflection of the current climate trajectory.</p>
Physical climate scenarios	RCP 2.6	Company-wide	<Not Applicable>	<p>During 2022, we have continued to develop our understanding of the climate-related risks and opportunities with the potential to impact BAE Systems' business model and strategy. We have built upon our qualitative scenario planning work, and have progressed with quantification of material risk and opportunities against identified scenarios to enable us to develop our views in relation to the resilience of our strategy. In 2022, we undertook quantification of several global, material climate-related risks (physical and transition) and developed our qualitative understanding of transition opportunities. Materiality of risk and opportunities was based on the likelihood of occurrence and potential impact on the Group. For each area, sub-risks and opportunities were identified for quantification. Analysis of these risk and opportunity areas has helped BAE Systems to understand the scale of the unmitigated impact, through the development of a methodology and calculation of the possible financial impact. RCP scenario data has been used, due to its relevance to the Group's decarbonisation strategy, global and regional coverage, timeframes considered and information on drivers and frequency of scenario updates. We continue to evaluate climate-related scenarios across our global portfolio of sites to be aware of the potential for a range of natural hazards and climate impacts. Our initial focus is on flooding as our biggest facilities exposure outside of fire to ensure we manage the risk to our people and operations. We use the Swiss Re Climate Assessment Tools to look at the impact of natural catastrophes on our portfolio which then informs our risk engineering strategy and engagements with the business around responding to different natural hazards. Although there are many natural hazard and climate software solutions available to us, we work with insurer tools as these give the highest level of accuracy as they are built on years of experience handling natural catastrophe events as well as driving their underwriting pricing where inaccurate modelling would result in notable losses. We have modelled climate scenarios for 2030, 2050 and 2085 which gives us portfolio level understanding of the Group's exposure to natural hazards, both current and future. As a result, we have identified 20 flood vulnerable locations where we are conducting loss estimate modelling and will go on to schedule in person surveys where the damage potential is high.</p>

**(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.**

**Row 1**

**Focal questions**

What climate risks and opportunities have the potential to impact BAE Systems' business model, strategy and financial results over the short- (less than two years), medium- (three to ten years) and long-term (beyond ten years) time horizons.

**Results of the climate-related scenario analysis with respect to the focal questions**

**Physical risk**

We have assessed the future physical risk of extreme weather and placed a priority on all sites with assets over £1m globally. We have operations in around 40 countries, with a focus in the UK, US, the Kingdom of Saudi Arabia and Australia; therefore our operational exposure to physical risks is diverse and varies by region. The impact of the physical risks of climate change, such as increasing severity of extreme weather events, will affect BAE Systems' operations and vary depending on the particular hazard and geography. Overall, extreme weather events are likely to result in repair costs, adaptation investments and reductions in productivity. The timeframe associated with these physical risks extends across the short, (0-2years), medium (3-10years) and long term (beyond 10 years) time horizon with a low financial impact. The results of the scenario analysis have confirmed the need for continued assessments of the physical locations of our global sites against the physical risks of extreme weather events. This includes risk engineering reviews at the site level and a quantification of current potential financial impacts.

**Transition risk**

We have assessed the transition risk of tightening environmental laws and regulations in relation to carbon pricing globally. The timeframe associated with the transition risk associated with regulations is medium (3-10years) term and has a low financial impact. Carbon pricing has the potential to increase operational costs via carbon taxes and levies to the business for energy and fuel use; and indirect taxes which are passed to the Group through purchased energy. Our decarbonisation strategy and operational low carbon pathway will lower our exposure to carbon taxes and the results of our scenario analysis have ensured that we will continue to monitor environmental laws and regulations in relation to carbon pricing, including any potential financial impacts on the Group.

The transition to a low carbon economy presents opportunities for BAE Systems and continued innovation will be required to provide solutions to existing and new customers. The opportunity will be present in the medium term (3-10years). Our ability to increase revenues will be dependent on applying advanced engineering capabilities to develop new products that support lower emissions requirements, creating new business lines and enhancing competitive positions in order to retain and grow market share. The results of the analysis have informed our strategy to decarbonise by 2050 and recognise that we must ensure that our products and services support a decarbonisation pathway. This will be achieved by advancing the efficiency of our products and services in the short term, and transitioning to lower or zero emissions products and technology longer term. This will require continued investment in research and development activities. More information on our risks and opportunities can be found in our Annual Report.

**C3.3**

**(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.**

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Risks and opportunities from policies to restrict emissions, government net zero commitments, costs of fossil fuel have influenced our strategic decision making to develop low carbon products and services in the medium term (3-10 years). Decarbonisation of our products and services will be achieved by making our current products and services more efficient where practicable and by introducing low or zero emissions products and technology for new and future requirements. The Group has already established some lower carbon products and invested in simulation technology. Although the continued progression to low and zero emissions products and technology for the defence sector will require a significant transition it is anticipated it may lead to revenue opportunities for the Group over the long term. For example, BAE Systems have developed synthetic training for tomorrow's armed forces Our training teams are using their insight into operational training, while leveraging innovations from the gaming industry, to create a military metaverse that will train the armed forces of tomorrow. We are working with companies such as Hadean, as well as virtual reality and artificial intelligence specialists VRAI, to deliver a synthetic environment alternative to large-scale military exercises. Our collaboration will help us work alongside military forces across the world to deliver more secure, affordable and sustainable ways to equip them with the skills they need on the frontline. This work builds on our prior experience of virtual training in the UK. In 2022, we supported the Typhoon Force flying 6,336 synthetic missions, which would have burned 34,380 tonnes of fuel, releasing 107,600 tonnes of CO <sub>2</sub> , had the missions been flown live. As a defence and security company, technology is at the core of our business and we must leverage this while progressing our ambition of net zero greenhouse gas emissions. Our goal is to develop and implement a long-term strategy that reduces the impact of our activities, supply chain and products on the environment.
Supply chain and/or value chain	Yes	Risks associated with suppliers' environmental impacts influenced the procurement team in the short term (0-2 years) to create sustainable development performance requirements (e.g., our Handbook for Sustainable Procurement) and also a set of Supplier Principles for suppliers to abide by. Suppliers are monitored regularly e.g. within the Land business; sustainability is an agenda item for quarterly business reviews for key suppliers. In addition, during 2022, we undertook supply chain assurance activity to assess compliance with our Supplier Principles. Our assessments covered more than 30% of global spend. In 2021 we started to engage with our supply chain in regard to environmental performance and to collate GHG information on an annual basis, this engagement has continued throughout 2022. This is to progress the company's Net Zero value chain target and reduce risks associated with the delivery of the value chain working towards Net Zero by 2050.
Investment in R&D	Yes	For example, BAE Systems have developed advanced computer simulation to create realistic and immersive synthetic environments. Our training teams are using their insight into operational training, while leveraging innovations from the gaming industry, to create a military metaverse that will train the armed forces of tomorrow. We are working with companies such as Hadean, as well as virtual reality and artificial intelligence specialists VRAI, to deliver a synthetic environment alternative to large-scale military exercises. Our collaboration will help us work alongside military forces across the world to deliver more secure, affordable and sustainable ways to equip them with the skills they need on the frontline. This work builds on our prior experience of virtual training in the UK. In 2022, we supported the Typhoon Force flying 6,336 synthetic missions, which would have burned 34,380 tonnes of fuel, releasing 107,600 tonnes of CO <sub>2</sub> , had the missions been flown live.
Operations	Yes	Risks and opportunities from mandatory energy reporting schemes (e.g. SECR), increasing energy costs, and the commitment to be a responsible organisation has influenced our strategic decision to explore additional energy saving opportunities in the short-term (0-2 years) and to implement, and maintain energy management systems. In 2022, BAE sites across the globe implemented projects that will give estimated energy savings of 740 tCO <sub>2</sub> e. We recognise the need for a resilient energy supply, and in line with our net zero roadmap for the UK we will focus on maximising energy efficiency, reducing emissions where feasible and focusing on natural renewable power.

**C3.4**

**(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs	<p>Risks and opportunities from policies to restrict emissions, government Net Zero commitments, costs of fossil fuel etc. have been factored into our financial planning process to determine new sources of revenue in the long-term (10 years and beyond). For example, we have sold over 15,000 hybrid electric systems globally, have developed a hybrid-electric boat, supported the Typhoon Force flying 6,336 synthetic missions, set two Net Zero targets and are currently progressing our Net Zero transition plan across the business.</p> <p>Direct costs: Risks and opportunities from mandatory energy assessment schemes (e.g. ESOS and SECR), increasing energy costs, and the commitment to be a responsible organisation have been factored into our financial planning process to reduce direct costs in the short-term (0-2 years). During 2022, our UK businesses have implemented LED lighting initiatives, which created estimated annual savings of £17,900.</p>

**C3.5**

**(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?**

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

**C4. Targets and performance**

**C4.1**

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Absolute target

**C4.1a**

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

**Target reference number**

Abs 1

**Is this a science-based target?**

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

**Target ambition**

1.5°C aligned

**Year target was set**

2022

**Target coverage**

Company-wide

**Scope(s)**

Scope 1  
Scope 2

**Scope 2 accounting method**

Location-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2019

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

184096

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

379573

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year total Scope 3 emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

563669

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

100

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

100

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1:**

**Purchased goods and services (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

<Not Applicable>

**Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

<Not Applicable>

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2030

**Targeted reduction from base year (%)**

46.2

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

303253.922

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**

113089

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**

281182

**Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**

394271

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**

65.0492288315195

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

The target covers the company's scope 1 and 2 emissions across all regions and is in line with the 1.5oC pathway. This target is in line with our scope 1 and 2 net zero target.

**Plan for achieving target, and progress made to the end of the reporting year**

This will be achieved by investing in renewable power, optimising energy efficiency across our operations and manufacturing processes, switching to lower carbon alternative fuels and reducing overall energy use.

Emissions reduction initiatives which have contributed to achieving this target include: LED lighting replacement projects that have been implemented at several UK and US sites, solar PV installation at several UK sites, behavioural change relating to the management of a gas furnace at a UK site, installation of HVAC controls at several US sites.

**List the emissions reduction initiatives which contributed most to achieving this target**

<Not Applicable>

---

## C4.2

---

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Net-zero target(s)

## C4.2c

---

**(C4.2c) Provide details of your net-zero target(s).**

**Target reference number**

NZ1

**Target coverage**

Company-wide

**Absolute/intensity emission target(s) linked to this net-zero target**

Abs1

**Target year for achieving net zero**

2030

**Is this a science-based target?**

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

**Please explain target coverage and identify any exclusions**

We have aligned our Scope 1 and 2 carbon reduction roadmaps to a science-based pathway of 1.5°C and set progress against this in both our in-year and long-term incentives (see page 181 of our 2022 Annual Report). We continue to mature our approach to the quantification and understanding of the more complex Scope 3 emissions. We will therefore delay our submission to the Science Based Targets Initiative (SBTi) whilst we continue to do this. We intend to align to a 1.5°C reduction pathway for Scope 1, 2 and 3. Our Operational Net Zero Target covers our scope 1 and 2 greenhouse emissions across our operations in the UK, US, Australia, Saudi Arabia, Sweden and countries within our 'Rest of World' reporting category. Our scope 1 and 2 emissions inventory does not include hydrofluorocarbons, perfluorocarbons or sulphur hexafluorides.

**Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?**

Yes

**Planned milestones and/or near-term investments for neutralization at target year**

BAE Systems is planning on neutralizing any unabated emissions at target year. We are currently reviewing details around this and will publish further information in future years.

**Planned actions to mitigate emissions beyond your value chain (optional)**

---

**Target reference number**

NZ2

**Target coverage**

Company-wide

**Absolute/intensity emission target(s) linked to this net-zero target**

Abs1

**Target year for achieving net zero**

2050

**Is this a science-based target?**

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

**Please explain target coverage and identify any exclusions**

BAE Systems have set a target of working towards net zero value chain by 2050. The coverage of this target includes our scope 3 emissions. As our understanding of Scope 3 emissions matures, we will consider reduction pathways in line with a science-based pathway of 1.5°C

**Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?**

Yes

**Planned milestones and/or near-term investments for neutralization at target year**

We are currently reviewing details around this and will publish further information in future years.

**Planned actions to mitigate emissions beyond your value chain (optional)**

---

**C4.3**

---

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

**C4.3a**

---

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	6	
To be implemented*	15	4111
Implementation commenced*	1	15
Implemented*	31	736
Not to be implemented	1	

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

**Initiative category & Initiative type**

Energy efficiency in buildings	Lighting
--------------------------------	----------

**Estimated annual CO2e savings (metric tonnes CO2e)**

23

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

17900

**Investment required (unit currency – as specified in C0.4)**

119200

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

LED lighting installation projects have been implemented at seven UK sites in order to reduce energy consumption.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

**Initiative category & Initiative type**

Company policy or behavioral change	Resource efficiency
-------------------------------------	---------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

33

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

13600

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

<1 year

**Estimated lifetime of the initiative**

Ongoing

**Comment**

One site in the UK has implemented a behaviour change relating to the management of a gas furnace. This behaviour change ensures the furnace is used more efficiently, leading to a reduction in natural gas consumption.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

**Initiative category & Initiative type**

Low-carbon energy generation	Solar PV
------------------------------	----------

**Estimated annual CO2e savings (metric tonnes CO2e)**

19.02

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

19700

**Investment required (unit currency – as specified in C0.4)**

150000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

One site in the UK has invested in solar photovoltaic technology in order to reduce the reliance on fossil-fuel based energy, and to increase the use of renewably sourced energy.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

**Initiative category & Initiative type**

Energy efficiency in buildings	Insulation
--------------------------------	------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

1.63

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

1700

**Investment required (unit currency – as specified in C0.4)**

934000

**Payback period**

&gt;25 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Insulation for a roof at one UK site has been installed to reduce heat loss, leading to a reduction in natural gas consumption.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

**Initiative category & Initiative type**

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)
--------------------------------	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

21.99

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

22700

**Investment required (unit currency – as specified in C0.4)**

3400000

**Payback period**

&gt;25 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

HVAC equipment upgrades have been completed at a UK site to improve the efficiency of the HVAC equipment and therefore reduce fuel consumption and associated scope 1 emissions. LED lighting installation has also been implemented in order to reduce energy consumption.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

---

**Initiative category & Initiative type**

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)
--------------------------------	--

**Estimated annual CO2e savings (metric tonnes CO2e)**

302

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

100900

**Investment required (unit currency – as specified in C0.4)**

22000

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Controls on HVAC equipment have been installed at multiple US sites in order to ensure the equipment is running efficiently and within certain pre selected thresholds. This will reduce scope 1 fuels used.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

---

**Initiative category & Initiative type**

Energy efficiency in buildings	Lighting
--------------------------------	----------

**Estimated annual CO2e savings (metric tonnes CO2e)**

189

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

63600

**Investment required (unit currency – as specified in C0.4)**

285900

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

LED lighting installation projects have been implemented at 12 US sites in order to reduce energy consumption.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

---

**Initiative category & Initiative type**

Company policy or behavioral change	Other, please specify (Cleaning)
-------------------------------------	----------------------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

84.93

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

12000

**Investment required (unit currency – as specified in C0.4)**

1300

**Payback period**

<1 year

**Estimated lifetime of the initiative**

3-5 years

**Comment**

One site in the US has implemented a behaviour change relating to cleaning the Chilled Water Heat Exchanger. This behaviour change ensures the exchanger is used more efficiently, leading to a reduction in natural gas consumption.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

**Initiative category & Initiative type**

Energy efficiency in buildings	Insulation
--------------------------------	------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

13.56

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

2300

**Investment required (unit currency – as specified in C0.4)**

18800

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

One site in the US has replaced a Rapid Roll Up Door with a better insulated and faster roll-up alternative, in order to reduce heat loss, leading to a reduction in natural gas consumption.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

**Initiative category & Initiative type**

Company policy or behavioral change	Resource efficiency
-------------------------------------	---------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

21.59

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

2800

**Investment required (unit currency – as specified in C0.4)**

200

**Payback period**

<1 year

**Estimated lifetime of the initiative**

3-5 years

**Comment**

One site in the US has implemented a behaviour change relating to the management of Sidewalk Snowmelt System Controls. This behaviour change ensures the Snowmelt System is used more efficiently, leading to a reduction in energy consumption.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

**Initiative category & Initiative type**

Energy efficiency in production processes	Machine/equipment replacement
---	-------------------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

26.56

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

4600

**Investment required (unit currency – as specified in C0.4)**

2400

**Payback period**

&lt;1 year

**Estimated lifetime of the initiative**

3-5 years

**Comment**

One site in the US has replaced a Scrubber Cap to improve energy efficiency in the removal process.

The examples provided cover specific sites across multiple business units. These sites were selected as they are collectively the largest consumers of energy. All businesses across the Group will have similar programmes in place to realise energy saving opportunities across their estate. Please note, not all of the energy initiatives implemented within 2022 have been incorporated within this section.

**C4.3c****(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	With respect to environment, as a minimum we ensure that our businesses comply with relevant regulations, standards and laws on top of contractual requirements applicable to the projects. This is stipulated within our Environmental Policy which is applicable to the Group.
Employee engagement	Various awareness raising campaigns are active each year across the businesses. Some are coordinated at a global level, such as our Sustainability Week and World Environment Day, and some national level, and others are business unit/ site specific.
Financial optimization calculations	Businesses set objectives and targets for energy management each year and use a variety of methods to produce relevant business cases locally for capital investment.
Internal incentives/recognition programs	Employee bonuses are linked to whether a business meets its stated objectives. Certain employees with direct environmental responsibility (energy/environmental managers) will have relevant performance metrics included in their 'Personal Development Review' (PDR). The PDR process influences the multiplier applied to employee bonuses and any additional individual bonuses. All executive grade employees' bonuses are linked to the delivery of certain corporate objectives, one of which includes delivery of the Net Zero programme.
Partnering with governments on technology development	The design of our products and provision of our services has an impact on the GHG emissions of our customers. There are a number of ways that we engage with our customers to understand their energy/ environmental challenges, from commissioned studies/ thought leadership to formal working groups and domain-specific interactions within individual businesses and projects.

**C4.5****(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?**

Yes

**C4.5a**

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.**

**Level of aggregation**

Group of products or services

**Taxonomy used to classify product(s) or service(s) as low-carbon**

Other, please specify (Low Emissions Bus Certificate)

**Type of product(s) or service(s)**

Other	Other, please specify (Electric Bus)
-------	--------------------------------------

**Description of product(s) or service(s)**

BAE Systems Power & Propulsion Solutions, part of the Electronic Systems business segment, has been active in the heavy duty vehicle green propulsion sector since the mid-1990s. Our flagship product portfolio is a series of hybrid and full electric drive propulsion systems designed specifically for city bus applications. Our latest Gen3 electric drive system powers heavy duty vehicles using a diesel hybrid electric, battery electric, or a fuel cell configuration. Our hybrid electric system configuration is a low emission solution that can be activated by GPS signals to operate in zero emission modes, and our battery electric and fuel cell electric systems are zero emission solutions at all times. With a significant installed base in multiple countries, our electric power and propulsion systems are powering transit buses, marine vessels, trucks, and military vehicles.

**Have you estimated the avoided emissions of this low-carbon product(s) or service(s)**

No

**Methodology used to calculate avoided emissions**

<Not Applicable>

**Life cycle stage(s) covered for the low-carbon product(s) or services(s)**

<Not Applicable>

**Functional unit used**

<Not Applicable>

**Reference product/service or baseline scenario used**

<Not Applicable>

**Life cycle stage(s) covered for the reference product/service or baseline scenario**

<Not Applicable>

**Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario**

<Not Applicable>

**Explain your calculation of avoided emissions, including any assumptions**

<Not Applicable>

**Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year**

**C5. Emissions methodology**

**C5.1**

**(C5.1) Is this your first year of reporting emissions data to CDP?**

No

**C5.1a**

**(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?**

**Row 1**

**Has there been a structural change?**

No

**Name of organization(s) acquired, divested from, or merged with**

<Not Applicable>

**Details of structural change(s), including completion dates**

<Not Applicable>

**C5.1b**

**(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?**

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in reporting year definition	The reporting period this year has been adjusted to 1st November to 31st October from calendar year. The reporting period was adjusted as we found that reporting January to December the previous year increased the number of estimates in the final figures. In order to provide as accurate reporting as possible we reverted back to our historical reporting year boundary.

**C5.1c**

**(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?**

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	No, because the impact does not meet our significance threshold	<Not Applicable>	<p>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:</p> <ul style="list-style-type: none"> <li>• Mergers, acquisitions, and divestments</li> <li>• Outsourcing and insourcing of emitting activities</li> <li>• 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</li> <li>• Discovery of significant errors, or a number of cumulative errors, that are collectively significant.</li> </ul> <p>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.</p>	Please select

**C5.2**

**(C5.2) Provide your base year and base year emissions.**

**Scope 1**

**Base year start**  
January 1 2019

**Base year end**  
December 31 2019

**Base year emissions (metric tons CO2e)**  
184096

**Comment**

**Scope 2 (location-based)**

**Base year start**  
January 1 2019

**Base year end**  
December 31 2019

**Base year emissions (metric tons CO2e)**  
379573

**Comment**

**Scope 2 (market-based)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 1: Purchased goods and services**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 2: Capital goods**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 4: Upstream transportation and distribution**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 5: Waste generated in operations**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 6: Business travel**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 7: Employee commuting**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 8: Upstream leased assets**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 9: Downstream transportation and distribution**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 10: Processing of sold products**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 11: Use of sold products**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 12: End of life treatment of sold products**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 13: Downstream leased assets**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 14: Franchises**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 15: Investments**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3: Other (upstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3: Other (downstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**C5.3**

---

**(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

**C6. Emissions data**

---

**C6.1**

---

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**

113089

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

BAE Systems direct GHG emissions are derived by calculation and expressed as CO2 equivalent using the latest country specific emissions factors available at the start of the reporting year. We 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), plus natural gas usage estimated for facilities at which we have a presence but do not process the utilities, 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 and 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.

**C6.2**

---

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

BAE Systems is reporting Scope 2 location-based and market-based emissions according to the Greenhouse Gas Protocol guidance.

**C6.3**

---

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

281182

**Scope 2, market-based (if applicable)**

264374

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

The location-based Scope 2 emissions have been calculated using country specific location-based emission factors. For the market based scope 2 emissions, supplier-specific emission factors have been sought for most of our significant operating regions but were deemed of insufficient quality to use at present or were unavailable. Therefore, in line with the Greenhouse Gas Protocol guidance, this figure has been calculated using residual mix emission factors where available for our UK, US and Sweden operations. In our other significant operating regions, residual-mix factors are either unavailable or within the margin of error of the standard grid average emission factor, and therefore the latter has been used. The UK sites purchase grid electricity that is backed by REGOs, therefore the emissions for these sites have been calculated as 0 tCO2e for the period of time the REGOs certificates were valid. Electricity from plug in hybrid vehicles is also included in the scope 2 calculations and the emissions calculated using the relevant Department for Business, Energy and Industrial Strategy's emission factors.

**C6.4**

---

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?**

Yes

**C6.4a**

---

**(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.**

**Source of excluded emissions**

GHG emissions associated with hydrofluorocarbons

**Scope(s) or Scope 3 category(ies)**

Scope 1

**Relevance of Scope 1 emissions from this source**

Emissions are not relevant

**Relevance of location-based Scope 2 emissions from this source**

<Not Applicable>

**Relevance of market-based Scope 2 emissions from this source**

<Not Applicable>

**Relevance of Scope 3 emissions from this source**

<Not Applicable>

**Date of completion of acquisition or merger**

<Not Applicable>

**Estimated percentage of total Scope 1+2 emissions this excluded source represents**

1

**Estimated percentage of total Scope 3 emissions this excluded source represents**

<Not Applicable>

**Explain why this source is excluded**

The GHG emissions associated with hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride have been excluded from our total emissions as perfluorocarbons and sulphur hexafluoride are not produced or relevant to our operations. Hydrofluorocarbons emissions have been quantified and not included in our total emissions as they are immaterial (<5%).

**Explain how you estimated the percentage of emissions this excluded source represents**

The emissions have been estimated to be 1.4% of the global scope 1 and 2 emissions. This estimation was completed by calculating the GHG emissions from refrigerants for a large sample site where the refrigerant log sheets were available and refrigerant use was expected to be largest. The results have been scaled up using number of employees. The UK Governments' emission factors were used to calculate the emissions. The materiality of these emissions against the site's total scope 1 and 2 emissions was calculated and concluded to be 1% of the total emissions, therefore immaterial.

---

**C6.5**

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

2924659

**Emissions calculation methodology**

Spend-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

Our Scope 3, Category 1 emissions baselining approach maps procurement spend data against the Exiobase 3 EE MRIO spend based carbon baselining framework, to calculate emissions based on activity type and geographic location. Spend by category and Geography is multiplied by the Exiobase conversion factors for each category and region which provides an equivalent emissions volume for each group of transactions. The sum of these provide a global business GHG emissions footprint output for purchased goods and services.

**Capital goods**

**Evaluation status**

Relevant, not yet calculated

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**

**Evaluation status**

Relevant, not yet calculated

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

**Upstream transportation and distribution**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

11270

**Emissions calculation methodology**

Spend-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

The scope 1 emissions from our main logistics providers within the UK were divided by their revenue figure to understand the intensity metric - tCO2e/£m. This intensity metric was then used to estimate the transportation and distribution emissions associated with BAE's UK spend with the logistics company. The spend data includes upstream and downstream transportation, therefore these emissions will also include some emissions from the scope 3 category 9 as well.

**Waste generated in operations**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

2154

**Emissions calculation methodology**

Waste-type-specific method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

The emissions calculation methodology is estimated using the water-type-specific method. The waste data used in the calculation included our UK operation's waste and was estimated based on the waste type and stream. Data was taken from supplier's records.

**Business travel**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

62519

**Emissions calculation methodology**

Distance-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

Business travel includes GHG emissions related to air travel data for the majority of the global business, rail data for business units operating in the UK Australia and US. This data is taken from suppliers' procurement records.

**Employee commuting**

**Evaluation status**

Relevant, not yet calculated

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

We include significant leased assets in our Scope 1 and 2 emissions inventories.

## Downstream transportation and distribution

### Evaluation status

Relevant, not yet calculated

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

We have undertaken a number of studies that clearly show the usage phase of our Products to be by far the most GHG-intensive phase of their lifecycle. However, we do not currently have a robust calculation process in place to provide an estimate of the overall impact of our sold products, inclusive of downstream transportation and distribution. Additionally, downstream emissions have been included in the GHG emission figure calculated for upstream transportation and distribution as due to the current estimation methodology, we cannot separate the emissions.

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

We have undertaken some pilot studies that show the in-use phase of our 'platform' products to be by far the most GHG-intensive phase of their lifecycle. The emissions associated with manufacturing are products our covered in scopes 1 and 2.

## Use of sold products

### Evaluation status

Relevant, not yet calculated

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

We have undertaken a number of studies that clearly show the usage phase of our Products to be by far the most GHG-intensive phase of their lifecycle. However, we do not currently have a robust calculation process in place to provide an estimate of the overall impact of our sold products.

## End of life treatment of sold products

### Evaluation status

Relevant, not yet calculated

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Due to the nature of our business, end of life treatment of our products is tightly dictated by our customers. The long-life cycles associated with our most energy intensive products will mean that end of life considerations materialise a long way into the future.

**Downstream leased assets****Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

We do have some downstream leased assets, primarily related to our UK Shared Services business. However, the emissions associated with these assets are very small in relation to our overall Scope 1 & 2 GHG footprint.

**Franchises****Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

Franchises are not relevant to our company/ business model.

**Investments****Evaluation status**

Relevant, not yet calculated

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

Work is ongoing to calculate these figures

**Other (upstream)****Evaluation status****Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain****Other (downstream)****Evaluation status****Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain****C6.7****(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

No

## C6.10

---

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

**Intensity figure**

0.000017

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

394271

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

2325600000

**Scope 2 figure used**

Location-based

**% change from previous year**

12

**Direction of change**

Increased

**Reason(s) for change**

Other emissions reduction activities

Other, please specify (Increase in renewable electricity generated and used on sites.)

**Please explain**

Between FY21 and FY22 the revenue figure increased and the absolute GHG emissions decreased. The reduction in Scope 1 and 2 emissions is due to various factors including the implementation of emission reduction projects and the increase in renewable electricity generated and used on sites in FY2022.

---

**Intensity figure**

4

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

394271

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

93100

**Scope 2 figure used**

Location-based

**% change from previous year**

18

**Direction of change**

Decreased

**Reason(s) for change**

Other emissions reduction activities

**Please explain**

Between FY2021 and FY2022 there was a reduction in scope 1 and 2 emissions by 4% and a 16% increase in number for the FTE employees. The reduction in scope 1 and 2 emissions is due to various factors including emission reduction projects and the increase in renewable electricity generated and used on sites in FY2022. The intensity figure was calculated by dividing the scope 1 and 2 combined emissions figure by the FTE figure.

---

## C7. Emissions breakdowns

---

### C7.1

---

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

### C7.2

---

**(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.**

Country/area/region	Scope 1 emissions (metric tons CO2e)
United Kingdom of Great Britain and Northern Ireland	55685.64
Saudi Arabia	2037.44
Australia	7585.39
Other, please specify (Rest of World) <i>Rest of World category includes all other BAE Systems locations not located in the main regions as listed above.</i>	47780.18

**C7.3****(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

**C7.3a****(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Air	31986.18
Maritime	6279.98
Shared Services	3493.25
Digital Intelligence	1379.09
Land	11444.97
Submarines	10470.45
Other	45984.63
Naval ships	1887.3
BAE Systems Australia LTD	162.79

**C7.5****(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.**

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
United Kingdom of Great Britain and Northern Ireland	60373.84	12769.23
Saudi Arabia	54332.01	54332.01
Australia	48110.04	48110.04
Other, please specify (Rest of World) <i>Rest of World category includes all other BAE Systems locations not located in the main regions as listed above.</i>	118366.6	149162.56

**C7.6****(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division

**C7.6a****(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Air	92854.08	73554.19
Maritime	32574.13	32607.51
Shared Services	9135.9	8192.28
Digital Intelligence	5294.83	4329.56
Land	4433.84	0.56
Submarines	16943.92	2616.38
Naval ships	4877.33	22.96
Other	115068.73	143050.4
BAE Systems Australia LTD		264373.85

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

No

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	670	Decreased	0.2	In 2022, BAE Systems increased the amount renewable electricity generated on site compared to 2021. 670 tCO2e was reduced due to increased on site generation of electricity and our total Scope 1 and 2 location emissions in the previous year was 410,976 tCO2e, therefore we arrived at 0.2% through $(670/410,976) * 100 = -0.2\%$ (i.e. a -0.2% decrease in emissions).
Other emissions reduction activities	740	Decreased	0.2	In 2022, BAE Systems implemented emission reduction projects totalling an estimated 740 tCO2e in emission reductions. These amounted to a decrease in emissions of 0.2% (calculated $740 / 410,976$ multiplied by 100). Many business units were involved in implementing emission reduction initiatives throughout the year, such as process efficiency, lighting and building insulation improvements. Not all emission reduction initiatives have estimated emission reduction figures available.
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output		<Not Applicable >		
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified	15294	Decreased	3.7	The remaining change is due to factors such as production levels, improvement projects and emissions factors that have been implemented at the sites.
Other		<Not Applicable >		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

## C8.2

### (C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

## C8.2a

### (C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)		549233	549233
Consumption of purchased or acquired electricity	<Not Applicable>	275810	601950	877760
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>		10236	10236
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	5952	<Not Applicable>	5952
Total energy consumption	<Not Applicable>	281762	1161419	1443180

## C8.2b

### (C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

## C8.2c

### (C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

#### Sustainable biomass

##### Heating value

Please select

##### Total fuel MWh consumed by the organization

##### MWh fuel consumed for self-generation of electricity

##### MWh fuel consumed for self-generation of heat

##### MWh fuel consumed for self-generation of steam

##### MWh fuel consumed for self-generation of cooling

<Not Applicable>

##### MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

##### Comment

**Other biomass**

**Heating value**

**Total fuel MWh consumed by the organization**

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

**MWh fuel consumed for self-generation of steam**

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

**Other renewable fuels (e.g. renewable hydrogen)**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

70165

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

70165

**MWh fuel consumed for self-generation of steam**

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

Aviation gasoline & Petrol : Within our reporting, we do not define what the fuel has been consumed for, nor do we define how much we have generated internally. Following the guidance, it has therefore been assumed that the majority of our fuel has been used for the generation of heat.

**Coal**

**Heating value**

**Total fuel MWh consumed by the organization**

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

**MWh fuel consumed for self-generation of steam**

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

**Oil**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

25482

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

25482

**MWh fuel consumed for self-generation of steam**

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

We report as 'Light Fuel Oil' Within BAE Systems. Within our reporting, we do not define what the fuel has been consumed for, nor do we define how much we have generated internally. Following the guidance, it has therefore been assumed that the majority of our fuel has been used for the generation of heat.

**Gas**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

447522

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

447522

**MWh fuel consumed for self-generation of steam**

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

Natural Gas - Within our reporting, we do not define what the fuel has been consumed for, nor do we define how much we have generated internally. Following the guidance, it has therefore been assumed that the majority of our fuel has been used for the generation of heat.

**Other non-renewable fuels (e.g. non-renewable hydrogen)**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

6065

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

6065

**MWh fuel consumed for self-generation of steam**

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

LPG - Within our reporting, we do not define what the fuel has been consumed for, nor do we define how much we have generated internally. Following the guidance, it has therefore been assumed that the majority of our fuel has been used for the generation of heat.

**Total fuel**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

549233

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

549233

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

Within our reporting, we do not define what the fuel has been consumed for, nor do we define how much we have generated internally. Following the guidance, it has therefore been assumed that the majority of our fuel has been used for the generation of heat. The megawatt figure is estimated."

**C8.2d**

**(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	5952	5952	5952	5952
Heat				
Steam				
Cooling				

## C8.2e

---

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

**Country/area of low-carbon energy consumption**

United Kingdom of Great Britain and Northern Ireland

**Sourcing method**

Unbundled procurement of energy attribute certificates (EACs)

**Energy carrier**

Electricity

**Low-carbon technology type**

Solar

**Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)**

275810

**Tracking instrument used**

REGO

**Country/area of origin (generation) of the low-carbon energy or energy attribute**

United Kingdom of Great Britain and Northern Ireland

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**

<Not Applicable>

**Comment**

Estimated on the basis of REGOs purchased by the UK Division.

---

## C8.2g

---

**(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.**

**Country/area**

United Kingdom of Great Britain and Northern Ireland

**Consumption of purchased electricity (MWh)**

312174

**Consumption of self-generated electricity (MWh)**

2287

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

314461

---

**Country/area**

Please select

**Consumption of purchased electricity (MWh)**

70750

**Consumption of self-generated electricity (MWh)**

58

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

70808

---

**Country/area**

Other, please specify (Rest of World)

**Consumption of purchased electricity (MWh)**

405759

**Consumption of self-generated electricity (MWh)**

3606

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

10236

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

419601

---

**Country/area**

Saudi Arabia

**Consumption of purchased electricity (MWh)**

88778

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

<Not Applicable>

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

88778

---

C9. Additional metrics

---

C9.1

---

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

---

C10.1

---

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

---

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

BAE-Systems\_FY22 Verification Statement\_Feb\_22.pdf

**Page/ section reference**

P1-4 of document

Relevant standards ISAE 3000 (Revised), & ISAE 3410

**Relevant standard**

ISAE 3410

**Proportion of reported emissions verified (%)**

100

---

C10.1b

---

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

**Scope 2 approach**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

BAE-Systems\_FY22 Verification Statement\_Feb\_22.pdf

**Page/ section reference**

p1-4 of document

**Relevant standard**

ISAE3000

**Proportion of reported emissions verified (%)**

100

---

**Scope 2 approach**

Scope 2 market-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

BAE-Systems\_FY22 Verification Statement\_Feb\_22.pdf

**Page/ section reference**

p1-4 of document

**Relevant standard**

ISAE 3410

**Proportion of reported emissions verified (%)**

100

---

## C10.1c

---

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

**Scope 3 category**

Scope 3: Business travel

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

BAE-Systems\_FY22 Verification Statement\_Feb\_22.pdf

**Page/section reference**

p1-4 of document

**Relevant standard**

ISAE3000

**Proportion of reported emissions verified (%)**

100

---

## C10.2

---

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

---

## C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISAE 3000 and ISAE 3410	As part of the limited assurance process completed annually, Deloitte LLP reviewed the actual supplier data and the reported data, to identify whether there has been any misstatements and control deficiencies identified. The reliability of the reported information and data in the responses in this return are subject to inherent uncertainties given the available methods for determining, calculating, or estimating the energy consumption. It is important to understand our conclusions in this context. BAE-Systems_FY22 Verification Statement_Feb_22.pdf
C6. Emissions data	Other, please specify (verification of the data behind GHG emissions)	ISAE 3000 and ISAE 3410	Deloitte LLP. has provided independent third-party verification of BAE Systems' 2022 greenhouse gas (GHG) emissions, to provide limited assurance that based on the verification process and procedures conducted there is no evidence that the Company's reporting is not complete, not accurate, not consistent, not transparent and free of material discrepancies. BAE Systems' management is responsible for preparing the GHG inventory and for the collection and presentation of information within it. Deloitte LLP's responsibility is to express conclusions on the agreed verification work and to determine based on the verification process and procedures conducted that there is no evidence that the work (p52, The Annual Report, 2022) has not been prepared in accordance with the outlined methodology statement (p53, The Annual Report, 2022). The reliability of the reported information and data is subject to inherent uncertainties given the available methods for determining, calculating, or estimating the GHG emissions. It is important to understand Deloitte LLP's conclusions in this context. BAE-Systems_FY22 Verification Statement_Feb_22.pdf
C7. Emissions breakdown	Other, please specify (verification of the data behind GHG emissions)	ISAE 3000 and ISAE 3410	The reliability of the reported information and data in the responses in this return are subject to inherent uncertainties given the available methods for determining, calculating, or estimating the GHG emissions. It is important to understand Deloitte LLP's conclusions in this context. BAE-Systems_FY22 Verification Statement_Feb_22.pdf
C5. Emissions performance	Other, please specify (verification of the data behind GHG emissions)	ISAE 3000 and ISAE 3410	The reliability of the reported information and data in the responses in this return are subject to inherent uncertainties given the available methods for determining, calculating, or estimating the GHG emissions. It is important to understand Deloitte LLP's conclusions in this context." BAE-Systems_FY22 Verification Statement_Feb_22.pdf

## C11. Carbon pricing

### C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

### C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

### C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

**EU ETS**

**% of Scope 1 emissions covered by the ETS**

15

**% of Scope 2 emissions covered by the ETS**

0

**Period start date**

January 1 2022

**Period end date**

December 31 2022

**Allowances allocated**

3777

**Allowances purchased**

11723

**Verified Scope 1 emissions in metric tons CO2e**

17265

**Verified Scope 2 emissions in metric tons CO2e**

0

**Details of ownership**

Facilities we own and operate

**Comment**

The scheme covers the Glascoed and Barrow sites and the Corporate Air Travel (CAT) activity Both sites have active energy efficiency/reduction programmes in place.

C11.1d

---

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Our strategy for complying with the UK ETS is to work with a third-party contractor for all three parts of the business, to ensure all fuels are included, data is accurate and assured. In addition, our sites that are applicable, actively review options to reduce carbon emissions to levels below the scheme thresholds. For example, both the sites are actively reviewing the options to replace boilers with different systems /cleaner fuels. Both sites are certified to ISO 14001 (environmental management systems) and have active programmes for improving energy efficiency.

C11.2

---

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

---

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

---

C12.1

---

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

C12.1a

---

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect GHG emissions data at least annually from suppliers  
Collect other climate related information at least annually from suppliers

**% of suppliers by number**

100

**% total procurement spend (direct and indirect)**

100

**% of supplier-related Scope 3 emissions as reported in C6.5**

100

**Rationale for the coverage of your engagement**

100% of BAE Systems' suppliers are included in the coverage of our engagement as the company wants to ensure all suppliers the company works with understand BAE's way of working and our aim to only work with suppliers that are on the same journey as us. BAE Systems are working towards becoming Net Zero by 2050 in our value chain and engagement with all suppliers is key to understanding the best possible route to achieving this target. This includes suppliers from all geographies our supply chain operates in and for 100% of our procurement spend.

The engagement activity includes issuing all suppliers with a pre-qualification questionnaire which asks questions regarding environmental risks, targets and accreditations etc. including if the supplier has an approved science-based target, if they disclose to CDP and if they have had any environmental compliance notices.

**Impact of engagement, including measures of success**

BAE Systems measure the success of our supplier engagement activities by the percentage of suppliers that respond to the pre-qualification questionnaire. If 100% of our suppliers respond and share the required information we have requested, then we determine our engagement to be successful. The impact of this engagement activity includes understanding where the supplier is on their net zero journey, while identifying opportunities relating to sustainable procurement. This will impact BAE Systems' ability to meet our Net Zero by 2050 in the value chain target.

In future years, when this engagement activity matures and suppliers have progressed in their journeys, we will include other measures of success including % of spend with suppliers with SBT and % of suppliers who have set carbon net zero.

**Comment**

---

**C12.1b**

---

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement & Details of engagement**

Collaboration & innovation	Other, please specify (Commissioned studies/ thought leadership, formal working groups, and domain-specific interactions with individual businesses. )
----------------------------	--

**% of customers by number**

100

**% of customer - related Scope 3 emissions as reported in C6.5**

0

**Please explain the rationale for selecting this group of customers and scope of engagement**

Within BAE Systems our main customers are governments; within the UK, this would be the Ministry of Defence and we engage with them on the products that we are contracted to produce for the UK military.

BAE Systems' Life Cycle Management (LCM) Framework highlights how the LCM can be tailored for projects and the need for environmental considerations throughout the whole process, through from design to disposal.

**Impact of engagement, including measures of success**

There are a number of ways in which we engage with our customers to understand their energy/ environmental challenges, from commissioned studies/ thought leadership, to formal working groups, to domain-specific interactions with individual businesses. Design improvements in environmental performance are actively sought and are particularly important due to the long lifecycles of the majority of our products. We measure success as supporting our customers with their emissions reductions and maintaining a good relationship. An example of the impact of our engagement strategy is our collaboration and engagement with the Royal Navy. We supported the installation of a Combined Heat and Power Plant (CHP) at Portsmouth Naval Base. BAE Systems works closely with the Royal Navy to deliver long-term energy cost savings to the naval base. This CHP system recycles energy and generates sizable output of heat and power. Energy and electrical requirements at the naval base will significantly increase with the new aircraft carriers and a dedicated CHP facility supports the Ministry of Defence's drive for a more modern and energy efficient base. In 2022, we supported the Typhoon Force flying 6,336 synthetic missions, which would have burned 34,380 tonnes of fuel, releasing 107,600 tonnes of CO2, had the missions been flown live. Our R&D activities have allowed us to diversify our business activities and release low carbon products for our customers, reducing GHG emissions and climate change risk.

---

**C12.2**

---

**(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?**

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

## C12.2a

**(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.**

**Climate-related requirement**

Complying with regulatory requirements

**Description of this climate related requirement**

A climate related minimum requirement that suppliers have to meet as part of BAE Systems' purchasing process includes complying with regulatory requirements in the locations they operate which includes those relating to the environment and climate.

Our global procurement policy requires our businesses to communicate our 'Supplier Principles – Guidance for Responsible Business' to our suppliers. The Supplier Principles are based on our code of conduct and group policies. They set out what we expect from our suppliers and their supply chains and outline best practice guidance for suppliers and the BAE Systems Code of Conduct. Our Supplier Principles and our standard terms and conditions require suppliers to comply with all applicable laws and regulations, including those related to the environment and climate.

The requirement of complying with environmental and climate related regulatory requirements is placed on 100% of our suppliers across all geographies that the value chain operates in. All suppliers are expected to comply fully, and the company engage with our suppliers on a regular basis regarding these expectations. Additionally, this is included within the supplier questionnaire that is issued to 100% of our suppliers.

The next steps of our supplier engagement will be to set emission reduction targets for our key suppliers.

**% suppliers by procurement spend that have to comply with this climate-related requirement**

100

**% suppliers by procurement spend in compliance with this climate-related requirement**

100

**Mechanisms for monitoring compliance with this climate-related requirement**

Certification

Supplier self-assessment

Off-site third-party verification

Grievance mechanism/Whistleblowing hotline

**Response to supplier non-compliance with this climate-related requirement**

Retain and engage

## C12.3

**(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?**

**Row 1**

**External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

**Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?**

Yes

**Attach commitment or position statement(s)**

A climate related minimum requirement that suppliers have to meet as part of BAE Systems' purchasing process includes complying with regulatory requirements in the locations they operate which includes those relating to the environment and climate.

Our global procurement policy requires our businesses to communicate our 'Supplier Principles – Guidance for Responsible Business' to our suppliers. The Supplier Principles are based on our code of conduct and group policies. They set out what we expect from our suppliers and their supply chains and outline best practice guidance for suppliers and the BAE Systems Code of Conduct. Our Supplier Principles and our standard terms and conditions require suppliers to comply with all applicable laws and regulations, including those related to the environment and climate.

The requirement of complying with environmental and climate related regulatory requirements is placed on 100% of our suppliers across all geographies that the value chain operates in. All suppliers are expected to comply fully, and the company engage with our suppliers on a regular basis regarding these expectations. Additionally, this is included within the supplier questionnaire that is issued to 100% of our suppliers.

The next steps of our supplier engagement will be to set emission reduction targets for our key suppliers.

bae-ar-complete-2022.pdf

**Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan**

By ensuring that representatives who attend supplier engagement forums are suitably knowledgeable on our climate strategy.

**Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

**Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

## C12.3b

**(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.**

**Trade association**

Other, please specify (Aerospace, Defence, Space and Security Trade Organization (ADS))

**Is your organization's position on climate change policy consistent with theirs?**

Consistent

**Has your organization attempted to influence their position in the reporting year?**

Yes, and they have changed their position

**Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position**

ADS has publicly announced their support to meet the UK's net zero ambitions by 2050, by supporting their industries to overcome challenges and develop opportunities, enabling them to grow, invest, and recover from the economic impact of the pandemic. BAE Systems has a similar target to net zero greenhouse gas emissions across our operations (Scope 1 and 2) by 2030 and working towards Net Zero by 2050 in our value chain. We collaborate with ADS with similar discussions on climate change. BAE Systems is an active participant of the ASD Taskforce for Green Defence and is involved in shaping the strategy and objectives for the association. ASD is the European equivalent of ADS.

**Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)**

**Describe the aim of your organization's funding**

<Not Applicable>

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

**C12.4**

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

**Publication**

In mainstream reports

**Status**

Complete

**Attach the document**

bae-ar-complete-2022.pdf

**Page/Section reference**

Throughout the Sustainability Section of the Report p38-79

**Content elements**

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets

**Comment**

**C12.5**

**(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.**

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Business Ambition for 1.5C Race to Zero Campaign Task Force on Climate-related Financial Disclosures (TCFD)	<p>BAE Systems has joined the United Nations' Race to Zero campaign, by signing up to the Business Ambition for 1.5°C. In 2021, we announced our target to achieve net zero greenhouse gas emissions across our operations by 2030 and across our value chain by 2050.</p> <p>In order to achieve these goals, we will be investing in low to zero energy carbon products and renewable energy solutions, supporting our supply chains to reduce greenhouse gas emissions and pioneering new technology to help our customers move towards net zero.</p> <p>TCFD: We have made considerable progress in our net zero programme. We have established a roadmap based on phases of activity and level of investment, to monitor our progress to decarbonise our operations by 2030 (Scope 1 and 2). Our sectors have each developed decarbonisation roadmaps that outline short-, medium- and long-term activities to support the Group's decarbonisation ambition. We have aligned our Scope 1 and 2 carbon reduction roadmaps to a science-based pathway of 1.5°C and set progress against this in both our in-year and long-term incentives. We believe our approach is consistent with nine of the 11 TCFD Recommendations. The areas we will continue to work on during 2023 are: Metrics and Targets, part b and c, and we expect to be able to make a recommended disclosure in respect of these items in our 2023 Annual Report. More information can be found on page 44 of our Annual Report.</p>

**C15. Biodiversity**

## C15.1

**(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?**

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	No, and we do not plan to have both within the next two years	<Not Applicable>	<Not Applicable>

## C15.2

**(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?**

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

## C15.3

**(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?**

### Impacts on biodiversity

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

### Dependencies on biodiversity

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

## C15.4

**(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?**

Not assessed

## C15.5

**(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?**

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Other, please specify (Ecological enhancement including installing bat roosts, removing invasive species, planting wildflowers, • Land/water management • Cleaning up water courses and restoring underwater environments. )

## C15.6

**(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?**

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Other, please specify (• Species listings • Bird nesting counts)

**C15.7**

**(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In mainstream financial reports	Other, please specify (• Details on how the company identifies and manages biodiversity impact)	bae-ar-complete-2022.pdf

**C16. Signoff**

**C-FI**

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

**C16.1**

**(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Group Director Governance, Conduct & Sustainability, Group Governance Conduct & Sustainability	Business unit manager

**SC. Supply chain module**

**SC0.0**

**(SC0.0) If you would like to do so, please provide a separate introduction to this module.**

At present, we don't have a means to easily quantify our product emissions related to our sales to the US GSA, CNH Industrial, BT, Airbus SE, AIB Group, CBRE Group, HSBC or NEC Corporation. This is partly due to the diverse nature of our product lines, and due to the sensitive nature of our business.

Please note, we have made efforts to give as full as a response as possible to the main climate change questionnaire in the hope that this provides those interested with beneficial information despite the fact that we are currently unable to easily quantify our product emissions related to our sales.

**SC0.1**

**(SC0.1) What is your company's annual revenue for the stated reporting period?**

	Annual Revenue
Row 1	21258000

**SC1.1**

**(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.**

**SC1.2**

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

### SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	Improved sector specific guidance and more granular specific emission factors for different geographies. Improving data quality for different stages of the product's life cycle.
Doing so would require we disclose business sensitive/proprietary information	Improved sector specific guidance.

### SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

### SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We are currently reviewing our current products to understand in-life emissions. We will be reviewing sector specific guidance as and when it is released and work with technical experts to help quantify emissions for products that are not sensitive in nature, if required.

### SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

### SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

### SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms