

# Welcome to your CDP Climate Change Questionnaire 2021

## C0. Introduction

### C0.1

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

General Dynamics is a global aerospace and defense company. The company offers a broad portfolio of products and services in business aviation; ship construction and repair; land combat vehicles, weapons systems and munitions; and technology products and services. The company consists of 10 business units, which are organized into four operating segments: Aerospace, Marine Systems, Combat Systems, and Technologies. Each business unit is responsible for the development and execution of its strategy and operating results. The company’s corporate function sets the overall strategy and governance for the company and is responsible for allocating and deploying capital.

Our primary customers are the U.S. government and allied countries as well as consumers of commercial aviation products and services. General Dynamics employs over 100,000 employees in all 50 states and in over 65 countries. We generated a total revenue of \$37.9 billion in 2020. The company is headquartered in Reston, Virginia.

### C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2019	December 31, 2019	No

### C0.3

**(C0.3) Select the countries/areas for which you will be supplying data.**

- Argentina
- Australia
- Austria
- Bahrain
- Brazil
- Canada

China  
China, Hong Kong Special Administrative Region  
Colombia  
Ecuador  
Egypt  
Estonia  
Ethiopia  
Germany  
Guam  
Guyana  
India  
Iraq  
Israel  
Italy  
Jamaica  
Malaysia  
Malta  
Mexico  
Oman  
Peru  
Philippines  
Puerto Rico  
Republic of Korea  
Russian Federation  
Saudi Arabia  
Singapore  
Spain  
Switzerland  
Taiwan, Greater China  
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.**

USD

## **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

## C-T00.7/C-TS0.7

**(C-T00.7/C-TS0.7) For which transport modes will you be providing data?**

- Marine
- Aviation

## 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(s)	Please explain
Board Chair	The Board Chair maintains oversight over the assessment and management of climate-related risks. The Board Chair's consideration of material risks, including any related to climate, is continuous as she carries out her duties. Risk items predominate on the Board's substantive agenda. Twice a year, the Board Chair receives comprehensive material risk briefings on all categories of risk, including any material climate risks. Throughout the year, the Board Chair also regularly assesses areas of potential risks and opportunities as identified by our senior management or Board members. For example, the Board Chair oversaw Gulfstream's clean sheet development of new aircraft models with significantly more energy efficient jet engines and airframe and multi-billion-dollar investments in state-of-the-art energy-efficient production facilities.
Board-level committee	The Board level committee exercises direct control of sustainability matters, including those related to climate topics, through its standing committees. Our Nominating and Corporate Governance Committee's responsibilities include corporate sustainability, including climate topics. The Nominating and Corporate Governance Committee has a standing Sustainability Sub-committee, dedicated to considering the risks and opportunities related to sustainability and Environmental, Social, and Governance (ESG) topics. The sub-committee is chaired by an expert in the ESG field; this Board member also serves as the chairman of the Sustainability Accounting Standards Board (SASB).

#### 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	Please explain
Scheduled – some meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p>	<p>As noted, the Board maintains oversight of material risks and opportunities, including those related to climate. It takes these risks and opportunities into account as it exercises its duties.</p> <p>The Nominating and Corporate Governance Committee and its Sustainability sub-committee, as described above, are responsible for assisting the Board in fulfilling its oversight duties related to sustainability, including those related to environmental matters.</p> <p>One example of the Board exercising its strategic leadership of climate-related matters was its careful monitoring and shaping of the capital deployment that enabled Gulfstream to develop new aircraft that greatly increased jet engine and airframe efficiency and lowered carbon emissions per passenger mile. Climate-related risks and opportunities are typically briefed by the relevant business unit president or cognizant executive vice president for the relevant business line. Climate-related risks and opportunities may also be briefed by the chair of our corporate functional area councils, including the Environmental, Health, and Safety (EHS) Committee of the Manufacturing Council.</p> <p>This EHS Committee, sponsored by an executive vice president, provides an annual briefing of EHS related risks to the Board.</p>

## C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly

## C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

The Chief Executive Officer is ultimately responsible for all significant risks, including those related to climate. The CEO receives regular and ad hoc reports from each operating unit president, who in turn has responsibility for monitoring and mitigating risks within his or her business unit. For example, in instances where a severe wind event risks physical damage to a facility, the operating unit president is responsible for monitoring and mitigating the risk, and reports to the Chief Executive Officer regarding the risk and mitigation.

General Dynamics also has established several company-wide councils intended to share information and best practices throughout the company. These councils are made up of the most senior operational executives from our business units. Many are considered experts in their field and within their council duties help address issues of shared importance, including those relating to climate. The chair of each council is mentored by a corporate EVP but reports directly to the Chairman and CEO on council matters. Our Manufacturing Council includes an Environmental, Health, and Safety (EHS) committee that directly addresses sustainability, energy, and environmental issues. Every GD business unit is represented by a senior EHS professional assigned by the BU president to the committee. For example, the subcommittee helps each BU establish their targets and collects and assesses energy and carbon emissions data from across the corporation. The Manufacturing Council makes regular EHS reports to the Board as part of the Board’s risk-management process. Our Supply Chain Management Council also shares best practices and creates shared processes to support our supplier efforts, including to promote socially responsible performance and good environmental stewardship throughout our supply chain.

## 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	Each business unit president has non-financial goals, which include incentives for human capital management, environmental conservation and efforts to bring new technologies to the market to support lower carbon emissions. The president of Gulfstream, our business jet subsidiary has been a leader in using and promoting the use of sustainable jet fuel. The reduction in energy usage translates into reduced operating expense and may lead to gains in cash flow a direct performance metric for management.

### 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	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Energy reduction project	General Dynamics utilizes a mix of financial and strategic and operational goals to measure the performance of its executives. Based on the accomplishment of financial and strategic and operational goals, the executive team and various business leaders may receive monetary incentives as part of their variable compensation. ESG performance is considered when determining the achievement of strategic and operational goals. These goals are measured annually.
President	Monetary reward	Energy reduction project	General Dynamics utilizes a mix of financial and strategic and operational goals to measure the performance of its president. Based on the accomplishment of financial and strategic and operational goals, the president may receive monetary incentives as part of their variable compensation. ESG performance is considered when determining the achievement of strategic and operational goals. These goals are measured annually.
Business unit manager	Monetary reward	Energy reduction project	General Dynamics utilizes a mix of financial and strategic and operational goals to measure the performance of its business unit manager. Based on the accomplishment of financial and strategic and operational goals, the business unit manager may receive monetary incentives as part of their variable compensation. ESG performance is considered when determining the achievement of strategic and operational goals. These goals are measured annually.
Management group	Monetary reward	Energy reduction project	General Dynamics utilizes a mix of financial and strategic and operational goals to measure the performance of its management group. Based on the accomplishment of financial and strategic and operational goals, the management group may receive monetary incentives as part of their variable compensation. ESG performance is considered when determining the achievement of

			strategic and operational goals. These goals are measured annually.
Facilities manager	Monetary reward	Efficiency project	Facility Managers' performance priorities include components of sustainability, which drives compensation and bonus rates. These components may include reduction of GHG, new construction projects, such as solar panel installation, external ISO 14001 and other climate-related standards, energy reduction, lighting projects, and other related activities.
Environmental, health, and safety manager	Monetary reward	Behavior change related indicator	General Dynamics Environmental, Health, and Safety managers are responsible for achieving sustainability goals and GHG reduction, which is collected and measured annually. Environmental, Health, and Safety managers from each business unit are members of the General Dynamics EHS Committee, working closely with all business units on sustainability CIOs and GHG collection and reduction. These goals drive company performance which impacts potential bonus and annual increase percentages.
Environmental, health, and safety manager	Non-monetary reward	Emissions reduction project	<p>The General Dynamics EHS Committee is dedicated to ensuring compliance with all environmental, health and safety rules, regulations and laws as directed by Corporate Policy and as guided by industry best practices. Each business unit is represented on the Committee, which is sponsored by the General Dynamics Manufacturing Council and is established to: help ensure GD business units continue to operate in compliance with applicable EHS regulatory requirements; promote environmental, health and safety principles and strategies throughout GD; share EHS strategies to benefit company members where lessons learned, principles applied, and best practices have been successful; be a resource across GD for guidance on enterprise initiatives to promote an EHS culture; and continue to reinforce a culture of continuous improvement and measurement.</p> <p>While staff members may receive a monetary reward for their contribution to EHS goals, the Committee is able to provide non-monetary rewards by recognizing individuals publicly at the</p>

			annual General Dynamics Manufacturing Symposium, providing the EHS Committee members an opportunity to present in front of their peers their actions, reductions in GHG, sustainability programs, or other associated ESG activities.
All employees	Monetary reward	Behavior change related indicator	All employees are encouraged to report positive activities related to sustainability, which are eligible for a spot award at the discretion of business unit management.
All employees	Monetary reward	Environmental criteria included in purchases	Employees may participate in the alternative transportation incentives program (Emissions Reduction), which offers public transportation pass discounts and fuel cost subsidies for vanpool participants.

## 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	1	Short-term focus is on the current calendar year performance. Climate-related risks and opportunities are identified that could have an immediate impact on General Dynamics.
Medium-term	1	5	Medium-term focus is aligned with the General Dynamics Operating Plan period and is oriented on the current year, next year and the following three years. Climate-related risks and opportunities are identified that could have an impact on General Dynamics.
Long-term	5	10	Long-term focus is from five years onwards, which is outside of our Operating Plan period. Associated risk and opportunities are identified and prioritized.

## C2.1b

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

General Dynamics assesses climate-related risks within its overall risk identification framework. Our risk framework is based on the Delegation of Authority from the Board to our management, which defines criteria for allocating management responsibility. For competitive reasons, we do not disclose the specific factors. As a general matter, our framework assesses risks based on the totality of circumstances, rather than on a particular quantitative threshold. Risks, including climate-related risks, are assessed within this framework based on, among other factors, quantitative estimates of financial impact and qualitative factors, such as strategic considerations, compliance with law, and reputational impact. Specific quantitative analyses are prepared for specific risks as necessary and appropriate for management assessment and mitigation.

For purposes of our CDP response, General Dynamics defines substantive financial or strategic impact as risks and opportunities that could meaningfully affect our competitive position in the market. Risks included in this response as potentially having a substantive financial or strategic impact are analyzed on an unmitigated basis. We cannot reasonably estimate the effectiveness of mitigating factors on the extent of our financial exposure.

In addition, while the risks and opportunities described here are relevant to the business, they are not financially material on the enterprise level due to our size and scope of operations. It is also not possible to predict the outcome of particular climate risks or scenarios or preventative measures or mitigation taken by General Dynamics or our stakeholders. The discussion of any particular risk or opportunity in this document does not reflect any assessment or conclusion that it is reasonably likely to have material effect on our liquidity, financial condition or results of operations. For a complete discussion of risks affecting our business, please refer to our Annual Report on Form 10-K and other reports that we file with the Securities and Exchange Commission.

## C2.2

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

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**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 comprehensive risk management program is conducted by senior management and overseen by the Board of Directors. In particular, the Board oversees management's identification and prioritization of risk. The Board oversees risk management, focusing on the most significant risks facing the company, including environmental risks that could have a substantive financial or strategic impact. Senior management is responsible for day-to-day risk management and conducts a thorough assessment through internal management processes and controls. The chief executive officer and senior management team provide the Board a dedicated and comprehensive assessment of material risks at least twice per year, and the Board is briefed throughout the year as needed on specific risks facing the company, including environmental, safety and human capital risks. Each of our businesses has professional Environmental, Health and Safety (EHS) programs to ensure our facilities operate safely and comply with company programs and practices to minimize environmental impacts. Each business identifies risks and opportunities and develops annual objectives to drive continuous improvement in EHS performance. General Dynamics has an active EHS Committee that includes experts from each of our business units. The group works together to promote best practices and shared strategies throughout the company to promote an environmentally aware culture. Climate-related risks and opportunities, along with the financial and strategic impact, are identified at each of the businesses and reported to senior management. In our process, upstream, downstream and operational risks are assessed for potential financial or strategic impact holistically, taking into account the totality of the circumstances, including quantitative analyses of potential financial impact as well as qualitative factors such as compliance with laws and reputational impact. Senior management reviews each risk and opportunity and determines the appropriate path forward. Local teams work to mitigate, transfer or accept the risk or capitalize on the opportunity with oversight from senior management. For example, we have addressed the climate-related risk of significant weather events such as disruptive wind, flood and hurricanes and the impact on our business locations through this framework. Business units potentially affected by severe storms have identified the risk and work to shift the risk under our corporate risk management process. In instances where a severe wind event risks physical damage to a facility, local management is responsible for monitoring and mitigating the risk, and reports to the Chief Executive Officer regarding the risk and mitigation.

Based on insurance data modeling, two of our largest sites – Groton, CT and Savannah, GA – have the greatest potential loss exposures to hurricane, storm surge and flood events.

GD and our Groton, CT, and Savannah, GA, facilities have contemplated these types of events for many years and business unit management have put specific procedures and business continuity plans in place to mitigate the risks to our staff, facilities and

operations. These plans have been reviewed with senior leadership.

As a case study, at our Savannah location, Gulfstream has well-rehearsed hurricane planning and a mature response strategy that is implemented when a storm’s path is projected near the Savannah area. Business unit leadership is responsible for organizing the response and communicates with the Chief Executive Officer regarding the incident as it develops. Over the past five years, Gulfstream has implemented its hurricane response plan five times.

This same management framework also applies in identifying climate related opportunities, such as those related to potential transitions in the economy. For example, Gulfstream identified a potential opportunity in meeting customer interest in sustainable aviation. The business unit identified the opportunity and led the effort to support the use of Sustainable Aviation Fuel (SAF). Executive leadership and the Board provided oversight as appropriate. For example, the Board approved and provided oversight as Gulfstream developed new aircraft that greatly increased jet engine efficiency and lowered carbon emissions per passenger mile.

Following our comprehensive risk framework, our businesses implement strategies to reduce GHG emissions from small actions, such as replacing incandescent lightbulbs with energy-efficient LED bulbs to large-scale actions, such as investing in energy from renewable sources, building ISO-compliant buildings, and establishing a global network of sustainable jet fuel sources for our customers and ourselves.

## 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	Government contractors operate in a highly regulated environment. At General Dynamics, compliance with current regulations (local, state, U.S. national and, where applicable, foreign) is extremely important to our business. Compliance with FAA, EPA, SEC and other regulations are a specific risk continuously considered and reviewed.  An unfavorable event or trend in any one or more of these factors or failure to comply with U.S. or foreign laws could result in administrative, civil, or criminal liabilities, including suspension or debarment from government contracts.
Emerging regulation	Relevant, always included	The potential for new regulation to impact our day-to-day operations is a risk that is continuously monitored. The probability of more stringent noise, emissions and CO2 certification standards is considered as we review our current performance and develop new products.  Many of the products and services we provide involve sophisticated

		technologies and engineering, with related complex manufacturing and system-integration processes. Our customers' requirements change and evolve regularly. Accordingly, our future performance depends in part on our ability to continue to develop, manufacture and provide innovative products and services and bring those offerings to market quickly at cost-effective prices. Some new products, particularly in our Aerospace segment, must meet extensive and time-consuming regulatory requirements that are often outside our control and may result in unanticipated delays. Our ability to develop new products that meet customers' changing needs and satisfy regulatory requirements in a timely manner is a relevant risk factor.
Technology	Relevant, always included	General Dynamics utilizes technology to enable our products to be more efficient and reduce waste as part of the development and build cycle. We also evaluate the risk of a new technology having a negative impact on the environment such as its use of excessive electricity or fuel.
Legal	Relevant, always included	We work with the environmental rules and regulations of cities, states, and nations to ensure compliance. The legal risk of noncompliance with environmental regulations is an area General Dynamics considers as it looks across all Legal risks.
Market	Relevant, always included	General Dynamics carefully monitors the aerospace and defense markets. Climate impact related to the use of business jets is an example of a market risk. Gulfstream and Jet Aviation are working to be market leaders in reducing environmental impacts by offering access to sustainable aviation fuel and developing more fuel-efficient business jets.
Reputation	Relevant, always included	Our ethos (Transparency, Trust, Alignment, Honesty) undergirds our culture, our business model and our daily interactions with all stakeholders. These values are a constant reminder of who we are and what we do. Our reputation as a company is critical to our employees, shareholders, partners, customers and local community. An example of a specific risk is in the companies we do business with (supplier selection). We seek suppliers that adhere to similar values in their businesses and hold them to the same high standards as we hold ourselves.
Acute physical	Relevant, always included	Acute physical risks are frequently reviewed. A climate-related risk in this area is the increase in significant wind events and the impact on our business locations. The 100-year storms are happening more frequently, and we continue to evaluate the risk to our facilities and impact on our insurance costs.
Chronic physical	Relevant, always included	Chronic physical risks are also reviewed along with our acute physical risks. A chronic physical climate-related risk in this area is the increase in sea level due to climate change. General Dynamics evaluates this

		risk as it reviews its impacted real-estate portfolio. New construction projects/improvements are evaluated against this risk.
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## 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

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

### Primary potential financial impact

Increased insurance claims liability

### Company-specific description

Climate change is causing significant weather events such as disruptive wind, flood and hurricanes which have both a direct and indirect impact on our business. The indirect impact is the increase costs of property insurance that we have incurred in recent years, those increases being expected to continue. From a direct standpoint significant weather events can cause both extensive damage to company facilities and consequential disruption of production and other business activities. For example, during the 2017 hurricane season, Hurricanes Harvey, Irma, and Maria caused \$220B in economic damage across the U.S. As these events continue to increase in frequency and severity due to climate change, both the indirect and direct costs to business are expected to grow.

Based on insurance data modeling, two of our largest sites – Groton, CT and Savannah, GA – have the greatest potential loss exposures to hurricane, storm surge and flood events.

### Time horizon

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

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

Yes, an estimated range

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

2,000,000

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

4,000,000,000

**Explanation of financial impact figure**

Risk 1 (Wind) The insurance industry has been collecting data for many years on natural catastrophes and their economic impacts. Accordingly, they have built sophisticated models that can project loss-outcome scenarios based on the geography and physical characteristics of a company's locations. The financial impact figures rely on these models. The low end of our range (\$2 million) represents the forecasted increase to our premiums due to the impact of climate change with no direct impact or a significant weather event at a major GD location. The potential maximum impact (\$4 billion) represents an estimated impact of a significant event at one of our major locations such as Groton, CT or Savannah, GA.

**Cost of response to risk**

1,200,000

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

GD and our Groton, CT, and Savannah, GA, facilities have contemplated these types of events for many years and have put specific procedures and business continuity plans in place to mitigate the risks to our staff, facilities and operations.

As an example or case study, at our Savannah location, Gulfstream has well-rehearsed hurricane planning and a mature response strategy that is implemented when a storm's path is projected near the Savannah area. Over the past five years, Gulfstream has implemented its hurricane response plan five times. The cost of preparation and response ranges from \$200,000 to \$1,200,000 and includes actions such as aircraft relocation, facility preparation and plant shut-down activities. For aircraft relocation expenses, our aviation insurance provides coverage of up to \$150K per event and up to \$250K per policy-year when such costs are incurred to relocate aircraft from areas under Hurricane Watch or Hurricane Warning.

**Comment**

**Identifier**

Risk 2

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

Direct operations

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

Emerging regulation

Mandates on and regulation of existing products and services

**Primary potential financial impact**

Increased indirect (operating) costs

**Company-specific description**

General Dynamics consumes over 1.3 million MWh of electricity annually. As electricity providers look for cleaner ways to generate electricity due to emerging regulations, there is a risk the cost of electricity will increase over time. This increase will have a direct impact on the cost to operate our equipment and facilities. According to the U.S. Energy Information Administration (EIA), in order to generate cleaner energy, electricity companies will need to increase investments in R&D to update their grid system and improve their infrastructure. These investments will likely drive up the cost of electricity for consumers. Additionally, emerging regulations may require electricity companies to invest in planning, operational, and physical measures to mitigate the increasing risk of damage on electrical infrastructure due to climate change. This could entail upgrading electricity companies' infrastructure and technology to meet the regulation's standards and be more resilient to extreme weather, which also will likely increase the companies' rates.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

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

Yes, an estimated range

**Potential financial impact figure (currency)**

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

0

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

4,300,000

### Explanation of financial impact figure

On average over the past five years, General Dynamics has consumed over 1.3 million megawatt hours (MWh) or 1.3 billion kilowatt hours (KWh) of electricity annually. Per the U.S. Energy Information Administration (EIA), the annual average price per KWh for industrial customers is \$0.067. The EIA forecasts that the retail price per KWh for the industrial sector will increase up to 4.96% or \$0.0033 this year. The impact to General Dynamics could be up to \$4.3M of additional cost per year associated with the purchase of electricity. The financial impact is calculated using the EIA-estimated annual increase cost per KWh of \$0.0033 (industrial sector) across the General Dynamics average annual consumption of 1.3 billion kilowatt hours of electricity ( $\$0.0033/\text{kWh} \times 1.3\text{B kWh} = \$4.3\text{M}$ ).

### Cost of response to risk

2,000,000

### Description of response and explanation of cost calculation

General Dynamics businesses are already implementing strategies to reduce electricity consumption from efforts such as air conditioning upgrades, converting to LED lighting, LEED certification for new facilities and installation of solar sites.

As an example or case study, our GD OTS business in conjunction with Today's Power, Inc, made a combined investment of over \$2M in equipment, assets and infrastructure in four renewable energy projects in Calhoun County, Arkansas. The solar sites in this project will cumulatively produce more than 4 million kWh of energy in its first year and will reduce GD OTS' carbon footprint by 51,472 metric tons over 20 years. This project reduces our cost per kWh in its first year, which will reduce our overall indirect cost each year and is expected to generate cost savings for over twenty years.

### 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  
Carbon pricing mechanisms

#### Primary potential financial impact

Increased indirect (operating) costs

#### Company-specific description

A regulatory imposition of carbon pricing is a potential risk for General Dynamics in light of our global operations. Currently, certain European operating entities are potentially subject to the EU Emissions Trading Scheme. As we look to our global footprint, it is

possible that more jurisdictions will adopt a carbon tax or other pricing mechanism. Our approach to energy efficiency and carbon reductions, including the adoption of greenhouse gas targets, will help mitigate this risk. Individual business units also monitor regulatory developments in relevant jurisdictions to develop targeted mitigation steps.

**Time horizon**

Long-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

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

Yes, an estimated range

**Potential financial impact figure (currency)**

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

10,670,800

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

76,220,000

**Explanation of financial impact figure**

There is significant uncertainty as to the scope, design, and location of any particular carbon pricing scheme. In order to assess the financial impact of this risk, we have developed a range of outcomes based on potential carbon pricing scenarios. To calculate the financial impact, we relied on our 2019 Scope 1 and Scope 2 emissions of 762,200 metric tons without assuming any further reductions. We have taken those emission amounts and applied both a low and a high estimated carbon price amount. We selected a low end of \$14 per metric ton of carbon dioxide emission based on the February 2021 interim US Interagency Working Group on Social Cost of Greenhouse Gases estimates, which is identified as a potential benchmark for the low-end of a carbon pricing mechanism. We used \$100 per metric ton as a high-end assumption (762200 MT CO<sub>2</sub>e x \$14/ MT CO<sub>2</sub>e = \$10,670,800 for the low scenario. 762200 MT CO<sub>2</sub>e x \$100/ MT CO<sub>2</sub>e = \$76,220,000 for the high scenario).

**Cost of response to risk**

150,000

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

General Dynamics is managing this risk by adopting carbon reduction targets. Reducing the amount of carbon used will reduce the exposure to carbon pricing processes. In addition, we are taking specific energy efficiency actions. We will explore other appropriate steps to mitigate carbon pricing exposure depending on the nature of any regime. Each business unit is responsible for actively monitoring the regulation in

the jurisdictions relevant to them and adopting specific relevant mitigations.

An example/business case of this is Jet Aviation's participation in the European Union Emissions Trading Scheme (EU ETS), which is the world's first and largest installation-level 'cap-and trade' system for reducing greenhouse gas (GHG) emissions and ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which is a carbon offset and carbon reduction scheme to lower CO<sub>2</sub> emissions for international flights, to curb the aviation impact on climate change. Both programs emerging regulations that are intended to assist the EU in reaching both its immediate and longer-term emissions reduction objectives by "promoting reductions of emissions in a cost-effective and economically efficient manner." Due to the COVID-19 global pandemic, ICAO recently amended CORSIA such that 2019 emissions will be the baseline year, against which emissions in future years are compared. As part of the scheme, aircraft operators will have to offset any emissions increases from 2021 onward. The cost of response reflects the estimated cost of verifying emissions amounts as part of compliance with this regime based on our experience with similar exercises.

### 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.**

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### Identifier

Opp1

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

Downstream

### Opportunity type

Products and services

### Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

### Primary potential financial impact

Increased revenues resulting from increased demand for products and services

### Company-specific description

General Dynamics Mission Systems (GDMS) has an opportunity to increase revenues supporting our customers such as the U.S. Geological survey team on climate-related missions. For over 40 years GDMS has realized significant business returns from its climate-related products and services offerings to various U.S. Federal Government agencies such as the Department of the Interior's U.S. Geological Survey, the National Aeronautics and Space Agency (NASA), and the National Oceanic and Atmospheric Administration (NOAA). These products and services have taken the form of specially-engineered instruments and communications devices for on-orbit earth observation satellites to include the Landsat constellation whose mission has collected data on the forests, farms, urban areas and fresh water of our home planet, generating the longest continuous record of its kind. Decision makers from across the globe use freely available Landsat data to better understand environmental change, manage agricultural practices, allocate scarce water resources, respond to natural disasters and more. In addition, GDMS is a leading provider of complex ground stations, communications links and mission operations centers for NASA's Earth Observing System (EOS), which is a coordinated series of polar-orbiting and low inclination satellites for long-term global observations of the land surface, biosphere, solid Earth, atmosphere and oceans. These are a few of the climate related opportunities at GDMS.

**Time horizon**

Medium-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

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

Yes, an estimated range

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

0

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

75,000,000

**Explanation of financial impact figure**

In July 2017, GDMS won a potential 10-year, \$150 million contract to design and integrate a new satellite operations center for an ongoing land remote sensing data collection effort between NASA and the U.S. Geological Survey (USGS).

The USGS has tasked GDMS to help run the current Landsat 8 mission from the ground and work to prepare the new USGS Landsat 9 satellite for launch and operations, now scheduled for September 2021.

Landsat 9 will extend our ability to measure changes on the global land surface at a scale where we can separate human and natural causes of change. When land use and resource availability issues arise, Landsat 9 will help decision makers make informed management decisions. Landsat 9 will thus contribute a critical component to the international strategy for monitoring the health and state of the Earth. Landsat users can now take advantage of more frequent observations (every eight days using two satellites). The constellation now makes possible applications such as weekly tropical deforestation alerts, water quality monitoring and crop condition reports. With increased activity in international and commercial remote sensing, Landsat has emerged as a cornerstone of the global constellation of imagers. The science quality of the Landsat archive, including careful calibration, allows it to serve as a “gold standard” for studies harmonizing multiple sources of satellite imagery.

General Dynamics will perform the work at NASA’s Goddard Space Flight Center in Greenbelt, MD. The contract covers five base years with five additional one-year options.

The financial impact of \$75 million represents the potential growth in the form of 5 exercisable one-year options from the initial \$75 million five-year base contract awarded by NASA Goddard Space Flight Center.

### **Cost to realize opportunity**

8,000,000

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

The strategy to realize the full potential contract value of \$150 million requires an investment to establish and operate the GDMS’ Seabrook, MD, “Futuræ Lab”, an innovation and collaboration center directly adjacent to the NASA Goddard campus. The Futuræ Lab is focused on deep data analytics applying advanced algorithms to perform pattern analysis and anomaly detection on the myriad of data derived from the on-orbit instrumentation. This investment enables our climate-minded customers to make more accurate, timely and informed decisions. The \$8M investment will help GDMS realize up to \$75 million of potential growth in the form of five exercisable one-year options.

### **Comment**

#### **Identifier**

Opp2

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

Downstream

#### **Opportunity type**

Products and services

#### **Primary climate-related opportunity driver**

Shift in consumer preferences

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Increased government focus on addressing climate change could increase demand for services provided by General Dynamics Information Technology (GDIT). GDIT operates a vibrant portfolio of programs supporting the Environmental Protection Agency and related environmentally-focused organizations, currently generating approximately \$130M per year in revenue. GDIT provides services such as mission centric consulting in environmental sciences and public health; technology services (including infrastructure, cloud, cyber, and applications development services); high performance computing and data analytics.

Current programs include: the Western Climate Initiative (mission support), Regional Greenhouse Gas Initiative (mission support), EPA Climate Change Decision Support Tools (technology support), the EPA Energy Star Program (technology support), EPA Air Quality Modeling (data analytics support), EPA Emissions Verification (technology support) and High End Scientific Computing (high performance computing support). Our work on these programs, and the expertise that our staff bring to the EPA, offer an opportunity to secure new work at the EPA in similar areas of support.

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium

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

Yes, an estimated range

**Potential financial impact figure (currency)**

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

0

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

700,000,000

**Explanation of financial impact figure**

The financial impact figure of \$700 million reflects the pipeline of potential new contract awards in this area through the end of 2022 that GDIT is tracking and may be able to capture through its sales process, which is focused on innovation and prior successes with similar programs. For example, these potential new awards include contracts to provide mission and scientific support services for Air and Water Quality.

**Cost to realize opportunity**

2,500,000

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

GDIT competes for these opportunities based on its track record of success and expertise that our staff bring to the EPA and other agencies in similar areas of support.

The cost estimate is calculated based on the cost of pursuit and estimated indirect costs supporting execution of the portfolio of programs. These programs are primarily delivered as labor-based programs where the EPA provides the relevant IT systems and servers as needed. GDIT’s investments in this area is estimated to be \$2.5M and focused on funding bid and proposals (B&P) to shape and capture the new opportunities, as well as management support through our indirect cost structure to sustain the full portfolio and ensure we continue to provide quality, innovative services.

**Comment**

**Identifier**

Opp3

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

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Our NASSCO shipyard is positioned to take advantage of potential increased demand for fuel efficient shipping. The carbon and environmental impact of shipping has received increased industry and regulatory focus, which potentially will drive changes in demand or regulatory requirements for new or existing ships. For example, an opportunity could arise if the requirements and regulations for operating commercial ships changed and only new-build ships meet environmental-friendly and more fuel-efficient shipping requirements. Our NASSCO shipyard has designed and delivered fuel efficient Jones Act ships and is in a strong position to build new environmental-friendly and fuel-efficient ships as regulations and market demand evolve.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-high

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

Yes, an estimated range

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

0

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

1,540,000,000

**Explanation of financial impact figure**

A potential opportunity could include the construction of up to 11 new fuel-efficient, low emissions Product Carriers, similar to the eight ECO Tankers NASSCO built in the middle of the last decade. The ECO tankers offered improved fuel efficiency and the latest environmental protection features. The historical price of these ships was about \$140M each. Using this price estimate would result in a \$1.54B revenue opportunity (\$140M x 11 new ships = \$1.54B). The opportunity could include the replacement of nine ships in the current fleet that were built before 2000, and replacement of 14 ships that were built before 2011. If NASSCO captured half of the new construction opportunities, NASSCO could build 11 new fuel-efficient and environmentally-friendly Product Carriers.

**Cost to realize opportunity**

800,000

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

NASSCO is positioning itself to take advantage of potential increased demand for additional fuel efficient ships. The ECO Class Tanker program awarded in 2013 to NASSCO is a great example or case study. In under just three years, NASSCO shipbuilders constructed and delivered all eight ECO tankers, the most fuel-efficient product carriers to enter the Jones Act trade. NASSCO will be ready to capitalize on any changes in environmental regulations and support our customers. The cost to realize the opportunity is based on an historical average of the numbers of ships in each contract and the historical bid and proposal costs for similar contracts such as the ECO Tankers, for a total cost of \$800,000.

**Comment**

## C3. Business Strategy

### C3.1

**(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?**

Yes

### C3.1b

**(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?**

	Intention to publish a low-carbon transition plan	Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs)	Comment
Row 1	Yes, in the next two years	No, we do not intend to include it as a scheduled AGM resolution item	General Dynamics takes our obligation to be a responsible corporate citizen seriously. We are committed to reducing carbon emissions and solid waste and promoting the sustainability of our global environment. We intend to publish a low-carbon transition plan in the next two years.

### C3.2

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

No, but we anticipate using qualitative and/or quantitative analysis in the next two years

### C3.2b

**(C3.2b) Why does your organization not use climate-related scenario analysis to inform its strategy?**

While General Dynamics does not currently use a centralized climate-related scenario analysis to inform our strategy due to the complexity of our operations, we intend to start in the next two years. General Dynamics operates in a decentralized manner with 10 business units focused on their individual markets. Given the diverse products, markets and communities served by each business unit, there is a unique strategy and approach for each unit. While an overall scenario analysis has not been performed to date, each unit is expected to consider climate as part of its overall strategy.

The constraints to operating a successful business require there to be an evaluation of the risk associated with climate change, which is performed at the operating level. While the action may not be called scenario analysis, there is a business consideration of climate risk at the

operating level. Several of our business units factor climate-related scenario analysis into their business decisions. Over the next two years we will leverage the current work from BUs that have already integrated this into their framework and work with the others to determine the applicable approach and strategy to best effectively integrate climate-related scenario analysis into our overall strategy.

### 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	<p>Climate-related risks and opportunities influence how GD manufactures its products and services in the short- and medium-term. For example, Gulfstream, the market-leading producer of business jets, has worked with its suppliers to produce a quiet, low-emissions and a more fuel-efficient aircraft, which includes the use of new, more efficient engines and advanced aerodynamic designs. We believe more efficient aircraft respond to market demand for more sustainable transportation.</p> <p>Gulfstream has partnered with Bonneville Environmental Foundation to create a voluntary carbon offset program, enabling customers to easily participate in offsetting the carbon impacts from aircraft utilization. Program participants pay an annual fee based on utilization to fund activities that generate an equal reduction in carbon emissions. Offset funds are invested in projects in wind energy, forest management, or recovery of landfill gas.</p> <p>Many of our operators want to leverage the benefits of business aviation in an eco-friendly way, and this enables that goal. Through their participation in this service, customers can be part of the solution for meeting aviation’s goals for global emissions reduction.</p>
Supply chain and/or value chain	Yes	<p>Climate risks and opportunities impact the way we engage our supply chain in the short-term. Gulfstream engages with our supply base on a regular basis to make our aircraft and our operations more efficient. Gulfstream suppliers are encouraged to look for ways to save weight in their products to improve overall aircraft performance. Our suppliers are expected through our Supplier Code of Conduct to operate</p>

		<p>in a manner that actively manages risk, conserves natural resources and protects the environment in the communities within which they operate.</p> <p>Recyclable packaging materials are used in the Gulfstream shipping areas, and we have worked with suppliers to use returnable containers where feasible. Gulfstream is engaged with the leaders in the Sustainable Aviation Fuel (SAF) industry to continue to increase both Gulfstream and customer use of SAF. In the area of risk mitigation, it is typically not practical for Gulfstream to select suppliers based solely on their geographic location; however, we do consider climate-related geographic risks in our sourcing decisions.</p>
Investment in R&D	Yes	<p>GD constantly monitors its products and explores ways to make more efficient products. The design of new aircraft models considers climate risks both short- and long-term. Therefore, a holistic approach is used to address noise, gaseous emissions and CO2 concerns together with other key customer expectations. Taking this good steward approach ensures an economic appeal to customers who have increasingly become sensitive to these environmental factors in their purchase decisions.</p>
Operations	Yes	<p>Climate risks and opportunities have many influences on how GD addresses its operations for the short- and medium-term. GD has measures in place to ensure minimal impact during high wind events, and flooding.</p> <p>Gulfstream became the first business jet aircraft manufacturer to use renewable fuel in daily operations. Since 2016, Gulfstream has used SAF in daily operations for its corporate, demonstration, customer support and flight test fleets. The company has made more than 650 flights on SAF, totaling nearly 1.5 million nautical miles and saving approximately 2,000 metric tons of CO2.</p> <p>Our Information Technology business unit has redesigned its work space to meet energy standards as part of its capital investment process. This has led to more access to natural light and use of more energy efficiency lighting.</p> <p>We include LEED certification as part of our design inputs, including the design and build of our new corporate headquarters in Reston, Virginia. Our corporate headquarters has also switched its fleet to all-electric, zero-emission vehicles.</p>

### 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 Indirect costs Capital expenditures	<p>General Dynamics constantly evaluates how our business strategy interplays with ensuring sustainable environmental practices over the long-term. Our efforts help protect the environment, improve operating efficiency, reduce costs, and ensure we remain compliant with relevant environmental laws and regulations. Our priorities include the integration of environmental considerations into business planning and decisions, including design, procurement, production, facilities management, and product support. Energy efficiency and climate change are factors that are considered in our capital spending plans and operating cost. The initial decisions to make a capital expenditure for individual projects are made at the business unit level (with approval from the Corporate Office depending on the value of the expenditure).</p> <p>The business unit is aware what is practical and what can deliver the best return, including reduced carbon emissions and lower operating and capital costs. The time horizons for planning covers our short-, medium- and long-term horizons previously mentioned. Capital expenditures made today could result in lower direct/indirect operating costs for years to come and could also drive additional demand from our customers resulting in higher revenues. Our GD Ordnance and Tactical Systems business, in conjunction with Today's Power, Inc., invested in four renewable energy projects in Calhoun County, Arkansas. The solar sites in this project will produce cumulatively more than 4 million kWh of energy in their first year and will reduce the company's carbon footprint by 51,472 metric tons over 20 years. This project reduces our cost per kWh in year one (short-term impact), and will reduce our overall indirect cost each year, generating cost savings for over 20 years (long-term impact).</p>

### C3.4a

**(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

General Dynamics is committed to reducing our global environmental impact. Facilities are operated in compliance with all applicable environmental laws and regulations, minimize waste and emissions, maximize recycling, and reduce the use of natural gas. The company's business strategy considers these goals when reviewing sites and programs to establish goals for continuous improvement in conjunction with financial planning to support these activities.

## 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

**Year target was set**

2021

**Target coverage**

Company-wide

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

Scope 1+2 (market-based)

**Base year**

2019

**Covered emissions in base year (metric tons CO<sub>2</sub>e)**

762,200

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2034

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

40

**Covered emissions in target year (metric tons CO<sub>2</sub>e) [auto-calculated]**

457,320

**Covered emissions in reporting year (metric tons CO<sub>2</sub>e)**

762,200

**% of target achieved [auto-calculated]**

0

**Target status in reporting year**

New

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

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

**Target ambition**

Well-below 2°C aligned

**Please explain (including target coverage)**

In 2021, General Dynamics set a company-wide goal to reduce its GHG emissions by 40% by 2034. This is aligned with the Science Based Target initiative within the “well-below 2°C” ambition.

## C4.2

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

Target(s) to increase low-carbon energy consumption or production

## C4.2a

**(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.**

---

**Target reference number**

Low 1

**Year target was set**

2018

**Target coverage**

Site/facility

**Target type: absolute or intensity**

Absolute

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Metric (target numerator if reporting an intensity target)**

Percentage

**Target denominator (intensity targets only)**

**Base year**

2008

**Figure or percentage in base year**

0

**Target year**

2019

**Figure or percentage in target year**

100

**Figure or percentage in reporting year**

100

**% of target achieved [auto-calculated]**

100

**Target status in reporting year**

Underway

**Is this target part of an emissions target?**

No

**Is this target part of an overarching initiative?**

No, it's not part of an overarching initiative

**Please explain (including target coverage)**

In 2019, 100% of the power purchased at our Sterling Heights, Michigan, and Scranton, Pennsylvania, parts and manufacturing plants was from renewable sources. In total, we purchased more than 25 million KWH of electricity generated by wind farms, resulting in a reduction of our Scope 2 greenhouse gas emissions by 13,000 tons. GD Land Systems has contracts in place to continue our purchase of renewable energy for these sites.

**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	0	0
To be implemented*	44	9,143
Implementation commenced*	1	2,574
Implemented*	9	2,611
Not to be implemented	0	0

### 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)**

2,611

**Scope(s)**

Scope 2 (location-based)  
Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

600,000

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

1,575,000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

GD has worked towards upgrading many of its lighting systems from traditional incandescent light bulbs to more energy efficient LED.

## C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	New structures and ongoing operations are evaluated for economic benefits, employee safety and other factors. Reviews are conducted with the local regulatory authorities to ensure the best solution is developed and implemented. We have drawn from across the company for ideas to make our facilities highly energy efficient and a good place to work for our employees. The use of capital is considered to improve operational safety and operational performance.

## C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

No

## C5. Emissions methodology

### C5.1

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

#### Scope 1

---

**Base year start**

January 1, 2008

**Base year end**

December 31, 2008

**Base year emissions (metric tons CO<sub>2</sub>e)**

298,818

**Comment**

#### Scope 2 (location-based)

---

**Base year start**

January 1, 2008

**Base year end**

December 31, 2008

**Base year emissions (metric tons CO<sub>2</sub>e)**

604,544

**Comment**

**Scope 2 (market-based)**

---

**Base year start**

January 1, 2008

**Base year end**

December 31, 2008

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

605,730

**Comment**

## C5.2

**(C5.2) 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)

The Greenhouse Gas Protocol: Scope 2 Guidance

## 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)**

317,081

**Comment**

### 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**

## C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO<sub>2</sub>e?**

**Reporting year**

---

**Scope 2, location-based**

449,750

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

445,119

**Comment**

## C6.4

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

No

## 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, not yet calculated

**Please explain**

**Capital goods**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain**

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

---

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

143,344

### Emissions calculation methodology

This value is calculated for all upstream and T&D emissions for fuels, electricity, steam, and chilled water.

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

0

### Please explain

## Upstream transportation and distribution

---

### Evaluation status

Relevant, not yet calculated

### Please explain

## Waste generated in operations

---

### Evaluation status

Relevant, not yet calculated

### Please explain

We undertake projects across our business to improve efficiencies including initiatives to reduce waste and energy usage. We do not currently estimate the emissions associated with waste but intend to in the future.

## Business travel

---

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

101,450

### Emissions calculation methodology

To calculate emissions from business travel GD worked with its invoicing and travel department to obtain travel information from personal car mileage, car rentals, hotel stays, rail and air travel. Emission factors were compiled from the EPA GHG Hub "Scope 3 Category 6: Business Travel" which leverage the IPCC 4th assessment.

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

0

**Please explain**

**Employee commuting**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain**

**Upstream leased assets**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain**

**Downstream transportation and distribution**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain**

**Processing of sold products**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

All products are made as a complete unit within General Dynamic facilities before being shipped and therefore no processing of sold products occur.

**Use of sold products**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain**

**End of life treatment of sold products**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain**

**Downstream leased assets**

---

**Evaluation status**

Relevant, not yet calculated

**Please explain**

**Franchises**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

General Dynamics does not have any franchises within its business operations.

**Investments**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

General Dynamics does not have any investments in the reporting year, which were not already included in scope 1 or scope 2

**Other (upstream)**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

General Dynamics does not have any "Other (upstream)" emissions associated with its operations

**Other (downstream)**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

General Dynamics does not have any "Other (downstream)" emissions associated with its operations

**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 CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**

0.0000194

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

762,200

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

39,350,000,000

**Scope 2 figure used**

Market-based

**% change from previous year**

11.58

**Direction of change**

Decreased

**Reason for change**

GD experienced an increase in revenue from 2018 to 2019 as well as a decrease in absolute emissions from 2018 and 2019 which resulted in a decrease in our intensity-based figure. Emission reductions can be attributed to the upgrade of many of our facilities' lighting systems from traditional incandescent lighting to more energy-efficient LED. In addition, GD has increased use of renewable energy at multiple sites in our Aerospace business and consolidated some of our IT operations into a few, more energy-efficient sites.

**Intensity figure**

0.0000195

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

766,831

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

39,350,000,000

**Scope 2 figure used**

Location-based

**% change from previous year**

11.55

**Direction of change**

Decreased

**Reason for change**

GD experienced an increase in revenue from 2018 to 2019 as well as a decrease in absolute emissions from 2018 and 2019 which resulted in a decrease in our intensity-based figure. Emission reductions can be attributed to the upgrade of many of its lighting systems from traditional incandescent lighting to more energy efficient LED,. In addition, GD consolidated some of our IT operations into a few, more energy-efficient sites.

## C7. Emissions breakdowns

### C7.1

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

Yes

### C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	286,663	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	13,118	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	5,636	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	11,664	IPCC Fourth Assessment Report (AR4 - 100 year)

### C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	269,775
Canada	25,418
Spain	8,925
Switzerland	4,031
Germany	2,415
United Kingdom of Great Britain and Northern Ireland	2,122
Mexico	1,385
Australia	715
Austria	573
Other, please specify All other countries	1,722

### 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)
Aerospace	77,832
Marine Systems	73,528
Technologies	40,223
Combat Systems	125,498

### C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization’s total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

	Gross Scope 1 emissions, metric tons CO2e	Comment
Transport OEM activities	151,360	The scope 1 emissions associated with General Dynamics transport service activities is provided. This figure comprises

		both the scope 1 emissions from our Aerospace and Marine Systems divisions.
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## C7.5

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

Country/Region	Scope 2, location-based (metric tons CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	417,922	410,279	1,129,081	39,286
Mexico	9,096	9,096	20,164	0
Canada	4,035	4,035	95,369	0
Singapore	3,167	3,167	6,294	0
United Kingdom of Great Britain and Northern Ireland	3,042	4,423	9,161	0
Spain	2,949	4,414	10,062	0
Australia	1,355	1,355	1,785	0
Iraq	1,098	1,098	1,212	0
United Arab Emirates	1,055	1,055	2,315	0
Estonia	1,023	821	935	0
Germany	925	1,461	1,929	0
China	912	912	1,185	0
Switzerland	685	642	17,403	0
China, Hong Kong Special Administrative Region	500	500	646	0
Saudi Arabia	499	499	219	0
Puerto Rico	330	330	530	0
India	292	292	353	0
Austria	155	19	673	625
Italy	153	165	380	0
Turkey	153	153	322	0
Malaysia	128	128	186	0

Other, please specify All other countries	276	275	16,955	0
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## 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)
Aerospace	115,769	116,162
Marine Systems	93,784	93,784
Technologies	127,003	127,798
Combat Systems	113,194	107,375

## C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

**(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.**

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Transport OEM activities	209,553	209,946	The scope 2 emissions associated with General Dynamics transport service activities is provided. This figure comprises both the scope 2 emissions from our Aerospace and Marine Systems divisions.

## C-TO7.8

**(C-TO7.8) Provide primary intensity metrics that are appropriate to your indirect emissions in Scope 3 Category 11: Use of sold products from transport.**

### Activity

Aviation

**Emissions intensity figure**

0

**Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e**

0

**Metric denominator**

p.mile

**Metric denominator: Unit total**

0

**% change from previous year**

0

**Vehicle unit sales in reporting year**

0

**Vehicle lifetime in years**

0

**Annual distance in km or miles (unit specified by column 4)**

0

**Load factor**

Not applicable

**Please explain the changes, and relevant standards/methodologies used**

At this time General Dynamics has not evaluated the Scope 3 emissions associated with the use of its sold products. We intend to do this in the near future.

---

**Activity**

Marine

**Emissions intensity figure**

0

**Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e**

0

**Metric denominator**

p.mile

**Metric denominator: Unit total**

0

**% change from previous year**

0

**Vehicle unit sales in reporting year**

0

**Vehicle lifetime in years**

0

**Annual distance in km or miles (unit specified by column 4)**

0

**Load factor**

Not applicable

**Please explain the changes, and relevant standards/methodologies used**

At this time General Dynamics has not evaluated the Scope 3 emissions associated with the use of its sold products. We intend to do this in the near future.

**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	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	7,779	Decreased	1	This year, several facilities-increased the amount of electricity secured from suppliers via contracts for 100% renewable electricity. This reduced our total S1+S2 (market-based) emissions by 1%. In total 7,779 tCO2e were avoided by these renewable energy purchases and our total S1 and S2 (market-based) emissions in the previous year were 792,383 tCO2e, therefore we arrived at 1% through $(7,779/792,383) * 100\% = 1\%$ .
Other emissions reduction activities	2,611	Decreased	0.3	This year, we have implemented various projects at sites around the globe to reduce our S2 energy use in associated with lighting. These lighting design

				changes accounted for a decrease of 2,611 mtCO <sub>2</sub> e, and our total S1 and S2 (market-based) emissions in the previous year were 792,383 tCO <sub>2</sub> e, therefore we arrived at 0.3% through $(2,611/792,383) * 100\% = 0.3\%$ .
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	0	No change	0	
Change in methodology	19,793	Decreased	2.5	Every year GD updates its emission factors to the most readily available emission factors. As a result, emissions were calculated by understanding the emissions impacts from prior emission factors vs. the new emission factors which account for additional greening of the grid which accounted for a 2.6% decrease of overall emissions. These changes accounted for a decrease of 19,793 mtCO <sub>2</sub> e, and our total S1 and S2 (market-based) emissions in the previous year were 792,383 tCO <sub>2</sub> e, therefore we arrived at 2.5% through $(19,793/792,383) * 100\% = 2.5\%$ .
Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	0	No change	0	

### 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?**

Market-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	Yes
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)	0	1,553,080	1,553,080
Consumption of purchased or acquired electricity		39,910	1,317,159	1,357,069
Consumption of purchased or acquired steam		0	761,800	761,800

Consumption of purchased or acquired cooling		0	0.27	0.27
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		39,910	3,632,039.27	3,671,949

## 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	No
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	Yes
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.**

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

1,187,842

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

1,023,536

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

0

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

0

**Emission factor**

53.11

**Unit**

kg CO2 per million Btu

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Distillate Oil

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

13,626

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

0

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

0

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

0

**Emission factor**

74.21

**Unit**

kg CO2 per million Btu

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Kerosene

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

760

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

0

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

0

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

0

**Emission factor**

75.35

**Unit**

kg CO<sub>2</sub> per million Btu

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Liquefied Petroleum Gas (LPG)

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

7,272

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

0

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

0

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

0

**Emission factor**

61.96

**Unit**

kg CO<sub>2</sub>e per million Btu

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Fuel Oil Number 6

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

12,364

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

0

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

0

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

0

**Emission factor**

74.21

**Unit**

kg CO<sub>2</sub>e per million Btu

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Heavy Gas Oil

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

539

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

0

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

0

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

0

**Emission factor**

10.21

**Unit**

kg CO2e per liter

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

64,486

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

0

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

0

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

0

**Emission factor**

8.78

**Unit**

kg CO2e per liter

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Ethane

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

2

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

0

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

0

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

0

**Emission factor**

5.75

**Unit**

kg CO2 per gallon

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Motor Gasoline

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

28,825

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

0

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

0

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

0

**Emission factor**

8.78

**Unit**

kg CO2e per gallon

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Aviation Gasoline

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

228,732

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

0

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

0

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

0

**Emission factor**

9.84

**Unit**

kg CO<sub>2</sub>e per gallon

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

---

**Fuels (excluding feedstocks)**

Propane Liquid

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

8,632

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

0

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

0

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

0

**Emission factor**

5.7

**Unit**

kg CO2e per gallon

**Emissions factor source**

EPA Emission Factors for Greenhouse Gas Inventories, March 2020

**Comment**

## 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	0	0	0	0
Heat	1,023,536	1,023,536	0	0
Steam	761,800	761,800	0	0
Cooling	0.27	0.27	0	0

## C8.2e

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

**Sourcing method**

Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

**Low-carbon technology type**

Wind

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

United States of America

**MWh consumed accounted for at a zero emission factor**

39,286

**Comment**

---

**Sourcing method**

Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

**Low-carbon technology type**

Wind

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Austria

**MWh consumed accounted for at a zero emission factor**

625

**Comment**

## C-TO8.5

**(C-TO8.5) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.**

---

**Activity**

Aviation

**Metric figure**

1,000,000

**Metric numerator**

tCO<sub>2</sub>e

**Metric denominator**

Other, please specify  
flight hours

**Metric numerator: Unit total**

0

**Metric denominator: Unit total**

1,900

**% change from previous year**

0

**Please explain**

Data are through 2019 for the calendar year.  
 this documentation is for the use of Sustainable Alternative jet fuel in our operations.  
 Total usage for the 12 months of 2019 is over 1,000,000 gallons.  
 We also offer SAJF blend to customers at our Long Beach, CA operations.  
 In 2018, we flew more than 1,800 flight hours using SAJF. If we annualize our usage,  
 we are likely to more than double the usage of SAJF

## C9. Additional metrics

### C9.1

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

---

**Description**

Other, please specify  
 No additional metrics

**Metric value**

0

**Metric numerator**

No additional metrics

**Metric denominator (intensity metric only)**

No additional metrics

**% change from previous year**

0

**Direction of change**

No change

**Please explain**

No additional metrics

### C-TO9.3/C-TS9.3

**(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.**

---

**Activity**

Aviation

**Metric**

Yearly purchase

**Technology**

Other, please specify  
Sustainable Alternative Jet Fuel

**Metric figure**

1,000,000

**Metric unit**

Other, please specify  
gallons

**Explanation**

General Dynamics has purchased 1,000,000 gallons of sustainable aviation jet fuel. This helps reduce the emissions associated with flying our aircraft. We will continue to explore purchasing additional SAF as it becomes available.

**C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6**

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

**C-TO9.6a/C-TS9.6a**

(C-TO9.6a/C-TS9.6a) Provide details of your organization’s investments in low-carbon R&D for transport-related activities over the last three years.

**Activity**

Aviation

**Technology area**

Airframe

**Stage of development in the reporting year**

Full/commercial-scale demonstration

**Average % of total R&D investment over the last 3 years**

≤20%

**R&D investment figure in the reporting year (optional)**

**Comment**

We are in the process of developing the G700, which is a highly efficient and long-range business jet with superior high-speed performance. The G700 incorporates a new engine and improved avionics.

## 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**

 General Dynamics - CDP Verification Statement Limited.pdf

**Page/ section reference**

Page 1

**Relevant standard**

ISO14064-3

**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 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**

 General Dynamics - CDP Verification Statement Limited.pdf

**Page/ section reference**

Page 1

**Relevant standard**

ISO14064-3

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

100

---

**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**

 General Dynamics - CDP Verification Statement Limited.pdf

**Page/ section reference**

Page 1

**Relevant standard**

ISO14064-3

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

**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**

 General Dynamics - CDP Verification Statement Limited.pdf

**Page/section reference**

Page 1

**Relevant standard**

ISO14064-3

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

100

---

**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**

 General Dynamics - CDP Verification Statement Limited.pdf

**Page/section reference**

Page 1

**Relevant standard**

ISO14064-3

**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?**

No, we do not verify any other climate-related information reported in our CDP disclosure

## 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

Other carbon tax, please specify

ICAO's Carbon Offsetting and Reduction Scheme for International Aviation (CORSA)

### 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**

0

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

0

**Period start date**

January 1, 2020

**Period end date**

December 31, 2020

**Allowances allocated**

0

**Allowances purchased**

0

**Verified Scope 1 emissions in metric tons CO<sub>2</sub>e**

569

**Verified Scope 2 emissions in metric tons CO<sub>2</sub>e**

0

**Details of ownership**

Other, please specify  
Aircraft we operate or manage

**Comment**

Jet Aviation participates in the European Union Emissions Trading Scheme (EU ETS), which is the world's first and largest installation-level 'cap-and trade' system for reducing greenhouse gas (GHG) emissions. The system is intended to assist the EU in reaching both its immediate and longer-term emissions reduction objectives by "promoting reductions of emissions in a cost-effective and economically efficient manner."

Jet Aviation was not required to undergo verification due to an EU ETS Directive (December 29, 2017) granting an option of simplified reporting procedures to aircraft operators with annual GHG emissions from flights within the European Economic Area (EEA) of less than 3,000 metric tons. While the data have been verified, since there was no requirement, these data are not included in the calculation of emissions covered.

The main features of the EU ETS are the emission cap (a ceiling on the maximum amount) and the trading of EU emission allowances (EUAs). The cap guarantees that total emissions are kept to a pre-defined level (and does not rise above it – in the period for which the cap applies). Covered installations must submit an EUA for each tonne of carbon dioxide equivalent (CO<sub>2</sub> eq) they emit during a year.

Data are verified through Verifavia.

**C11.1c**

**(C11.1c) Complete the following table for each of the tax systems you are regulated by.**

**Other carbon tax, please specify**

---

**Period start date**

January 1, 2021

**Period end date**

December 31, 2035

**% of total Scope 1 emissions covered by tax**

20

**Total cost of tax paid**

0

**Comment**

The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) is a carbon offset and carbon reduction scheme to lower CO<sub>2</sub> emissions for international flights to curb the aviation impact on climate change. CORSIA was developed by the International Civil Aviation Organization (ICAO) and adopted in October 2016. CORSIA is an ICAO Assembly Resolution designed to help the aviation industry reach its “aspirational goal” to make all growth in international flights after 2020 “carbon neutral.”

CORSIA was amended such that 2019 emissions are the baseline year, against which emissions in future years are compared. 2020 will not be included due to COVID-19 related travel restrictions.

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

EU Emissions Trading System (EU ETS)

We have been working with the EU ETS program since 2008, and data have been verified since 2017. We have established procedures to ensure compliance with current and future EU ETS regulations. We will continue to work with our data verifier and the EU on amended legislation to ensure compliance and participation.

ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

CORSIA was adopted in October 2016 and will begin operating in January 2021 with a voluntary phase that will last until the end of 2023. Although we are exempt from reporting because international emissions must be above 10,000 tCO<sub>2</sub> per year, we will monitor and benchmark during the voluntary phase.

Both EU ETS and CORSIA have the goal of reducing or capping emissions. In addition to our continuous participation and monitoring of these programs and others, our use of Sustainable Aviation Fuel and more efficient aircraft will contribute to our reduction in emissions.

We applied the strategy with the following case study. For each of the 180 applicable aircraft in 2019, we worked with Shockwave Aviation to verify the emissions with the customer. For

example, an aircraft operator in 2019 operated within the applicable EU ETS area. Data is compiled through filed flight plans and actual flown routes and prepared for verification. All data is prepared utilizing the European Commission template called the Annual Emissions Report for Aircraft Operations, which is a combined template for the EU ETS and ICAO CORSIA programs. The verification process utilizes an independent verifier under Article 28a(6) and was completed for all aircraft and operators. The EU ETS program assigns a unique operator identifier that ties the aircraft's registration number into their tracking systems. For this particular case study, the member state of the aircraft operator was assigned to Spain -- Ministerio de Medio Ambiente. As standard practice, the CO<sub>2</sub> emissions of Jet Fuel and other related gasses, the number of flights in EU ETS airspace, total emissions in the reporting year (which for this example was 594 t CO<sub>2</sub>) and other emissions-related information is included in the submission. The detailed 20-page report and processes were completed under Version 2-3799 of the approved operating monitoring plan.

## C11.2

**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

Yes

## C11.2a

**(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.**

---

### **Credit origination or credit purchase**

Credit purchase

### **Project type**

Forests

### **Project identification**

Project Name- Iberpapel Silvipastural System on Degraded Land ID-920.

### **Verified to which standard**

VCS (Verified Carbon Standard)

### **Number of credits (metric tonnes CO<sub>2</sub>e)**

8,626

### **Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume**

8,626

### **Credits cancelled**

Yes

### **Purpose, e.g. compliance**

Voluntary Offsetting

**Credit origination or credit purchase**

Credit purchase

**Project type**

CO2 usage

**Project identification**

General Dynamics confirms its ongoing commitment to sustainable aviation in the industry's first ever sustainability summit hosted by the Business Aviation Coalition for Sustainable Aviation Fuel (SAF Coalition). Jet Aviation was the first, exclusive provider of SAF in Switzerland through its pilot program during the 2020 World Economic Forum. It continues to invest in sustainable solutions, recently delivering industry-leading weight values in its quietest ever VIP cabin interior.

Jet Aviation was the first supplier to offer sustainable fuel via a blended fuel option at Van Nuys Airport. The Van Nuys Airport is also the first Jet Aviation site to carry blended fuel. The site was built to LEED silver specifications and construction practices included using regional materials, installing energy efficient lighting and low-flow plumbing fixtures, and a commitment to divert the majority of construction waste from landfills.

**Verified to which standard**

VCS (Verified Carbon Standard)

**Number of credits (metric tonnes CO2e)**

1,089

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

1,089

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

**Credit origination or credit purchase**

Credit purchase

**Project type**

Wind

**Project identification**

Crow Lake Wind Project

The Crow Lake Wind Project ("Project") has the unique distinction of being the largest wind project owned by an electric cooperative. With construction beginning in October

2010, and commissioning complete by February 27, 2011, the Project was built utilizing a first-of-its-kind community wind investment partnership, and is contributing to the development of the domestic clean energy economy by educating future wind technicians.

The Project is located east of Chamberlain, South Dakota, with a lease footprint of approximately 36,000 acres. It is comprised of 108 GE 1.5 megawatt (MW) turbines with a total capacity of 162 MW. The net capacity factor or actual energy output of the Project is approximately 36% of its total capacity. The Project delivers power into the Midwest Reliability Organization (MRO) with an interconnection to the Western area power Administration (WAPA) and generates enough energy to power over 45,000 households per year.

**Verified to which standard**

VCS (Verified Carbon Standard)

**Number of credits (metric tonnes CO<sub>2</sub>e)**

70

**Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume**

70

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

**Credit origination or credit purchase**

Credit purchase

**Project type**

Forests

**Project identification**

REDD+ Offsets, Kasigau

The world's 1st REDD+ project to be validated and verified under VCS and the Climate, Community and Biodiversity Standard (CCB).

The project was awarded the additional distinction of Gold Level status by the CCB for exceptional biodiversity and climate benefits. 500,000 acres of threatened forests are protected. Benefits of direct carbon financing are delivered to more than 100,000 people in the surrounding communities, including 4,000 local landowners. The area is home to over 50 species of large mammals, 300 species of birds and populations of species listed on the International Union for Conservation of Nature's Red List, which includes cheetahs, lions, and over 2,000 African elephants.

**Verified to which standard**

VCS (Verified Carbon Standard)

**Number of credits (metric tonnes CO<sub>2</sub>e)**

11

**Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume**

11

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Wind

**Project identification**

Big Smile Wind Farm at Dempsey Ridge

Located in Roger Mills and Beckham Counties, Oklahoma, this project consists of 66 turbines spanning across 7,500 acres of agricultural and grazing land. The project intends to generate electricity from renewable sources and displace electricity that would have been procured from the grid in the absence of the Big Smile Wind Farm at Dempsey Ridge. The Big Smile Wind Farm at Dempsey Ridge will deliver enough clean energy to power more than 46,000 U.S. homes.

**Verified to which standard**

VCS (Verified Carbon Standard)

**Number of credits (metric tonnes CO<sub>2</sub>e)**

141

**Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume**

141

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**

Landfill gas

**Project identification**

Dalton-Whitfield Landfill Project

The Dalton-Whitfield Landfill Gas to Energy project, located in Dalton, Georgia, collects, compresses, dehydrates and transports landfill gas (LFG) to an industrial facility boiler two miles from the landfill to offset the industry's use of natural gas, a nonrenewable fossil fuel.

Commissioned in 2008 and developed and operated by the Dalton-Whitfield Solid Waste Authority, the project provides a reliable source of renewable energy to local industry while also minimizing greenhouse gas emissions. The project typically offsets 90 to 100% of the industrial customers' use of natural gas. The result is an estimated reduction of 47,600 metric tons of carbon dioxide emissions per year, equivalent to offsetting the greenhouse gas emissions from almost 9,108 passenger vehicles. This not only replaces a non-renewable energy source with a renewable one, but it improves air quality.

In addition to its environmental benefits, the project results in economic benefits and provides a revenue source that will repay project development costs and fund operation and future expansion, without the use of tax revenue. The contract ties the value of LFG to the price for natural gas, thereby reflecting the market value of energy over time. In addition, the project receives financial benefits for its share of carbon credits generated by the project. Rather than in response to a regulatory requirement, the project was developed to help achieve the Authority's goals of financial and environmental sustainability.

**Verified to which standard**

CAR (The Climate Action Reserve)

**Number of credits (metric tonnes CO<sub>2</sub>e)**

50

**Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume**

50

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

---

**Credit origination or credit purchase**

Credit purchase

**Project type**CO<sub>2</sub> usage

### Project identification

Jet Aviation participates in the European Union Emissions Trading Scheme (EU ETS), which is the world's first and largest installation-level 'cap-and trade' system for reducing greenhouse gas (GHG) emissions. The system is intended to assist the EU in reaching both its immediate and longer-term emissions reduction objectives by "promoting reductions of emissions in a cost-effective and economically efficient manner."

The main features of the EU ETS are the emission cap (a ceiling on the maximum amount) and the trading of EU emission allowances (EUAs). The cap guarantees that total emissions are kept to a pre-defined level (and does not rise above it) in the period for which the cap applies. Covered installations have to submit an EUA for each tonne of carbon dioxide equivalent (CO<sub>2</sub> eq) they emit during a year.

### Verified to which standard

VCS (Verified Carbon Standard)

### Number of credits (metric tonnes CO<sub>2</sub>e)

569

### Number of credits (metric tonnes CO<sub>2</sub>e): Risk adjusted volume

569

### Credits cancelled

Yes

### Purpose, e.g. compliance

Voluntary Offsetting

## 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

### C12.1a

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

---

#### Type of engagement

Information collection (understanding supplier behavior)

**Details of engagement**

Other, please specify

We collect information from suppliers on climate-related risks and monitor suppliers that have had climate-related incidents.

**% of suppliers by number**

25

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

25

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

0

**Rationale for the coverage of your engagement**

Climate risks and opportunities impact the way we engage our supply chain in the short term. Gulfstream engages with our supply base on a regular basis to make our aircraft and our operations more efficient. Gulfstream suppliers are encouraged to look for ways to save weight in their products to improve overall aircraft performance. Our suppliers are expected through our Supplier Code of Conduct to operate in a manner that actively manages risk, conserves natural resources and protects the environment in the communities within which they operate.

Recyclable packaging materials are used in the Gulfstream shipping areas, and we have worked with suppliers to use returnable containers where viable. Gulfstream is engaged with the leaders in the Sustainable Aviation Fuel (SAF) industry to continue to increase both Gulfstream and customer use of SAF. In the area of risk mitigation, it is typically not practical for Gulfstream to select suppliers based solely on their geographic location, however we do consider climate-related geographic risks in our sourcing decisions.

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

The measure of success is determined by the results of our suppliers and ultimately our customers. We strive to create efficient products, and we base our success on the new technologies that our suppliers can provide us to ensure efficient design to help mitigate climate impacts. We measure this success not only on how effective our suppliers' technology is but also on how our customers benefit from these technologies through customer engagement and evaluation.

**Comment**

GD does not currently quantify the emissions associated with its suppliers. We intend to do so soon. It has been GD's practice to work with its suppliers to ensure that our products are as efficient as possible. Our current generation of aircraft reduces fuel consumption by roughly 30%, which has a direct correlation to the overall GHG emitted. Additionally, we continue to work with our suppliers to ensure we can supply our aircraft with SAF, which further reduces our GHG impacts.

## C12.1b

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

### **Type of engagement**

Collaboration & innovation

### **Details of engagement**

Run a campaign to encourage innovation to reduce climate change impacts

### **% of customers by number**

1

### **% 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**

Our business aviation customers have shown a desire to utilize Sustainable Aviation Fuel (SAF) in their aircraft to reduce emissions. Jet Aviation has been offering SAF at our Van Nuys facility and at the World Economic Forum in Switzerland. Jet Aviation is engaged with our customers to promote the use of SAF in business aircraft and offering customers the ability to purchase carbon offset credits as part of our climate-related strategy.

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

We measure success by the number of gallons of SAF sold. Improved availability of the fuel would increase demand as it would lower the price and increase locations where it is available. The impact of SAF is a reduction in CO<sub>2</sub>, improved local air quality, and improved fuel efficiency. Sustainable fuel, such as biofuel, is critical to the net-zero emissions outcome. Jet Aviation has been working with partners such as World Energy and Neste to increase the availability of SAF in the market and aircraft operators have been responding.

Success is measured in many ways, which include promotion of SAF, education, gallons of SAF utilized, and increasing the production and availability of SAF globally. Customers can claim a reduction for their Scope 3 emissions.

## C12.3

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

- Direct engagement with policy makers
- Trade associations
- Funding research organizations

## C12.3a

**(C12.3a) On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Clean energy generation	Support	We have engaged with members of Congress regarding the proposed federal tax credit for SAF, including in the Sustainable Skies Act. The legislation would provide a tax credit for SAF that achieves at least a 50% reduction in lifecycle greenhouse gas emission compared to conventional jet fuel.	We support the proposed legislation without reservation.

## C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

## C12.3c

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

Aerospace Industries Association

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association’s position**

AIA is a trade association representing major aerospace and defense manufacturers and suppliers in the United States. AIA is committed to doing its part to reduce the climate, noise and air quality impacts of its member companies’ products. AIA has set short-term, mid-term and long-term goals for reducing its climate impact.

**How have you influenced, or are you attempting to influence their position?**

A GD executive serves as the Vice Chair of the Defense Policy Council within AIA. Additionally, as a member of AIA, GD participates generally in forming AIA's policy agenda and positions. When AIA engages with Congress on the proposed federal tax credit for Sustainable Aviation Fuel, including in the Sustainable Skies Act, GD representatives participate in those engagements.

**Trade association**

General Aviation Manufacturers Association (GAMA)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

GAMA exists to foster and advance the general welfare, safety, interests and activities of the global business and general aviation industry. GAMA and the International Business Aviation Council (IBAC), on behalf of the manufacturers and operators of business aviation worldwide, have developed an aggressive strategy for CO<sub>2</sub> emissions reductions by 2050. They have joined with the commercial aviation sector in endorsing the International Civil Aviation Organization's (ICAO) proposal for a global sectoral approach for aviation emissions in a post-Kyoto Agreement on climate change. GAMA's Environment Committee is charged with discussions and policy positions about general aviation's environmental impact and initiatives. GAMA, its member OEMs and business aviation stakeholders have three objectives related to these goals: 1. reducing CO<sub>2</sub> emissions by 50% by 2050, 2. improving fuel efficiency by 2%, and 3. achieving carbon-neutral growth. Commitment to the environment is demonstrated by the remarkable improvements in environmental performance delivered over the last half century. The industry believes that if opportunity is given to the aviation community to manage environmental stewardship in partnership with industry and under the leadership of ICAO, all will enjoy a vibrant and healthy industry that will continue to proactively reduce its impact on the environment even as the demand for business aviation continues to grow.

The Environment Committee also works to build support for more research and technology to further improve upon its long track record of reducing aviation's carbon footprint. GAMA has conducted several outreach and advocacy activities to influence the public policy debate on environmental issues, including congressional testimony and input to legislation.

**How have you influenced, or are you attempting to influence their position?**

GD executive leadership actively serves in leadership positions in GAMA. The President of GD's Jet Aviation business unit was named GAMA Chairman in 2020. The President of GD's Gulfstream Aerospace business unit served in that role in 2019. General Dynamics also participates and is a member of the GAMA Environment Committee.

Jet Aviation has confirmed its ongoing commitment to sustainable aviation in the industry's first virtual sustainability summit hosted by the Business Aviation Coalition for Sustainable Aviation Fuel (SAF Coalition). The company was the first provider of SAF in Switzerland through its pilot program, and it continues to invest in sustainable solutions. Jet Aviation President and GAMA chairman joined a panel of industry leaders and US government officials at the Virtual 2020 Business Aviation Sustainability Summit on the importance of sustainability to the industry, and the significance of SAF. Addressing

questions to the panel on sustainability, technology, operations, infrastructure and alternative fuels, he emphasized the need to invest in solutions for owners and operators and the importance of public-private partnerships in driving awareness, understanding, research and development.

As part of GAMA leadership, General Dynamics has been able to collaborate with the Association on outreach and education to congressional and newly appointed Administration officials. GD has also worked with GAMA on advocacy with Congress, including congressional testimony and input to legislation on sustainability, American Alliance of Museums, and other related initiatives.

## C12.3d

**(C12.3d) Do you publicly disclose a list of all research organizations that you fund?**

No

## C12.3f

**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

General Dynamics engages with trade associations and policy makers on a variety of matters that are of interest to the company. GD's engagement on specific policy issues is coordinated with internal stakeholders to ensure consistency. To start, the individuals that directly face trade associations and policymakers are senior executives (e.g., presidents of business units and corporate vice presidents) who have visibility of GD's overall strategies and plans. These executives also directly influence or author our business unit and corporate strategic plans. Additionally, coordination for engagements that influence government policy routinely includes collaboration and updates between leadership and relevant stakeholders within the company, including the business unit presidents, corporate councils, the Strategic Planning office and the Government Relations office. GD often uses corporate councils that address cross-cutting functional matters to ensure consistency across our business units. Through this coordination, we ensure alignment with our overall climate-change strategy.

## 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).**

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### Publication

In voluntary sustainability report

### Status

Complete

**Attach the document**

 gd-2020-sustainability-report.pdf

**Page/Section reference**

GD published our 2019 results in our 2020 Sustainability Report (pages 37-44). The Sustainability Report is publicly available on our website (see <https://www.gd.com/responsibility>).

**Content elements**

- Governance
- Emissions figures
- Other metrics

**Comment**

The approach GD has taken is to use our annual Sustainability Report to represent the past year's ESG plans and performance, including in climate change and GHG emissions. Throughout the year as we take proactive steps on ESG matters and as we receive real-time feedback from stakeholders, we will update the Responsibility section of our web site. For example, the website sections titled "Supply Chain" and "Environmental Responsibility" have been updated to reflect improved policies and performance during the interim period prior to the next Sustainability Report update.

## C15. 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.**

### C15.1

**(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Chief Financial Officer (CFO)	Chief Financial Officer (CFO)

## SC. Supply chain module

### SC0.0

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

### SC0.1

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

	Annual Revenue
Row 1	

### SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

### 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
-----------------------	--

### SC1.4

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

## 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?**

## SC4.1

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

## Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	<b>I am submitting to</b>	<b>Public or Non-Public Submission</b>	<b>Are you ready to submit the additional Supply Chain questions?</b>
I am submitting my response	Investors Customers	Public	No, I will complete the Supply Chain questions and return to submit them by the deadline shown on my dashboard. I understand that if I do not return to submit my additional Supply Chain questions by the deadline, they will not be submitted to customers.

**Please confirm below**

I have read and accept the applicable Terms