

**Module: Introduction****Page: Introduction**

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**CC0.1****Introduction**

Please give a general description and introduction to your organization.

Lockheed Martin is a global security and aerospace company. We research, design, develop, manufacture, integrate and sustain advanced technology systems, products and services, and provide management, engineering, technical, scientific, logistics and information services. Our primary customers are U.S. and allied government institutions and commercial entities in sectors including energy and transportation. In 2016, we employed approximately 97,000 people worldwide and generated net sales of \$47.2 billion. Lockheed Martin's operating units are organized into four business areas: Aeronautics, Missiles and Fire Control, Rotary and Mission Systems and Space Systems. Lockheed Martin's operations include owned or leased building space (including offices, manufacturing plants, warehouses, service centers, laboratories and other facilities) at approximately 400 locations primarily in the U.S. In late 2015, we acquired Sikorsky Aircraft Corporation (Sikorsky) and aligned it under our Rotary and Mission Systems (RMS) business segment. In late 2016, we completed the process of integrating Sikorsky energy and carbon data into our internal accounting process. Our 2016 energy and GHG emissions data does not include Sikorsky, which will be included in 2017. Also in 2016, we divested part of our Integrated Systems and Global Solutions (IS&GS) business to Leidos, which is reflected in our GHG emissions data for the first half of 2016. Our baseline has not been adjusted for the divestiture of IS&GS or the acquisition of Sikorsky.

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**CC0.2****Reporting Year**

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

**Enter Periods that will be disclosed**

Sun 01 Nov 2015 - Mon 31 Oct 2016

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**CC0.3**

**Country list configuration**

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

**Select country**

United States of America

Canada

Mexico

United Kingdom

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**CC0.4**

**Currency selection**

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

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**CC0.6**

## Modules

As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.

If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.net).

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

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### Further Information

**Module: Management**

**Page: CC1. Governance**

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### CC1.1

**Where is the highest level of direct responsibility for climate change within your organization?**

Board or individual/sub-set of the Board or other committee appointed by the Board

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### CC1.1a

**Please identify the position of the individual or name of the committee with this responsibility**

Lockheed Martin's Sustainability Governance Structure includes our 1) Board of Directors; 2) Executive Leadership Team; and 3) Sustainability Working Group. The Senior Vice President Internal Audit, Ethics & Sustainability leads the sustainability program, reporting directly to the Chairman, President & Chief Executive Officer and to the Ethics and Sustainability Committee of the Board of Directors.

1) Lockheed Martin's Board of Directors monitors the corporation's adherence to our Code of Ethics and Business Conduct and oversees corporate responsibility, employee safety and health, ethical business practices and diversity and inclusion.

2) The Executive Leadership Team (ELT), led by the Chairman, President & Chief Executive Officer, guides and governs corporate-wide sustainability objectives. The ELT reviews semi-annual performance tracking to the sustainability management plan, which is a set of measures approved by the Senior Vice President Internal Audit, Ethics & Sustainability.

3) The Sustainability Working Group (SWG) is chaired by the Senior Vice President Internal Audit, Ethics & Sustainability and includes key functional executive leaders. As part of the SWG, the vice president of Corporate Energy, Environment, Safety & Health leads the implementation of Lockheed Martin's environmental programs, which includes climate change activities.

**CC1.2**

**Do you provide incentives for the management of climate change issues, including the attainment of targets?**

Yes

**CC1.2a**

**Please provide further details on the incentives provided for the management of climate change issues**

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Corporate executive team	Monetary reward	Emissions reduction project Energy reduction project	Lockheed Martin's executive team and various business leaders including Executive Vice Presidents, vice presidents and directors responsible for achieving climate change and environmental sustainability targets may receive financial incentives as part of their variable compensation based on performance commitments. These commitments are measured on an annual basis and include performance towards our Go Green goals which include GHG emissions and energy reductions.
Environment/Sustainability managers	Monetary reward	Emissions reduction project Energy reduction project	Lockheed Martin's environmental/sustainability managers and various business leaders including directors and senior managers responsible for achieving climate change and environmental sustainability targets may receive financial incentives as part of their variable compensation based on performance commitments. These commitments are measured on an annual basis and include performance towards our Go Green goals which include GHG emissions and energy reductions.
Facility managers	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction	Lockheed Martin's facility managers and various business leaders including directors and senior managers responsible for achieving climate change and environmental sustainability targets may receive financial incentives as part of their variable compensation based on performance commitments. These commitments are measured on an annual basis and include performance towards our Go Green goals which include GHG emissions and energy reductions. Lockheed

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		project Energy reduction target	Martin's facility managers may also receive recognition for energy efficiency or reduction projects by implementing projects such as improvements in HVAC systems, building control systems, lighting, building envelopes, etc. Effective management leading to reductions in energy and carbon are recognized through our Facilities Excellence Awards and Environmental, Safety and Health (ESH) Excellence Awards.
All employees	Monetary reward	Behavior change related indicator	All employees are eligible for Spot Award and Special Recognition Awards (SRAs) at management's discretion, recognizing excellent performance. Furthermore, Lockheed Martin presented the 2016 ESH Excellence Awards to select employees based on qualities such as superiority in customer satisfaction, leadership, application of technology, tools/processes that improve efficiency and productivity, benchmarking, best practices, and affordability. Furthermore, Lockheed Martin has also partnered with SunPower Corporation since 2008 to provide employees a way to reduce their home's carbon footprint through the use of renewable energy generated from solar power. This special program, designed specifically for Lockheed Martin employees, enables savings on electricity bills and provides eligibility to receive rebates worth \$1,500 for the purchase of a SunPower System or \$500 for a leased system for employees' homes.

### Further Information

**Page: CC2. Strategy**

#### CC2.1

**Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities**

Integrated into multi-disciplinary company wide risk management processes

#### CC2.1a

**Please provide further details on your risk management procedures with regard to climate change risks and opportunities**

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	Corporate-wide risks are assessed globally for all regions where Lockheed Martin operates.	> 6 years	The Sustainability Working Group (SWG) is part of Lockheed Martin's Sustainability Governance Structure, which includes the Board of Directors. As part of the SWG, the vice president of Corporate Energy, Environment, Safety and Health (EESH) leads the implementation of environmental programs related to climate change. Examples that consider risk beyond 10 years include EESH's facilitation of gated capital project funding which result in long-term infrastructure energy and carbon reductions, as well as renewable energy procurement such as a 17 year power purchase agreement.

## CC2.1b

### Please describe how your risk and opportunity identification processes are applied at both company and asset level

In 2015, Lockheed Martin conducted our second core issues assessment, an inclusive, formal, five-step assessment held biennially to evaluate the core sustainability issues of importance to our stakeholders and our business. The process took place as follows:

- 1) Topic Initiation: Our chief sustainability executive and Sustainability Working Group (SWG) business leaders conducted an internal review of qualitative and quantitative data detailing existing and possible environmental, social and governance topics.
- 2) Stakeholder Review: A diverse group of internal/external stakeholders expressed their views on the selected topics. Stakeholder engagement increased 25% and included U.S. and European perspectives.
- 3) Stakeholder Scoring: All participants scored 39 topics by 11 dimensions of importance to stakeholders and business success.
- 4) Factor Linking: Our Corporate Sustainability Office (CSO) evaluated interdependencies and correlations among 32 factors deemed high priority by stakeholders.
- 5) Issue Clustering: The CSO and SWG refined definitions and clustered 23 closely correlated topics into a set of five Sustainability Core Issues: Business Integrity, Product Impact, Information Security, Employee Wellbeing and Resource Efficiency.

Our Sustainability Management Plan (SMP) outlines ambitious goals, performance indicators and timelines for our five core issues. These sustainability factors have two tiers of priorities: Tier 1 performance factors where we seek to accelerate progress by setting targets for 2017 or 2020; and Tier 2 factors that we will advance through continued management and disclosure, without setting new SMP goals.

At an asset level, individual facilities are required by Lockheed Martin policy to annually assess their climate change-related, energy, environment, safety and health (ESH) risks.

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**CC2.1c****How do you prioritize the risks and opportunities identified?**

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**CC2.1d**

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment
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**CC2.2****Is climate change integrated into your business strategy?**

Yes

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**CC2.2a****Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process**

(i) Lockheed Martin's business strategy related to climate change has been influenced by our stakeholders including employees, academic institutions, investors, non-governmental organizations (NGOs), customers, policy organizations, suppliers and analysts. In 2013, Lockheed Martin conducted a core issues assessment through internal workshops and feedback from external stakeholders to evaluate sustainability factors based on impacts to our value chain and importance to stakeholders. In late 2015, we reassessed our priority sustainability issues based on the Corporation's evolving business portfolio and stakeholder values regarding the economic, social and environmental impacts of our business model.

(ii) Through this core issues assessment, Lockheed Martin has developed a Sustainability Management Plan (SMP), which includes specific goals and performance initiatives that we monitor and voluntarily disclose. Within the SMP, two of our core issues, Product Impact and Resource Efficiency, relate specifically to our climate change strategy.

(iii) Resource Efficiency is a core issue related to climate change within our SMP which aims to reduce GHG emissions through improved energy and water management, materials conservation and increased use of renewable energy. The goals developed around Resource Efficiency were influenced by the need for increasing business resiliency, leading by example in helping our customers achieve their sustainability goals, going beyond compliance to reduce our operational environmental impact through facility upgrades, while aligning and exceeding government, industry and societal expectations for environmental stewardship. Product Impact is another core issue within our SMP that reflects the growing alignment between our customers' needs, our product portfolio and global trends. Our Product Impact goals recognize the nexus between customer needs and sustainability in each phase of the product life-cycle, from design to delivery, and enable us to deliver greater value to customers and society through total cost of ownership.

(iv) Through our biennial assessment of sustainability issues, we classified two tiers of priorities. Our short-term Tier 1 goals for our Resource Efficiency core issue combine energy use and GHG emissions factors. Specifically for Resource Efficiency, we aim for: a 25% reduction in energy use and 35% reduction in carbon emissions by the year 2020, from a 2010 baseline; an increase in the square footage of facilities with green building certifications by 2020; an increase in annual renewable energy consumption by 2017; and helping our energy customers reduce carbon emissions by at least twice the carbon impact of our business operations by 2020. Our Tier 1 goals related to climate change for the Product Impact core issue are based around product total cost of ownership and global infrastructure needs. These specific goals for Product Impact include: adding criteria to fully identify cost drivers early in product design cycle within each business segment's proposal planning and proposal review processes by 2020; generating \$1 billion in product life-cycle cost reductions, resulting in lower resource consumption and impacts on human health and the environment by 2020; and achieving \$4 billion in product sales with direct, measurable benefits to energy and advance infrastructure resiliency by 2020.

(v) Although we do not have long-term goals, we have developed Tier 2 factors around our core issues which we manage and monitor as a secondary priority of our sustainability strategy without setting new SMP goals. Our Tier 2 factor related to climate change is around product eco-innovation, which accounts for material efficiency, re-usability and use-phase emissions and energy consumption through product design, development and maintenance. This goal emphasizes material selection and design in environmental footprint, as about 85% of the life-cycle cost of products in our sector is decided during the design phase. As an example, all engineers in our Aeronautics business segment, which accounts for 38% of our sales, are required to take a mandatory Design for Environment, Safety and Health course which teaches engineers how to improve product performance and reduce resource consumption, waste and cost by systematically considering environmental, safety and health impacts across the full product or program management life-cycle.



(vi) The Paris Agreement has not influenced our business strategy.

(vii) Lockheed Martin's approach to climate change in our business strategy may gain us strategic advantage over our competitors through our governance structure, focus on stakeholder-relevant core issues, role in helping our customers achieve their climate-related goals and by evolving our business strategy to balance competing priorities and pass savings to our customers. Our governance structure keeps our SMP on track and ensures clear and transparent accountability as we adjust our strategy and portfolio to reflect our customers' needs, global trends and research and development priorities when entering new commercial technology markets. As a defense contractor, we balance our customer needs through efforts such as Design for Affordability, which is an initiative to reduce total life-cycle costs of our products while preserving and even enhancing mission capabilities. Furthermore, as our life-cycle based assessments have estimated that approximately 70% of the GHG impacts of our products are in the customer use phase, we have developed three SMP goals to address GHG reductions in our products to focus on our greatest area of our impact. We innovate renewable and high-efficiency energy systems that reduce costs and carbon emissions for our customer and when possible, we pilot energy-saving products at our facilities to reduce energy consumption and showcase the value of these solutions.

(viii) One of the most substantial business decisions made in 2016 was to keep our 2020 goals of 35% carbon reduction and 25% energy reduction from a 2010 baseline after the acquisition of Sikorsky and divestiture of IS&GS in late 2016. This internal determination was made after evaluating that these goals will be feasible but challenging because of substantive changes to our operational footprint. We have evaluated our goals and performance through tools for science-based goal setting approaches including: 1) "Science-Based GHG Performance Model" developed by the Center for Sustainable Organizations (CSO); 2) "Sectoral Decarbonization Approach" developed by the Science Based Targets Initiative, Ecofys, CDP, World Wildlife Fund (WWF) and World Resources Institute (WRI); and 3) "The 3% Solution Calculator" developed by CDP, WWF and McKinsey & Company. The outcomes projected by these tools reflect that our GHG targets and performance to date produce stronger results and are more aggressive than the targets projected by the science-based methods.

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#### CC2.2b

Please explain why climate change is not integrated into your business strategy

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#### CC2.2c

**Does your company use an internal price on carbon?**

No, and we currently don't anticipate doing so in the next 2 years

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#### CC2.2d

Please provide details and examples of how your company uses an internal price on carbon

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**CC2.3**

**Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)**

Trade associations  
Funding research organizations  
Other

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**CC2.3a**

**On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
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**CC2.3b**

**Are you on the Board of any trade associations or provide funding beyond membership?**

Yes

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**CC2.3c**

**Please enter the details of those trade associations that are likely to take a position on climate change legislation**

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
International Aerospace Environmental Group (IAEG)	Consistent	IAEG does not have a stated position on climate change. IAEG is a global group of aerospace and defense companies working together to promote the development of voluntary consensus standards addressing environmental concerns including A&D industry GHG reporting guidance and creating a forum for dialog on optional industry approaches for implementation of environmental requirements. IAEG's goal is to create the leading global forum for voluntary consensus standards and best practice sharing on the key environmental issues impacting member companies. <a href="http://www.iaeg.com/about/">http://www.iaeg.com/about/</a>	Lockheed Martin was recently appointed to the IAEG Board of Directors and actively participates in the working groups within IAEG including: Greenhouse Gas Management & Reporting, Chemical Reporting, Replacement Technologies, and Supply Chain Sustainability. Lockheed Martin is actively engaged in the development of the Aerospace Greenhouse Gas Supplemental Guidance and works with the aerospace industry to improve the accuracy and consistency of GHG reporting for the aerospace industry and their suppliers. The group released its GHG Reporting Guidance for the Aerospace Industry, a voluntary consensus standard for aerospace companies in 2014, to supplement the GHG Protocol's Corporate Standard. The guidance provides industry-relevant clarification and direction for GHG accounting and reporting, which promotes consistency and accuracy in GHG emissions reporting, in turn facilitating transparency within the industry and value chain and enabling relevant benchmarks and comparisons. The guidance has been adopted by many aerospace companies and continues to be enhanced to keep up with the pace of changing standards and methodologies.
American Council on Renewable Energy (ACORE)	Consistent	ACORE is dedicated to building a secure and prosperous America with clean, renewable energy. ACORE provides a common educational platform for a wide range of interests in the renewable energy community, focusing on technology, finance, policy, and market development. ACORE convenes thought leadership forums and creates energy industry partnerships to communicate the economic, security and environmental benefits of renewable energy.	Lockheed Martin actively engages with ACORE on renewable energy education and speaks at various ACORE events to promote the use and development of renewable energy technology.
Aerospace Industries Association (AIA)	Consistent	The AIA is a sector-specific industry association, and does not have a stated position on climate change; however, it has stated the need for a comprehensive energy policy using a central/federal framework. It	Lockheed Martin is an active participant of various AIA Councils and Committees, including the Environmental, Health & Safety Committee where we

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
		also emphasizes that the debate should be based on facts and science.	are able to express informed views to shape the strategic direction of the group.
National Association of Manufacturers (NAM)	Mixed	<p>The NAM is a cross-sectoral trade association, comprising all industry sectors of the U.S. manufacturing economy. Its stated position is that it is committed to protecting the environment through greater environmental sustainability, increased energy efficiency and conservation, and reducing greenhouse gas emissions believed to be associated with global climate change. Its policy is also that the establishment of federal climate change policies to reduce greenhouse gas emissions, whether legislative or regulatory, must be done in a thoughtful, deliberative and transparent process that ensures a competitive level playing field for U.S. companies in the global marketplace. Therefore, the NAM opposes any federal or state government actions regarding climate change that could adversely affect the international competitiveness of the U.S. marketplace economy. Any climate change policies should focus on cost-effective reductions, be implemented in concert with all major emitting nations, and take into account all greenhouse sources and sinks. The NAM believes that federal climate policies generally should pre-empt state policies. NAM also states that as users of 1/3 of the nation's energy, manufacturers depend on an affordable and reliable energy supply to remain competitive in a global economy. NAM supports an energy strategy that embraces all forms of domestic energy production while expanding existing conservation and efficiency efforts. America must expand access to our domestic energy supply in order to meet current needs for affordable energy. Manufacturers also continue to lead the way in investing in energy efficiency and advancing sustainability efforts that positively impact manufacturing and the industry's contributions to environmental protection, economic performance and the social well-being of the employees, communities, customers and consumers they serve. <a href="http://www.nam.org/Issues/Energy-and-Environment/">http://www.nam.org/Issues/Energy-and-Environment/</a></p>	<p>Our corporate focus on EPA regulations is to ensure that best available science is used to support any requirements. We publicly state our focus on renewable energy technology and support of the U.S. Federal government to meet its energy efficiency, alternative energy, and energy security objectives.</p>
Advanced Energy Economy (AEE)	Consistent	Advanced Energy Economy (AEE) is a national association of business leaders who are making the global energy system more	Lockheed Martin engages in AEE to stay informed to reduce the cost of doing business through relevant

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
		secure, clean and affordable. AEE engages in policy advocacy at the federal, state and regulatory levels; CEO-to-CEO convenings to identify and address cross-industry issues; and targeted outreach to key stakeholder groups and policymakers. AEE also works with a growing coalition of state and regional partner organizations across states and industries to help the advanced energy industry succeed nationwide.	tools and timely, targeted, actionable information and expert insights. We also participate as a member to build broad and effective relationships to gain cutting-edge knowledge and influence.
Alliance to Save Energy (ASE)	Consistent	Alliance to Save Energy (ASE) is the leading energy efficiency coalition in the United States – a non-profit, bipartisan alliance of business, government, environmental and consumer leaders advocating for enhanced energy efficiency across all sectors of the economy. Its mission is to promote energy efficiency to achieve a healthier economy, a cleaner environment and enhanced energy security.	Lockheed Martin engages with ASE to help achieve its mission in leading worldwide energy efficiency initiatives, participating in public-private partnerships and collaborating efforts and strategic alliance to optimize resources.

**CC2.3d**

**Do you publicly disclose a list of all the research organizations that you fund?**

No

**CC2.3e**

**Please provide details of the other engagement activities that you undertake**

Lockheed Martin continues to evaluate opportunities to expand our renewable energy footprint. Two on-site renewable energy generation projects were approved for capital funding through the end of 2017 and one major project was completed in both 2015 and 2016. Through EPA's Green Power Partnership (GPP) on-site renewable energy challenge, we have pledged to quadruple our on-site renewable generation to 10 MW by the end of 2020 and are currently exploring potential on- and off-site renewable energy opportunities that span multiple technology types and PPAs. In 2015, Lockheed Martin partnered with an Association of Climate Change Officers (ACCO) Fellow to examine the business case for renewable energy procurement at both the corporate and individual site level, and to develop a renewable energy strategy for the Corporation. The objectives of this business case were to examine decreasing renewable energy prices, available federal and

state tax incentives, the potential creation of a long-term hedge against volatility in the energy market and opportunities to support our Lockheed Martin Energy business. Through these efforts, Lockheed Martin has begun off-taking solar-generated electricity in 2016 from a 17-year power purchase agreement (PPA), which has 30 MW of capacity and is expected to produce approximately 72,000 MWh per year of solar energy in North Carolina, providing clean energy across all Lockheed Martin's domestic business segments.

Furthermore, as a member of ACCO, Lockheed Martin partnered with Duke University to produce a report titled "Assessing Climate Change Vulnerability Across Lockheed Martin United States Facilities and Supply Chain Locations". The objective of this project was to assess the climate change vulnerabilities of the company's major facilities in the U.S., as well as its Tier 1 and Tier 2 suppliers for one component of the C-130 military transport aircraft project. The project sought to provide Lockheed Martin with a practical and user-friendly instrument designed for decision-makers, and to:

- 1) Identify climate-change related regional risk factors
- 2) Determine potential disruption vulnerabilities in existing facilities and supply chains
- 3) Prioritize potential vulnerabilities and resulting investment targets
- 4) Recommend adaptation strategies
- 5) Provide vulnerability criteria to consider when establishing options at new facilities and selecting suppliers

Lockheed Martin has also been a member of the U.S. Department of Energy's (DOE) Better Plants Program (BPP) since 2010. The BPP is a voluntary program in which manufacturers and industrial-scale energy-using organizations commit to reduce energy consumption by 25% over a 10 year period. Through the BPP, companies sign a pledge with the DOE to reduce energy consumption over the next several years, and in turn benefit from DOE technical support to implement cost-effective energy efficiency improvements that save energy and improve competitiveness. The DOE now extends the program to its largest participants' suppliers through the cohorts, so small businesses can take advantage of the program's financial assistance to set energy saving goals, develop energy management plans and track and report progress. As of 2016, seven of our suppliers joined the Better Plants Program and their participation will help us understand our upstream energy footprint, reduce GHG emissions in our value chain and potentially lead to more affordability for our customers.

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## CC2.3f

### **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?**

Lockheed Martin routinely engages with policy makers on matters of interest to the Corporation. Lockheed Martin's engagement on specific policy issues is coordinated with internal stakeholders to ensure consistency. Our policy engagement goes through our Government Affairs organization to ensure that we are in alignment with our overall climate change strategy. The process we have in place to ensure consistency across our corporate functions, business areas and different geographies is to bring representative areas into a Cross Corporate Sustainability Working Group for a cohesive sustainability strategy. Lockheed Martin also participates in a wide array of trade associations and coalitions, often sector specific or cross-sector in nature. Membership decisions in sector trade associations are not typically driven by one singular policy issue, but by multiple factors. Lockheed Martin seeks to engage on the policy issues that drive its membership in a particular trade association. Moreover, while trade associations tend to operate on a consensus basis, they do not require unanimity to adopt formal positions. When we engage in any trade association on climate change or related issues, we represent our positions and interests as reflected in the climate change strategy outlined in this report.

CC2.3g

Please explain why you do not engage with policy makers

Further Information

Page: **CC3. Targets and Initiatives**

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Absolute target  
Renewable energy consumption and/or production target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1+2 (market-based)	100%	35%	2010	1289470	2020	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	Lockheed Martin's absolute target includes Scope 1 and 2 emissions of CO2, CH4, N2O, and HFC from the following sources: electricity, natural gas, chilled water, jet fuel, gasoline, diesel, propane, #2 fuel oil, and refrigerants. We define our Go Green year as a twelve month period from November 1 through October 31 to

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
								<p>align with our internal reporting requirements while taking into account time for utility company invoicing. Lockheed Martin takes a comprehensive approach to energy reduction and GHG management. When establishing our reduction targets we consider past performance, the goals of our primary customers, projected business growth and the material issues of our key stakeholders. We have also evaluated our performance through tools for science-based goal setting approaches including: 1) "Science-Based GHG Performance Model" developed by the Center for Sustainable Organizations (CSO); 2) "Sectoral Decarbonization Approach (SDA) published by the Science Based Targets Initiative (SBTI), Ecofys, CDP, World Wildlife Fund (WWF) and World Resources Institute (WRI); and 3) "The 3% Solution Calculator" developed by CDP, WWF and McKinsey &amp; Company. The outcomes projected by these tools reflect that our Scope 1 and 2 targets and performance to date produce stronger results and are more aggressive than the science-based method.</p>

CC3.1b

Please provide details of your intensity target



ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
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**CC3.1c**

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
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**CC3.1d**

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
RE1	Electricity consumption	2015	1566805	19%	2017	20%	As part of our Sustainable Management Plan (SMP) Resource Efficiency core issue which addresses energy and carbon emissions, we have committed to increase annual renewable energy consumption each year through 2017. This commitment does not specify the quantity or percentage increase of renewable energy consumed by our target year. Our 2016 total was 300 million kWh of renewable energy, which is an increase from our 2015 base total.
RE2	Other: Renewable energy capacity	2014	2945	0%	2020	0.1%	Lockheed Martin has made a pledge to quadruple our on-site renewable generation to 10 MW by the end of 2020, from a 2014 baseline through the EPA Green Power Partnership On-Site Commitment. We currently have more than doubled to over 5 MW capacity of on-site renewable generation and are on track to meet this commitment.

**CC3.1e**

**For all of your targets, please provide details on the progress made in the reporting year**

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	60%	83%	In 2010, Lockheed Martin announced our target to reduce our Scope 1 and 2 emissions by 35% by the year 2020, against a 2010 baseline, including the purchase of renewable energy credits (RECs). We are 60% complete with the measurement period for our current target, which is a ten year period through 2020, measured from a 2010 baseline. We have reduced our absolute Scope 1 and 2 emissions by approximately 23% from 2010 to 2016, or 29% of Scope 1 and 2 emissions reductions including the purchase of green power and RECs. This translates to 83% completion towards the 35% reduction target, including the purchase of green power and RECs.

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
RE1	50%	100%	Through our Sustainable Management Plan (SMP), we have committed to increase annual renewable energy consumption each year through 2017, from a 2015 baseline. We are 50% complete with the measurement period for our current target, which is a two year period through 2017, from a 2015 baseline. This commitment does not specify the quantity or percentage of renewable energy consumed in our 2017 target year. Our 2016 total was 300 million kWh of renewable energy, which is an increase from our 2015 base total.
RE2	33%	50%	Lockheed Martin has pledged to quadruple our on-site renewable generation to 10 MW by the end of 2020, from a 2014 baseline through the EPA Green Power Partnership On-Site Commitment. We are 33% complete with the measurement period for our current target, which is a six year period through 2020, measured from a 2014 baseline. We currently have more than doubled to over 5 MW capacity of on-site renewable generation and are on track to meet this commitment through additional on-site renewable projects that are in process.

**CC3.1f**

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

**CC3.2**

**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?**

Yes

**CC3.2a**

**Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions**

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Product	<p>Aircraft Design for the Environment: Through the incorporation of microvanes on the C-130, engineers are able to improve aircraft performance by reducing drag 3.7% and fuel consumption 3-4%, saving approximately 25 gallons of fuel per aircraft flight hour. Additionally, through the use of winglets, fuel efficiency increased by 2-3%, reducing approximately 21 gallons of fuel per hour for long-range flights. With the DoD operating 355 C-130 aircraft, each with approximately 600 flight hours per year, the improvements from microvanes equates to a potential annual reduction of approximately 5.3 million gallons of fuel and over \$10 million in fuel costs. Using the emissions factor specific to the C-130H Allison T56-A-15 engine and the global warming factors of the IPCC Second Assessment Report, this equates to a potential annual reduction of approximately 52,000 MTCO<sub>2e</sub> per year of Scope 1 emission reductions for our customers.</p>	Low carbon product			Less than or equal to 10%	
Group of products	<p>Energy Efficiency and Comprehensive Energy Solutions Programs: Lockheed Martin is one of the nation's largest implementers of energy programs for utilities, federal, state and regional customers. Lockheed Martin's Energy business delivers comprehensive solutions across the energy industry, including demand response solutions, energy efficiency, energy storage, nuclear systems, tidal energy technologies and bioenergy generation. Lockheed Martin designs, implements and promotes residential, commercial and industrial energy efficiency programs for 8 of the top 10 utilities and works with 70 major utilities, commercial enterprises, and federal and state agencies worldwide. In 2016, Lockheed Martin Energy completed 32,000 energy efficiency projects and processed \$250 million in incentives, savings customers 1.5 million MWh and 5 million therms.</p>	Avoided emissions			Less than or equal to 10%	

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
	These projects helped achieve a reduction of 380 MW and over 1 million MTCO <sub>2e</sub> for our customers, reducing their Scope 2 emissions.					
Group of products	<p>Energy Savings Performance Contracts (ESPCs): In 2014, we completed the installation of a 24 year, Net-Zero Energy Savings Performance Contract with the Department of State for its Embassy in Managua, Nicaragua. Through ESPCs, the customer makes payments over time to Lockheed Martin from the savings in their utility bills. Under this contract, the embassy will invest \$15 million to save more than \$36 million in utility expenses through the installation of 1 MW of solar photovoltaic generation, lighting upgrades and controls, chiller plant upgrades, building automation system optimization and transformer upgrades. On-site energy generation will increase security and reduce risk of energy cost volatility for the next 25 years. From base year 2012, the Embassy will achieve a 54% total reduction in energy usage across nine buildings, which translates to an estimated cost savings of \$1.6 million per year. These projects result in a decrease in the customer's Scope 1 and 2 emissions. Following our success at the U.S. Embassy in Nicaragua, the U.S. State Departments asked Lockheed Martin Energy for a proposal to potentially deploy another 750 kW solar photovoltaic system, battery storage and microgrid solution to reduce the Embassy's energy dependency by an additional 48%.</p>	Avoided emissions			Less than or equal to 10%	
Product	<p>Tidal Energy: In 2015, Lockheed Martin was awarded a contract by global tidal energy leader Atlantis Resources Ltd. to produce and integrate major elements of a next-generation 1.5-megawatt tidal turbine, the AR1500, as Phase 1a of the MeyGen tidal energy project. The technology will initially support the MeyGen project in Scotland's Pentland Firth and deployment in Canada's Bay of Fundy. Once completed, the MeyGen project – the world's largest tidal stream</p>	Low carbon product			Less than or equal to 10%	

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
	project under development – will encompass up to 265 tidal turbines and is expected to deliver up to 398 MW of power, which is enough energy to power up to 175,000 homes, significantly reducing Scope 2 emissions. The MeyGen project will contribute to Scotland’s goal of 100 percent renewable energy by 2020.					
Product	Bioenergy technology: Lockheed Martin is pursuing advanced waste conversion technologies that use gasification processes to convert waste products to electricity and other products, such as fuel. Unlike other available advanced waste conversion processes, this innovative technology utilizes heat transfer instead of direct heating or combustion to convert waste into syngas. The decomposition of the feedstock and refinement of the gas produced takes place in separate reactors, which allows for more precise control of the process steps and ultimately increases the overall efficiency of a plant. In 2014, Lockheed Martin partnered with Concord Blue to build a 5 MW bioenergy facility in Herten, Germany which will power about 5,000 homes and businesses while processing over 50,000 tons of raw waste per year, significantly reducing the need for landfill use. In 2016, Lockheed Martin opened a new 250 kW bioenergy plant in our Owego, NY facility which will convert waste material into energy for the facility’s operations. Additionally in 2016, Lockheed Martin signed a teaming agreement with CoGen Limited to develop a bioenergy plant in Cardiff, Wales which will convert waste up to 15 MW of energy, enough to power about 15,000 homes and businesses. This plant will process approximately 150,000 tons of waste per year, with construction expected to begin in 2018 and operations to start in 2020.	Low carbon product			Less than or equal to 10%	

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Group of products	<p>Energy storage: In 2016, Lockheed Martin completed the integration of our energy portfolio including several commercial energy products and service businesses into a single organization, called Lockheed Martin Energy, demonstrating our commitment to energy solutions and reflecting the changing consumer behavior of our customers. We provide turn-key energy storage solutions for utility, commercial and industrial applications such as the integration of renewables, transmission and distribution investment deferral, demand charge reduction, capacity and Microgrids. Our GridStar™ Energy Solutions allow commercial and industrial site owners to trim peak electricity demand and reduce their current utility bills, integrate and utilize on-site solar energy and improve power reliability and quality. Electric utilities and project developers also find value in our energy storage solutions through deferred costly upgrades to transmission and distribution infrastructure equipment, integration of intermittent renewable energy generation, addition of local flexible capacity and reduction of peak demand.</p>	Low carbon product			Less than or equal to 10%	
Group of products	<p>Lockheed Martin incorporates our own products to optimize energy management through internally developed software, known as SEEview. SEEview monitors electricity, gas and water use in a single building or across multiple facilities simultaneously in real-time, allowing users to view, manage and address demand and consumption. Approximately 50 Lockheed Martin sites are monitored by SEEview. We have installed SEEview along with approximately 1,000 real time energy meters at our largest facilities, which provides near real-time situational analysis of utility use, manages building control system data and integrates key operational and business system data. Lockheed Martin's largest sites are using SEEview to collect more timely and accurate energy usage data, helping to focus</p>	Low carbon product			Less than or equal to 10%	

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
	energy reduction efforts on processes and operations with the largest impact. In addition to metering, over 10 Lockheed Martin sites were enrolled in energy demand response programs in 2016, which offer incentives to businesses that reduce energy use during times of peak demand, resulting in over \$111,000 in earned revenue for the Corporation.					
Product	Hybrid airship: In 2015, Lockheed Martin started paving the way for the deployment of hybrid airships in 2018. The hybrid airship is an extremely fuel efficient system with large and potentially scalable payload capabilities, deploying a sophisticated flight control system and a proprietary air cushion landing system that enables safety, affordability and flexibility in accessing remote locations. This technology enables greater transportation capacity when compared to combined trucking/air freight alternatives, delivers significant reductions in operational costs when capacity is scaled to meet market transportation needs and provides for increased access to remote areas of the world, potentially allowing for market expansion of industries such as horticulture. The hybrid airship uses one-tenth of the power of a fixed-wing aircraft, enabling fuel economy. Through its ability to carry up to 20 tons of cargo and 19 passengers, the hybrid airship's functionality provides opportunities for cargo delivery, humanitarian aid, mobile hospitals, eco-tourism and more. The hybrid airship's tiny environmental footprint is valuable because emissions from commercial transport today account for approximately 1.5% of the global carbon footprint, and are expected to increase as air traffic and trade grows.	Low carbon product			Less than or equal to 10%	



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

Yes

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**CC3.3a**

**Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings**

<b>Stage of development</b>	<b>Number of projects</b>	<b>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</b>
Under investigation		
To be implemented*	2	1400
Implementation commenced*	7	1600
Implemented*	63	13100
Not to be implemented		

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**CC3.3b**

**For those initiatives implemented in the reporting year, please provide details in the table below**

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	Completed more than 15 projects related to heating, ventilation and air conditioning (HVAC) system upgrades, compressed air projects and efficiency improvements in 2016. These projects reduce Scope 1 and 2 emissions and are voluntary projects that Lockheed Martin completed to maintain the integrity of facility equipment while also reducing electricity usage.	5800	Scope 1 Scope 2 (location-based)	Voluntary	1350000	9240000	4-10 years	16-20 years	
Energy efficiency: Building services	Completed more than 10 building control systems projects to enhance facility energy management systems. These are voluntary projects that help to reduce Scope 1 and 2 emissions by allowing facility managers to more closely monitor and optimize energy use throughout the building. Examples of building management system improvements included installing carbon dioxide demand controls, connecting additional building systems to a centralized system, and enhanced system monitoring,	2700	Scope 1 Scope 2 (location-based)	Voluntary	418000	906000	4-10 years	6-10 years	Building control systems do not directly reduce emissions; however they enable the management of building equipment to identify efficiency opportunities. For this reason, the payback period is not necessarily reflective of the ROI.

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	control and automation for building optimization.								
Energy efficiency: Building services	Completed more than 20 different lighting upgrade projects to improve the efficiency of facility lighting systems. These are voluntary projects that help to reduce Scope 2 emissions by allowing facility managers to more closely monitor and optimize energy use throughout the building.	3000	Scope 2 (location-based)	Voluntary	499000	2625000	4-10 years	11-15 years	
Energy efficiency: Building fabric	Completed multiple initiatives related to building envelope projects, including insulation and maintenance. These are voluntary projects that help to reduce Scope 1 and 2 emissions by maintaining the conditions of a dry, heated or cooled indoor environment and facilitating its climate control.	300	Scope 1 Scope 2 (location-based)	Voluntary	28000	249000	11-15 years	11-15 years	
Low carbon energy installation	Completed a seven acre solar farm at our facility in Palmdale, CA. This 1 MW system will yield a yearly 10% in power savings and features a tracking system that allows the 3,306 panels to move east	1300	Scope 2 (market-based)	Voluntary	372000	3600000	4-10 years	21-30 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	to west following the sun for maximum power collection. We also installed a 1 MW energy storage system at our facility in Syracuse, NY which will reduce demand charges and indirectly yield a carbon benefit.								

**CC3.3c**

**What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	In the U.K., Lockheed Martin sites are impacted by regulations such as the Energy Savings Opportunity Scheme (ESOS), which is a mandatory energy assessment scheme that requires qualifying organizations to carry out ESOS assessments every four years. Although our facility in Ampthill, U.K. meets the qualifying criteria for the ESOS regulation, in 2015, the site achieved ISO 50001 Energy Management Systems Certification meeting the ESOS reporting requirements, and became the first Lockheed Martin site certified to this international standard. In 2016, Lockheed Martin's facility in Ampthill, U.K. developed six site energy monitoring and management plans. Due to measures taken through ISO 50001 certification, the Ampthill facility is expected to achieve £184,500 in annual cost avoidances from replacing fuel oil heating systems with energy efficient electrical units, installing temperature and time controls on warm water boilers, and replacing 80 400W halogen bulbs with efficient T5 fluorescent lighting. Furthermore, the U.S. Federal Mandatory Greenhouse Gas (GHG) Reporting Rule requires our four largest facilities to report on their GHG emissions. Additionally, state regulations such as

Method	Comment
	<p>California's Global Warming Solutions Act of 2006 (AB32) impact our facilities. Lockheed Martin incorporates our own products to optimize energy management through internally developed software, known as SEEview. SEEview monitors electricity, gas and water use in a single building or across multiple facilities simultaneously in real-time, allowing users to view, manage and control consumption. We have installed SEEview along with approximately 1,000 real time energy meters at our largest facilities, which provides near real-time situational analysis of utility use, manages building control system data and integrates key operational and business system data. Using SEEview helps Lockheed Martin's largest sites to collect more timely and accurate energy usage data, helping to focus energy reduction efforts towards processes and operations with the largest impact. Reduction of GHG emissions at these facilities would reduce the regulatory reporting burden; therefore, we prioritize many of our energy reduction projects at these locations as these reductions are preferable to burdensome reporting requirements.</p>
<p>Dedicated budget for energy efficiency</p>	<p>Lockheed Martin's Corporate Energy, Environment, Safety and Health (EESH) function coordinates a dedicated capital infrastructure fund, referred as the Go Green gated capital program. This fund is primarily used to fund major energy projects with the business funding the capital depreciation. EESH reviews all submitted projects to ensure it meets the criteria established for use of this fund, prior to approval through corporate management. Additional energy-related projects are funded at the site and business level, using both expense and normal business capital processes. In 2016, Lockheed Martin spent over \$16 million on completed projects and initiatives specifically related to energy efficiency and conservation projects. We completed over 60 energy-efficiency and GHG emissions reductions projects in 2016, which contributed towards a 21% energy reduction and 29% GHG reduction. In 2016 alone, Lockheed Martin avoided approximately \$26 million (compared to a 2010 baseline) in energy and water costs through the implementation of similar projects over the years. Furthermore, Lockheed Martin has a dedicated budget for the purchase of green power (i.e. renewable energy credits) to reduce our emissions.</p>
<p>Partnering with governments on technology development</p>	<p>Lockheed Martin's Energy business takes a comprehensive approach to apply our technology and expertise to different segments of the energy market including generation, management, storage and security. We have provided energy management and efficiency expertise to over 100 major U.S. Federal, state and commercial customers through smart grid product and services for utilities and energy management systems for individual buildings. Furthermore, under the Federal Energy Management Energy Savings Performance Contract Program, Lockheed Martin is authorized to help the U.S. Federal government reduce its energy costs and environmental impact through improved utility management decisions at federal sites. Additionally, our partnership with NASA to design and build the geostationary operational environmental satellite series (GOES-R) will provide NOAA scientists and managers with a 24-hour global stream of information used in preparation for events that will impact our climate, weather, and oceans. In 2016, Lockheed Martin completed and launched the GOES-R weather satellite, which will be used to provide the U.S. National Weather Service with advanced severe weather prediction capabilities to save lives in storm-threatened areas and help meteorologists issue winter storm warnings and spring snow melt advisories.</p>
<p>Employee engagement</p>	<p>Throughout the year, Lockheed Martin encourages employee education and awareness regarding energy conservation initiatives including simple solutions such as turning off lights, computers and equipment; lowering thermostats; etc. We run an annual campaign during Energy Action Month every October in which hundreds of employees participate in energy reduction and conservation initiatives. Lockheed Martin's Corporate Energy, Environment, Safety and Health (CEESH) organization releases regular employee communications describing the importance of being conscious of energy usage and</p>

Method	Comment
	<p>implementing projects that conserve energy. The current focus of emission reduction activities is on the largest energy consuming equipment within facilities (i.e., heating, ventilation and air conditioning (HVAC) systems and lighting). All employees are eligible for Spot Award and Special Recognition Awards (SRAs) at management's discretion, recognizing excellent performance. Furthermore, Lockheed Martin presented the 2016 ESH Excellence Awards to select employees based on qualities such as superiority in customer satisfaction, leadership, application of technology, tools/processes that improve efficiency and productivity, benchmarking, best practices, and affordability. Furthermore, Lockheed Martin has partnered with SunPower Corporation since 2008 to provide employees a way to reduce their home's carbon footprint through the use of renewable energy generated from solar power. This special program, designed specifically for Lockheed Martin employees, enables savings on electricity bills and provides eligibility to receive rebates worth \$1,500 for the purchase of a SunPower System or \$500 for a leased system for employees' homes.</p>
Other	<p>Lockheed Martin's business areas are measured on their performance towards Go Green energy and carbon emission reduction goals. Since 2010, a team of subject matter experts from facilities engineering and production and process engineering called the "Tiger Team" have been conducting in-depth analyses of energy and water systems across the company to identify projects for implementation. In 2016, the Tiger Team conducted 12 structured improvement events resulting in energy and water savings through infrastructure and process/production optimizations. In 2016 alone, Lockheed Martin avoided approximately \$26 million (compared to a 2010 baseline) in energy and water costs through the implementation of similar projects over the years. Furthermore, Lockheed Martin has adopted the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) as the minimum standard for new construction, renovations, and/or retrofit projects. Lockheed Martin has a Green Buildings Corporate Functional Procedure that requires implementation of green building practices in the design, construction and operations of owned or commercially leased Lockheed Martin facilities to meet the Corporation's goals on increasing our green footprint. The design, construction or renovation of a facility requires the use of latest green-building technologies that meets the ANSI/ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings. For existing buildings, installation of equipment should be life cycle cost effective and reduce the energy consumption for the building. From our 2013 baseline year to 2016, Lockheed Martin has more than doubled our green footprint through Energy Star®, LEED and BREEAM certifications.</p>

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

CC4.1

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

Publication	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	Lockheed Martin Corporation 2016 Annual Report (Page: 17-18)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/2016%20Annual%20Report.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/2016 Annual Report.pdf</a>	
In voluntary communications	Complete	Lockheed Martin 2016 Sustainability Report Pages: (5-13; 25-29; 38-42)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/2016%20Sustainability%20Report.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/2016 Sustainability Report.pdf</a>	
In voluntary communications	Complete	Lockheed Martin 2016 EESH Year End Report Pages: (1-18)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/2016%20EESH%20Year%20End%20Report%20-%20FINAL%203.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/2016 EESH Year End Report - FINAL 3.pdf</a>	
In voluntary communications	Complete	Transforming Load Management - SEELoad Brochure Pages: (1-2)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/Transforming%20Load%20Management%20-%20SEELoad.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Transforming Load Management - SEELoad.pdf</a>	

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	Energy Savings Performance Contracts Brochure Pages: (1-2)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/Energy%20Savings%20Performance%20Contracts.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Energy Savings Performance Contracts.pdf</a>	
In voluntary communications	Complete	Lockheed Martin Energy Brochure Pages: (1-3)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/Lockheed%20Martin%20Energy.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Lockheed Martin Energy.pdf</a>	
In voluntary communications	Complete	Energy Resource Control Brochure Pages: (1-2)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/Energy%20Resource%20Control%20-%20SEEvieview.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Energy Resource Control - SEEvieview.pdf</a>	
In voluntary communications	Complete	Energy Efficiency for Federal Agencies Brochure Pages: (1-3)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/Energy%20Efficiency%20for%20Federal%20Agencies.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Energy Efficiency for Federal Agencies.pdf</a>	
In voluntary communications	Complete	Power of Your Distribution Applications - VirtuGrid Brochure Pages: (1-2)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/Power%20of%20Your%20Distribution%20Applications%20-%20VirtuGrid.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Power of Your Distribution Applications - VirtuGrid.pdf</a>	
In voluntary communications	Complete	GridStar Lithium-Ion Energy Storage Brochure Pages: (1-2)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/GridStar%20Lithium-Ion%20Energy%20Storage.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/GridStar Lithium-Ion Energy Storage.pdf</a>	



Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	GridStar Energy Storage Solutions Brochure Pages: (1-4)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Gridstar Energy Storage Solutions.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Gridstar Energy Storage Solutions.pdf</a>	
In voluntary communications	Complete	GridStar Flow Energy Storage Brochure Pages: (1-2)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/GridStar Flow Energy Storage.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/GridStar Flow Energy Storage.pdf</a>	
In voluntary communications	Complete	Advanced Waste Conversion Brochure Pages: (1-2)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Advanced Waste Conversion.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/Advanced Waste Conversion.pdf</a>	
In voluntary communications	Complete	250kW Advanced Gasification Plant Brochure Pages: (1-2)	<a href="https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/250kW Advanced Gasification Plant.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC4.1/250kW Advanced Gasification Plant.pdf</a>	
In voluntary communications	Complete	Lockheed Martin - News & Events - Features - 2015 Features - "Power Distribution Just Got Smarter"		<a href="http://www.lockheedmartin.com/us/news/features/2015/virtugrid-power-distribution.html">http://www.lockheedmartin.com/us/news/features/2015/virtugrid-power-distribution.html</a>
In voluntary communications	Complete	Lockheed Martin - News & Events -		<a href="http://www.lockheedmartin.com/us/news/features/2015/150120-surprising-energy-sources.html">http://www.lockheedmartin.com/us/news/features/2015/150120-surprising-energy-sources.html</a>

Publication	Status	Page/Section reference	Attach the document	Comment
		Features - 2015 Features - "By the Numbers: Surprising Energy Sources and Technologies"		
In voluntary communications	Complete	Lockheed Martin - News & Events - Features - 2015 Features - "Eleven Ways We've Been Studying Weather and Climate"		<a href="http://www.lockheedmartin.com/us/news/features/2015/studying-weather-climate.html">http://www.lockheedmartin.com/us/news/features/2015/studying-weather-climate.html</a>
In voluntary communications	Complete	Lockheed Martin - News & Events - Features - 2016 Features - "GOES-R: A #WeatherStory to Surpass Them All"		<a href="http://www.lockheedmartin.com/us/news/features/2016/goes-r-a-weatherstorytosurpassthemall.html">http://www.lockheedmartin.com/us/news/features/2016/goes-r-a-weatherstorytosurpassthemall.html</a>

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	Lockheed Martin - News & Events - Features - 2016 Features - "Rethinking Air Power: How Hybrid Airships Haul More Than Hot Air"		<a href="http://www.lockheedmartin.com/us/news/features/2016/C1HybridAirshipACLS.html">http://www.lockheedmartin.com/us/news/features/2016/C1HybridAirshipACLS.html</a>
In voluntary communications	Complete	Lockheed Martin - News & Events - Features - 2016 Features - "Powering Up: Lockheed Martin Set to Take Energy Storage to the Next Level"		<a href="http://www.lockheedmartin.com/us/news/features/2016/mfc-042516-powering-up-lockheed-martin-set-to-take-energy-storage-to-the-next-level.html">http://www.lockheedmartin.com/us/news/features/2016/mfc-042516-powering-up-lockheed-martin-set-to-take-energy-storage-to-the-next-level.html</a>
In voluntary communications	Complete	Lockheed Martin - News & Events - Features - 2016 Features - "5 Things You		<a href="http://www.lockheedmartin.com/us/news/features/2016/5-Things-Hybrid-Airship.html">http://www.lockheedmartin.com/us/news/features/2016/5-Things-Hybrid-Airship.html</a>

Publication	Status	Page/Section reference	Attach the document	Comment
		Should Know About the Hybrid Airship"		
In voluntary communications	Complete	Lockheed Martin - Innovation - "Making Waves in Energy: What You Need to Know"		<a href="http://www.lockheedmartin.com/us/innovations/103116-making-waves-in-tidal-energy-what-you-need-to-know.html">http://www.lockheedmartin.com/us/innovations/103116-making-waves-in-tidal-energy-what-you-need-to-know.html</a>
In voluntary communications	Complete	Lockheed Martin - Innovation - "Hybrid Airship: Big Impact, Small Environmental Footprint"		<a href="http://www.lockheedmartin.com/us/innovations/042716-webt-hybrid-airship-sustainability.html">http://www.lockheedmartin.com/us/innovations/042716-webt-hybrid-airship-sustainability.html</a>
In voluntary communications	Complete	Lockheed Martin - Innovation - "How it Works: A City Powered by Waste"		<a href="http://www.lockheedmartin.com/us/innovations/031616-webt-bio-energy.html">http://www.lockheedmartin.com/us/innovations/031616-webt-bio-energy.html</a>
In voluntary communications	Complete	Lockheed Martin - News Releases - "Lockheed Martin Recognized		<a href="http://news.lockheedmartin.com/2015-11-04-Lockheed-Martin-Recognized-as-One-of-Worlds-Top-Climate-Change-Management-Corporations">http://news.lockheedmartin.com/2015-11-04-Lockheed-Martin-Recognized-as-One-of-Worlds-Top-Climate-Change-Management-Corporations</a>

Publication	Status	Page/Section reference	Attach the document	Comment
		as One of World's Top Climate Change Management Corporations "		
In voluntary communications	Complete	Lockheed Martin - News Releases - "Lockheed Martin Hybrid Airship Certification Plan for Commercial Transport Approved by the FAA"		<a href="http://news.lockheedmartin.com/2015-11-17-Lockheed-Martin-Hybrid-Airship-Certification-Plan-for-Commercial-Transport-Approved-by-the-FAA">http://news.lockheedmartin.com/2015-11-17-Lockheed-Martin-Hybrid-Airship-Certification-Plan-for-Commercial-Transport-Approved-by-the-FAA</a>
In voluntary communications	Complete	Lockheed Martin - News Releases - "Lockheed Martin Team Delivers Second Lightning Tracker for NOAA Weather Satellite"		<a href="http://news.lockheedmartin.com/2016-01-12-Lockheed-Martin-Team-Delivers-Second-Lightning-Tracker-for-NOAA-Weather-Satellite">http://news.lockheedmartin.com/2016-01-12-Lockheed-Martin-Team-Delivers-Second-Lightning-Tracker-for-NOAA-Weather-Satellite</a>
In voluntary communications	Complete	Lockheed Martin - News		<a href="http://news.lockheedmartin.com/2016-02-01-Lockheed-Martin-and-Duke-Energy-Sign-17-Year-Renewable-Energy-Pact">http://news.lockheedmartin.com/2016-02-01-Lockheed-Martin-and-Duke-Energy-Sign-17-Year-Renewable-Energy-Pact</a>

Publication	Status	Page/Section reference	Attach the document	Comment
		Releases - "Lockheed Martin and Duke Energy Sign 17-Year Renewable Energy Pact"		
In voluntary communications	Complete	Lockheed Martin - News Releases - "Lockheed Martin Completes Integration of Energy Portfolio"		<a href="http://news.lockheedmartin.com/2016-03-15-Lockheed-Martin-Completes-Integration-of-Energy-Portfolio">http://news.lockheedmartin.com/2016-03-15-Lockheed-Martin-Completes-Integration-of-Energy-Portfolio</a>
In voluntary communications	Complete	Lockheed Martin - News Releases - "Lockheed Martin and Concord Blue Begin Next Phase on Bioenergy Facility in Germany"		<a href="http://news.lockheedmartin.com/2016-03-15-Lockheed-Martin-and-Concord-Blue-Begin-Next-Phase-on-Bioenergy-Facility-in-Germany">http://news.lockheedmartin.com/2016-03-15-Lockheed-Martin-and-Concord-Blue-Begin-Next-Phase-on-Bioenergy-Facility-in-Germany</a>

**Further Information**

## Module: Risks and Opportunities

### Page: CC5. Climate Change Risks

#### CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation

Risks driven by changes in physical climate parameters

Risks driven by changes in other climate-related developments

#### CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Emission reporting obligations	Global emissions reporting requirements could potentially impact Lockheed Martin through increased costs for regulatory compliance and increased fines and penalties. An example of an	Increased operational cost	1 to 3 years	Direct	Virtually certain	Low	Non-compliance with the U.S. GHG Mandatory Reporting Rule could involve fines of up to \$37,500 per day.	Regulatory risks are factored into our costs of doing business. Four of Lockheed Martin's largest facilities (Sunnyvale, Palmdale, Fort Worth and Marietta) are required to report GHG emissions	Across the Corporation, we completed over 60 energy-efficiency and GHG emissions reductions projects in 2016, which contributed towards a 21% energy reduction and 29% GHG reduction. In

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>emissions regulation that could potentially impact our business is the U.S. Greenhouse Gas (GHG) Mandatory Reporting Rule which requires reporting of GHG data and other relevant information from large sources and suppliers in the U.S. Four of Lockheed Martin's largest facilities (Sunnyvale, Palmdale, Fort Worth and Marietta) are required to report GHG emissions under the U.S. GHG Mandatory Reporting Rule. Additionally, state regulations related to climate change and mandatory and/or voluntary GHG reporting impact our facilities. If</p>							<p>under the U.S. GHG Mandatory Reporting Rule. Lockheed Martin incorporates our own products to optimize energy management through internally developed software, known as SEEview. Approximately 50 Lockheed Martin sites are monitored by SEEview. We have installed SEEview along with approximately 1,000 real time energy meters at our largest facilities, which provides near real-time situational analysis of utility use, manages building control system data and integrates key operational and business system data. Reduction of GHG emissions at these facilities</p>	<p>2016 alone, Lockheed Martin avoided approximately \$26 million (compared to a 2010 baseline) in energy and water costs through the implementation of similar projects over the years. Furthermore, Lockheed Martin has adopted the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) as the minimum standard for new construction, renovations, and/or retrofit projects. Our Green Buildings Corporate Functional Procedure requires implementation of green building practices in the design, construction and</p>



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Lockheed Martin was not able to comply with the additional mandatory reporting requirements, this could potentially result in increased fines and operational disruptions.							would reduce the regulatory reporting burden; therefore, we prioritize many of our energy reduction projects at these locations as these reductions are preferable to burdensome reporting requirements. In addition to metering, over 10 Lockheed Martin sites were enrolled in energy demand response programs, which offer incentives to businesses that reduce energy use during times of peak demand, resulting in over \$111,000 in earned revenue for the Corporation in 2016.	operations of owned or commercially leased facilities to meet the Corporation's goals on increasing our green footprint. From our 2013 baseline year to 2016, Lockheed Martin has more than doubled our green footprint through Energy Star®, LEED and BREEAM certifications.
Cap and trade schemes	California's Global Warming Solutions Act of 2006 (AB32)	Increased operational cost	Up to 1 year	Direct	Virtually certain	Low	The costs for our facility in Sunnyvale, CA to comply with the	California operates a cap and trade program requiring facilities	The cost for our Sunnyvale facility to offset 2% of GHG emissions

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>affects Lockheed Martin facilities in California. AB32 set mandatory caps beginning in 2012 for significant emission sources and requires reporting of GHG emissions. The cap and trade scheme could potentially increase our operational costs for our California sites through costs for compliance reporting, third party auditing and purchase of cap and trade allowances.</p>						<p>AB32 regulation included a one-time purchase of \$372,000 to cover projected future costs of emissions allowances for the cap and trade program, as well as a recurring annual cost of \$30,000 associated with compliance reporting and third party verification. Total projected future costs of compliance obligations under AB32 is estimated up to \$800,000, if our Sunnyvale facility participates in AB32 until it expires in 2021.</p>	<p>to offset a percentage of their GHG emissions. The consolidation of our Sunnyvale facility into fewer buildings as well as the installation of natural gas fuel cells helped offset approximately 2% of emissions to meet state requirements. Reduction of GHG emissions at these California facilities would reduce the regulatory reporting burden; therefore, we prioritize many of our energy reduction projects at these locations as these reductions are preferable to burdensome reporting requirements.</p>	<p>from the state of California by October 2014 as required by AB32 was approximately \$14,000. Furthermore, Lockheed Martin has adopted the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) as the minimum standard for new construction, renovations, and/or retrofit projects. For existing buildings, installation of equipment should be life cycle cost effective and reduce the energy consumption for the building. The purpose of our Green Building procedure is to establish requirements for implementing green building</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
									practices in the design, construction and operations of all Lockheed Martin facilities and to meet the Corporation's goals on increasing our green footprint. From our 2013 baseline year to 2016, Lockheed Martin has more than doubled our green footprint through Energy Star®, LEED and BREEAM certifications.
Fuel/energy taxes and regulations	In the U.K., Lockheed Martin sites are impacted by regulations such as the Energy Savings Opportunity Scheme (ESOS), which is a mandatory energy assessment scheme that requires qualifying organizations to carry out ESOS	Increased operational cost	Up to 1 year	Direct	Virtually certain	Low	Lockheed Martin's facility in Ampthill, U.K. meets the qualifying criteria for the ESOS regulation and completed an ESOS assessment while the facility achieved ISO 50001 certification. Fines for non-	Lockheed Martin's facility in Ampthill, U.K. achieved ISO 50001 Energy Management Systems Certification in 2015, becoming the first Lockheed Martin site certified to the international standard. During the ISO 50001 certification	In 2016, Lockheed Martin's facility in Ampthill, U.K. developed six site energy monitoring and management plans. The site installed energy-efficiency heating units, fit over 100 electrical sub-meters to monitor energy use, ensured that energy efficiency

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>assessments every four years. Under this regulation, Lockheed Martin UK qualifies as a corporate group because it has facilities in the U.K. with over 250 employees who must complete an ESOS assessment by: 1) Calculating total energy consumption; 2) Identifying areas of significant energy consumption; 3) Notify the Environment Agency; and 4) Keep records of ESOS compliance.</p>						<p>compliance with the mandatory Energy Savings Opportunity Scheme (ESOS) ranges from £5,000 to £90,000.</p>	<p>process, we identified 15 energy efficiency opportunities with combined projected savings of £184,500 and two million kWh annually. Our U.K. facilities continue to develop strategies to reduce energy consumption to reduce the potential financial burden of climate change-regulations in the future.</p>	<p>formed an important part of HVAC and lighting when upgrading buildings and implemented IT-based energy management tools, policies and procedures. Due to measures taken through ISO 50001 certification, the Ampthill facility is expected to achieve £184,500 in annual cost avoidances from replacing fuel oil heating systems with energy efficient electrical units, installing temperature and time controls on warm water boilers, and replacing 80 400W halogen bulbs with efficient T5 fluorescent lighting.</p>

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation extremes and droughts	Physical risks of climate change have the potential to damage our facilities as well as facilities in our value chain, causing disruption in work and possible financial impacts. As an example, a study published in Geophysical Research Letters found that in California, 16.5 cubic kilometers of water was lost during the drought period from 2007 to 2009 and 40 cubic kilometers of water was lost during the 2012 to 2016 drought period. These losses were attributed to reduced precipitation and snow melt as well as hotter	Increased operational cost	Up to 1 year	Direct	Very likely	Medium	In 2016, the long-term precipitation deficits and drought conditions that continued to plague California from 2012 to 2016 resulted in increased demand for cooling and high stress on regional water supplies. Due to the compounded effects of this multi-year drought, our Sunnyvale facility's utility cost rate for potable water from July 2015 to June 2016 was \$7.02 per hundred cubic feet (CCF), up from the July 2014 to June 2015 utility cost rate of \$5.85 per CCF (a 20% increase).	Our California sites are a top priority for water conservation projects and engagement with regulators. Most of the water restriction in California focus on irrigation and our facilities have already implemented practices to reduce irrigation time or eliminate irrigation completely where possible. Irrigation at our Sunnyvale facility accounts for 10-15% of its water use. In 2015, Sunnyvale implemented a water conservation project that included irrigation control upgrades. In addition to these efforts, in 2016, Sunnyvale installed new	In 2015, Sunnyvale implemented a water conservation project that included irrigation control upgrades, with estimated water savings of about 4.2 million gallons. In 2016, Sunnyvale installed new equipment including cooling towers and chillers which are more energy and water efficient than the older systems that were replaced. These projects cost over \$11 million and are expected to yield annual water savings of approximately 2 million gallons per year.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	temperatures and a change in the type of crops being cultivated. Lockheed Martin has experienced risks associated with precipitation extremes and droughts at our California facilities, such as Sunnyvale, as high temperatures coupled with harsh droughts resulted in increased demand for cooling and high stress on regional water suppliers.							equipment including cooling towers and chillers which are more energy and water efficient than the older systems that were replaced. These projects cost over \$11 million and are expected to yield annual water savings of approximately 2 million gallons per year.	

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Lockheed Martin's reputation among key stakeholders (including suppliers, customers, investors and the public) could be negatively impacted by our emissions reductions performance. Lockheed Martin is increasingly subject to energy stewardship-related customer expectations in addition to meeting requirements for all other product performance goals. At Lockheed Martin, we understand that a sound climate change policy makes good business sense and reinforces our business credibility among our stakeholders.	Reduced stock price (market valuation)	Up to 1 year	Direct	Unlikely	Low	Negative perception associated with emissions performance, as with any corporate performance indicator, could be one of multiple factors that affects our performance. If we were to become less efficient in our operations and loosened our commitment to reducing GHG emissions, we could have potential impacts to our operational costs, our ability to successfully bid for contracts and our reputation among stakeholders. Theoretically, these perceptions may affect costs and result in a minimal decline in stock price. For example, on October 31, 2016, our opening daily stock price was	Lockheed Martin continues our efforts to be transparent in our emissions performance and overall climate change strategy to enhance our reputation as a leader in carbon management practices. Our approach is focused on reducing the use of key natural resources such as water and energy, and ultimately the reduction of our GHG emissions. We report our annual emissions performance data on our external website and in our annual Corporate Sustainability Report. We also disclose climate change-related data to public environmental/ sustainability ranking firms for analysis and	Lockheed Martin employs the equivalent of approximately 7 full time employees focused on environmental and sustainability disclosures and implementation to further our business reputation related to energy and climate-related issues. In addition to these employees, there are many other Lockheed Martin employees that have aspects of environmental sustainability embedded in their daily tasks.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>If we were to become less efficient in our operations and loosened our commitment to reducing GHG emissions by 35% by 2020, from a 2010 baseline, we could have potential impacts to our operational costs, our ability to successfully bid for contracts and our reputation among stakeholders. Theoretically, these perceptions could potentially affect costs and result in a minimal decline in stock price.</p>						<p>\$248.24 per share. Hypothetically, if the stock price were to decline by 1% because of negative perception, this would translate into a \$2.48 decrease in stock price. Negative reputation could also result in contract losses due to perceived performance risk.</p>	<p>potential inclusion in ratings and rankings. We continuously review environmental sustainability ratings, rankings, and benchmarks against our sector peers and industry leaders to continue to evolve our sustainability strategy. As a result of the transparency of our management methods, we have been recognized by: EPA's National 100 Green Power Partners list, ranking #22 at the end of 2016; Newsweek's Green Ranking, ranking #47 of the world's largest companies in the U.S.; Dow Jones Sustainability Indices, ranking in the top 10% world of publicly traded companies; EPA's Climate Leadership</p>	



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Award in the category of Organizational Leadership; and Corporate Responsibility Magazine's 100 Best Corporate Citizens, ranking at #8.	

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CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

**Further Information**

**Page: CC6. Climate Change Opportunities**

**CC6.1**

**Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply**

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

**CC6.1a**

**Please describe your inherent opportunities that are driven by changes in regulation**

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Renewable energy regulation	Lockheed Martin could be affected to the extent that the US and other nations implement	Reduced operational costs	Up to 1 year	Direct	Virtually certain	Medium-high	In 2016, Lockheed Martin completed the installation of a seven-acre solar farm at our facility in	Lockheed Martin is managing this opportunity by investing in solar installations	Without a federal investment tax credit, the estimated project cost would be

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>renewable energy regulations such as renewable energy tax incentives. For example, the Investment Tax Credit (ITC) which is based on the amount of investment in solar property will remain a 30% tax credit through 2019; decrease to 26% in 2020; 22% in 2021; and 10% after 2021 for commercial and utility credits. These regulations could incentivize an increased demand for renewable energy, potentially supporting further development of Lockheed</p>						<p>Palmdale, CA. The 1 MW ground-mounted, single-axis solar tracking system allows over 3,000 solar panels to follow the sun's east-to-west path during the day, maximizing sun exposure and energy capture. The solar farm alleviates some of the burden on the local electrical grid by supplementing our facility's power during summertime peak electricity demand when air conditioning use increases and the local power supply is strained. Annually, it will yield a 10% reduction in power purchased from the grid and more than</p>	<p>such as the one at our Palmdale, CA facility which will produce over 2 million kWh of electricity per year and yield an annual 10% reduction in power purchased from the grid. We anticipate that this will approximately reduce over 17,000 MTCO2e and result in \$9 million in cost avoidances over the lifetime of the project. This installation will also contribute towards cutting the Corporation's overall GHG emissions by 35% by the year 2020, from a 2010 baseline.</p>	<p>approximately \$2.9 million. However, the project was supported by a 30% federal investment tax credit of approximately \$870,000 and California state tax incentives of over \$100,000.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Martin's renewable energy portfolio including energy management, energy storage, nuclear systems, ocean technologies and bioenergy. In 2016, product sales that benefit energy and infrastructure resiliency totalled \$2.47 billion towards a 2020 goal to exceed \$4 billion in same product sales.						\$350,000 in cost avoidances.		
Renewable energy regulation	Lockheed Martin could be affected to the extent that the US and other nations implement renewable energy regulations such as renewable energy tax	Reduced operational costs	>6 years	Direct	Virtually certain	Medium-high	Lockheed Martin entered into a power purchase agreement (PPA) for the output from the solar facility in North Carolina and did not invest in any capital upfront for the project. Purchasing	Lockheed Martin is managing this opportunity by procuring renewable energy through power purchase agreements (PPAs) and renewable energy credits (RECs). In	As an off-taker of electricity only, Lockheed Martin did not directly receive any federal or state tax incentives, which went to the project owner, Duke Energy Renewables.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>incentives. For example, the Investment Tax Credit (ITC) which is based on the amount of investment in solar property will remain a 30% tax credit through 2019; decrease to 26% in 2020; 22% in 2021; and 10% after 2021 for commercial and utility credits. These regulations could incentivize an increased demand for renewable energy, potentially supporting further development of Lockheed Martin's renewable energy portfolio including energy management,</p>						<p>power from the facility acts as a long-term financial energy hedge which serves to diversify the larger energy procurement portfolio. The PPA is intended to reduce volatility in the energy spend of the Corporation as a whole over the next 16 years. We are unable to quantify the financial implications of such a transaction at this point in time.</p>	<p>2016, Lockheed Martin entered into a 17-year PPA for solar-generated electricity produced by Duke Renewables. This renewable PPA has 30 MW of capacity and is expected to produce approximately 72,000 MWh per year of solar energy in North Carolina and will provide clean energy across all Lockheed Martin's domestic business segments. Lockheed Martin anticipates receiving approximately 72,000 Green-E certified national wind RECs which will help the company reach its</p>	<p>Duke Energy Renewables was able to take advantage of the 30% Federal Investment Tax Credit (ITC), a 35% North Carolina ITC (max \$2.5 million), which contributed to the project economics. There were no upfront direct costs to Lockheed Martin as part of the PPA agreement.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	energy storage, nuclear systems, ocean technologies and bioenergy. In 2016, product sales that benefit energy and infrastructure resiliency totalled \$2.47 billion towards a 2020 goal to exceed \$4 billion in same product sales.							greenhouse gas emissions reduction goals.	

**CC6.1b**

Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other physical climate opportunities	Physical impacts of climate change (such as the need to monitor sea levels and	New products/business services	Up to 1 year	Direct	Virtually certain	Medium-high	Financial implications of the physical impacts of climate change such as sea	We partner with customers, suppliers, and other companies to respond to physical effects	In 2016, we increased our independent research and development (IRAD)

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>weather variability) are presenting additional demand for products that address climate change-related impacts. This added global demand is creating opportunities for Lockheed Martin in markets ranging from weather satellites and radar such as our geostationary operational environmental satellite series (GOES-R), to energy security, renewable energy generation technologies and mobile, alternative energy generation for areas impacted by severe weather.</p>						<p>level rise and weather variations include increased revenue in services and technologies to address these global challenges. For example, the value of our existing multi-year contract with NASA is more than \$1 billion for our geostationary operational environmental satellite series (GOES-R), which will provide higher-resolution images of severe storms five times faster than NOAA's existing GOES series and provide NOAA scientists and managers with a 24-hour global stream of</p>	<p>of climate change. This drives increased attention to issues such as water use reduction and minimization of flood and coastal plain plant locations among our suppliers. Lockheed Martin was selected by NASA to design and build the U.S. geostationary operational environment satellite series, GOES-R, which will be used by NOAA for short-term weather forecasting, to estimate rainfall and snow accumulation, detect early identification of storm intensification and severe weather. In 2016, Lockheed Martin completed</p>	<p>investment by 21% to \$988 million as part of our commitment to innovating for growth. Our energy and sustainable product development portion of IRAD continues to increase.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							<p>information used in preparation for events that will impact our climate, weather and oceans.</p>	<p>and launched the GOES-R weather satellite, which will be used to provide the U.S. National Weather Service with advanced severe weather prediction capabilities to save lives in storm-threatened areas and help meteorologists issue winter storm warnings and spring snow melt advisories. The GOES-R series will vastly improve forecasting quality and timeliness, generating significant benefits to the United States and Western Hemisphere in the areas of public safety, severe weather monitoring, space weather prediction,</p>	



Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								ecosystems management, commerce and transportation.	

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	In 2016, Lockheed Martin completed the integration of our energy portfolio including several commercial energy products and service businesses into a single organization, called Lockheed Martin Energy, demonstrating our commitment to energy solutions and reflecting the	New products/business services	3 to 6 years	Direct	Virtually certain	High	According to a 2016 market research report by Grand View Research, the global waste to energy (WTE) market size was \$25 billion in 2015 and is expected to increase to approximately \$45 billion in the year 2024. In 2016, product sales that benefit energy and	Lockheed Martin is pursuing advanced waste conversion technologies that use gasification processes to convert waste products to electricity and other products, such as fuel. In 2014, Lockheed Martin partnered with Concord Blue to build a 5 MW	In 2016, we began phase 2 of the bioenergy energy plant in Germany in partnership with Concord Blue, who awarded Lockheed Martin with a \$43 million contract to proceed with all engineering, procurement and construction of the 5 MW plant, with a completion date in 2017.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>changing consumer behavior of our customers. Lockheed Martin Energy delivers a comprehensive portfolio of energy solutions including energy management, energy storage, nuclear systems, ocean technologies and bioenergy. Specific examples include: bioenergy technology that converts waste into clean fuel; progress in harnessing tidal energy; energy storage solutions that improve electrical grid efficiency and enable increased use of renewable energy sources; energy</p>						<p>infrastructure resiliency totalled \$2.47 billion towards a 2020 goal to exceed \$4 billion in same product sales.</p>	<p>bioenergy facility in Herten, Germany which will power about 5,000 homes and businesses while processing over 50,000 tons of raw waste per year, significantly reducing the need for landfill use. In 2016, Lockheed Martin opened a new 250 kW bioenergy plant in our Owego, NY facility which will convert waste material into energy for the facility's operations. Additionally in 2016, Lockheed Martin signed a teaming agreement with CoGen Limited to develop a bioenergy plant in Cardiff, Wales which will</p>	<p>Lockheed Martin Energy's products and services, including our bioenergy solutions will help contribute towards achieving the Product Impact goal established in our Sustainability Management Plan. In 2016, product sales that benefitted energy and infrastructure resiliency, which includes bioenergy, totalled \$2.47 billion toward a 2020 goal to exceed \$4 billion in same product sales.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	management solutions and performance contracts that enable our customers to reduce their energy and deliver cost avoidances; and intelligent microgrid solutions that integrate existing power generation assets with new or existing renewable power sources and manages energy demands.							convert waste up to 15 MW of energy, enough to power about 15,000 homes and businesses. This plant will process approximately 150,000 tons of waste per year, with construction expected to begin in 2018 and operations to start in 2020.	
Changing consumer behavior	In 2016, Lockheed Martin completed the integration of our energy portfolio including several commercial energy products and service businesses into a single organization, called Lockheed	New products/business services	3 to 6 years	Direct	Virtually certain	High	According to a 2017 study published by the U.S. Energy Storage Monitor and GTM Research, by 2022, the U.S. energy storage market is expected to be worth \$3.3 billion, a tenfold	In 2016, Lockheed Martin installed our GridStar™ Lithium energy storage system at our facility in Syracuse, NY. The 1 MW system will reduce electricity bills and emissions	Lockheed Martin Energy's products and services, including our energy storage systems will help contribute towards achieving the Product Impact goal established in our

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Martin Energy, demonstrating our commitment to energy solutions and reflecting the changing consumer behavior of our customers. Lockheed Martin Energy delivers a comprehensive portfolio of energy solutions including energy management, energy storage, nuclear systems, ocean technologies and bioenergy. Specific examples include: bioenergy technology that converts waste into clean fuel; progress in harnessing tidal energy; energy storage solutions that improve electrical grid</p>						<p>increase from 2016. Cumulative 2017 – 2022 storage market revenues will be over \$11 billion.</p>	<p>for our operations and will provide services to the New York Independent System Operator (NYISO), the state's competitive wholesale electricity operator. This turn-key outdoor-rated energy storage system enables demand charge reduction, renewables integration, transmission and distribution investment deferral, frequency and voltage regulation as well as microgrid support. Each GridStar™ energy storage unit can be configured to provide up to</p>	<p>Sustainability Management Plan. In 2016, product sales that benefitted energy and infrastructure resiliency, which includes energy storage, totalled \$2.47 billion toward a 2020 goal to exceed \$4 billion in same product sales.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	efficiency and enable increased use of renewable energy sources; energy management solutions and performance contracts that enable our customers to reduce their energy and deliver cost avoidances; and intelligent microgrid solutions that integrate existing power generation assets with new or existing renewable power sources and manages energy demands.							375 kW of power and up to 600 kWh of energy storage. These units can be coupled together to scale to multi-MW projects. We plan to install additional energy storage systems at sites across the company, which will reduce utility bills and further advance our sustainability efforts.	
Reputation	Lockheed Martin's reputation among key stakeholders (including suppliers,	Increased stock price (market valuation)	Up to 1 year	Direct	Unlikely	Low	Positive perception associated with emissions performance and emissions, as with any	Lockheed Martin continues our efforts to be transparent in our emissions performance	Lockheed Martin employs the equivalent of approximately 7 full time employees focused on

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>customers, investors and the public) could be positively impacted by our emissions reductions performance. Lockheed Martin is increasingly subject to energy stewardship-related customer expectations in addition to meeting requirements for all other product performance goals. At Lockheed Martin, we understand that a sound climate change policy makes good business sense and reinforces our business credibility among our stakeholders. If we were to become less efficient in our operations and</p>						<p>corporate performance indicator, could be one of multiple factors that affect LM performance. If we were to become more efficient in our operations and strengthened our commitment to reducing GHG emissions, we would have potential impacts to our operational costs, our ability to successfully bid for contracts and our reputation among stakeholders. Theoretically, these perceptions may affect costs and result in a minimal increase in stock price. For example, on October 31,</p>	<p>and overall climate change strategy to enhance our reputation as a leader in carbon management practices. Our approach is focused on reducing the use of key natural resources such as water and energy, and ultimately the reduction of our GHG emissions. We report our annual emissions performance data on our external website and in our annual Corporate Sustainability Report. We also disclose climate change-related data to public environmental/ sustainability ranking firms for analysis and</p>	<p>environmental and sustainability disclosures and implementation to further our business reputation related to energy and climate-related issues. In addition to these employees, there are many other Lockheed Martin employees that have aspects of environmental sustainability embedded in their daily tasks.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>loosened our commitment to reducing GHG emissions, we could have potential impacts to our operational costs, our ability to successfully bid for contracts and our reputation among stakeholders. Theoretically, these perceptions could potentially affect costs and result in a minimal increase in stock price.</p>						<p>2016, our opening daily stock price was \$248.24 per share. Hypothetically, if the stock price were to increase by 1% because of positive perception, this would translate into a \$2.48 increase in stock price. Positive reputation could also result in contract opportunities.</p>	<p>potential inclusion in ratings and rankings. We continuously review environmental sustainability ratings, rankings, and benchmarks against our sector peers and industry leaders to continue to evolve our sustainability strategy. As a result of the transparency of our management methods, we have been recognized by: EPA's National 100 Green Power Partners list, ranking #22 at the end of 2016; Newsweek's Green Ranking, ranking #47 of the world's largest</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								companies in the U.S.; Dow Jones Sustainability Indices, ranking in the top 10% world of publicly traded companies; EPA's Climate Leadership Award in the category of Organizational Leadership; and Corporate Responsibility Magazine's 100 Best Corporate Citizens, ranking at #8.	

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1e



Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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CC6.1f

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**Further Information**

**Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading**

**Page: CC7. Emissions Methodology**

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CC7.1

**Please provide your base year and base year emissions (Scopes 1 and 2)**

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Sun 01 Nov 2009 - Sun 31 Oct 2010	313866

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 2 (location-based)	Sun 01 Nov 2009 - Sun 31 Oct 2010	1147805
Scope 2 (market-based)		

---

**CC7.2**

**Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

Please select the published methodologies that you use
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

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**CC7.2a**

**If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

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**CC7.3**

**Please give the source for the global warming potentials you have used**

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)

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#### CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference

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#### Further Information

##### Attachments

[https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/2016 Emissions Factors.xlsx](https://www.cdp.net/sites/2017/20/10820/Climate%20Change%202017/Shared%20Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/2016%20Emissions%20Factors.xlsx)

**Page: CC8. Emissions Data - (1 Nov 2015 - 31 Oct 2016)**

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#### CC8.1

**Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory**

Operational control

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**CC8.2**

**Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e**

229149

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**CC8.3**

**Please describe your approach to reporting Scope 2 emissions**

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We are reporting a Scope 2, market-based figure	

---

**CC8.3a**

**Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e**

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
777186	575096	

#### CC8.4

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?

Yes

#### CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Acquisition	Emissions excluded due to a recent acquisition	Emissions excluded due to a recent acquisition	Emissions excluded due to a recent acquisition	In late 2015, (after the beginning of our metric year) we acquired Sikorsky Aircraft Corporation (Sikorsky) and aligned it under our Rotary and Mission Systems (RMS) business segment. In late 2016, we completed the process of integrating Sikorsky energy and carbon data into our internal accounting process. Our 2016 GHG emissions and data does not include Sikorsky, which will be included in 2017. Also in 2016, we divested part of our Integrated Systems and Global Solutions business to Leidos, which is reflected in our energy and GHG emissions data for the first half of 2016. Our baseline has not been adjusted for the divestiture of IS&GS or the acquisition of Sikorsky.

**CC8.5**

**Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations**

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Assumptions Extrapolation	In 2012, Lockheed Martin improved the accuracy of our HFC emissions estimates by collecting facility level data. Previously, an estimate was used for HFC emissions based on an estimate of the area of air conditioned space in our facility footprint. For mobile HFC emissions where vehicle refrigerant records were unavailable, emissions were estimated based on the year/make/model, refrigerant capacity and refrigerant type used in facility vehicles. These calculations were done in accordance with The Climate Registry General Reporting Protocol Version 1.1 (May 2008). Because HFC emissions made up less than 5% of our total Scope 1 emissions in 2012, we do not collect actual HFC emissions on an annual basis due to the de-minimus reporting rule.
Scope 2 (location-based)	More than 5% but less than or equal to 10%	Assumptions Extrapolation	All Scope 2 data is obtained from electricity invoices; therefore, there is little to no uncertainty in the electricity data we collect directly from the facilities we own. In the event that a utility meter is found to be faulty, Lockheed Martin will work with the utility provider to obtain accurate usage information. Internally, Lockheed Martin-owned energy meters may be used to determine electricity usage in the event that the utility provider's meter is not providing an accurate reading. In 2016, the uncertainty range in Scope 2 emissions decreased because there was a reduction of global leased space for which we estimate our data.
Scope 2 (market-based)	More than 5% but less than or equal to 10%	Assumptions Extrapolation	All Scope 2 data is obtained from electricity invoices; therefore, there is little to no uncertainty in the electricity data we collect directly from the facilities we own. In the event that a utility meter is found to be faulty, Lockheed Martin will work with the utility provider to obtain accurate usage information. Internally, Lockheed Martin-owned energy meters may be used to determine electricity usage in the event that the utility provider's meter is not providing an accurate reading. In 2016, the uncertainty range in Scope 2 emissions decreased because there was a reduction of global leased space for which we estimate our data.

**CC8.6**

**Please indicate the verification/assurance status that applies to your reported Scope 1 emissions**

Third party verification or assurance process in place

**CC8.6a**

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC8.6a/2016 GHG Energy Verification Statement.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC8.6a/2016 GHG Energy Verification Statement.pdf</a>	6	ISO14064-3	100

**CC8.6b**

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emission Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

**CC8.7**

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

### CC8.7a

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC8.7a/2016 GHG Energy Verification Statement.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC8.7a/2016 GHG Energy Verification Statement.pdf</a>	6	ISO14064-3	100
Market-based	Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC8.7a/2016 GHG Energy Verification Statement.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC8.7a/2016 GHG Energy Verification Statement.pdf</a>	6	ISO14064-3	100

### CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2



Additional data points verified	Comment
Progress against emissions reduction target	For the fifth year, Lockheed Martin's sustainability report relies upon guidance issued by the Global Reporting Initiative (GRI), the world's most widely used sustainability reporting framework. We report in accordance with G4 Core, the latest GRI guidelines. The determination of which GRI Aspects are relevant to our business is a direct result of our Core Issues Assessment as described in our 2016 Sustainability Report. This formal process included ongoing feedback from internal and external stakeholders. Twenty-one GRI Indicators underwent limited third-party assurance, including G4-12, G4-17, G4-18, G4-19, G4-20, G4-21, G4-22, G4-23, G4-24, G4-25, G4-26, G4-27, G4-34, G4-SO4, G4-PR6, G4-LA6, G4-LA12, G4-EN3, G4-EN6, G4-EN15 and G4-EN19.
Emissions reduction activities	For the fifth year, Lockheed Martin's sustainability report relies upon guidance issued by the Global Reporting Initiative (GRI), the world's most widely used sustainability reporting framework. We report in accordance with G4 Core, the latest GRI guidelines. The determination of which GRI Aspects are relevant to our business is a direct result of our Core Issues Assessment as described in our 2016 Sustainability Report. This formal process included ongoing feedback from internal and external stakeholders. Twenty-one GRI Indicators underwent limited third-party assurance, including G4-12, G4-17, G4-18, G4-19, G4-20, G4-21, G4-22, G4-23, G4-24, G4-25, G4-26, G4-27, G4-34, G4-SO4, G4-PR6, G4-LA6, G4-LA12, G4-EN3, G4-EN6, G4-EN15 and G4-EN19.
Renewable energy products	For the fifth year, Lockheed Martin's sustainability report relies upon guidance issued by the Global Reporting Initiative (GRI), the world's most widely used sustainability reporting framework. We report in accordance with G4 Core, the latest GRI guidelines. The determination of which GRI Aspects are relevant to our business is a direct result of our Core Issues Assessment as described in our 2016 Sustainability Report. This formal process included ongoing feedback from internal and external stakeholders. Twenty-one GRI Indicators underwent limited third-party assurance, including G4-12, G4-17, G4-18, G4-19, G4-20, G4-21, G4-22, G4-23, G4-24, G4-25, G4-26, G4-27, G4-34, G4-SO4, G4-PR6, G4-LA6, G4-LA12, G4-EN3, G4-EN6, G4-EN15 and G4-EN19.
Product footprint verification	For the fifth year, Lockheed Martin's sustainability report relies upon guidance issued by the Global Reporting Initiative (GRI), the world's most widely used sustainability reporting framework. We report in accordance with G4 Core, the latest GRI guidelines. The determination of which GRI Aspects are relevant to our business is a direct result of our Core Issues Assessment as described in our 2016 Sustainability Report. This formal process included ongoing feedback from internal and external stakeholders. Twenty-one GRI Indicators underwent limited third-party assurance, including G4-12, G4-17, G4-18, G4-19, G4-20, G4-21, G4-22, G4-23, G4-24, G4-25, G4-26, G4-27, G4-34, G4-SO4, G4-PR6, G4-LA6, G4-LA12, G4-EN3, G4-EN6, G4-EN15 and G4-EN19.

**CC8.9**

**Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

Yes

**CC8.9a**

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

16029

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#### Further Information

The Lockheed Martin facility in Owego, New York operates a combined heat and power system (back pressure turbine) fueled by biomass that provides self-generation of electric power using the existing main steam system. The metric tonnes of CO2e released in 2015 were calculated based on the volume of wood burned (20,054 tons) with an estimated moisture content of 39%. Calculations were performed according to U.S. 40 CFR 98 - Greenhouse Gas Reporting, Tables A-1 (Global Warming Potentials), C-1 (Default CO2 Emission Factors and High Heat Values for Various Types of Fuel) and C-2 (Default CH4 and N2O Emission Factors for Various Types of Fuel).

**Page: CC9. Scope 1 Emissions Breakdown - (1 Nov 2015 - 31 Oct 2016)**

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#### CC9.1

**Do you have Scope 1 emissions sources in more than one country?**

Yes

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#### CC9.1a

**Please break down your total gross global Scope 1 emissions by country/region**

Country/Region	Scope 1 metric tonnes CO2e
Canada	0
Mexico	19
United Kingdom	341

Country/Region	Scope 1 metric tonnes CO2e
United States of America	228790

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**CC9.2**

**Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)**

By business division  
By GHG type

---

**CC9.2a**

**Please break down your total gross global Scope 1 emissions by business division**

Business division	Scope 1 emissions (metric tonnes CO2e)
Aeronautics	111941
Enterprise Operations	21238
Information Systems & Global Solutions	1133
Missiles and Fire Control	19923
Rotary and Mission Systems	16340
Space Systems Company	58575

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**CC9.2b**

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	221844
CH4	171
N2O	424
HFCs	6710

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CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
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**Further Information**

**Page: CC10. Scope 2 Emissions Breakdown - (1 Nov 2015 - 31 Oct 2016)**

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**CC10.1**

**Do you have Scope 2 emissions sources in more than one country?**

Yes

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**CC10.1a**

**Please break down your total gross global Scope 2 emissions and energy consumption by country/region**

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Canada	359	359	2394	0
Mexico	451	451	891	0
United Kingdom	2058	2058	4994	0
United States of America	774318	572228	1493795	298240

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**CC10.2**

**Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)**

By business division

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**CC10.2a**

**Please break down your total gross global Scope 2 emissions by business division**

<b>Business division</b>	<b>Scope 2, location-based (metric tonnes CO2e)</b>	<b>Scope 2, market-based (metric tonnes CO2e)</b>
Aeronautics	252522	215983
Enterprise Operations	52342	21484
Information Systems & Global Solutions	8399	8078
Missiles and Fire Control	144225	143692
Rotary and Mission Systems	123859	103306
Space Systems Company	195839	82554

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**CC10.2b**

**Please break down your total gross global Scope 2 emissions by facility**

<b>Facility</b>	<b>Scope 2, location-based (metric tonnes CO2e)</b>	<b>Scope 2, market-based (metric tonnes CO2e)</b>
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**CC10.2c**

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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**Further Information**

**Page: CC11. Energy**

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**CC11.1**

**What percentage of your total operational spend in the reporting year was on energy?**

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

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**CC11.2**

**Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year**

Energy type	MWh
Heat	0
Steam	0
Cooling	28095

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**CC11.3**

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

1142248

**CC11.3a**

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Natural gas	889693
Distillate fuel oil No 2	3666
Propane	33143
Jet gasoline	184295
Motor gasoline	17317
Diesel/Gas oil	14134

**CC11.4**

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
Energy attribute certificates, Renewable Energy Certificates (RECs)	292835	0	
Direct procurement contract with a grid-connected generator or Power Purchase Agreement (PPA), supported by energy attribute certificates	37708	0	



Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company	7165	0	

#### CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
1502075	1494910	7165	7165	7165	

#### Further Information

**Page: CC12. Emissions Performance**

#### CC12.1

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

Decreased

#### CC12.1a

Please 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

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	9	Decrease	Lockheed Martin's absolute Scope 1 and 2 emissions have decreased from 2015 to 2016 due to projects and initiatives that improve energy efficiency and reduce energy consumption. These projects and initiatives include building services, processes and building fabric efficiency improvements at facilities over which we have operational control. We calculate our emissions reductions by comparing our change in Scope 1 and 2 emissions from 2015 to 2016. In 2015, our Scope 1 and Scope 2 (market-based) emissions totalled 901,917 MTCO <sub>2</sub> e and in 2016, our Scope 1 and Scope 2 (market-based) emissions totalled 804,245 MTCO <sub>2</sub> e. The gross difference in our emissions from 2015 to 2016 is 97,672 MTCO <sub>2</sub> e, of which 18,363 MTCO <sub>2</sub> e is attributed to our divestiture of IS&GS. The difference that we attribute to emissions reductions activities is 79,309 MTCO <sub>2</sub> e (97,672 MTCO <sub>2</sub> e – 18,363 MTCO <sub>2</sub> e). Therefore, we arrive at a 9% decrease in carbon emissions from emissions reductions activities from 2015 to 2016 through $(79,309 \text{ MTCO}_2\text{e} / 901,917 \text{ MTCO}_2\text{e}) = 9\%$ .
Divestment	2	Decrease	In 2016, we divested part of our Integrated Systems and Global Solutions (IS&GS) business to Leidos, which is reflected in our energy and GHG emissions data for the first half of 2016. Our IS&GS business segment accounted for 18,363 MTCO <sub>2</sub> e, or approximately 2% of our combined Scope 1 and Scope 2 (market-based) emissions. This figure was not included in from our emissions reduction activities total above.
Acquisitions			In late 2015, we acquired Sikorsky Aircraft Corporation (Sikorsky) and aligned it under our Rotary and Mission Systems (RMS) business segment. In late 2016, we completed the process of integrating Sikorsky energy and carbon data into our internal accounting process. Our 2016 GHG emissions and data does not include Sikorsky, which will be included in 2017.
Mergers			
Change in output			
Change in methodology			In 2016, we updated our GHG inventory to reflect changes in eGRID factors. Previously our emissions were based on EPA's eGRID2012 factors, which we updated upon EPA's release of eGRID2014 factors. The impact of these factors is included in the Emissions Reduction Activities total.
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.000021	metric tonnes CO2e	47248000000	Location-based	6.74	Decrease	Lockheed Martin's total revenue increased 2.4% from \$46.1 billion in 2015 to \$47.2 billion in 2016, while Scope 1 and 2 emissions decreased over the same period. Lockheed Martin acquired Sikorsky in November 2015, which contributed towards total revenue in the metric denominator although Sikorsky's emissions were not included in the metric numerator. Furthermore, our 2015 annual revenue was adjusted to \$40.5 billion in our 2016 Annual Report (10-K) to reflect the divestiture of IS&GS to Leidos, which is not reflected in this calculation. In addition to our emissions reductions and efficiency improvements, our intensity for carbon emissions per revenue also decreased because of the exclusion of Sikorsky's emission data as well as changes within our manufacturing facilities, data centers, offices and production at our facilities.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.0124	metric tonnes CO2e	square foot	80900000	Location-based	14.34	Decrease	Lockheed Martin's square footage increased by about 14% from 72.5 million square feet in 2015 to 80.9 million square feet in 2016 while Scope 1 and 2 carbon emissions decreased over the same period. Lockheed Martin acquired Sikorsky in November 2015, which contributed towards total square footage in the metric denominator although Sikorsky's emissions were not included in the metric numerator. Our intensity for carbon emissions per square foot decreased artificially due to the exclusion of Sikorsky emissions data. Furthermore in 2016, Lockheed Martin's total square footage was adjusted to exclude 4.3 million square feet from the IS&GS divestiture, for which partial year GHG data is included in the metric numerator. Our space denominator also includes 5.8 million square feet of Government-owned property which falls outside of the GHG operational control boundary.
10.37	metric tonnes CO2e	full time equivalent (FTE) employee	97000	Location-based	24.16	Increase	Lockheed Martin's employee population decreased from 126,000 employees in 2015 to 97,000 employees in 2016, while Scope 1 and 2 carbon emissions decreased over the same period. Lockheed Martin acquired Sikorsky in November 2015 and divested IS&GS in 2016, which contributed towards employee headcount in the metric denominator although Sikorsky's emissions data is not included in the metric numerator. Our intensity for carbon emissions per FTE increased because of the decrease in headcount and

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
							shift in operations away from a lower emissions intensive office environment after the IS&GS divestiture.

#### Further Information

Page: **CC13. Emissions Trading**

#### CC13.1

**Do you participate in any emissions trading schemes?**

No, but we anticipate doing so in the next 2 years

#### CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

#### CC13.1b

**What is your strategy for complying with the schemes in which you participate or anticipate participating?**

The costs for our facility in Sunnyvale, CA to comply with the AB32 regulation included a one-time purchase of \$372,000 to cover projected future costs of emissions allowances for the cap and trade program, as well as a recurring annual cost of \$30,000 associated with compliance reporting and third party verification. Total projected future costs of compliance obligations under AB32 is estimated up to \$800,000, if our Sunnyvale facility participates in AB32 until it expires in 2021.

California's Global Warming Solutions Act of 2006 (AB32) affects Lockheed Martin's facilities that are located in California. AB32 set mandatory caps beginning in 2012 for significant emission sources and requires facilities to offset a percentage of their GHG emissions. In 2013, our Sunnyvale facility completed the installation of natural gas fuel cells to offset approximately 2% of emissions to meet state requirements. The cost for our Sunnyvale facility to offset 2% of GHG emissions by October 2014, as required by AB32 was approximately \$14,000 in allowances. The consolidation of the facility into fewer buildings, as well as additional energy efficiency and emission reductions projects have allowed Sunnyvale to meet the 4% emission reduction requirement and the facility dropped below the Cap and Trade threshold in 2015. Lockheed Martin's Palmdale facility is currently below the threshold for the first compliance period of AB32 and is not subject to the cap and trade requirements for the second compliance period from 2015 through 2017.

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**CC13.2**

**Has your organization originated any project-based carbon credits or purchased any within the reporting period?**

No

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**CC13.2a**

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance
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**Further Information**

CC14.1

Please account for your organization’s Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	7684895	In 2016, we conducted an analysis to estimate the environmental impacts across our entire value chain. We completed an economic input-output life cycle assessment (EIO-LCA) of our supply chain, our own facilities, and the use of our most material products and services to understand and prioritize the environmental issues that may have the most impact on our business. This LCA is a comprehensive analysis of our overall footprint, including the emissions from purchased goods and services from our supply chain. For this category, we compiled 12 months of supplier spend (August 2015 - July 2016), assigned a NAICS classification to each vendor and estimated the global warming potentials from multiple environmental and social impact categories.	100.00%	
Capital goods	Relevant, calculated	369078	In 2016, we conducted an analysis to estimate the environmental impacts across our entire value chain. We completed an economic input-output life cycle assessment (EIO-LCA) of our supply chain, our own facilities, and the use of our most material products and services to understand and prioritize the environmental issues that may have the most impact on our business. This LCA is a comprehensive analysis of our overall footprint, including the emissions from purchased goods and services from our supply chain. For this category, we compiled 12 months of supplier spend (August 2015 - July 2016), assigned a NAICS	100.00%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			classification to each vendor and estimated the global warming potentials from multiple environmental and social impact categories.		
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	90772	Lockheed Martin calculated the estimates of the transportation and distribution loss associated with the delivery of electricity and natural gas from the utility to our facilities. We calculated the transmission and distribution (T&D) losses associated with electricity using the country-specific factors provided by World Bank, "Electric power transmission and distribution losses (% of output), 2011-2015." Emissions associated with natural gas were calculated using the 14.8 g CO2e/MJ factor from a 2016 study by the National Energy Technology Laboratory on the Life Cycle of Natural Gas and Power Production. This factor encompasses upstream cradle through distribution for small scale consumers (industrial, commercial, residential).	100.00%	
Upstream transportation and distribution	Relevant, calculated	70968	This source contains upstream transportation of materials to and from our facilities from 10 of our largest transportation vendors representing approximately 57% of our total transportation by spend. Lockheed Martin directly contacts our transportation vendors to receive information about their emissions. Emissions associated with all FedEx Ground, Express and Freight deliveries to Lockheed Martin facilities are provided in an annual report by FedEx. Other transportation vendors provided MTCO2e/Year or Miles Travelled/Year associated with Lockheed Martin shipments. If the transportation vendor did not directly provide emissions data, we utilized EPA's SmartWay emission rates for vendors and applied these rates to their Miles Travelled/Year. EPA's SmartWay Partners fleet emissions rates are found at: <a href="https://www3.epa.gov/smartway/forpartners/performance.htm">https://www3.epa.gov/smartway/forpartners/performance.htm</a>	100.00%	
Waste generated in operations	Relevant, calculated	4115	Emissions associated with operational waste generation are calculated using the U.S. EPA's WARM calculator. These emissions are reported as part of Scope 3 GHG emissions. The EPA WARM calculator also	100.00%	



Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			estimates Lockheed Martin's avoided emissions which are approximately 361,288 MTCO2e resulting from recycling initiatives.		
Business travel	Relevant, calculated	164311	Rental car mileage data are obtained from our corporate approved car rental agency. Airline emissions are obtained from our corporate travel provider. The emissions are calculated based on the GHG protocol. NOTE: This data includes air travel for all of Lockheed Martin's business areas plus additional services such as business relocation and recruiting.	100.00%	
Employee commuting	Relevant, calculated	228215	Emissions associated with employee commuting are estimated using a zip code analysis of the distance between our employees' home and assigned work location, for U.S. employees only. Telecommuters are not included in this estimate. The total daily distance is multiplied by an estimated 240 work days per year. We assume an average of 23.4 mpg based on U.S. Energy Information Administration "Annual Energy Review 2012, Table 2.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy, Selected Years, 1949-2012, Miles per Gallon for All Vehicles in 2013." We estimate the emissions from the total miles travelled per year using the EPA Mandatory Reporting Rule gasoline emission factor for MTCO2.	100.00%	
Upstream leased assets	Not relevant, explanation provided				Leased assets are included in Lockheed Martin's Scope 1 and 2 emissions data in accordance with the operational control boundary.
Downstream transportation and distribution	Not relevant, explanation provided				Lockheed Martin manages the delivery of products and services directly to the customer

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					and expenses are tracked and reported under the upstream transportation and distribution category. The amount of deliveries of products handled by the customer is extremely small and is considered de minimus for Scope 3 reporting purposes.
Processing of sold products	Not relevant, explanation provided				Lockheed Martin primarily acts as the final point in the manufacturing and assembly of products before delivery to the customer. This category would apply to our upstream supply chain.
Use of sold products	Relevant, calculated	21986322	In 2016, we conducted an analysis to estimate the environmental impacts across our entire value chain. We completed an economic input-output life cycle assessment (EIO-LCA) of our supply chain, our own facilities, and the use of our most material products and services to understand and prioritize the environmental issues that may have the most impact on our business. This LCA is a comprehensive analysis of our overall footprint, including the emissions from the use of our sold products. For this category, product impacts were determined by individually estimating the environmental impacts of our top 20 products	100.00%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			by sales in 2015 based on fuel type, usage ratios and number of units sold during the study period.		
End of life treatment of sold products	Not relevant, explanation provided				Because of sensitive technology and impact to national security, end-of-life treatment is tightly dictated by the customer. Our platforms are typically durable good with extremely long lifespans of decades or more.
Downstream leased assets	Not relevant, explanation provided				Lockheed Martin maintains several LMC-owned properties with portion of the space leased to other tenants. We currently do not have emissions data for these tenants and are gathering information on this category for future reporting.
Franchises	Not relevant, explanation provided				Lockheed Martin does not own or operate any franchises.
Investments	Not relevant,				Lockheed Martin is not a financial institution and

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
	explanation provided				therefore does not meet the relevancy as stated in the Corporate Value Chain (Scope 3) Accounting and Reporting Standard.
Other (upstream)					
Other (downstream)					

**CC14.2**

**Please indicate the verification/assurance status that applies to your reported Scope 3 emissions**

Third party verification or assurance process in place

**CC14.2a**

**Please provide further details of the verification/assurance undertaken, and attach the relevant statements**

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC14.2a/2016 GHG Energy Verification Statement.pdf">https://www.cdp.net/sites/2017/20/10820/Climate Change 2017/Shared Documents/Attachments/CC14.2a/2016 GHG Energy Verification Statement.pdf</a>	6	ISO14064-3	100

### CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

### CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Change in methodology	999	Increase	Our Scope 3 emissions for this category increased because of a change in methodology. In previous years, we estimated Lockheed Martin's emissions associated with purchased goods and services through supplier spend combined with primary Scope 1 and 2 data reported by our top suppliers in their CDP responses. In this old methodology, we allocated the percentage of each suppliers' combined Scope

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
				1 and 2 emissions to our Scope 3 emissions, based on the percentage of Lockheed Martin spend as compared to each company's total revenue. This year, we estimated our emissions from purchased goods and services as part of a larger LCA we conducted through a third party model.
Capital goods	Change in methodology	999	Increase	Our Scope 3 emissions for this category increased because of a change in methodology. In previous years, we did not report Capital Goods as a separate category, but included it in with our Purchased Goods & Services category (by allocating emissions to percentage of sales with suppliers). Through the most recent 2016 LCA conducted on our value chain, we were able to report Capital Goods as a distinct category.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Change in methodology	53	Increase	Our Scope 3 emissions for this category increased because of a change in methodology. In previous years, we used an outdated natural gas loss factor from an estimation provided by a third party verifier. This year, we used a 2016 life cycle analysis for GHG emissions from natural gas and power production by the National Energy Technology Laboratory. This figure reflects the cradle through distribution upstream emissions from purchase of natural gas by small consumers (industrial, commercial, residential), which better captures the estimation from fuel and energy related activities.
Upstream transportation & distribution	Other: Less primary data from transportation suppliers	14	Decrease	Our Scope 3 emissions for this category decreased because we received less primary data directly from our transportation vendors. Last year, Lockheed Martin estimated emissions associated with upstream transportation from 15 of our largest transportation vendors representing approximately 79% of our total transportation by spend. This year, we were only able to capture data from 10 of our transportation vendors, representing 57% of our spend.
Waste generated in operations	Emissions reduction activities	32	Decrease	Our Scope 3 emissions for this category decreased because of an increase in recycling and a decrease in total waste generation. Because there is less waste being landfilled and incinerated, there are less emissions associated with operational waste generation. The Waste Reduction Model (WARM) was created by the U.S. Environmental Protection Agency (EPA) to help solid waste planners and organizations estimate GHG emission reductions from several different waste management practices. WARM is available in a Web-based calculator format and as a Microsoft Excel spreadsheet. Both versions of WARM are available on EPA's Web site at <a href="http://www.epa.gov/warm">http://www.epa.gov/warm</a> .

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Business travel	Change in physical operating conditions	16	Decrease	Our Scope 3 emissions for this category decreased because there were fewer air miles travelled in 2016, as compared to 2015.
Employee commuting	Change in physical operating conditions	2	Increase	Our Scope 3 emissions for this category increased by a negligible amount.
Use of sold products	Change in methodology	75	Decrease	Our Scope 3 emissions for this category increased because of a change in methodology. In previous years, we used an estimation from an economic input-output life cycle assessment of our entire value chain conducted in 2012. Emissions from the use of sold products were derived from this comprehensive LCA through engineering estimates of lifetime fuel use for our top products by sale in 2012. The methodology that we used this year is a 2016 update to the similar study conducted in 2012.

#### CC14.4

**Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)**

Yes, our suppliers

#### CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

#### CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Active engagement	166	56%	<p>Through our Sustainable Supply Chain Management program, in 2016 we completed our second voluntary survey for suppliers to report on their ESG management systems and performance. We expanded invitations to complete the survey from 23 to 166 suppliers that represent 54% of our supply chain spending. We selected a mix of small and large businesses with varying contract length and value, suppliers to our business travel program and those who were prior participants in our corporate ethics mentoring program and supplier sustainability summit. We received responses from 94 suppliers representing 45% of Lockheed Martin supply chain spending. Lockheed Martin has been a member of the U.S. Department of Energy's (DOE) Better Plants Program (BPP) since 2010. The BPP is a voluntary program in which manufacturers and industrial-scale energy-using organizations commit to reduce energy consumption by 25% over a 10 year period. As of 2016, 7 of our small businesses joined the BPP through our supplier cohort initiative. Supplier participation in the BPP will help us understand our upstream energy footprint, reduce GHG emissions in our value chain and potentially lead to more affordability for our customers. Furthermore, as a member of ACCO, Lockheed Martin partnered with Duke University to produce a report titled "Assessing Climate Change Vulnerability Across Lockheed Martin United States Facilities and Supply Chain Locations". The objective of this project was to assess the climate change vulnerabilities of the company's major facilities in the U.S., as well as its Tier 1 and Tier 2 suppliers for one component of the C-130 military transport aircraft program. The project sought to provide Lockheed Martin with a practical and user-friendly instrument designed for decision-makers, and to: 1) Identify climate-change related regional risk factors 2) Determine potential disruption vulnerabilities in existing facilities and supply chains 3) Prioritize potential vulnerabilities and resulting investment targets 4) Recommend adaptation strategies 5) Provide vulnerability criteria to consider when establishing options at new facilities and selecting suppliers</p>

CC14.4c

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information



**Module: Sign Off**

**Page: CC15. Sign Off**

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**CC15.1**

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Bruce L. Tanner	Executive Vice President and Chief Financial Officer (CFO)	Chief Financial Officer (CFO)

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**Further Information**

**CDP**