

Module: Introduction**Page: Introduction**

CC0.1**Introduction**

Please give a general description and introduction to your organization.

NVIDIA is a computing technology company that has continuously reinvented itself over two decades.

Founded in 1993, NVIDIA is headquartered in Santa Clara, Calif., with more than 40 offices around the world, hosting 10,000-plus employees. We attract the best minds in the industry to pursue their life's work. NVIDIA is a "learning machine" that constantly evolves by adapting to new opportunities that are hard to solve, that only we can tackle, and that matter to the world.

NVIDIA's invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics, and revolutionized parallel computing. More recently, GPU deep learning has ignited modern artificial intelligence — the next era of computing.

The GPU has proven to be unbelievably effective at solving some of the most complex problems in computer science. And it does so with industry-leading energy efficiency. It started out as an engine for simulating human imagination, conjuring up the amazing virtual worlds of video games and Hollywood films. Today, NVIDIA's GPU simulates human intelligence, running deep learning algorithms and acting as the brain of computers, robots, and self-driving cars that can perceive and understand the world.

At \$100 billion, computer gaming is the world's largest entertainment industry. And with 200 million gamers, NVIDIA GeForce is its largest platform. GeForce GTX GPUs and the GeForce Experience application transform everyday PCs into powerful gaming machines.

The GPU made possible real-time programmable shading, which gives artists an infinite palette for expression. We've led the field of visual computing since.

In 2006, the creation of our CUDA programming model and Tesla GPU platform opened up the parallel-processing capabilities of the GPU to general-purpose computing. A powerful new approach to computing was born. Today, GPU computing is the most pervasive, accessible, energy-efficient path forward for HPC and datacenters. It powers the fastest supercomputers in the U.S. and Europe – and many of the world's most energy-efficient systems – as well as regular breakthroughs in vital areas of scientific research.

Artificial intelligence is the use of computers to simulate human intelligence. Learning from data — a computer's version of life experience — is how AI evolves. GPU deep learning is a new computing model in which deep neural networks are trained to recognize patterns from massive amounts of data. This new model has set off a string of “superhuman” achievements in image and speech recognition and sparked the era of AI computing.

Every industry has awoken to AI. The world's leading internet companies are racing to infuse intelligence into every app. More than 1,500 AI startups have cropped up around the world. The \$10 trillion transportation industry will be transformed by autonomous vehicles. And AI-powered industrial robots will drive the reinvention of factories and manufacturing. GPU deep learning is at the center of this intelligent industrial revolution. We're working with the world's largest enterprise technology providers so every company can tap into the power of AI.

NVIDIA's people share a strong sense of corporate responsibility. Our philanthropic giving last year totaled \$5 million. Project Inspire, our holiday party with a purpose, brings our people together in offices around the world every year to transform local communities. This year alone, employees volunteered more than 17,000 hours and supported education programs that benefited more than 89,000 children.

NVIDIA frequently appears on “best of” lists including, most recently, Fortune magazine's “100 Best Companies to Work For,” “World's Most Admired Companies,” and “The Best Workplaces in the Bay Area”; Yahoo Finance's “Company of the Year”; Forbes magazine's “America's Best Employers”, Fast Company magazine's “World's 50 Most Innovative Companies”; Glassdoor's “Top 50 Places to Work” and Newsweek magazine's “America's Greenest Companies.” NVIDIA has been a member of the Dow Jones Sustainability Index for several years running.

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

Mon 01 Feb 2016 - Tue 31 Jan 2017

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
Brazil
China
Finland
France
Germany
Hong Kong
India
Japan
South Korea
Russia
Singapore
Switzerland
Taiwan
United Kingdom
United States of America
Canada

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(\$)

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.

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.

Further Information

We report our annual emissions data for the period 1 Feb – 31 Jan which closely aligns with our fiscal year (01 Feb 2016 – 29 Jan 2017).

Module: Management**Page: CC1. Governance**

CC1.1**Where is the highest level of direct responsibility for climate change within your organization?**

Senior Manager/Officer

CC1.1a**Please identify the position of the individual or name of the committee with this responsibility**

Executive-level leaders are responsible for climate change at NVIDIA.

Our Corporate Responsibility (CR) Committee engages an executive level CR Leadership group in discussions related to greenhouse gas (GHG) and energy reduction goals and other initiatives pertinent to climate change. The CR Committee is a cross- functional “working” committee involving managers from environmental, health and safety (EHS); facilities; legal; sales; and operations, including supply chain, product compliance, engineering, communications, procurement and IT. A “leadership” committee, comprised of senior-level executives who oversee the functions above and who report directly to the CEO, provides direction to and approval of the working committees’ activities and goals. VP- level executives from facilities, finance and corporate communications also support the

CR committee throughout the year and in development of our response to climate change risks and opportunities. During fiscal year 2017, executives were involved in meetings to review progress against our GHG reduction goal and to discuss strategies for limiting our future GHG emissions.

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
Other: Software and Hardware Engineers	Monetary reward	Other: Product efficiency	Improving energy efficiency is a core engineering strategy at NVIDIA. Achieving the greatest performance using the least amount of energy — an industry metric known as performance-per-watt — is a key competitive advantage. NVIDIA sets energy-efficiency goals with the release of each new product architecture. Engineering executives have it as a key objective to meet energy efficiency goals with each new product architecture released. A dedicated team of engineers is tasked with meeting or exceeding these targets, whether by identifying areas that need improvement, inventing novel techniques to boost performance-per-watt, or setting energy-efficiency objectives for the broader architecture team. Executives reward the accomplishments and performance of engineers who enable the company to achieve these goals.
All employees	Other non-monetary reward	Other: Charitable donations	The NVIDIA Foundation offers a matching gifts program to support employees in the US, India and UK in their personal charitable initiatives. Environmentally focused charities which meet the NVIDIA Foundation's general eligibility guidelines are covered by this program. The program offers \$1,000 per fiscal year to match personal donations. Financial donations are matched 1:1 and volunteer time donations are matched \$50 for every 5 hours. In locations where the program is not currently available, the NVIDIA Foundation matches employee donations made during office fundraisers.
All employees	Monetary reward	Other: Alternative transportation	Through our Green2Work program we offer commuter subsidies to help employees save money when paying for public transportation or vanpools carrying 6 or more passengers. We partner with

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		behaviors	WageWorks so that employees can pay for transit and parking passes with pre-tax dollars. We also provide a monthly financial subsidy towards the cost of public transportation and vanpools.

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	Global	Up to 1 year	

CC2.1b**Please describe how your risk and opportunity identification processes are applied at both company and asset level**

At the company level, we maintain membership of organizations such as the Electronic Industry Citizenship Coalition (EICC) and Silicon Valley Leadership Group (SVLG) to help us track risks and opportunities related to climate change. We monitor stakeholder interest in our environmental programs including customer requests for our CDP participation and incorporation of environmental questions in customer RFPs as well as interest shown by shareholders and NGOs in our industry-leading product energy efficiency performance. Our EHS group tracks climate change regulatory requirements such as carbon reporting with specialist input from external consultants. Our Engineering and Operations teams track customer and legal requirements related to our products, including energy efficiency requirements, and incorporate them into product design specifications.

As part of our Enterprise Risk Management program, our Executive team is interviewed annually to identify key risks for the company. The scope is broad and would include any climate-change related risks of concern to the Executive team. Risks identified through this process are ultimately reported to the CEO and finally the Board.

In fiscal year 2017, we progressed a project which is ongoing to engage a range of business functions including IT, security and facilities in developing a corporate program for business continuity. The project manager meets with our Compliance Committee once per quarter to provide updates and receive input to the corporate business continuity effort.

At the asset level, to inform the business continuity planning for our product supply chain our Operations team completed an assessment of physical risks facing our manufacturing suppliers. The risk assessment considered factors such as the potential for and impact of natural disasters, the incidence and severity of which are influenced by global climate change, including severe weather events, fire and infectious disease outbreaks.

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

We conduct an annual materiality analysis to increase our understanding of the corporate responsibility issues that mean the most to NVIDIA and its stakeholders through a multi-level process of internal and external engagement. The scope of this analysis includes energy and climate change. The analysis entails an examination of external stakeholder sources to help us understand the issues of highest relevance and importance to our stakeholders. Examples of sources include competitors' reports, customer requirements and investor queries. We also evaluate various company sources, such as employee surveys, the risk factors identified in our annual and quarterly reports with the Securities and Exchange Commission and in enterprise risk discussions with NVIDIA executives. We also individually conduct interviews with members of the executive team to ensure that their views are reflected in the analysis.

We rank each issue according to its prevalence in company documentation, the importance accorded to it during executive conversations, and the extent and urgency of potential associated impacts. A score of five indicates issues of highest prioritization; one represents issues deemed a lower priority.

We map the results of the stakeholder evaluation and internal prioritization on a matrix to visually highlight the most important issues from the perspective of external stakeholders and company management. The matrix includes the entire list of issues considered with the issues of highest overall priority shown in the top right

quadrant.

Asset level

The assessment to inform the business continuity planning for our product supply chain involved a scoring of each identified risk. Each risk was scored 1-5 against the following criteria: probability, human impact, property impact, business impact and strength of internal and external resources. A total risk score was then calculated to determine priorities for our business continuity efforts.

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

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

i. Our Corporate Responsibility (CR) Committee engages Executives and business managers from across our organization in considering issues that represent a strategic business risk or opportunity and how these should be incorporated in our CR strategy. Executives join CR meetings at least twice per year. Executives are also updated via email as needed to ensure they are engaged on issues related to their area of focus. We maintain membership of organizations such as the EICC and the SVLG to help us to track emerging risks and opportunities and we monitor and evaluate customer interest in our environmental programs, including the number of customers who request our participation in the CDP Supply Chain program and/or incorporate environmental questions in their RFP process, and the interest shown by customers and other stakeholders in our industry-leading product energy efficiency performance. Our Senior Director, Corporate Responsibility

and Director, Global EHS along with others, are responsible for updating the CR Committee on business risks and opportunities pertaining to climate change so as to inform Executive discussions regarding our strategy and programs.

ii. As an example of how our strategy has been influenced, during fiscal year 2017, led by senior executives, we took the decision to create a new position within our Real Estate and Site Services group that will be dedicated to evaluating and progressing internal initiatives to reduce our operational energy and emissions footprint.

iii. Our strategy focuses on the energy efficiency of our products, promoting the use of our technology to address environmental challenges, addressing our supply chain impacts and reducing our operational carbon footprint. Reducing our operational emissions helps to demonstrate our commitment to our employees, customers, investors and other stakeholders thereby enhancing our reputation. Whether we are engineering systems to power mobile devices or creating architectures that support high-performance supercomputers, our technology can have a significant positive impact on the energy efficiency of the devices in which they are incorporated. Our product design teams' efforts to dramatically improve product energy efficiency positively differentiate our products in the marketplace and our longstanding product efficiency focus positions us well for new product efficiency regulatory standards. A failure to engage with our suppliers on GHG emissions could present risks to our business, including reputational impact, business continuity impacts and increased costs. Since 2007 when we joined the EICC, we have been committed to engaging with our supply chain on corporate responsibility issues, including most recently our collection of carbon emissions and water usage data from critical suppliers and our request that they subject their data to a third-party assurance process.

iv. The short term (1-3 year) aspects of our strategy that have been influenced by climate change include our 6-year goal to reduce GHG emissions per headcount by 15% by FY2020. We are pursuing initiatives that will contribute to realizing our goal, including onsite renewable options and integration of energy efficiency to our planned new headquarters building. Another short-term aspect of our strategy relates to the increased relevance of the consumer market to our business. We are evaluating the extent to which product energy efficiency is important to our consumers and we are working on how to best raise awareness of this customer group about the environmental and other benefits of our product energy efficiency performance. We are also working with peers and other external stakeholders to develop industry standards for compute efficiency. The third short term aspect of our strategy focuses on our supply chain where we have been working to quantify the supply chain emissions attributable to our product, so as to inform our supplier engagement efforts going forward.

v. We anticipate that our longer term (3-5 years) strategy will involve furthering our efforts to extend our programs across our entire value chain, addressing impacts at each stage in the life cycle of our products. This will include further integrating energy efficiency goals into product design and operational activities and engaging our customers as we do this, making investments to realize our greenhouse gas goal, and taking the next steps in our supplier emissions engagement strategy. We also anticipate an expanding role for our technology related to climate change research and mitigation. For example, a team at Imperial College, London has created open source software that lets aircraft manufacturers use NVIDIA GPU powered supercomputers to design and test lighter aircraft with lower emissions while scientists at the US Department of Energy's Oak Ridge National Laboratory are using our GPU technology to enable highly complex modelling and facilitate more accurate climate predictions that wouldn't otherwise be possible. The goal is to provide a source of reliable climate change prediction information which can help to inform decision-making.

vi. Our efforts to manage our energy consumption reduce operating costs; money which we can re-invest into our business and help maintain our competitiveness. Our efforts to address current and future customer expectations for the energy and carbon performance of our operations, products and supply chain help us to retain customers and potentially attract new business. As an indicator of our strong competitive position, our DGX SaturnV product was ranked as the most energy efficient supercomputer on the November 2016 Green500 list, we have been listed on the Dow Jones Sustainability Index for three consecutive years and we placed number 4 in the 2016 Newsweek US Green rankings.

vii. During fiscal year 2017, we took the decision to implement our first onsite solar panel installation at our Santa Clara, California headquarters location. This project was initiated by top management and was driven in part by our corporate GHG emissions reduction goal as well as a favourable return on investment analysis. We also decided to participate along with other organizations in the Bay Area SunShares program during fiscal year 2017. Through participation in this

program, our San Francisco Bay Area employees were offered discounts on residential rooftop solar and zero-emissions vehicles. This decision was driven by our recognition that environmental sustainability is an important priority for many of our employees.

viii. The Paris Agreement has not directly influenced our business strategy.

ix. We do not currently use forward-looking scenario analysis, including a 2-degree scenario, to inform our climate change related business strategy and/or financial planning.

CC2.2b

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

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

CC2.2d

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

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)

Other

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?

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?
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CC2.3d

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

CC2.3e

Please provide details of the other engagement activities that you undertake

We engage with the California Energy Commission, the State's energy policy and planning agency, to educate regulators about the energy efficiency gains NVIDIA technology can bring about in high performance computing. We provided input to the commission regarding the impact of its proposed energy efficiency standards on consumer behavior. The standards, which launched in 2016 and set an energy baseline use target for computers, are estimated to save over 2,300 gigawatt hours per year and enough energy to power 350,000 homes per year, delivering \$370 million in savings to residents of California.

Building on our experience of integrating high levels of efficiency to our products, we are participating in collaborative industry initiatives on compute efficiency. These include the Standard Performance Evaluation Corporation (SPEC), a non-profit organization that aims to produce, establish, maintain and endorse a standardized set of performance benchmarks for computer energy efficiency. During the reporting year, NVIDIA representatives participated in a review of the SPEC Server Efficiency Rating Tool 2.0 which was launched in March 2017. We are also members of Digital Europe through which we are participating with other industry representatives to have input to the future European Union computer, display, and server energy regulations. Through our membership of the Information Technology Industry Council we are providing input to the upcoming Energy Star 3.0 for servers in the US as well as similar standards in China and Japan. We are also participating in the ongoing effort to develop Energy Star 7.0 for computers, which we anticipate will be effective in 2018.

We are a member of the Silicon Valley Leadership Group (SVLG), a public policy business trade organization that represents more than 390 of Silicon Valley's employers on issues, programs and campaigns that affect the economic health and quality of life in Silicon Valley, including energy, climate change, transportation, education, housing, health care, tax policies, economic vitality and the environment. Among the SVLG's 2017-2019 work plan priorities are the promotion of financing and deployment of clean energy and emerging technologies as well as advancing energy efficiency, demand response, and energy waste reduction.

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?

As stated in NVIDIA's Code of Conduct, NVIDIA only seeks to affect government action on issues that directly impact our business and only through specifically authorized and legally compliant lobbying activities. Potential support of any climate change-related policy initiative, including any proposed by SVLG of which we are a member, would be presented to NVIDIA's CR Committee, including executive staff, as well as NVIDIA's legal counsel and Government Affairs group, for discussion. The CR Committee is also responsible for NVIDIA's overall climate change strategy. A decision would be made as to whether NVIDIA should vote in favor of or against the proposed initiative, bearing in mind the degree of alignment between the proposed initiative and NVIDIA's overall climate change strategy.

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?

Intensity 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

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
Int1	Scope 2 (market-based)	100%	15%	Other: metric tonnes CO2e per headcount	2014	4.81	2020	No, and we do not anticipate setting one in the next 2 years	The baseline for our goal is our fiscal year 2014 (Jan 28, 2013 to Jan 26, 2014). Our target year aligns with our fiscal year 2020. Our intensity target is based on headcount, which includes for example, seated contractors, rather than just full

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
									time employees (FTE) as we feel that it better represents the number of people using our operational sites.

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
Int1	Decrease		No change	0	We have not reported an anticipated percentage change in absolute scope 1 and 2 emissions because our forecast is based on headcount projections which are confidential. Percentage change in scope 3 emissions is reported as 0 because scope 3 emissions are not included in our goal.

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

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
Int1	50%	86%	

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
Group of products	<p>GPU Architecture: Engineering our products for optimal energy efficiency is a guiding principle of NVIDIA's design and development processes across all product lines, and we're the industry leader in performance per watt compared to other GPU makers. This is exemplified by our Volta GPU architecture, launched in 2017, which uses a new 12-nanometer FinFET manufacturing process to provide an exponential leap in performance while remaining extremely power efficient. Designed for the burgeoning field of artificial intelligence, which is touching every industry, Volta delivers over 100 teraflops per second of deep learning performance. That's a greater than 5x increase compared to our prior generation NVIDIA Pascal architecture, the former power-efficiency leader announced just one year ago. This performance gain surpasses by 4x the improvements that Moore's law would have predicted. Volta uses the next generation of our revolutionary NVIDIA NVLink high-speed interconnect technology, delivering 2x the throughput of its predecessor. NVLink lets data move between GPUs and CPUs many times faster than they can with today's current standard, PCI-Express, enabling more flexible and energy-efficient server design. Volta also offers a power-efficient platform for high performance computing systems — a single server with Volta architecture-based Tesla V100 GPUs can replace hundreds of commodity CPUs.</p>	Avoided emissions				
Group of	Self Driving Cars: Designed as the brain of self-driving cars, NVIDIA's					

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
products	<p>Xavier system-on-chip uses the Volta GPU architecture, a custom eight-core CPU architecture, and a new computer vision accelerator to deliver 30 trillion operations per second of performance, while consuming only 30 watts of power. Packed with 7 billion transistors, and manufactured using cutting-edge 16nm FinFET process technology, a single Xavier AI processor will be able to replace today's NVIDIA DRIVE PX 2 configured with dual mobile SoCs and dual discrete GPUs — at a fraction of the power consumption. Because autonomous driving is an incredibly compute-intensive process, the need for an efficient AI processor is paramount. Xavier will bring self-driving car technology to automakers, tier 1 suppliers, startups and R&D organizations that are building autonomous vehicles, whether cars, trucks, shuttles or taxis.</p>					
Group of products	<p>Consumer Products: In NVIDIA's Max-Q designed laptops, everything in the design is precision engineered – including the laptop itself, the GPU, the drivers, and the thermal and electrical components – to ensure peak efficiency. A low voltage optimized clock curve wrings out gaming performance while reducing power. Sophisticated thermal and electrical design, along with unprecedented regulator efficiency, enable dramatically higher performance and quieter operations in gaming laptops that are 3x thinner than previously possible. NVIDIA Game Ready drivers are tuned to deliver optimal system efficiency. NVIDIA GeForce GTX 10-Series GPUs are the most advanced gaming GPUs ever built, three times as power-efficient as its predecessor. NVIDIA Optimus maximizes energy conservation and battery life in notebooks by automatically shutting off the GPU when it is not needed. Our SHIELD TV is Energy Star certified.</p>					
Group of products	<p>Datacenters and Supercomputers: Our newest architecture Volta uses the next generation of our revolutionary NVIDIA NVLink high-speed interconnect technology, delivering 2x the throughput of its predecessor.</p>					

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
	<p>NVLink lets data move between GPUs and CPUs many times faster than they can with today's current standard, PCI-Express, enabling more flexible and energy-efficient server design. The Green500 list of the world's most energy-efficient supercomputers is topped by NVIDIA's DGX SATURNV and CSCS's Piz Daint, both of which use NVIDIA Tesla P100 GPU accelerators. The DGX SATURNV, which is also the world's 28th fastest supercomputer, earned the top spot with a rating of 9.46 gigaflops per watt — a more than 40 percent jump from the No. 1 system just six months ago. DGX SATURNV is a step toward exponential increases in power efficiency, which means a smaller datacenter footprint: A supercomputing system that once required a warehouse can now fit in the equivalent of a large conference room. Piz Daint's 7.45 gigaflops per watt boosted its ranking on the list due to an upgrade from its original NVIDIA Tesla K20x accelerators to the Tesla P100 GPUs. Advances in supercomputing efficiency have knock-on effects for GHG reduction: NASA Ames's global climate change initiative relies on GPU deep learning to measure and better understand the effects of carbon and greenhouse gases on crops, vegetation, and the urban landscape. NVIDIA GRID technology in datacenters powers GPU-accelerated applications over a cloud-based network. It lets multiple users simultaneously share GPUs with ultra-fast streaming display, mitigating the need for high-powered workstations for each user.</p>					

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

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

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	2	
To be implemented*	0	
Implementation commenced*	1	376
Implemented*	4	204
Not to be implemented	0	

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
Low carbon energy installation	Installation of rooftop solar panels on one of our Santa Clara headquarters buildings	174	Scope 2 (market-based)	Voluntary	102500	1300000	4-10 years	16-20 years	Financial savings are 140,000 annually for first five years then 90,000 after the first five years. Payback period is helped by the use of landlord tenant improvement funding towards the capital cost.
Energy efficiency: Building services	Replacement of cooling towers with higher efficiency equipment in two of our Santa Clara headquarters buildings.		Scope 2 (market-based)	Voluntary					CO2e and financial data not available
Transportation: use	Green2Work program to encourage commuters at our Santa Clara headquarters to use public transit, biking and other alternative means of transport to driving alone.	30	Scope 3	Mandatory					As we employ over 50 employees in the Bay Area we are required to offer commuter benefits. However, many of the initiatives we are implementing go beyond the mandatory requirement. In 2016, we started offering Scoop commuting service in Silicon Valley. The reported annual GHG emissions savings data relates specifically to the avoided emissions

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
									achieved through implementation of the Scoop program and are not for the overall commute program.
Energy efficiency: Processes	Ongoing optimization of IT operations in global datacenters, including continued migration workload from physical machines to virtual machines through our corporate compute virtualization program. At the end of the year we had achieved a virtualization rate of 87% compared with our 2013 baseline of 64%		Scope 2 (market-based)	Voluntary					CO2e and financial data not available

CC3.3c

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

Method	Comment
Financial optimization calculations	The directive from our executive team is clear – we have the freedom to execute the programs we believe will be most impactful, but should demonstrate a clear Return on Investment within a reasonable timeframe.
Employee engagement	Our CR Committee as well as our ISO14001 program assist NVIDIA in establishing systems and programs that reduce energy, water usage and waste, as well as encouraging employees to become active participants in protecting our environment.

CC3.3d

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

Further Information

Page: **CC4. Communication**

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	Page 17 and 18	https://www.cdp.net/sites/2017/04/13604/Climate Change 2017/Shared Documents/Attachments/CC4.1/NVIDIA FY2017 10k_SEC-AMDA-1XAJD4-1045810-17-27.pdf	
In voluntary communications	Complete	Pages 32-34	https://www.cdp.net/sites/2017/04/13604/Climate Change 2017/Shared Documents/Attachments/CC4.1/2017-NVIDIA-Sustainability-Report-Final.pdf	NVIDIA 2017 Sustainability Report

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	1-10	https://www.cdp.net/sites/2017/04/13604/Climate Change 2017/Shared Documents/Attachments/CC4.1/NVIDIA Blogposts.pdf	NVIDIA external blog posts about the use of NVIDIA technology to advance climate mitigation and adaptation.

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 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
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CC5.1b

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
Tropical cyclones (hurricanes and typhoons)	NVIDIA has facilities that are located in regions that are already experiencing a greater incidence and severity of tropical cyclones. For example, NVIDIA has facilities in Taiwan, China, southern US, Japan, Korea and Singapore. Adverse weather in these regions has the potential to cause physical damage to our	Other: Disruption to operations and/or production	1 to 3 years	Direct	About as likely as not	Low-medium	Tropical storms could result in physical damage to our buildings and equipment, leading to repair, and possibly even rebuild costs. They may result in staff not being able to travel to work with potential lost work time. If a data center went down and we did not have contingency arrangements in place, we could suffer a loss of data. If a critical supplier	We have a cross functional Corporate Incident Response team (CIRT) that operates as an overarching crisis management capability and supports regional IRT's for our key geographic regions. The CIRT leverages a variety of capabilities of the Global Security team to monitor major incidents	During the reporting year we invested staff time in our crisis management and disaster recovery planning and response activities. We expect to continue to make investments in our crisis management and response for as long as we are in business. To

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>property and other assets, to directly harm our employees, and to disrupt our operations. We do not directly manufacture the semiconductor wafers or printed circuit boards used in our products, nor do we manufacture the company's branded devices. We work with world-class suppliers for all phases of the manufacturing process, including wafer fabrication, assembly, testing and packaging. We also contract with manufacturers to build, test, and distribute our branded devices. Some of our suppliers have facilities in locations,</p>						<p>manufacturing facility goes down as a result of a tropical storm, this would likely adversely affect our supplier's production output, which would affect our ability to fulfil customer orders, and potentially lead to revenue losses. While it is not possible to accurately quantify the financial implications of this risk, we estimate that associated impacts in any given quarter could exceed \$7 million in revenue loss and/or \$4 million in additional Cost of Goods Sold or Operating Expenses, our internal thresholds for determining 'substantiveness' for the purpose of CDP reporting.</p>	<p>throughout the world. We have a formal incident response process managed by the CIRT with automated notifications and call trees. The CIRT conducts both corporate and regional table top exercises across various scenarios to test our response capabilities in areas such as business continuity, continuity of leadership, pandemic outbreak, travel security events, severe weather events and similar natural and man-made disasters. As part of our global property strategy, we ensure that we have sufficient</p>	<p>date, we have not incurred any additional costs that are attributed specifically to assessing and managing risks from physical climate change.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>including in China, Korea and Taiwan, that are anticipated to experience a greater frequency of tropical storms as a result of climate change and our suppliers' operations and production output could potentially be affected by such tropical storms. This could affect the supply of components or wafers to NVIDIA and negatively impact our ability to fulfill customer orders.</p>							<p>back up power for critical facilities, including those in Santa Clara, Hong Kong and Bangalore, so that they can continue to operate effectively in the event of a grid black out. We outsource the manufacturing of our products to contract manufacturers and we maintain Disaster Recovery Plans to ensure adequate preparedness and rapid recovery in the event of an interruption to NVIDIA critical supplier operations. The plans detail the responsibilities and actions required of the designated Disaster</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Recovery Team to recover normal operations within as short a time as possible following any disruptive event.	
Tropical cyclones (hurricanes and typhoons)	The physical impacts from climate change have the potential to affect a local hub for the tech industry which in turn can have industry-wide ramifications. For example, Thailand experienced severe flooding in July 2011 that caused widespread damage to the local manufacturing industry. PC manufacturers obtained disk drive components used in their PCs from suppliers	Reduced demand for goods/services	1 to 3 years	Indirect (Supply chain)	About as likely as not	Medium	In the event that a region that is a local hub for the tech industry is negatively affected by climate change physical impacts, we could experience a downturn in customer orders for our products, as is illustrated by the Thailand situation in 2011. While it is not possible to accurately quantify the financial implications of this risk, we estimate that associated impacts in any given quarter could exceed \$7 million in revenue loss, our internal threshold for determining 'substantiveness'	This industry-wide type of issue is beyond NVIDIA's management control or influence. The likelihood and magnitude ratings remain unknown.	To date, we have not incurred additional management costs related to this risk.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>with operations in Thailand that were severely impacted by the flooding. These PC manufacturers experienced a short-term reduction in the supply of these disk drive components. As a result, in NVIDIA's fourth quarter of fiscal year 2012 shipments of PCs by some PC manufacturers were reduced, which reduced the demand for NVIDIA's Graphics Processing Units (GPUs). In addition, higher disk-drive prices constrained the ability of some PC manufacturers to include a GPU in their systems which also reduced demand</p>						for the purpose of CDP reporting.		

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	for our GPUs and negatively impacted our financial results into the first quarter of 2012.								

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
Other drivers	Ever since we established our environmental programs in 2005, we have recognized that our customers have expectations for us to invest in reducing our environmental impact. In 2005, we started to receive requests from our customers to provide	Reduced demand for goods/services	1 to 3 years	Direct	About as likely as not	Medium	If we were not responsive to our customers' requests regarding our GHG emissions data and reduction plans, we could lose customers and associated revenue. While it is not possible to accurately quantify the financial implications of this risk, we estimate that associated impacts in any given quarter could exceed \$7	Ensuring that our customers' expectations are met and where possible exceeded has always been a key driver for our environmental programs and we are committed to being both responsive and proactive in our climate change-related dealings with customers.	During the reporting year, we incurred costs associated with employee time and consulting fees, in support of our environmental program. Approximate costs during the reporting year were \$500,000. We expect to continue to incur similar costs for

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>information about our environmental programs and our investment in certifying our Santa Clara campus to the ISO14001 standard was in part to demonstrate our commitment to our customers. Many of our customers are large, high profile companies who have well-established environmental programs. They understand that they are only able to reduce their total impact by actively engaging with their suppliers to encourage impact reduction. Some of NVIDIA's customers are members of the CDP Supply Chain Consortium and have requested that</p>						<p>million in revenue loss, our internal threshold for determining 'substantiveness' for the purpose of CDP reporting.</p>	<p>We have responded to the CDP supply chain module for 6years and will do so again in 2017. Our efforts to set and publicize GHG reduction goals, and to invest in measures to meet these goals, are in part to demonstrate the seriousness of our commitment to our customers. We understand that providing robust data is important to our customers. Since 2012 we've reported our global emissions and engaged a third party firm to verify our annual GHG emissions data expanding the scope of the verification to additional emission sources each year. Recognizing that our customers are</p>	<p>at least the next 5 years.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	NVIDIA respond to the CDP supply chain module and provide customer specific data. One of our customers also requires that we have a GHG reduction strategy, including a goal and reduction plan for our own operations. If NVIDIA were not responsive to such requests, this could negatively impact our relationships with our customers and could lead to lost business should our customers decide to engage with alternative suppliers.							not only interested in our emissions performance but also that of our supply chain, our participation in the EICC and engagement with suppliers on GHG and water resources helps our customers to meet their own sustainable supply chain goals. Through the actions we are currently taking to respond to customers' requests in the area of climate change we believe the residual risk rating is low and that we are unlikely to lose customers and their associated business.	

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

We considered the direct applicability of carbon and energy efficiency regulations to our facilities and our electricity and manufacturing supply chains, and regulations affecting our products. We considered all regions in which we have facilities and the major markets for our products including the US, Asia, India and Europe. We reviewed current and planned regulations in these regions and their relevance to our business through consultation with NVIDIA subject matter experts and external consultants.

While several NVIDIA facilities are subject to the EU Energy Efficiency Directive, associated costs are far below our financial threshold for substantiveness and we are experiencing cost savings thanks to energy saving actions identified through the legally required audits. Direct emissions from our largest facility in Santa Clara, California are well below the 10,000 MT threshold for mandatory emissions reporting and the 25,000 MT threshold for AB32 cap and trade participation.

Regulations to reduce the carbon intensity of electricity generation may impact electricity prices. NVIDIA has electricity-intensive operations, including datacenters, in regions with current or planned regulations including India and China. Based on our current energy costs, we anticipate that any additional costs would be well below the \$4M in additional quarterly Cost of Goods Sold or Operating Expenses that serves as our internal threshold for determining 'substantiveness' for CDP reporting.

Regulations in locations where NVIDIA's manufacturing suppliers are based could lead to increased operational costs. One of our key suppliers for example has facilities in Taiwan, which has a proposed energy tax. As NVIDIA is only one of many customers to this supplier, we anticipate that any increased costs would be shared across the supplier's customer base with a non-substantive impact on the cost of goods sold to NVIDIA.

Due to our long-standing focus on product efficiency that is integral to our product design, we are already well positioned to meet or exceed requirements such as the California Appliance Efficiency regulations.

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

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
Other regulatory drivers	Energy costs are projected to rise globally, a situation which is exacerbated	Increased demand for existing products/services	1 to 3 years	Indirect (Client)	About as likely as not	Low-medium	Energy taxes and product efficiency standards driving increased demand for NVIDIA's energy	Improving energy efficiency is a guiding principle of our product design and	Our focus on the energy efficiency of our products is an integral part of our ongoing

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>in some regions such as California, China, India and the European Union by taxes and regulations intended to reduce fossil fuel use. As customers seek to reduce their operational costs, they are increasingly looking for energy efficient technology solutions. This promotes the market for NVIDIA products that use significantly less energy when compared with alternative solutions.</p>						<p>efficient products translate into revenue generation opportunities for our company. It may also serve to justify increased R&D investment in the design and development of new, energy-efficient products. While it is not possible to accurately quantify the financial implications of this opportunity, we estimate that associated impacts in any given quarter could exceed \$7 million in additional revenue, our internal threshold for determining 'substantiveness' for the purpose of CDP reporting.</p>	<p>development across all product lines. NVIDIA is the industry leader in performance per watt compared to other GPU makers as exemplified by our Pascal GPU architecture, launched in 2016, which uses a new 16 nanometer FinFET manufacturing process to provide incredible performance while remaining extremely power efficient. The NVIDIA Tegra X1 superchip delivers more than 1 teraflops of computing power while using less than</p>	<p>research and development and the basis for our product innovation. Research and development investment was a total of \$1.46 billion in fiscal year 2017.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Product efficiency standards are anticipated to drive the market for energy efficient technology products. This creates an opportunity for marketing of NVIDIA's products that offer energy efficiency advantages over comparable products. For example, under the EU Eco-design Directive, server and other equipment which incorporate NVIDIA products may be subject to future regulatory requirements.</p>							<p>15 watts of power. NVIDIA GRID technology in data centers powers GPU-accelerated applications over a cloud-based network. It lets multiple users simultaneously share GPUs with ultra-fast streaming display, mitigating the need for high-powered workstations for each user. The NVIDIA Tesla Accelerated Computing Platform leads the industry for accelerating data analytics, scientific computing, and high performance computing. The new Tesla P100 GPU</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>California has also introduced energy efficiency standards for computers as part of its Appliance Efficiency legislation. Customers who place technology equipment on the market may be required to incorporate higher levels of energy efficiency to their product and this in turn could stimulate demand for products such as our highly efficient Graphic Processing Units.</p>							<p>delivers the fastest performance and best energy efficiency for workloads with near-infinite computing needs. Tesla GPU accelerators power many of the top energy-efficient systems on the Green500 supercomputer list. This includes the Tokyo Institute of Technology's Tsubame-KFC, the first supercomputer to break the 4 gigaflops per watt barrier. NVIDIA Optimus maximizes energy conservation and battery life in notebooks by</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								automatically shutting off the GPU when it is not needed. Our SHIELD game console is Energy Star certified.	

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	Global climate modeling is a critical component of climate change research and plays an important role in informing climate adaptation strategies. Climate models are used to understand the	Increased demand for existing products/services	1 to 3 years	Direct	Likely	Medium	The use of NVIDIA GPU technology for climate change research and mitigation applications drives additional revenue streams for NVIDIA. While it is not possible to accurately quantify the financial	NVIDIA's Academic Programs Team collaborates with universities to advance parallel computing education and research and we have a dedicated team member with responsibility for our Climate and Weather segment. We offer	We partner with scientists to leverage our technology and advance their research, for example with direct financial support such as grants and fellowships. In 2015 we

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>current climate, especially those processes that create a particular climate in an individual place and once developers have confidence that a model simulates the present climate, they then use the model to project climate into the future, making assumptions about factors such as the amount of carbon dioxide in the air. Climate modeling is a sophisticated task that requires highly advanced computing capability. Supercomputers such as those powered by NVIDIA GPU technology</p>						<p>implications of this opportunity, we estimate that associated impacts in any given quarter could exceed \$7 million in additional revenue, our internal threshold for determining 'substantiveness' for the purpose of CDP.</p>	<p>researchers small scale GPU grants and graduate fellowships, we work with faculty to develop curricula and we provide access to developer forums, pre-released tools and drivers. The GPU Center of Excellence (GCOE) is an invitation-only program that fosters collaboration with institutions at the forefront of Accelerated Computing. A panel of NVIDIA experts selects 4 GCOEs to present at a special event during our annual GPU Technology Conference. Previous recipients have included a team from Harvard which received the top award for their work focusing on the</p>	<p>awarded \$25,000 fellowships to 3 PhD students to support their computing research in energy efficient digital design, memory systems and computer vision frameworks. We also provide financial support via our Early Stage Challenge, part of the Emerging Companies Summit held at our GPU conference. In 2016, we awarded \$100,000 to Sadako which created a robot that uses machine learning to</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>enable complex simulations that result in more accurate climate predictions. For example, scientists at Oak Ridge National Laboratory in Tennessee are using its NVIDIA GPU-powered Titan supercomputer to develop some of the world's most complex system models for climate change research. NVIDIA's technology is being harnessed in a range of different ways to advance climate change mitigation applications. For example, a team at Imperial College, London has created open source software that lets aircraft</p>							<p>way light is photosynthesized, and how this knowledge might be used to design better photovoltaics. Our annual \$150,000 Global Impact award goes to a researcher or institution that has used NVIDIA technology to achieve breakthrough results with positive social and/or environmental impact. Researchers at the Sweden Chalmers University of Technology were among the five 2016 finalists for their revolutionary work to accurately measure rising sea levels by leveraging GPS receivers and parallel computing.</p>	<p>sort recycling and extract valuable waste. Yearly, our \$150,000 Global Impact Award for work addressing important social and humanitarian problems awards a researcher or institution using our technology to achieve breakthrough results. This includes disease research, drug design & development, medical imaging, energy & fuel efficiency, weather prediction, natural disaster response and cyber</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	manufacturers use NVIDIA GPU powered supercomputers to design and test lighter aircraft with lower emissions, while California start up, PowerScout has launched an ecommerce platform that leverages NVIDIA GPU-enabled deep learning to evaluate the specific factors that contribute to an individual home's potential for onsite solar.								security.

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
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Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	NVIDIA's business success depends on effective relationships with our stakeholders, including customers, employees and investors. We see an opportunity to enhance our relations with these stakeholders through our environmental commitments and leadership. Through our direct engagement with customers and investors, we know that our environmental performance is a point of interest for them. We are also aware of research that shows that prospective employees are placing increased importance on the corporate	Other: Improved stakeholder relations	1 to 3 years	Direct	About as likely as not	Medium	Financial implications of improving stakeholder relations include i) attracting and retaining customers to maintain and grow our revenue; ii) potential for favorable ratings by investment analysts, with a potential longer term positive impact on our share value; iii) attracting and retaining the best employees, which is critical to creating our innovative products and iv) ensuring a positive relationship with local City agencies enabling us to continue to develop our facilities. We are unable to quantify the positive impact to our business due to the intangible nature of the opportunity. While it is not possible to accurately quantify the financial implications of this	We believe that proactive communication of our environmental programs will enhance our reputation. We have responded to the CDP Investor survey annually since 2007 and for the last 6 years have had our emissions data assured by a third party. We publish an annual Sustainability report that details our environmental programs and participate in surveys such as those from FTSE4Good and the Dow Jones Sustainability Index. We post case studies about our energy efficient products and the use of our technology to advance climate change mitigation and adaptation on our corporate website and social	During the reporting year, we incurred costs associated with employee time and consulting fees, in support of our environmental program. Approximate costs during the reporting year were over \$500,000. We expect to continue to incur similar costs for at least the next 5 years.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>environmental performance of employers. In addition, we are conscious of the need to demonstrate efforts to reduce our GHG emissions to the City agencies responsible for overseeing the planning and development of our facilities.</p>						<p>opportunity, we estimate that associated impacts in any given quarter could exceed \$7 million in additional revenue, our internal threshold for determining 'substantiveness' for the purpose of CDP reporting.</p>	<p>media channels such as our blog, Facebook, Twitter and LinkedIn. Via our CR website we ask stakeholders to rate our performance and communicate their priorities, in an effort to ensure that we effectively integrate their interests as we further develop our programs. Our efforts have been recognized by third parties. We ranked #4 among US companies in the 2016 Newsweek Green Rankings and in 2016 we were included in the Dow Jones Sustainability Index for the third consecutive year. At our Santa Clara headquarters in California, we operate a commute program known as Green2Work</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								which provides employees with climate-friendly options for traveling to and from work while addressing a priority issue for the City of Santa Clara. We are also incorporating high levels of energy efficiency into our new Santa Clara headquarters building and we are targeting LEED Gold certification for this building.	

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

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

Further Information

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

Page: CC7. Emissions Methodology

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	Mon 28 Jan 2013 - Sun 26 Jan 2014	2520
Scope 2 (location-based)	Mon 28 Jan 2013 - Sun 26 Jan 2014	48962

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 2 (market-based)	Mon 28 Jan 2013 - Sun 26 Jan 2014	47472

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)

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

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)

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
			please see attached Excel spreadsheet, titled 'CDP 2017-Q7.4 Emission Factors_NVidia.xlsx' and PDF, title 'CDP 2017-Q7.4 Emission Factors_NVidia.pdf'

Further Information

Attachments

[https://www.cdp.net/sites/2017/04/13604/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/NVIDIA_CDP2017-Worksheet-for-question-CC7.4.xlsx](https://www.cdp.net/sites/2017/04/13604/Climate%20Change%202017/Shared%20Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/NVIDIA_CDP2017-Worksheet-for-question-CC7.4.xlsx)

Page: CC8. Emissions Data - (1 Feb 2016 - 31 Jan 2017)

CC8.1

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

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

2571

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 CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
52903	49360	

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
Lab Chemicals	Emissions are not relevant	No emissions from this source	No emissions from this source	NVIDIA uses small amounts of several lab chemicals that may emit GHGs into the atmosphere. These chemicals are used at our Santa Clara facility and include the PFCs: Tetrafluoromethane (CF4), Trifluoromethane (CHF3) and Sulfur hexafluoride (SF6). These chemical compounds are excluded from the GHG inventory as the amount is de minimus to NVIDIA's overall emissions.

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	More than 2% but less than or equal to 5%	Data Gaps Assumptions Extrapolation Other: Published Emissions Factors	If partial energy use data was available, missing data was estimated based on the average of data available. Energy use data used in GHG emissions calculations are subject to inherent limitations, given the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques may result in materially different measurements. GHG emissions calculations are subject to inherent uncertainty because of such variables as emissions factors that are used in mathematical models to calculate emissions and the inability of those models, due to incomplete scientific knowledge and other factors, to characterize precisely under all circumstances the relationship between various inputs and the resultant emissions. Uncertainty of emissions factors used was not included in the analysis, per CDP guidance.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Data Gaps Assumptions Extrapolation Other: Published Emissions Factors	For smaller sites (<50,000 square feet where data was not readily available), electricity use was estimated with electricity intensities calculated using primary NVIDIA site data and square footage. If partial energy use data was available, missing data was estimated based on the average of data available. Electricity use data used in GHG emissions calculations are subject to inherent limitations, given the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques may result in materially different measurements. For the smaller leased sites (where NVIDIA does not control the HVAC equipment), heating was also estimated with natural gas intensities calculated using primary NVIDIA natural gas site data and square footage. Cooling emissions from refrigerants associated with HVAC equipment at leased sites (where NVIDIA does not control the HVAC equipment) were also estimated. GHG emissions calculations are subject to inherent uncertainty because of such variables as emissions factors that are used in mathematical models to calculate emissions and the inability of those models, due to incomplete scientific knowledge and other factors, to precisely characterize under all circumstances the relationship between various inputs and the resultant emissions. Uncertainty of emissions factors used was not included in the analysis, per CDP guidance.
Scope 2 (market-based)	More than 2% but less than or equal to 5%	Data Gaps Assumptions Extrapolation Other: Published Emissions Factors	For smaller sites (<50,000 square feet where data was not readily available), electricity use was estimated with electricity intensities calculated using primary NVIDIA site data and square footage. If partial energy use data was available, missing data was estimated based on the average of data available. Electricity use data used in GHG emissions calculations are subject to inherent limitations, given the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques may result in materially different measurements. For the smaller leased sites (where NVIDIA does not control the HVAC equipment), heating was also estimated with natural gas intensities calculated using primary NVIDIA natural gas site data and square footage.

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
			Cooling emissions from refrigerants associated with HVAC equipment at leased sites (where NVIDIA does not control the HVAC equipment) were also estimated. GHG emissions calculations are subject to inherent uncertainty because of such variables as emissions factors that are used in mathematical models to calculate emissions and the inability of those models, due to incomplete scientific knowledge and other factors, to precisely characterize under all circumstances the relationship between various inputs and the resultant emissions. Uncertainty of emissions factors used was not included in the analysis, per CDP guidance.

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	Complete	Moderate	https://www.cdp.net/sites/2017/04/13604/Climate Change	Pages 1-2	AA1000AS	100

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 (%)
process		assurance	2017/Shared Documents/Attachments/CC8.6a/Nvidia CDP Assurance Statement AA1000 2017 v1_1.pdf			

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 (%)
Market-based	Annual process	Complete	Moderate assurance	https://www.cdp.net/sites/2017/04/13604/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Nvidia CDP Assurance Statement AA1000 2017 v1_1.pdf	Pages 1-2	AA1000AS	100
Location-based	Annual process	Complete	Moderate assurance	https://www.cdp.net/sites/2017/04/13604/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Nvidia CDP Assurance Statement AA1000 2017 v1_1.pdf	Pages 1-2	AA1000AS	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
No additional data verified	

CC8.9

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

No

CC8.9a

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

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Feb 2016 - 31 Jan 2017)

CC9.1

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

Yes

CC9.1a

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

Country/Region	Scope 1 metric tonnes CO2e
China	5
India	71
United Kingdom	145
United States of America	2350

CC9.2

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

CC9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)
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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)
----------	--

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 Feb 2016 - 31 Jan 2017)

CC10.1

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

Yes

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)
Brazil	2	2	8	0
Canada	18	86	315	0
China	3768	3768	5498	0
Finland	69	133	429	0
France	11	11	194	0
Germany	707	1118	1476	0
Hong Kong	1803	1803	2214	0
India	15708	15708	18937	0
Japan	72	72	126	0
Russia	175	175	451	0
South Korea	37	37	64	0
Switzerland	5	6	123	0
Taiwan	1706	1706	2870	0
United Kingdom	707	824	1681	0
United States of America	28107	23905	93492	0
Singapore	7	7	16	0

CC10.2

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

CC10.2a

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

Business division	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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CC10.2b

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

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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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

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%

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	168
Steam	0
Cooling	0

CC11.3

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

13427

CC11.3a

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

Fuels	MWh
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Fuels	MWh
Natural gas	12951
Motor gasoline	174
Distillate fuel oil No 4	302

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
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	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
127726	127726	0	0	0	

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?

Increased

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			
Divestment			
Acquisitions			
Mergers			
Change in output	5.50	Increase	During the reporting year, we experienced a 14% increase in total headcount with a 3.4% decrease in square footage and 37.9% increase in revenue, resulting in an emissions increase of 5.5%. The 5.5% increase was calculated as $(51,932 - 49,226) / 49,226 = 5.50\%$.
Change in methodology			
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
0.00000752	metric tonnes CO2e	6910000000	Market-based	23.51	Decrease	GHG emissions per dollar of total revenue decreased by 23.51% in fiscal year 2017, when compared with the previous reporting year. The change is driven by an increase in absolute emissions of 5.50% and an increase in revenue of 37.92%. The previously reported intensity for fiscal year 2016 was 0.00001051 tCO2e/USD revenue and has been updated to 0.000009825 tCO2e/USD revenue due to updates to the previous year's Scope 1+Scope 2 emissions total.

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
4.1863	metric tonnes CO2e	full time equivalent (FTE) employee	12405	Market-based	7.47	Decrease	GHG emissions per housed headcount decreased by 7.47% in fiscal year 2017, when compared with the previous reporting year. The change is driven by an increase in absolute emissions of 5.50% and an increase in headcount of 14.0%. The previously reported intensity for fiscal year 2016 was 4.838 tCO2e/headcount and has been updated to 4.524 tCO2e/sqft due to updates to the previous year's Scope 1+Scope 2 emissions total.

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently 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
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CC13.1b

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

CC13.2

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

No

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	150741	Cradle-to-gate emissions from our purchased goods and services are calculated by aggregating our total spend data into standard supplier sector categories. The \$ spend in each category is multiplied by sector-specific cradle-to-gate emission factors from UK Defra in Annex 13 of its "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting." The emissions calculations were completed for indirect purchasing only. We are currently working to understand the GHG emissions associated with our manufacturing supply chain, through direct engagement with our suppliers.	0.00%	
Capital goods	Relevant, calculated	78076	Cradle-to-gate emissions from our purchased goods and services are calculated by aggregating our total spend data into standard supplier sector categories. The \$ spend in each category is multiplied by sector-specific cradle-to-gate emission factors from UK Defra in Annex 13 of its "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting." The emissions calculations were completed for indirect purchasing only. We are currently working to understand the GHG emissions associated with our manufacturing supply chain, through direct engagement with our suppliers.	0.00%	
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	20246	The activity data used to quantify these emissions were the quantity of energy consumed for each energy type, such as electricity or natural gas. Consumption by fuel type was multiplied by the relevant emission factor for each of the fuel types used by NVIDIA. Electricity consumption by country were multiplied by	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
			their country-specific emission factors to account for upstream emissions of purchased electricity and T&D losses. Emissions were calculated using factors from 2016 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).		
Upstream transportation and distribution	Relevant, not yet calculated				
Waste generated in operations	Relevant, calculated	240	These Scope 3 emissions only cover NVIDIA's Santa Clara campus. The activity data used to quantify these emissions were the quantity of waste generated at NVIDIA's Santa Clara campus. Amount of each material type was multiplied by the relevant emission factor based on disposal method. Emissions were calculated using EPA's Waste Reduction Model (WARM), version 14, 2016. GWPs used were IPCC Fourth Assessment Report (AR4 - 100 year).	100.00%	
Business travel	Relevant, calculated	24658	Business travel includes air travel by NVIDIA global staff. Air travel activity data were obtained from our travel agency for US-based staff and estimated for staff outside of the US. Flights were categorized as long (>3700 km/2300 mi), medium (<3700 km/2300 mi) and short (<483 km/300 mi) haul. Emissions were calculated using emission factors with radiative forcing and methodologies from the 2016 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).	50.00%	
Employee commuting	Relevant, not yet calculated				Emissions for facilities and vehicles that NVIDIA leases are already included in the Scope 1 and 2 GHG inventory.
Upstream leased	Not relevant,				Emissions for facilities

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
assets	explanation provided				and vehicles that NVIDIA leases are already included in the Scope 1 and 2 GHG inventory.
Downstream transportation and distribution	Relevant, not yet calculated				
Processing of sold products	Relevant, not yet calculated				
Use of sold products	Relevant, not yet calculated				
End of life treatment of sold products	Relevant, not yet calculated				
Downstream leased assets	Not relevant, explanation provided				We did not sublet any of our sites.
Franchises	Not relevant, explanation provided				We do not have franchises.
Investments	Not relevant, explanation provided				We do not have investments
Other (upstream)					
Other (downstream)					

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	Moderate assurance	https://www.cdp.net/sites/2017/04/13604/Climate Change 2017/Shared Documents/Attachments/CC14.2a/Nvidia CDP Assurance Statement AA1000 2017 v1_1.pdf	Pages 1-2	AA1000AS	16

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
Business travel	Change in output	7.2	Increase	Air travel passenger miles increased by 10.3% related to growth in our global business (increase in revenue and headcount). However, the UK DEFRA air travel emission factors for average cabin class decreased for short, medium and long distance flights.

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
Yes, our customers

CC14.4a

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

Suppliers:

NVIDIA has a program to engage with its suppliers on energy use and GHG emissions. NVIDIA joined the Electronic Industry Citizenship Coalition (EICC) in 2007. Since then, we have leveraged our membership to raise awareness among our critical manufacturing suppliers and to improve factory conditions in areas including environmental impact.

We request that all tier 1 manufacturing suppliers report their scope 1 and 2 emissions via the CDP or EICC-ON's Environmental Reporting System. Environmental issues, including carbon emissions reporting, form a part of the quarterly business reviews we conduct with our strategic suppliers. In 2016, we roughly calculated the weighted average of carbon emissions on a per-unit basis, and this will help us begin to understand the true GHG emissions footprint of our product manufacturing supply chain and enable calculation of the share of a supplier's total emissions that are attributable to NVIDIA's business, preparing us for possible future customer Tier 2 supplier goals.

Customers

We engage with our customers on greenhouse emissions and climate change in several ways. We prioritize all customer requests and we measure success through the feedback we receive from our customers during quarterly business reviews and other communications. We directly respond to customer questionnaires and inquiries related to our GHG emissions management and performance. We participate in the CDP Supply Chain survey and EICC-ON Environmental Reporting in

response to requests for us to do so from four of our customers. We also support our customers in their efforts to understand the greenhouse gas emissions in the life cycle of their products. In 2013, a key customer issued a requirement for its Tier 1 suppliers to set a global GHG reduction goal, accompanied by assurance of carbon emissions data. In fiscal year 2015, we developed a goal to reduce scope 1 and 2 emissions by 15% per employee by fiscal year 2020 against a baseline year of fiscal year 2014.

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	33	18%	We measure the impact of our engagement through our quarterly business review (QBR) process for manufacturing suppliers. Each quarter, our suppliers' overall performance is measured against a range of KPIs, including social and environmental responsibility (SER). Each quarter each supplier receives a score for SER performance which informs the supplier's overall QBR score. The SER criteria vary each quarter and may include supplier progress on reporting GHG emissions data, setting emissions reduction goals and having their GHG data verified by a third party. In 2018 we have started to engage with a greater number of suppliers through EICC-ON and requested them to provide their environmental report. In fiscal year 2017 we heard back from 13 suppliers and that number has now increased to 33 suppliers. We are also asking 8 critical suppliers to certify their GHG emissions through a 3rd party in fiscal year 2018.

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

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
Collette Kress	EVP & CFO	Chief Financial Officer (CFO)

Further Information

Module: ICT

Page: ICT1. Data center activities

ICT0.1a

Please identify whether "data centers" comprise a significant component of your business within your reporting boundary

ICT1.1

Please provide a description of the parts of your business that fall under "data centers"

ICT1.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the data centers component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment
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ICT1.3

What percentage of your ICT population sits in data centers where Power Usage Effectiveness (PUE) is measured on a regular basis?

Percentage	Comment
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ICT1.4

Please provide a Power Usage Effectiveness (PUE) value for your data center(s). You can provide this information as (a) an average, (b) a range or (c) by individual data center - please tick the data you wish to provide (tick all that apply)

ICT1.4a

Please provide your average PUE across your data centers

Number of data centers	Average PUE	% change from previous year	Direction of change	Comment
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ICT1.4b

Please provide the range of PUE values across your data centers

Number of data centers	PUE Minimum Value	% change of PUE Minimum Value from previous year	PUE Maximum Value	% change of PUE Maximum Value from previous year	Direction of change	Comment
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ICT1.4c

Please provide your PUE values of all your data centers

Data center reference	PUE value	% change from previous year	Direction of change	Comment
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ICT1.5

Please provide details of how you have calculated your PUE value

ICT1.6

Do you use any alternative intensity metrics to assess the energy or emissions performance of your data center(s)?

ICT1.6a

Please provide details on the alternative intensity metrics you use to assess the energy or the emissions performance of your data center(s)

ICT1.7

Please identify the measures you are planning or have undertaken in the reporting year to increase the energy efficiency of your data center(s)

Status in reporting year	Energy efficiency measure	Comment
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ICT1.8

Do you participate in any other data center efficiency schemes or have buildings that are sustainably certified or rated?

ICT1.8a

Please provide details on the data center efficiency schemes you participate in or the buildings that are sustainably certified or rated

Scheme name	Level/certification (or equivalent) achieved in the reporting year	Percentage of your overall facilities to which the scheme applies
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ICT1.9

Do you measure the utilization rate of your data center(s)?

ICT1.9a

What methodology do you use to calculate the utilization rate of your data center(s)?

ICT1.10

Do you provide carbon emissions data to your clients regarding the data center services they procure?

ICT1.10a

How do you provide carbon emissions data to your clients regarding the data center services they procure?

ICT1.11

Please describe any efforts you have made to incorporate renewable energy into the electricity supply to your data center(s) or to re-use waste heat

Further Information

Page: ICT2. Provision of network/connectivity services

ICT0.1b

Please identify whether "provision of network/connectivity services" comprises a significant component of your business within your reporting boundary

ICT2.1

Please provide a description of the parts of your business that fall under "provision of network/connectivity services"

ICT2.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the provision of network/connectivity services component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment
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ICT2.3

Please describe your gross combined Scope 1 and 2 emissions or electricity use for the provision of network/connectivity services component of your business as an intensity metric

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment
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ICT2.4

Please explain how you calculated the intensity figures given in response to Question ICT2.3

ICT2.5

Do you provide carbon emissions data to your clients regarding the network/connectivity services they procure?

ICT2.5a

How do you provide carbon emissions data to your clients regarding the network/connectivity services they procure?

Further Information

Page: ICT3. Manufacture or assembly of hardware/components

ICT0.1c

Please identify whether "manufacture or assembly of hardware/components" comprises a significant part of your business within your reporting boundary

ICT3.1

Please provide a description of the parts of your business that fall under "manufacture or assembly of hardware/components"

ICT3.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the manufacture or assembly of hardware/components part of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment
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ICT3.3

Please identify the percentage of your products meeting recognized energy efficiency standards/specifications by sales weighted volume (full product range)

Product type	Standard (sleep mode)	Percentage of products meeting the standard by sales volume (sleep mode)	Standard (standby mode)	Percentage of products meeting the standard by sales volume (standby mode)	Standard (in use mode)	Percentage of products meeting the standard by sales volume (in use mode)	Comment
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ICT3.4

Of the new products released in the reporting year, please identify the percentage (as a percentage of all new products in that product type category) that meet recognized energy efficiency standards/specifications

Product type	Standard (sleep mode)	Percentage of new products meeting the standard (sleep mode)	Standard (standby mode)	Percentage of new products meeting the standard (standby mode)	Standard (in use mode)	Percentage of new products meeting the standard (in use mode)	Comment
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ICT3.5

Please describe the efforts your organization has made to improve the energy efficiency of your products

ICT3.6

Please describe the GHG emissions abatement measures you have employed specifically in your ICT manufacturing operations

ICT3.7

Do you provide carbon emissions data to your clients regarding the hardware/component products they procure?

ICT3.7a

How do you provide carbon emissions data to your clients regarding the hardware/component products they procure?

Further Information

ICT0.1d

Please identify whether "manufacture of software" comprises a significant component of your business within your reporting boundary

ICT4.1

Please provide a description of the parts of your business that fall under "manufacture of software"

ICT4.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the software manufacture component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment
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ICT4.3

Please describe your gross combined Scope 1 and 2 emissions for the software manufacture component of your business in metric tonnes CO2e per unit of production

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment
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ICT4.4

What percentage of your software sales (by volume) is in an electronic format?

ICT4.5

Do you provide carbon emissions data to your clients regarding the software products they procure?

ICT4.5a

How do you provide carbon emissions data to your clients regarding the software products they procure?

Further Information

Page: ICT5. Business services (office based activities)

ICT0.1e

Please identify whether "business services (office based activities)" comprise a significant component of your business within your reporting boundary

ICT5.1

Please provide a description of the parts of your business that fall under "business services (office based activities)"

ICT5.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the business services (office based activities) component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment
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ICT5.3

Please describe your gross combined Scope 1 and 2 emissions for the business services (office based activities) component of your business in metric tonnes per square meter

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment
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ICT5.4

Please describe your electricity use for the provision of business services (office based activities) component of your business in MWh per square meter

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment
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Further Information

Page: ICT6. Other activities

ICT0.1f

Please identify whether "other activities" comprise a significant component of your business within your reporting boundary

ICT6.1

Please provide a description of the parts of your business that fall under "other"

ICT6.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the identified other activity component of your business

Activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment
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ICT6.3

Please describe your gross combined Scope 1 and 2 emissions for your defined additional activity using an appropriate activity based intensity metric

Activity	Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment
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ICT6.4

If appropriate, please describe your electricity use for your defined additional activity using an appropriate activity based intensity metric

Activity	Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment
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Further Information

CDP 2017 Climate Change 2017 Information Request