

## C0. Introduction

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### C0.1

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

Oracle Corporation provides products and services that address all aspects of corporate information technology (IT) environments—applications, platform and infrastructure. Our applications, platform and infrastructure offerings are delivered to customers worldwide through a variety of flexible and interoperable IT deployment models, including cloud-based, on-premise, or hybrid, which enable customer choice and flexibility. We market and sell our offerings globally to businesses of many sizes, government agencies, educational institutions and resellers with a worldwide sales force positioned to offer the combinations that best meet customer needs.

#### **Scale:**

- US\$40 billion total GAAP revenue in FY2018
- 430,000 customers in 175 countries
- 25,000 partners worldwide
- More than 137,000 employees
- 14,000 customer support specialists, speaking 29 languages
- 19,000 implementation consultants
- Key industries: financial services, manufacturing, communications, media and entertainment, utilities, tax, public sector, education and research, life sciences, healthcare, travel and transportation, consumer products, aerospace and defense, automotive, professional services, and natural resources

#### **Innovation and Investment:**

- #19 of 100 most valuable global brands (Interbrand Best Global Brands 2018 Rankings)
- More than 18,000 patents worldwide
- 38,000 developers and engineers
- 484 independent user communities in 92 countries representing more than 1 million members
- 5 million registered members of the Oracle Developer Community

#### **Other:**

- Headquarters: Redwood Shores, California
- Major operations in the United States, India, the United Kingdom, Japan, Germany, Canada, , France, Australia, Brazil, the Netherlands, Romania, and Ireland
- Fiscal year: June 1 to May 31

For more information about Oracle (NYSE:ORCL), visit [oracle.com](http://oracle.com).

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2018	December 31 2018	No	<Not Applicable>

C0.3

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

Please select

C0.4

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

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	Oracle's co-CEO is responsible for climate-related issues relevant to Oracle. This co-CEO is a member of Oracle's Board of Directors, and signatory to Oracle's Environmental Policy, empowering Oracle's executive Environmental Steering Committee, which presents its findings and recommendations to the co-CEO on an ongoing basis. This co-CEO is responsible for Oracle's global operations, encompassing key aspects of the business that are relevant to climate change, including Real Estate and Facilities, Procurement, Human Resources, Finance, Legal, and Risk Management.

## C1.1b

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

Frequency with which climate related issues are a scheduled agenda item	Governance mechanisms into which climate related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Overseeing major capital expenditures, acquisitions and divestitures	Oracle's co-CEO is responsible for reviewing and guiding strategy around environmental and climate-related issues. For example, in 2018 the co-CEO reviewed and approved Oracle's new 2025 sustainability goals, which include Oracle Cloud data centers, and oversees the company's energy procurement strategy. Oracle's Environmental Steering Committee (ESC), led by the Chief Sustainability Officer (CSO), reports to the co-CEO regarding strategic developments and progress against goals on an ongoing basis.

## C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate related issues
Chief Sustainability Officer (CSO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Sustainability committee	Both assessing and managing climate-related risks and opportunities	Quarterly

## C1.2a

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

Oracle's Chief Sustainability Officer (CSO) oversees the company's overall sustainability strategy and also sets the strategic direction for Oracle to enable thousands of its customers to become more sustainable through the use of Oracle solutions.

The CSO, who reports to Oracle's CEO on sustainability, also chairs the internal Environmental Steering Committee (ESC), which was launched in 2008. The ESC (Oracle's equivalent of a "Sustainability Committee" as defined by CDP above) establishes the company's sustainability goals and meets quarterly to define strategy and monitor progress. The ESC is comprised of senior individuals from a wide range of Oracle business units, who, in turn, lead working groups within their respective business units. The CSO and the ESC are responsible for climate-related issues and foster cross-functional collaboration within the company. Issues

addressed range from data center operations to employee engagement.

The ESC is also responsible for identifying strategic business opportunities related to climate change. For example, ESC members have been working to embed sustainability into Oracle's fast-growing Cloud business—from operating energy efficient data centers and signing the Corporate Colocation and Cloud Buyers' Principles for renewable energy (Real Estate and Facilities), to conducting research and training around the circular economy (Product Design and Hardware Development).

The process through which the ESC monitors climate-related issues includes a detailed materiality assessment that is used to benchmark and monitor climate-related issues that are most relevant to our business. Key issues identified in the most recent iteration include: integrating sustainable business thinking, including circularity and climate change, and leveraging our technology for economic, social, and environmental value creation. Key outcomes and action items from ESC meetings are reported up to the CEO on a quarterly basis, and down to the relevant business units more frequently than quarterly.

The ESC includes the following members:

CSO and Group Vice President, Supply Chain Management Product Development

Vice President, Real Estate and Facilities

Vice President, Human Resources and Philanthropy

Executive Director, Oracle Corporate Citizenship

Senior Vice President, Hardware Development

Vice President, Supply Chain Operations

Vice President, Cloud Operations

Vice President, Corporate Marketing

Vice President, Global Procurement

Vice President, Government Affairs

Senior Director, Datacenter Automation and Global Desktop

Senior Director, Global Real Estate Operations

Senior Director, Global Sustainability

Director, EMEA Sustainability, Environment Health & Safety (EHS)

All members of the ESC are senior managers at Oracle and, as a Committee, are empowered by and answerable to Oracle's co-CEO, who is also a member of Oracle's Board of Directors. Among the ESC members, one reports directly to the co-CEO, and seven others are in her management chain; five members are in the management chain of Oracle Executive Chairman and Chief Technology Officer; and two members are in the management chain of Oracle's other co-CEO. This structure enables the ESC to adopt a cross-functional and collaborative approach while assessing and managing climate-related issues.

To supplement the quarterly ESC meetings, more than 40 individuals representing the various business units convene at an annual, in-person meeting to align our efforts and strategize for the upcoming year. Findings and action items from this meeting are reported up to the ESC, assigned to the relevant business units (Supply Chain, Corporate Citizenship, etc.) and are noted and tracked in a consolidated document. Issues are monitored via monthly meetings, where members from each business unit share their progress

and collaborate on outstanding issues. The action items often address issues related to business continuity, including exposure to physical climate events or climate-related regulation that could potentially disrupt our business.

In addition, Oracle's Risk Management and Resiliency (RMRP) and EHS teams assess the potential severity and scale of natural disasters (e.g. hurricanes, earthquakes, etc.) and accordingly formulate contingency and resiliency plans on an annual basis. The RMRP process includes a planning, documenting, and testing cycle that assesses Oracle's resiliency to respond to physical risks, including climate-related natural disasters. Sustainability team members are also included in Oracle's cross-functional Risk Engagement group (OREG), which connects risk managers and key stakeholders across Oracle and provides an open forum for building awareness and sharing best practices around companywide risks, including those related to climate change. The OREG serves as an informal and independent supplement to Oracle's formal RMRP process, and issues raised by OREG members are considered as part of the formal RMRP process as appropriate.

C1.3

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

Yes

C1.3a

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

**Who is entitled to benefit from these incentives?**

Chief Sustainability Officer (CSO)

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction project

**Comment**

Oracle has several executives—including the Chief Sustainability Officer and other members of the Environmental Steering Committee—whose roles focus on leading the company's sustainability strategy and efforts. Annual bonuses and related compensation for such individuals are partially tied to their success in driving Oracle's sustainability success and leadership.

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**Who is entitled to benefit from these incentives?**

Environment/Sustainability manager

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction project

**Comment**

Oracle has several environmental and sustainability managers, whose roles are focused on implementing processes and initiatives to advance sustainability across the company. Annual bonuses and related compensation for such individuals are partially tied to their success in driving Oracle's sustainability efforts.

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**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Recognition (non-monetary)

**Activity incentivized**

Behavior change related indicator

### Comment

As part of the Sustainability Champions program, Oracle recognizes employees who help attain Oracle's sustainability goals, thereby reducing our environmental footprint. Sustainability Champions are recognized in Oracle's internal sustainability newsletter, and receive a 'Sustainability Champion' badge to include in their employee profiles. Oracle's 2018 Sustainability Champions included a group of employees that supported India's first large-scale behavioral energy efficiency pilot program for the residential sector late in 2018, enrolling 200,000 residential utility customers. The program demonstrated the ability to empower residential consumers to reduce energy waste, improve energy efficiency, and lower peak-hour consumption in India using Oracle Opower. Through Oracle's Global Startup Ecosystem program, another Oracle employee mentored an advanced metering infrastructure system and data analytics startup company in India that leverages big data on real-time energy and water consumption. An employee in North America worked as an advisor with the Young Global Leadership Foundation to promote the United Nations Sustainable Development Goals. And globally, numerous employees championed more sustainable waste management practices and promoted more sustainable transportation alternatives. Two of Oracle's 2018 Sustainability Champions were also featured in "Life at Oracle" videos, highlighting their commitment to sustainability.

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### Who is entitled to benefit from these incentives?

All employees

### Types of incentives

Recognition (non-monetary)

### Activity incentivized

Emissions reduction project

### Comment

In 2018, 3,200+ Oracle Volunteers completed 177 environmental projects, totaling more than 14,800 donated hours. For example, Oracle Volunteers in Bangalore, India planted close to 700 tree saplings along the shore of Agara Lake, while Oracle Volunteers in Barcelona and Madrid, Spain cleaned and tended to community gardens. In Mexico City, Mexico and Bogota, Colombia, Oracle Volunteers worked to remove invasive species and plant trees from local forests. Through the annual Oracle Volunteers Awards, Oracle recognizes and rewards employees who lead outstanding volunteer projects in collaboration with environmental nonprofit organizations globally. Projects are judged on impact, leadership, and innovation. Each winning project leader receives an "Excellence in Project Leadership" badge, an award certificate, and a \$500 donation to the partner nonprofit organization.

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### Who is entitled to benefit from these incentives?

Other, please specify (Real Estate and Facilities team members)

### Types of incentives

Recognition (non-monetary)

### Activity incentivized

Energy reduction project

### Comment

Members of Oracle's Real Estate and Facilities team are eligible to earn recognition for a variety of achievements, including sustainability performance.

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## C2. Risks and opportunities

### C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	5	
Medium-term	5	15	
Long-term	15	30	

## C2.2

**(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

## C2.2a

**(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	

## C2.2b

**(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.**

Climate-related materiality assessments are performed by Oracle's Environmental Steering Committee (ESC), which meets every quarter to address any climate-related risks, opportunities, and issues that have been identified in the previous three months. The evaluation process is ongoing at multiple scales, and the timeframe considered varies depending on the potential severity of risks identified, but covers at least six years. The ESC reports its findings to Oracle's co-CEO quarterly. In addition, Oracle has several processes in place to identify and assess climate-related risks, both at company and asset level.

### Company level:

Climate-related risks and opportunities are assessed at a company level by several groups, including Real Estate and Facilities (which includes Environment Health and Safety and Energy Management), Corporate Citizenship, Sustainability Strategy, Supply Chain Operations, Public Policy, and Legal, who continuously monitor reputational risks and regulatory developments at international, national, state, and local levels. Potential risks are then documented and analyzed for appropriate responses. For example, Oracle's Risk Management and Resiliency Program (RMRP) and Environmental Health and Safety (EHS) teams assess the potential severity and scale of natural disasters (e.g. hurricanes, earthquakes) and formulate contingency plans accordingly on an annual basis. The RMRP process includes a planning, documenting, and testing cycle that assesses Oracle's resiliency in response to physical risks, including climate-related natural disasters. Oracle's RMRP Program Management Office publishes a formal Risk Assessment template that provides for the identification and characterization of environmental and climate-related risks. Due to the distributed nature of Oracle operations, individual business units around the globe are responsible for identifying and planning for relevant environmental and climate-related risks associated with their specific geographies.

Sustainability team members are also included in Oracle's cross-functional Risk Engagement group (OREG), which connects risk managers and key stakeholders across Oracle and provides an open forum for building awareness and sharing best practices around companywide risks, including those related to climate change. The OREG serves as an informal and independent supplement to Oracle's formal RMRP process, and issues raised by OREG members are considered as part of the formal RMRP process, as appropriate.

The **materiality/priority of each climate-related risk** is analyzed based on the same criteria used to assess other types of risks, including: probability, cost, and risk of non-action. If a climate risk is assessed as having the potential for significant chronic or acute impact on our core business functions, including service delivery and support, product development and deployment, supply chain management, facility operations, employee recruitment and retention, or brand reputation, we consider the risk to have **potentially**

## **substantive financial/strategic impacts.**

Opportunities for new products, enhancement of existing products, partnerships, and product positioning, including ones that help minimize climate-related risks, are primarily identified within the individual product management teams as part of their product roadmap planning process. This is augmented through the offices of Oracle's ESC and its various working groups. Examples of products that support climate change management include analytics (aka business intelligence), supply chain solutions (e.g. product development, planning, logistics, manufacturing, and product take-back), utilities applications, and disruptive technologies like Internet of Things (IoT), Big Data, and Blockchain.

### **Asset level:**

Regulatory and climate-related risks are assessed at an asset level by several groups, including Real Estate and Facilities (which includes Environment Health and Safety and Energy Management), Supply Chain Operations, and Legal, who continuously monitor risks that may impact Oracle's facilities, data centers, and workforce. For example, Oracle's Environment, Health and Safety (EHS) team works to ensure that Oracle's owned and leased facilities comply with country, state or local environmental protection laws based upon site operations and on-site equipment (boilers, cooling towers emergency generators, etc.). The Facility Environmental Compliance (FEC) Program serves to aid local EHS and facility teams in complying with relevant facility-based environmental and climate regulations, which may require reoccurring permits, licenses, registrations, plans, monitoring, or other approval from an official government environmental agency. Oracle also has a dedicated Energy Director who is responsible for setting and meeting emissions- and energy-reduction goals, and for managing climate-related risks associated with the company's facilities portfolio.

## **C2.2c**

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Oracle is subject to several state, federal, and international laws governing protection of the environment and climate change mitigation, including energy efficiency, end-of-life treatment of our products, and the use of certain chemical substances. For example, the EU Energy Efficiency Directive, the CRC Energy Efficiency Scheme in the UK, the EU Waste Electrical and Electronic Equipment Directive (WEEE Directive), and China's regulation on Management Methods for Controlling Pollution Caused by Electronic Information Products impact Oracle's business in those regions. Oracle's Government Affairs, Real Estate and Facilities, and Reverse Logistics teams closely monitor and manage Oracle's compliance with such regulation as part of their risk assessment processes.
Emerging regulation	Relevant, sometimes included	Emerging environmental and climate-related regulation may impact several aspects of Oracle's business, including our facility operations, and product design and stewardship. Oracle's Government Affairs team and the Environmental Steering Committee monitor such regulation on an ongoing basis as part of Oracle's risk assessment process. For example, the Government Affairs team closely monitors potential laws around energy efficiency and the circular economy in the EU.
Technology	Relevant, always included	Technology risks are always included in Oracle's climate-related risk assessments. For example, risks associated with Oracle's cloud services data centers, including energy cost fluctuations, are closely monitored by the Cloud Investment and Planning team.
Legal	Relevant, always included	Legal and compliance risks associated with current or emerging regulation are always included in Oracle's climate-related risk assessments. For example, Oracle is subject to several state, federal, and international laws governing protection of the environment and climate change mitigation, including the EU Energy Efficiency Directive, the CRC Energy Efficiency Scheme in the UK, and China's regulation on Management Methods for Controlling Pollution Caused by Electronic Information Products, all of which impact Oracle's business in those regions. The compliance requirements and costs associated with these regulations are substantial, and Oracle has several programs and processes in place to help ensure compliance, such as Oracle's Facility Environmental Compliance (FEC) program, which serves to aid regional facility teams in complying with relevant facility-based environmental and climate-related laws and regulations.
Market	Relevant, always included	Market risks, such as shifts in customer preferences toward low-carbon products, are always included in Oracle's climate-related risk assessments. The Sustainability Strategy team monitors market trends to inform product strategy. For example, the demand for low-carbon products drove an effort to train Oracle's hardware engineers in circular economy design principles, through "Design for Environment" guidelines.
Reputation	Relevant, always included	Reputational risks are always included in Oracle's climate-related risk assessments. For example, Oracle's performance on certain sustainability surveys/indices, including CDP and DJSI, could impact Oracle's reputation, and subsequently Oracle's business. Reputational risks are collectively managed by several lines of business, including Corporate Citizenship, Sustainability Strategy, Marketing, and Real Estate and Facilities. Oracle has several processes and initiatives in place to address reputational risks, including setting and achieving ambitious sustainability goals, as well as communicating about our sustainability efforts and accomplishments, both internally and externally. For example, Oracle's Corporate Citizenship Report, which highlights our sustainability efforts and achievements, is shared widely with Oracle's stakeholders. In recognition of our efforts, Oracle ranked #41 on 3BL Media's list of 100 Best Corporate Citizens for 2018.
Acute physical	Relevant, always included	Oracle's Risk Management and Resiliency Program (RMRP) and Environmental Health and Safety (EHS) teams assess the severity and scale of acute physical risks (e.g. hurricanes, typhoons, earthquakes, etc.) and formulate contingency plans accordingly on an annual basis. The RMRP process includes a planning, documenting, and testing cycle that assesses Oracle's resilience in response to physical risks, including climate-related natural disasters. Oracle's RMRP Program Management Office publishes a formal Risk Assessment template that provides for the identification and characterization of environmental and climate-related risks. For example, Oracle's RMRP team took several steps to proactively address the risks posed by Hurricanes Florence and Michael in 2018. This included actively communicating with employees and preparing to re-route critical business operations to alternative offices.
Chronic physical	Relevant, always included	Chronic physical risks are considered as part of Oracle's climate-related risk assessments – including, for example, the impacts of rising mean temperatures and rising sea level on Oracle's facilities and data centers. Such risks are addressed by multiple lines of business, including Oracle's Real Estate and Facilities team, which incorporates chronic physical rise, such as sea level rise, into its site selection process. For example, to combat the risk of flooding in Guadalajara, Mexico, Oracle's Real Estate and Facilities team identified properties located on higher ground, as part of its site selection process in 2018.
Upstream	Relevant, always included	Upstream risks around Oracle's supply chain are always included in our climate-related risk assessments. For example, as a member of the Responsible Business Alliance (RBA), Oracle monitors risk among our direct hardware suppliers through annual scorecards and audits. This helps Oracle better assess and manage potential climate-related risks in our supply chain, including exposure to resource shortages.
Downstream	Relevant, always included	Downstream risks around Oracle's reverse supply chain are always included in our climate-related risk assessments. For example, Oracle's Product Take Back and Recycling team closely monitors new legislation around electronic waste and takes the necessary steps to ensure compliance.

**C2.2d**

**(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.**

Oracle prioritizes the climate-related risks and opportunities identified by evaluating these risks and opportunities based on both quantitative and qualitative criteria that assess the severity of the potential impacts of the risk, as well as the scale of the opportunities. Key areas of risks include supply chain disruption (including but not limited to climate change-related disruption), commodity pricing volatility (including energy), environmental regulation, and resource availability due to unforeseen factors, including climate-related factors. The materiality/priority of each potential risk is analyzed based on criteria including: probability, cost, and risk of non-action. Opportunities associated with new products or product enhancements are evaluated in accordance with Oracle's standard processes for any such investment.

**As an example of how Oracle manages physical risks and opportunities:** as part of Oracle's RMRP process, each business unit associated with life safety emergency response activities is required to conduct annual risk assessment and resiliency planning, using a formal Risk Assessment template. In addition, Oracle's Real Estate and Facilities organization requires certain high-risk locations – including those impacted by climate-related risks such as natural disasters – to develop and maintain an Emergency Response Action Plan (ERAP) for first response life safety operations. To proactively coordinate and manage all emergency response and recovery activities (life safety, asset protection, business continuity, reconstitution, and reputation management), Oracle's Global Physical Security Crisis Management team oversees the designation and training of Global, Regional, and Local Crisis Management teams. Every Oracle line of business is represented in this process.

Oracle's Environmental Steering Committee (ESC) meets quarterly to address potential transitional risks around increased stakeholder concern, and members of each business unit convene at an annual, in-person meeting at Oracle headquarters to align their efforts and strategize for the upcoming year. Findings and action items from these meetings are reported to the ESC, assigned to the relevant business units (Real Estate and Facilities, Supply Chain, Corporate Citizenship, etc.) and are noted and tracked in a consolidated document. Each issue is monitored via monthly meetings, where members from each business unit report on their progress and collaborate on outstanding issues. The action items often address business continuity, including climate-related issues such as exposure to physical climate events that could potentially disrupt our business.

**As an example of how Oracle manages transition risks** – such as climate-related reputational risks and growing stakeholder concern – Oracle sets and implements robust energy- and emissions-reduction goals, and engages various stakeholder groups, including employees and suppliers, in meeting those goals. Through the Annual Sustainability Champions program, we recognize employees who are advancing environmental sustainability at work and beyond. Oracle's 2018 Sustainability Champions included a group of employees that supported India's first large-scale behavioral energy efficiency pilot program for the residential sector late in 2018, enrolling 200,000 residential utility customers. The program aims to empower residential consumers to reduce energy waste, improve energy efficiency, and lower peak-hour consumption in India using Oracle Opower. We leverage several additional avenues to meet our goals, including energy efficiency projects and renewable energy procurement and installation, resulting in an estimated 31,000 MT CO<sub>2</sub>e in emissions savings in 2018. In addition, the Oracle Sustainability Strategy and Supply Chain teams track and engage an increasing number of customers requesting data on Oracle's environmental performance, including climate-related inquiries. The requests are prioritized based on product lines, risk categories, geography, potential revenue loss, (cost) and risk of non-action.

## C2.3

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

Yes

### C2.3a

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

Identifier

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## Risk 1

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

Direct operations

### Risk type

Physical risk

### Primary climate-related risk driver

Chronic: Rising mean temperatures

### Type of financial impact

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

### Company- specific description

An increase in the mean (average) temperature could impact Oracle's business, especially in areas where we operate our data centers and labs, including in Austin, TX and Salt Lake City, UT. Hotter weather may result in higher energy and water consumption to cool our data centers, which could drive up operational cost. Increased demand for electricity could also result in a grid shutdown, which could negatively impact our business and operations. For example, the cooling system at Oracle's Austin Data Center is currently equipped to operate normally for about 5 hours during hot weather (cooling season). An increase in mean temperatures could necessitate additional water supply, in the absence of which, the cooling system may cease to operate. Climate change and global warming could also result in rising sea levels, which could impact Oracle's facilities in certain coastal areas, including our headquarters in California. Oracle considers such climate-related risks when making long-term, strategic decisions around its real estate portfolio and operations.

### Time horizon

Long-term

### Likelihood

Likely

### Magnitude of impact

Medium

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

Yes, an estimated range

### Potential financial impact figure (currency)

<Not Applicable>

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

2800000

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

8500000

### Explanation of financial impact figure

According to a U.S. Department of Energy Report titled, "Assessing the Effect of Rising Temperatures" (published January 2017), nationwide spending on commercial electricity is likely to rise by 4-12% by year 2040, based on projected climate-induced temperature rise, using a low GHG emissions pathway. Using this projection, we estimate that Oracle's operational costs would increase by \$2.8M - \$8.5M, based on Oracle's 2018 global energy spend. The potential financial impact figures represent that range (minimum 4% and maximum 12% of Oracle's 2018 global energy spend).

### Management method

The methods we use to manage this risk include designing, building, and operating some of the most energy-efficient data centers in the industry. We continually evaluate our new and existing data centers to identify opportunities to improve performance. For our new data centers, we select the optimal locations to leverage outside air cooling. In addition, to address the risk of a possible grid shutdown, we have uninterruptible power supply (UPS) systems and generators for all of our key sites and data centers. We employ the best available technology to continuously improve energy efficiency at our data centers, including the use of low-loss electrical energy distribution systems and highly efficient cooling systems. For example, at Oracle's Salt Lake City Data Center, we have installed a separate air handler that provides outside air economization and some evaporative cooling, which enables the original cooling system to operate much more efficiently. Additionally, we consider climate-related risks as part of our site selection process. For example, to combat the risk of flooding in Guadalajara, Mexico, we identified properties located on higher ground, as part of our site selection process in 2018. The cost of management estimation represents the cost of implementing energy efficiency and emissions reduction measures across our facilities in 2018.

### Cost of management

2600000

## Comment

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### Identifier

Risk 2

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

Direct operations

### Risk type

Transition risk

### Primary climate-related risk driver

Policy and legal: Increased pricing of GHG emissions

### Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

### Company- specific description

As carbon pricing gains momentum globally, Oracle's operating costs may be impacted in regions where carbon taxes and cap-and-trade schemes are implemented. According to a World Bank report titled "State and Trends of Carbon Pricing 2018" (published May 2018), to date, 51 carbon pricing initiatives have been implemented or are scheduled for implementation globally. This trend has the potential to drive up electricity costs, and in turn, Oracle's operating and compliance costs, particularly in regions where we operate data centers. For example, Oracle's operations in the UK are subject to the Climate Change Levy (CCL), which requires commercial entities to pay a carbon tax if they use fossil fuels to generate electricity.

### Time horizon

Medium-term

### Likelihood

About as likely as not

### Magnitude of impact

Medium-low

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

Yes, a single figure estimate

### Potential financial impact figure (currency)

3800000

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

<Not Applicable>

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

<Not Applicable>

### Explanation of financial impact figure

For example, if a carbon price of \$10 per metric ton were established through carbon regulation (per World Bank estimates, 46% of the emissions covered are priced at less than US\$10/tCO<sub>2</sub>e), Oracle's operational costs could increase by approximately \$3.8M. This figure was estimated using Oracle's 2018 Scope 1 and Scope 2 (market-based) emissions.

### Management method

Some methods Oracle uses to manage this risk include continually implementing and evaluating potential onsite renewable energy projects, as well as renewable energy provided through local utility grids. For example, in 2018, 21% of our total energy use came from verified renewable sources, and we executed several onsite solar projects at our facilities in India and in the U.S. Oracle also works with its colocation data center providers to implement best practices around energy efficiency, as well as influence the procurement of renewable sources to power our data center operations. This helps us better manage and reduce our Scope 2 emissions, and hence, our exposure to increased carbon pricing. In 2018, we implemented several measures to maximize energy efficiency and emission reductions throughout our real estate portfolio, including Smart Building Control and Monitoring systems, dimmable lighting installations, building HVAC controls, hardware and advanced control schemes, upgraded our mechanical cooling systems with economizers and higher efficiency components and boiler and heating systems, and undertook retro-commissioning. These measures resulted in an estimated emissions reduction of 4,500 MT CO<sub>2</sub>e. The cost of management estimation represents the cost of implementing energy efficiency and emissions reduction measures across our facilities in 2018.

### Cost of management

2600000

### Comment

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**Identifier**

Risk 3

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

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Market: Increased cost of raw materials

**Type of financial impact**

Abrupt and unexpected shifts in energy costs

**Company- specific description**

A global and local transition to a low-carbon economy will require a larger investment in renewable and energy efficiency technology. The transition to this technology could result in rising energy and electricity prices, which have the potential to impact Oracle's cloud business and facility operations. As Oracle's cloud business grows, we are seeing increased energy use, especially at our colocation Cloud data centers. This exposes Oracle to some financial risks – such as volatility of fuel prices – and could affect the cost of data center operations. Fluctuating energy and electricity prices may also impact Oracle's supply chain, including its hardware product assembly, transportation, and logistics operations and distribution centers. This, in turn, could drive up the cost of manufacturing and distributing Oracle products. Climate change and more extreme weather events are likely to drive up energy demand and consumption, which in turn could lead to an increase or fluctuation in energy and electricity costs, leading to an increase in Oracle's operational costs.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Low

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

350000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

According to the Energy Information Administration (EIA), the projected increase in electricity costs for the commercial sector between 2019 and 2020 is 0.05 cents per kWh (10.69 in 2019 vs. 10.74 in 2020). Given Oracle's electricity consumption in 2018, this would amount to an estimated \$350,000 increase in electricity costs.

**Management method**

Some methods Oracle uses to manage this risk include purchasing energy in the open market when possible and using advanced purchasing and hedging to further minimize risk and diversify our energy portfolio. We strive to maximize energy efficiency throughout our real estate portfolio to reduce exposure to energy price fluctuations. For example, we implemented several energy efficiency measures at our facilities in 2018, including Smart Building Control and Monitoring systems, dimmable lighting installations, building HVAC controls, updated firmware, upgraded our mechanical cooling systems with economizers and higher efficiency components and boiler and heating systems, and undertook retro-commissioning. These measures resulted in an estimated emissions reduction of 4,500 MT CO<sub>2</sub>e. In addition, Oracle continues to implement and evaluate potential onsite renewable energy projects, as well as renewable energy provided through local utility grids. For example, in 2018, 21% of our total energy use came from verified renewable sources, and we executed several onsite solar projects at our facilities in India and in the U.S. Oracle also works with its colocation data center providers to implement best practices around energy efficiency, as well as influence the procurement of renewable sources to power our data center operations. The cost of management estimation represents the cost of implementing energy efficiency and emissions reduction measures across our facilities in 2018.

**Cost of management**

2600000

## Comment

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### Identifier

Risk 4

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

Direct operations

### Risk type

Transition risk

### Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

### Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

### Company- specific description

Environmental and climate-related laws and regulations could impact Oracle's business by increasing Oracle's operational and compliance-related costs. For example, environmental legislation such as the EU Directive on Restriction of Hazardous Substances (RoHS), the EU Waste Electrical and Electronic Equipment Directive (WEEE Directive) and China's regulation on Management Methods for Controlling Pollution Caused by Electronic Information Products, may increase our cost of doing business internationally and impact our hardware revenues from the EU, China and other countries with similar environmental legislation. Regulations around electronic waste management impact how Oracle manages its reverse supply chain and Product Take Back and Recycling programs. The number of government entities globally that require reporting and declarations around electronic waste continues to increase year over year. Since there are no reporting standards across governments, this drives complexity and administrative overhead. Oracle is also impacted by several other climate-related regulations, including the EU Energy Efficiency Directive, and the Energy Savings Opportunity Scheme (ESOS). For example, Article 8 of the EU Energy Efficiency Directive 2012/27/EU requires multinational companies like Oracle to comply with energy efficiency legislation specific to every member state in which they operate. The requirements include energy audits that must be completed every four years. Compliance with such regulations could drive up Oracle's operational costs, and noncompliance could result in penalties or fines.

### Time horizon

Current

### Likelihood

Likely

### Magnitude of impact

Medium-low

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

Yes, an estimated range

### Potential financial impact figure (currency)

<Not Applicable>

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

8000

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

50000

### Explanation of financial impact figure

The estimated financial implications of the risk before taking action include cost of noncompliance with various global schemes addressing electronic waste management, which, although unlikely, could range from \$8K to \$50k depending on the region and severity of the issue. The potential financial impact figures represent the estimated minimum and maximum cost of noncompliance with various global schemes.

### Management method

One of the methods we use to manage this risk is implementing robust take back and recycling programs to help ensure compliance with related laws and regulations. As a strong proponent of the circular economy, Oracle has various offerings for our customers and suppliers to return excess used products or materials. In FY18, Oracle's Reverse Supply Chain Organization collected more than 3 million lbs of product. Of the total material collected, 99.5% was either recycled or reused. Oracle conducts audits to help ensure that our recyclers and their downstream processors have proper Health and Safety controls in place and are compliant with local law. By expanding the number of sites in our recycling network and increasing the percentage of material reused vs. recycled, we reduce shipping miles and conserve raw materials, both of which enable us to reduce our GHG emissions. In order to meet local compliance obligations, Oracle has also joined compliance schemes and product stewardship programs in

several countries and jurisdictions. With regards to other climate-related legislation such as ESOS and CCA, we aim to minimize our costs by proactively identifying opportunities to enhance energy efficiency across our facilities. For these reasons, we believe Oracle is well positioned to meet potential future environmental regulations. The cost of management represents the cost of complying with various environmental schemes globally.

**Cost of management**

250000

**Comment****Identifier**

Risk 5

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

Customer

**Risk type**

Transition risk

**Primary climate-related risk driver**

Market: Changing customer behavior

**Type of financial impact**

Reduced demand for goods and/or services due to shift in consumer preferences

**Company- specific description**

Growing awareness around the negative impacts of climate change is likely to drive a shift in consumer behavior, with an increased emphasis on sustainable and resilient business practices. As a result, an increasing number of customers are taking sustainability into account when making purchasing decisions. Oracle receives 150-250 environmental or climate-related inquiries annually from key customers representing \$1B - \$1.5B in revenue. If Oracle fails to meet customer expectations around sustainability, our business could be adversely impacted.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

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

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

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

50000000

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

75000000

**Explanation of financial impact figure**

If we assume that Oracle were at risk of losing 5% of the business represented by customers requesting data on Oracle's environmental performance and management, then the potential financial impact (before taking action) could range from \$50M - \$75M. The potential financial impact figures were derived by calculating 5% of the estimated revenue represented by these customers (minimum 5% of \$1B, and maximum 5% of \$1.5B),

**Management method**

The methods that Oracle is using to manage this risk include investing in strong sustainability practices and reporting efforts. In addition to sharing data with investors and customers through initiatives such as CDP and EcoVadis, Oracle responds to dozens of individual customer requests each year. Oracle has established aggressive sustainability goals around energy consumption, emissions reduction, renewable energy, water and waste. For example, our 2025 goals include 55% reduction in emissions per unit of energy consumed, and 26% reduction in absolute emissions (base year 2015). As part of our efforts to meet these goals, we continually implement and evaluate potential onsite renewable energy projects, as well as renewable energy provided through local utility grids. For example, in 2018, 21% of our total energy use came from verified renewable sources, and we executed several onsite solar projects at our facilities in India and in the U.S. The cost of management represents the cost of responding to environmental inquiries from customers and investors, through initiatives such as CDP and EcoVadis.

**Cost of management**

50000

**Comment**

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**C2.4**

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

Yes

**C2.4a**

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

**Identifier**

Opp1

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

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

Move to more efficient buildings

**Type of financial impact**

Reduced operating costs (e.g., through efficiency gains and cost reductions)

**Company-specific description**

Oracle's facilities portfolio includes more than 26 million square feet of real estate in our operational control. We continuously invest in technologies and solutions to reduce the environmental footprint of our facilities and data centers around the world. By adopting more efficient building standards, Oracle is able to not only minimize its environmental footprint, but also realize significant efficiency gains and cost reductions. As of 2018, Oracle owned 31 facilities that received ENERGY STAR ratings from the US Environmental Protection Agency, 26 facilities that were recognized by the Building Owners and Managers Association (BOMA) 360 Performance Program, and 5 LEED-certified facilities. We continue to pursue opportunities for improved efficiency and performance.

**Time horizon**

Current

**Likelihood**

Very likely

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

640000

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

The financial impact of this opportunity includes cost savings resulting from energy efficiency measures implemented at our facilities

worldwide. The potential financial impact figure represents the sum of actual and projected cost savings from a variety of energy efficiency measures implemented globally in 2018, including:

- Energy efficiency: building services (\$532K)
- Energy efficiency: Processes, including data center initiatives (\$108K)

The estimated cost savings are calculated by Oracle facility managers globally, and are then tracked and consolidated into a single document by Oracle's Global Sustainability Manager.

### Strategy to realize opportunity

Oracle's strategy to realize this opportunity includes maximizing energy efficiency and emission reductions throughout our real estate portfolio. For example, in 2018, Oracle pursued and received Energy Star (energy efficiency) certification for its servers used in data centers. We also implemented several energy efficiency measures at our facilities globally, including building HVAC controls, Smart Building Control and Monitoring systems, hardware and advanced control schemes, upgraded our mechanical cooling systems with economizers and higher efficiency components and boiler and heating systems, and undertook retro-commissioning. These measures resulted in an estimated emissions reduction of 4,500 MT CO<sub>2</sub>e. Oracle has a goal to achieve a 26% reduction in absolute emissions, and a 55% reduction in emission per unit of energy consumed by 2025 (base year 2015). The energy efficiency initiatives mentioned above are helping us make progress toward these goals. In addition, Oracle benchmarks its sustainability performance using standards such as Energy STAR, LEED, and BOMA. As of 2018, Oracle owned 31 facilities that received ENERGY STAR ratings, 26 facilities that were recognized by the Building Owners and Managers Association (BOMA) 360 Performance Program, and 5 LEED-certified facilities. The cost to realize this opportunity represents the current investment associated with energy efficiency and emissions reduction initiatives across our facilities, including data centers.

### Cost to realize opportunity

2300000

### Comment

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#### Identifier

Opp2

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

Direct operations

#### Opportunity type

Resource efficiency

#### Primary climate-related opportunity driver

Reduced water usage and consumption

#### Type of financial impact

Reduced operating costs (e.g., through efficiency gains and cost reductions)

#### Company-specific description

Oracle leverages a wide range of water-saving strategies across our facilities globally, as a result of which we have achieved a consistent year-over-year reduction in our total water use. This helps Oracle achieve cost reductions and operational efficiencies. For example, since we launched our water reduction goal in 2015, we have saved an estimated 200 million liters of potable water globally.

#### Time horizon

Current

#### Likelihood

Very likely

#### Magnitude of impact

Medium-low

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

Yes, a single figure estimate

#### Potential financial impact figure (currency)

620000

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

<Not Applicable>

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

<Not Applicable>

#### Explanation of financial impact figure

The financial impact of this opportunity includes cost savings resulting from efficient water management practices. The potential financial impact was calculated by multiplying the actual water savings from 2015 to 2018 by a global average cost per liter of

water.

### Strategy to realize opportunity

Oracle's strategy to realize this opportunity includes implementing water-saving initiatives and processes at our facilities around the globe. Oracle has a goal to achieve a 25 percent reduction in potable water use per square foot by 2020 (base year 2015). For example, over the past 9 years, we've been irrigating the landscape at our headquarter campus with reclaimed water, saving approximately 26 million gallons of potable water per year. Additionally, Oracle conducts rainwater harvesting at our facilities in several countries, including India, Brazil, and Japan. These efforts help ensure that Oracle is well positioned to realize this opportunity. The cost to realize this opportunity includes the cost of implementing water-saving initiatives at several Oracle facilities in 2018.

### Cost to realize opportunity

300000

### Comment

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#### Identifier

Opp3

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

Supply Chain

#### Opportunity type

Resource efficiency

#### Primary climate-related opportunity driver

Other

#### Type of financial impact

Other, please specify (Recovered value: Reverse Supply Chain)

*increased revenues from recovered value of end-of-life products and components*

#### Company-specific description

As a responsible producer of hardware products, Oracle offers various take back programs that allow our customers and suppliers to return excess used products or materials. This presents an opportunity for Oracle to not only minimize e-waste by harvesting parts, but also to realize value from recycled materials by working with third party recyclers. In FY18, Oracle collected more than 3 million lbs of material, of which 99.5% was recycled or reused. As our customers increasingly move from on-premise servers to the Oracle Cloud, we will have greater control over the deployment and end-of-life treatment of our assets. As a result, we anticipate the percent of systems we take back versus systems we ship into the market to grow from ~16% today, to more than 50% over the next several years. This will enable us to further maximize the recovered value from old or decommissioned IT equipment. Additionally, through these efforts, Oracle is able to minimize the GHG emissions associated with landfill and the sourcing of raw materials.

#### Time horizon

Current

#### Likelihood

Very likely

#### Magnitude of impact

Medium

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

Yes, an estimated range

#### Potential financial impact figure (currency)

<Not Applicable>

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

15000000

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

20000000

#### Explanation of financial impact figure

The financial value recovered through our Take Back program and Reverse Supply Chain amounts to \$15M-\$20M annually, and this figure is growing. This value is derived from a combination of the following: • Remanufactured systems and data center rack solutions • Spare parts and options which extend the support life of products for our customers • Resale of used components

### Strategy to realize opportunity

Through our Reverse Supply Chain program, we process more than 3 million lbs of material annually. Oracle's strategy to realize this opportunity includes three key elements: • Increasing volume of material collected • Encouraging reuse ahead of wasteful new purchases and premature recycling • Expanding the channels through which we recover value Oracle's Take Back programs are an example of the Circular Economy in practice. In addition to minimizing waste sent to landfill, this process enables Oracle to drive resource productivity and capture additional value from the materials used to build our products. For example, in FY18 we took back approximately 16 percent of systems compared with the amount we shipped into the market. In addition, much of the recovered financial value from these programs flows back to the entity that returned the product (both external customers and internal Cloud business unit), which encourages customers to reinvest in new Oracle products and services. Our Reverse Supply Chain is distributed across the three regions; Americas, Europe and Asia. Processing Take Back material locally acts as investment in those regions and reduces transportation miles and the associated carbon emissions. The cost to realize this opportunity represents the cost of complying with various environmental schemes globally.

### Cost to realize opportunity

200000

### Comment

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#### Identifier

Opp4

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

Direct operations

#### Opportunity type

Resource efficiency

#### Primary climate-related opportunity driver

Other

#### Type of financial impact

Benefits to workforce management and planning (e.g., improved health and safety, employee satisfaction resulting in lower costs)

*Improved ability to attract and retain top talent*

#### Company-specific description

Oracle's increasing emphasis on environmental sustainability, both internally and externally, has the potential to strengthen our brand value and reputation. As sustainability and corporate responsibility become increasingly important to job seekers and employees, we believe that Oracle's reputation as a good corporate citizen is helping us attract and retain top talent, while also helping drive employee engagement within our workforce. We anticipate that this opportunity will continue to grow in the coming years, as we invest in strong sustainability practices to drive brand value and reputation. In recognition of our efforts, Oracle ranked #41 on 3BL Media's list of 100 Best Corporate Citizens for 2018.

#### Time horizon

Short-term

#### Likelihood

Very likely

#### Magnitude of impact

High

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

No, we do not have this figure

#### Potential financial impact figure (currency)

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

#### Explanation of financial impact figure

Potential financial implications of this opportunity include improved profitability and costs savings associated with higher employee engagement, as well as improved retention and recruitment. According to a Gallup report titled "State of the American Workforce" (published 2017), highly engaged business units are likely to realize 17% higher productivity and 21% higher profitability than disengaged business units. Hence, by continuing to invest in strong sustainability practices and employee engagement initiatives,

Oracle could strengthen its financial performance.

### Strategy to realize opportunity

One method Oracle is using to realize this opportunity is communicating our sustainability efforts and accomplishments, both internally and externally, including through the annual Oracle Corporate Citizenship Report. Each year, through the Oracle Giving and Oracle Volunteering programs, we support hundreds of environmental nonprofit organizations globally. In conjunction with the Oracle Volunteering Focus on Environment initiative and Earth Week, Oracle hosts Green Fairs at several office locations globally. The purpose of these fairs is to engage and educate employees around Oracle's sustainability and climate-related initiatives. More than 1,800 Oracle employees attended the 2018 Green Fairs in and around Oracle's headquarters. Additionally, Oracle continued promoting the 'Sustainability Champions' program in 2018, through which we recognize employees who are advancing environmental sustainability at work and beyond. Oracle's 2018 Sustainability Champions included a group of employees that supported India's first large-scale behavioral energy efficiency pilot program for the residential sector late in 2018, enrolling 200,000 residential utility customers. The program aims to empower residential consumers to reduce energy waste, improve energy efficiency, and lower peak-hour consumption in India using Oracle Opower. The cost to realize this opportunity represents the costs associated with managing Oracle's sustainability and CSR communications.

### Cost to realize opportunity

500000

### Comment

## C2.5

### (C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted	Oracle has several products and services that are impacted by climate change. Oracle's sustainability-related solutions empower our customers to advance their own sustainability initiatives, and present an opportunity for increased revenue as the demand for low-carbon technology grows. In terms of risks, the growth in Oracle's Cloud business means increased energy use at our cloud data centers. To manage this risk, Oracle signed on to the Corporate Colocation and Cloud Buyers' Principles to guide the energy procurement strategy for Oracle Cloud data center co-location providers. For example, the principles aim to drive partnership between customer and service provider so both parties have an incentive to reduce energy consumption. We estimate that the magnitude of impact on our products and services is moderate.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	Climate-related risks and opportunities impact several aspects of Oracles supply chain, particularly our direct hardware suppliers. For this reason, Oracle incorporates climate-related risks into its supply chain planning and operations. One mechanism through which we manage this risk is membership in the Responsible Business Alliance. We also continued developing a Sustainable Procurement Program for our indirect supply chain to help further the responsible behavior of those suppliers, including on climate change mitigation efforts. We estimate that the magnitude of impact on our supply chain is moderate-high.
Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	As part of Oracle's Risk Management and Resiliency Program, we carry out adaptation and mitigation activities around environmental, health and safety planning. This includes assessing and planning for the potential impacts of climate change, including natural disasters (hurricanes, flooding, earthquakes, etc.), and how they might affect Oracle's products, employees, facilities, and reputation. We estimate that the magnitude of impact on our adaptation and mitigation activities is low.
Investment in R&D	Impacted for some suppliers, facilities, or product lines	Climate-related opportunities impact Oracle cloud services, as well as certain hardware product lines. Oracle invests in sustainable product design guidelines and processes (Design for Environment) engaging our hardware engineers in circular economy design principles. We also invest in the development of products and solutions that help our customers advance their own sustainability initiatives. We estimate that the impact of climate-related opportunities on our investment and research and development is low.
Operations	Impacted	Climate-related risks and opportunities impact many aspects of our operations, including facility management, energy efficiency, the use of renewable energy, water and waste reduction, employee health and safety, and transportation and distribution. Oracle has set ambitious sustainability goals addressing emissions reduction, energy efficiency, renewable energy use, water use, and waste reduction. These goals drive strategic decision-making related to Oracle's operations globally, and enable us to conduct our business sustainably. In addition, Oracle's Risk Management and Resiliency Program has a business continuity plan in place to address the potential impact of climate-related natural disasters on our employees. We estimate the impact of climate-related risks and opportunities on our operations is high.
Other, please specify	Please select	

## C2.6

**(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.**

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	The identified risks and opportunities factor into our revenues through enhancing the sale of Oracle's sustainability related solutions (e.g. business intelligence and reporting tools, utilities applications, supply chain applications, IoT, engineered systems) as well as Oracle's cloud service offerings, which also have numerous environmental and climate-related benefits for our customers. We estimate the impact on our revenues to be low.
Operating costs	Impacted	The identified risks and opportunities impact multiple aspects of Oracle's operating costs, including utility costs, energy contracts, and other expenses related to facility management and logistics. We estimate the impact of climate-related factors on our operating costs to be moderate.
Capital expenditures / capital allocation	Impacted for some suppliers, facilities, or product lines	The identified risks and opportunities impact certain aspects of Oracle's capital expenditures, including properties where our offices and data centers are housed. Oracle's Real Estate and Facilities team considers environmental and climate-related factors during the site selection process, and undertakes remediation efforts as required. For example, during the construction of a new facility for Design Tech High School at our headquarters campus (along the Belmont Slough), we raised the levee around the school facility to address the potential of sea level rise. Additionally, to combat the risk of flooding in Guadalajara, Mexico, we identified properties located on higher ground, as part of our site selection process in 2018. We estimate the impact on our capital expenditures/allocation to be minimal.
Acquisitions and divestments	Impacted	Some aspects of our acquisition strategy are impacted by climate-related opportunities. For example, Oracle acquired Opower, whose Energy Efficiency programs have been implemented at more than 100 electric and gas utilities around the globe to date, motivating customers to save more than 20 TWh of energy through multichannel, personalized communications. We estimate the impact on our acquisitions and divestments to be minimal.
Access to capital	Not impacted	We believe that Oracle's access to capital has not been impacted by climate-related risks and opportunities, because investors are confident and satisfied in Oracle's management of climate-related issues. Occasionally, Oracle investors request that we disclose information about our climate mitigation efforts, including via the CDP Climate Change program, which indicates that investors want to better understand Oracle's environmental efforts on behalf of their clients. We actively address any such inquiries from investors on an ongoing basis. Operating in a socially responsible manner – including in terms of climate change mitigation – combined with delivering superior shareholder value, maximizes Oracle's ability to access capital.
Assets	Not yet impacted	Rising efficiency standards may require additional investment for some of the hardware assets at Oracle's facilities, including our data centers. We expect that any additional investments would be offset by cost savings. We estimate the impact on our assets to be minimal and the predicted timescale is medium term (5-15 years).
Liabilities	Impacted	Managing risks related to climate change helps Oracle minimize our liabilities, including business disruption exposure and liability insurance. For example, by working with our direct suppliers in collaboration with the Responsible Business Alliance (RBA) to raise climate change awareness we aim to reduce our exposure to potential supply chain disruptions. We estimate the impact on our liabilities to be minimal.
Other	Please select	

## C3. Business Strategy

### C3.1

**(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

#### C3.1a

**(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

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

#### C3.1c

### (C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

**i. Oracle's business objectives and strategy have been influenced by climate change** in that we have incorporated an environmental policy that defines our commitment to sustainable business practices. Oracle integrates climate-related issues into business strategy through the Environmental Steering Committee (ESC), whose members represent various business units across the company. The ESC oversees the company's sustainability initiatives, and meets quarterly to set goals and monitor progress. Findings and outcomes from these meetings are formulated into business strategy in collaboration with the appropriate business units, e.g., Real Estate and Facilities, Product Strategy, Supply Chain, and Procurement. Additionally, employees have access to various channels to learn about, and provide input on, Oracle's climate-related issues.

**ii. Aspects of Oracle's business strategy that are tied to our emissions and energy reduction targets include:** In 2018, Oracle continued to strengthen its processes for measuring and reporting on emissions generated at co-location facilities that host the Oracle Cloud. As part of this effort, we set new emissions reduction targets that include Oracle Cloud co-location data centers. The new 2025 goals are aligned with the Science-Based Targets Initiative (SBTi) and will be pursued in addition to the 2020 goals that are already in place for Oracle's facilities.

**iii. In 2018, the most substantial business decisions influenced by climate change included the following:**

- Oracle initiated a Supplier Sustainability Survey program to engage and influence our key suppliers to be environmentally responsible. In 2018, we set a supplier engagement goal to influence 100% of our key suppliers to manage their environmental impacts, including GHG emissions, through effective sustainability programs, and 80% of our key suppliers to institute GHG reduction targets by the end of 2023.
- In an ongoing effort to minimize waste and carbon emissions from the use of our products, members of Oracle's hardware product lines maintain Design for Environment (DfE) guidelines to apply principles of the circular economy to Oracle's product lines, including the Oracle Cloud. Key principles include energy efficiency and maximizing our ability to reuse and recycle the materials in our hardware. For the first time, in 2018, Oracle pursued and received Energy Star (energy efficiency) certification for its servers used in data centers.
- Oracle's Risk Management and Resiliency Program (RMRP) and Environmental Health and Safety (EHS) teams assess the potential severity and scale of climate-related events (e.g. hurricanes, flooding, etc.), and formulate business continuity and resiliency plans accordingly on an annual basis. The RMRP process includes a planning, documenting, and testing cycle that assesses Oracle's resilience to respond to physical risks, including climate-related events and other natural disasters. Sustainability team members are also included in Oracle's cross-functional Risk Engagement group, which connects risk managers and key stakeholders across Oracle and provides an open forum for communication and collaboration around companywide risks, including those related to climate change. This decision was influenced by the increasing likelihood of climate-related impacts on our business, including physical climate and extreme weather events.
- Through our Annual Sustainability Innovation Awards Program, we recognize customers using our products to drive sustainability initiatives—a decision influenced by the need for a global paradigm shift in business practices with a greater emphasis on sustainability.
- Oracle collaborated with one of its key logistics providers to deploy a Bio-LNG powered vehicle to transport retired server assets managed by the Reverse Supply Chain Operations team. Oracle also became a signatory to the Principles for Sustainable Events. These decisions were driven by the need to minimize emissions across our operations.

**iv) Aspects of climate change that have influenced strategy include:** potential resource availability challenges, the need to reduce energy and water use and waste generation, extreme weather events (e.g., floods and storms), potential regulatory changes, and opportunities to develop sustainability-related solutions for our customers. To this end, we closely monitor our energy and natural resource consumption, and end-of-life treatment of our hardware products.

**v) Components of short-term strategy influenced by climate change include:** reducing emissions and energy use, and maximizing efficiency across our operations. Our short-term strategy includes a commitment to sustainability through several avenues such as:

- Incorporating environmental considerations into leasing, purchasing and procurement processes—for example, through our

alignment with the Responsible Business Alliance code of conduct;

- Sharing knowledge and best practices amongst our customers on how to leverage Oracle technology to advance sustainability, including the use of cloud applications, analytics, internet of things (IoT), adaptive intelligence, big data, and blockchain;
- Empowering employees to minimize their environmental impacts, for example, by using more sustainable commuting alternatives or participating in volunteering projects to restore natural habitats.

**vi) Components of long-term strategy influenced by climate change include:** emphasizing environmental sustainability in our operations, and providing solutions that help our customers manage their own environmental sustainability challenges. Internally, we have set aggressive, long-term emissions- and energy-reduction goals (base year 2015), including science-based targets for our Scope 1 and 2 emissions. These include:

- Achieve a 26% reduction in absolute emissions by 2025
- Achieve a 55% reduction in emissions per unit of energy consumed by 2025

**vii) Strategic advantage:** Oracle is optimally positioned to deliver practical, concrete solutions that help our customers with their sustainability initiatives. For example, Oracle Utilities solutions are enabling massive efficiencies, primarily through Oracle Opower Energy Efficiency programs. Since its launch in 2008, Opower solutions have been implemented at more than 100 electric and gas utilities globally, motivating customers to save more than 20 TWh of energy via personalized behavioral insights. Oracle is also optimally positioned to manage a highly energy efficient cloud, by owning and designing a complete and integrated IT stack. Additionally, Oracle's status as a leader in sustainability helps the company attract and retain top talent.

In recognition of our efforts, Oracle received the Acterra Business Environmental Award in the Sustainability category for a large company in 2018.

## C3.1g

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### (C3.1g) Why does your organization not use climate-related scenario analysis to inform your business strategy?

Oracle has not yet conducted a formal climate-related scenario analysis in alignment with the TCFD Recommendations, because several climate change impacts are already included in our existing Risk Management and Resiliency Program (RMRP) planning process (e.g. climate-related natural disasters). Oracle's management of climate-related risks is integrated into company-wide processes via the Environmental Steering Committee, whose members represent a wide range of business units (e.g. Real Estate and Facilities, Supply Chain and Procurement, Product Strategy, Legal, and Corporate Citizenship). For example, Oracle manages the risk of climate-related resource shortages by setting aggressive sustainability goals, including a renewable energy target and science-based Scope 1 and Scope 2 emissions reduction targets.

Sustainability team members are also included in Oracle's cross-functional Risk Engagement Group (OREG), which connects risk managers and key stakeholders across Oracle and provides an open forum for awareness building and best practice sharing around companywide risks, including those related to climate change. The OREG serves as an informal and independent supplement to Oracle's formal RMRP process, and issues raised by OREG members are considered as part of the formal RMRP process, as appropriate.

That said, in the next two years, Oracle's cross-functional sustainability group plans to engage with key stakeholders, as well as members of the Oracle RMRP and OREG groups, to conduct a formal climate-related scenario analysis consistent with a 1.5 degrees pathway. Our goal is to further build upon our preliminary risk analysis (both transition and physical), the results of which are reported in section C2 of our CDP response.

C4. Targets and performance

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C4.1

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

Both absolute and intensity targets

C4.1a

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

Target reference number	Abs 1
Scope	Scope 1 +2 (market-based)
% emissions in Scope	100
Targeted % reduction from base year	26
Base year	2015
Start year	2018
Base year emissions covered by target (metric tons CO2e)	459516
Target year	2025
Is this a science-based target?	Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative
% of target achieved	67
Target status	New
Please explain	Oracle self-assessed this target to be a mid-term science-based target.

---

Target reference number	Abs 2
Scope	Scope 1 +2 (market-based)
% emissions in Scope	100
Targeted % reduction from base year	65
Base year	

---

2015

**Start year**

2018

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

459516

**Target year**

2050

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

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

**% of target achieved**

27

**Target status**

New

**Please explain**

Oracle self-assessed this target to be a long-term science-based target. Oracle would achieve a 2.95% average reduction year-over-year in our absolute scope 1 and 2 emissions.

---

**Target reference number**

Abs 3

**Scope**

Scope 1 +2 (market-based)

**% emissions in Scope**

81

**Targeted % reduction from base year**

20

**Base year**

2015

**Start year**

2016

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

373626

**Target year**

2020

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

No, but we are reporting another target that is science-based

**% of target achieved**

100

**Target status**

Achieved

**Please explain**

Oracle has a goal in place to achieve a 20% reduction in absolute Scope 1 + Scope 2 emissions by 2020 for its real estate and facilities operations, which accounted for 81% of total emissions in the base year (2015). As of 2018, we had achieved this goal.

---

**C4.1b**

---

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

**Target reference number**

Int 1

**Scope**

Scope 1 +2 (market-based)

**% emissions in Scope**

100

**Targeted % reduction from base year**

55

**Metric**

Metric tons CO2e per megawatt hour (MWh)\*

**Base year**

2015

**Start year**

2018

**Normalized base year emissions covered by target (metric tons CO2e)**

0.431

**Target year**

2025

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

No, but we are reporting another target that is science-based

**% of target achieved**

49

**Target status**

New

**Please explain**

Oracle has a goal to achieve a 55% reduction in emissions per unit of energy consumed by 2025 (base year 2015).

**% change anticipated in absolute Scope 1+2 emissions**

26

**% change anticipated in absolute Scope 3 emissions**

---

**C4.2**

---

**(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

**Target**

Renewable electricity consumption

**KPI – Metric numerator**

Electricity consumption (MWh)

**KPI – Metric denominator (intensity targets only)**

**Base year**

2015

**Start year**

2016

**Target year**

2020

**KPI in baseline year**

---

**KPI in target year****% achieved in reporting year**

100

**Target Status**

Achieved

**Please explain**

Oracle has a goal to achieve 33 percent renewable energy use by 2020 (base year 2015) at its facilities globally. Progress against this goal is measured based on total electricity consumption at facilities where we have data. Currently, this goal does not include Oracle's colocation data centers. ADDITIONAL CLARIFICATION: We are unable to provide an estimate for the KPI in target year, as the calculation is based on the electricity consumption for each year. As of 2018, Oracle had achieved this goal.

**Part of emissions target**

Abs1 and Abs2

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

Please select

**Target**

Energy usage

**KPI – Metric numerator**

Energy use (kWh)

**KPI – Metric denominator (intensity targets only)**

unit revenue (US\$1000)

**Base year**

2015

**Start year**

2016

**Target year**

2020

**KPI in baseline year**

23.1

**KPI in target year**

18.5

**% achieved in reporting year**

65

**Target Status**

Underway

**Please explain**

Oracle has a goal to achieve a 20 percent reduction in energy use (kWh) per unit revenue (\$1000) by 2020, against a 2015 baseline.

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

Please select

**Target**

Waste

**KPI – Metric numerator**

Liters

**KPI – Metric denominator (intensity targets only)**

square footage

**Base year**

2015

**Start year**

2016

**Target year**

2020

**KPI in baseline year**

1.01

**KPI in target year**

0.76

**% achieved in reporting year**

100

**Target Status**

Achieved

**Please explain**

Oracle has a goal to achieve a 25 percent reduction in waste sent to landfill per square foot of owned facilities by 2020, against a 2015 baseline. As of 2018, Oracle had achieved this goal.

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

Please select

---

**Target**

Other, please specify (Water consumption)

**KPI – Metric numerator**

Liters of potable water

**KPI – Metric denominator (intensity targets only)**

square footage

**Base year**

2015

**Start year**

2016

**Target year**

2020

**KPI in baseline year**

101.2

**KPI in target year**

75.91

**% achieved in reporting year**

56

**Target Status**

Underway

**Please explain**

Oracle has a goal to achieve a 25 percent reduction in potable water consumption per square foot of owned facilities by 2020, against a 2015 baseline.

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

Please select

---

C4.3

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	64	0
To be implemented*	17	1375
Implementation commenced*	13	356
Implemented*	73	31029
Not to be implemented	5	0

C4.3b

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

Initiative type

Energy efficiency: Building services

Description of initiative

Building controls

*As part of our efforts to maximize energy efficiency and emissions reduction, we installed dimmable lighting, advanced lighting controls, building HVAC controls, Smart Building Control and Monitoring systems, updated firmware, hardware and advanced control schemes, upgraded our mechanical cooling systems with economizers and higher efficiency components and boiler and heating systems, increased monitoring, and undertook retro-commissioning.*

Estimated annual CO2e savings (metric tonnes CO2e)

3029

Scope

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

531782

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

1836463

Payback period

4 - 10 years

Estimated lifetime of the initiative

6-10 years

Comment

These initiatives also cover our Scope 1 and Scope 2 (location-based) emissions.

Initiative type

Energy efficiency: Processes

**Description of initiative**

Process optimization

*In an effort to reduce our data center emissions, we implemented a number of voluntary measures, including ongoing lab energy optimization initiatives, enhanced IT and cooling power monitoring and tracking, PUE tracking, airflow management, heat containment, hot aisle/cold aisle barriers, efficient airflow, efficient cooling production, airside economizer, evaporative humidification, and evaporative cooling.*

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

1468

**Scope**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

106853

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

480874

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

These initiatives also cover our Scope 1 and Scope 2 (location-based) emissions.

**Initiative type**

Low-carbon energy purchase

**Description of initiative**

Other, please specify (Renewable energy, including RECs)

*In 2018, we purchased low carbon energy at several facilities, including 15,133 MWh and 1,200 MWh of renewable energy credits (RECs) in the U.S. and India respectively. We also purchased 57,146 MWh in zero carbon electricity globally.*

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

25640

**Scope**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

0

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

10050

**Payback period**

<1 year

**Estimated lifetime of the initiative**

<1 year

**Comment**

These initiatives also cover our Scope 2 (location-based) emissions.

**Initiative type**

Low-carbon energy installation

**Description of initiative**

Solar PV

*In 2018, Oracle completed installations of new solar Photovoltaic (PV) arrays at both its Pune and Mumbai facilities in India. We also commenced a 127kW onsite solar installation at Bengaluru, India. In addition, we continued using onsite solar at our facility in Pleasanton, California.*

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

892

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

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

156831

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

324736

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

>30 years

**Comment**

---

C4.3c

---

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

Method	Comment
Employee engagement	As we manage our facilities, it is our standard protocol to engage employees in more sustainable practices. The employee engagement program is managed by the Corporate Citizenship, Sustainability, and Real Estate and Facilities teams. The objective of the program is to energize employees and solicit their help in reaching Oracle's sustainability goals. We also publish information regarding emissions reduction, energy efficiency, water and waste reduction, on our internal sustainability employee engagement website and in other employee communications including newsletters, social media, and videos.
Employee engagement	Our Real Estate and Facilities team and the Oracle Volunteering program collaborate on an annual Focus on Environment initiative, in conjunction with Earth Week. Employees worldwide partner with environmental nonprofit organizations and NGOs to take action for a healthy planet. On Earth Day each year, all non-emergency lights and all Oracle signs (internal and external) at Oracle offices are turned off during the local lunch hour. This reduces Oracle's carbon footprint on Earth Day and reminds us of the importance of reducing the amount of energy we use every day. In addition, Oracle hosts Annual Green Fairs at several office locations globally. The purpose of these fairs is to engage and educate employees around Oracle's sustainability and climate-related initiatives, while also encouraging them to adopt sustainable practices at work and beyond. More than 1,800 Oracle employees attended the 2018 Green Fairs in and around Oracle's headquarters.
Internal incentives/recognition programs	Oracle runs an annual Sustainability Champions program, which recognizes employees who are advancing environmental sustainability at work and beyond. Sustainability Champions are recognized in Oracle's internal sustainability newsletter, and receive a "Sustainability Champion" badge to include in their employee profiles. Oracle's 2018 Sustainability Champions included employees who supported India's first large-scale behavioral energy efficiency pilot program for the residential sector, enrolling 200,000 residential utility customers. The program aims to empower residential consumers to reduce energy waste, improve energy efficiency, and lower peak-hour consumption in India using Oracle Opower. Through Oracle's Global Startup Ecosystem program, another Oracle employee mentored an advanced metering infrastructure system and data analytics startup company in India that leverages big data on real-time energy and water consumption. An employee in North America worked as an advisor with the Young Global Leadership Foundation to promote the United Nations Sustainable Development Goals. And globally, numerous employees championed more sustainable waste management practices and promoted more sustainable transportation alternatives.
Financial optimization calculations	Oracle's approach is to create solutions that are both environmentally and financially sustainable. We use several different criteria for financial calculations depending on the type of project (owned or leased facility, expected life of efficiency measure, expected term of use/occupancy, etc.). We use criteria such as simple payback, internal rate of return, life cycle costing, etc.
Compliance with regulatory requirements/standards	Oracle strives to comply with local, regional and national regulations and standards applicable to each of our facilities and products. We work cross-functionally to meet or exceed such regulatory standards and requirements.
Dedicated budget for energy efficiency	Our Real Estate and Facilities team, which includes data center design and operations, has dedicated headcount and resources for energy efficiency. Our teams work to design more energy-efficient data centers and facilities, and monitor equipment to track and optimize its energy performance. Oracle's approach is to make energy efficiency and sustainability an integral part of our operations. We continually explore new technologies and solutions and carry out many energy efficiency projects, including leveraging external incentives where available, as long as they meet our internal ROI criteria.
Dedicated budget for other emissions reduction activities	Oracle's Real Estate and Facilities organization has a dedicated budget for several emissions reduction activities, including purchase of renewable energy, commuter travel, and employee ride-sharing programs. In 2018, we continued our work to reduce travel by leveraging Oracle products and updating our travel-related business practices. We ask employees to travel only when necessary and employ Oracle Web Conferencing and video conferencing technologies across our enterprise to ensure that virtual meetings are highly effective. In addition, we have installed electric vehicle charging stations at several of our facilities, and offer alternative transportation and commuter benefits to our employees across North America. In recognition of these efforts, Oracle was named a Best Workplace for Commuters in California for meeting the National Standard of Excellence.
Dedicated budget for low-carbon product R&D	Oracle develops products that support more than 430,000 customers in 175 countries to employ our industry-leading technology to address their environmental initiatives in conjunction with other business objectives.

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

Yes

**C4.5a**

**(C4.5a) 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**

Group of products

**Description of product/Group of products**

Many of Oracle's solutions enable our customers to be more environmentally sustainable and to reduce their greenhouse gas emissions. These solutions are broadly categorized under 'Risk and Performance Management' (including environmental data collection, analytics, and reporting); 'Business Operations' (including transportation management, smart grid technologies, and product lifecycle management); and 'IT Infrastructure' (including energy efficient engineered systems, Internet of Things (IoT), Big Data, Blockchain, and cloud computing).

**Are these low-carbon product(s) or do they enable avoided emissions?**

Avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (Avoided emissions are reported on a customer-by-customer basis)

**% revenue from low carbon product(s) in the reporting year**

51

**Comment**

The % revenue from low-carbon products is calculated using the percent of renewable energy use at Oracle Cloud colocation data centers in 2018. Inherently, the benefits of Oracle's solutions are not just limited to environmental performance improvements, but also include cost reduction and continuous business improvement potential. In terms of R&D, Oracle is rigorously focused on working with its customers to meet their business needs in the ongoing development of our solutions. Oracle's commitment to developing practices and products that help protect the environment includes addressing product enhancement requests from customers related to their sustainability efforts. Oracle's strategy is to embed sustainability related features in products so customers can leverage their existing IT investments and business processes wherever possible. In many cases customers are also able to configure Oracle's solutions to address their sustainability needs in conjunction with other business objectives. In FY18, Oracle spent \$6.1 billion on research and development of products and services, including those related to sustainability and climate change mitigation.

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## C5. Emissions methodology

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### C5.1

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

**Scope 1**

**Base year start**

January 1 2015

**Base year end**

December 31 2015

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

14953

**Comment**

**Scope 2 (location-based)**

**Base year start**

January 1 2015

**Base year end**

December 31 2015

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

505575

**Comment**

**Scope 2 (market-based)**

**Base year start**

January 1 2015

**Base year end**

December 31 2015

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

444563

**Comment**

**C5.2**

---

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

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

**C6. Emissions data**

---

**C6.1**

---

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

**Reporting year**

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

17084

**Start date**

January 1 2018

**End date**

December 31 2018

**Comment**

**C6.2**

---

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

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

**C6.3**

---

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

**Reporting year**

**Scope 2, location-based**

489917

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

362448

**Start date**

January 1 2018

**End date**

December 31 2018

**Comment**

**C6.4**

---

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

No

**C6.5**

---

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

## **Purchased goods and services**

### **Evaluation status**

Relevant, calculated

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

1355224

### **Emissions calculation methodology**

This figure represents the estimated emissions associated with key categories of purchased goods and services, representing a significant portion of our total spend. The emissions reported cover our direct hardware suppliers, as well as material indirect procurement categories (e.g. furniture, telecommunications, and computers). The emissions were calculated by multiplying the spend data for each category of goods by the corresponding conversion factors as outlined in the DEFRA 2012 Conversion Factor Repository, Annex 13.

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

### **Explanation**

## **Capital goods**

### **Evaluation status**

Relevant, calculated

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

136405

### **Emissions calculation methodology**

Emissions from capital goods are calculated using spend analysis of Oracle's material capital expenditures. The emissions were calculated by multiplying the spend data for each category of goods by the corresponding conversion factors as outlined in the DEFRA 2012 Conversion Factor Repository, Annex 13.

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

### **Explanation**

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

### **Evaluation status**

Relevant, calculated

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

21747

### **Emissions calculation methodology**

According to the Energy Information Administration (EIA), approximately 6 percent of total electricity input in the US is lost to transmission and distribution. Based on this assumption, we calculated 6 percent of our total Scope 2 emissions to estimate the Scope 3 emissions around fuel- and energy-related activities. The Scope 2 emissions figure was calculated using the following standards: EPA eGRID 2012 for U.S. Electricity; EPA GHG Emission Factors Hub for U.S. Natural Gas; National Greenhouse Accounts Factors for Australia Electricity and Natural Gas; DEFRA Greenhouse Gas Conversion Factor Repository (2016) for Electricity and Natural Gas in all other countries.

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

### **Explanation**

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

9468

### Emissions calculation methodology

This data is obtained from Oracle's transportation and distribution vendors on an annual basis. The emissions are calculated using an equation from the GLEC framework for logistics emissions: Distance Traveled x Total Weight x GLEC Protocol emissions factors per transport mode. One of our vendors has developed an internal tool leveraging the following information: 1) Actual customer shipment records for the period, listing origin and destination points, weight per shipment and primary shipment mode; 2) A proprietary distance table based largely on the Publication 151 – Distance Between Ports. National Imagery and Mapping Agency, 2001. Distances are calculated based on common vessel routings for ocean and using the "Great Circle Distance" method for air and ocean; Distances for road freight are calculated using the planned distance between the origin and destination points and a circuitry factor to provide a more accurate distance and allow for deviations. 3) GLEC emissions factors per primary mode of transport.

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

#### Explanation

Our transportation and distribution vendors provide us with annual emissions data, including both upstream and downstream emissions. We estimate that upstream emissions account for approximately 20% of those emissions, whereas downstream emissions account for 80%.

## Waste generated in operations

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

762

### Emissions calculation methodology

This data represents emissions produced in landfills from waste generated in the total area under our operational control at Oracle-owned buildings globally. The volume of waste was converted to lbs using an average density of 450 lbs per yd<sup>3</sup>. The emissions calculation was based on the EPA Waste Reduction Model (WARM) version 14 (updated March 2016) using the 0.35 National Average Emission Factor for Landfilling.

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

#### Explanation

## Business travel

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

192845

### Emissions calculation methodology

This data is acquired from Oracle's air travel reporting tool, as well as our car rental vendors. For air travel, Oracle uses an internal system that is part of the Oracle Business Intelligence Enterprise Edition (OBIEE) tool, leveraging the DEFRA Greenhouse Gas Conversion Factor Repository (2018).

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

#### Explanation

**Employee commuting**

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

70

**Emissions calculation methodology**

This number was calculated using annual mileage data from Oracle's employee shuttle service providers. The emissions were estimated using the following emission factors: CO2: 0.107 (kg CO2/passenger-mile), CH4: 0.0006 (g CH4/passenger-mile), N2O: 0.0005 (g N2O/passenger-mile), as referenced in the EPA Climate Leaders Greenhouse Gas Inventory Protocol Core Module Guidance for Bus Business Travel. These emission factors are based on the assumption that the bus travel is conducted in buses mainly fueled by diesel, and were derived from statistical information on passenger-mile in Table VM-1 of the Federal Highway Administration's Highway Statistics 2005, along with emissions data from Table 2-17 from the U.S. Greenhouse Gas Emissions and Sinks: 1990–2005.

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

**Explanation**

The figure represents emissions data from our employee shuttle providers for our offices in Redwood Shores and Santa Clara, California. This figure does not include emissions from individual employee commuting. With more than 137,000 employees globally, located in over 80 countries, flex working schedules and telecommuting, we are unable to provide a calculation for individual employees.

**Upstream leased assets**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Explanation**

Oracle leases a number of facilities and equipment such as copiers. All emissions related to these upstream leased assets are within our Scope 1 and 2 GHG inventory.

**Downstream transportation and distribution**

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

37874

**Emissions calculation methodology**

This data is obtained from Oracle's transportation and distribution vendors on an annual basis. The emissions are calculated using an equation from the GLEC framework for logistics emissions: Distance Traveled x Total Weight x GLEC Protocol emissions factors per transport mode. One of our vendors has developed an internal tool leveraging the following information: 1) Actual customer shipment records for the period, listing origin and destination points, weight per shipment and primary shipment mode; 2) A proprietary distance table based largely on the Publication 151 – Distance Between Ports. National Imagery and Mapping Agency, 2001. Distances are calculated based on common vessel routings for ocean and using the "Great Circle Distance" method for air and ocean; Distances for road freight are calculated using the planned distance between the origin and destination points and a circuitry factor to provide a more accurate distance and allow for deviations. 3) GLEC emissions factors per primary mode of transport.

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

**Explanation**

Our transportation and distribution vendors provide us with annual emissions data, including both upstream and downstream emissions. We estimate that upstream emissions account for approximately 20% of those emissions, whereas downstream emissions account for 80%.

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

Subsequent to manufacturing, Oracle hardware is not processed further.

## Use of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

With Oracle's ongoing transition to the Cloud, we have determined that our key impact in this category lies in the delivery of Oracle Cloud products and services. To this end, we continue to work with our colocation data center providers to build a cloud infrastructure that is clean, efficient, and circular. All emissions resulting from the use of our cloud offerings are included in our Scope 2 emissions inventory, hence we have determined that this Scope 3 category is not relevant to us.

## End of life treatment of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

Upon evaluating the estimated emissions associated with the disposal and treatment of Oracle-branded products, we determined that this source is not relevant and the emissions are not material to our Scope 3 emissions footprint. We offer product take-back to all of our customers to help ensure products are recycled or disposed of responsibly and in compliance with the law. Products that cannot be remanufactured by Oracle for reuse are sent to our contracted recyclers, who responsibly recycle, or resell the remaining material - sending only 0.5% to landfill. In FY18, Oracle took back more than 3 million lbs of product, of which 92.4% was recycled, 7.1% reused, and 0.5% sent to landfill. Oracle conducts audits to help ensure that our recyclers and their downstream processors have proper Health & Safety controls in place and are compliant with local law. By expanding the number of sites in our recycling network and increasing the percentage of material reused vs. recycled, we reduce shipping miles and conserve raw materials, both of which have an environmental benefit. We assist our customers in their end-of-life planning and in many cases offer de-install, data destruction, transportation and recycling services at no charge. More information of Oracle's Take Back and Recycling programs can be found at; <http://www.oracle.com/us/products/servers-storage/take-back-and-recycling/index.html>

## Downstream leased assets

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

11653

### Emissions calculation methodology

This figure was calculated by multiplying the total square feet of subleased space by 15.9 kWh of electricity consumption per square feet (taken from the EIA CBECS survey) and the eGRID subregion US average emission factor of 1,136.53 lbs/MWH.

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

### Explanation

## Franchises

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

Oracle does not have any franchises.

## Investments

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

Oracle is not a financial institution. Our "investments" are primarily debt investments without known use of proceeds.

## Other (upstream)

### Evaluation status

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Explanation

Other (downstream)

Evaluation status

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

C6.7

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(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

C6.10

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

**Intensity figure**

0.0000096218

**Metric numerator (Gross global combined Scope 1 and 2 emissions)**

379532

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

39445000000

**Scope 2 figure used**

Market-based

**% change from previous year**

10.43

**Direction of change**

Decreased

**Reason for change**

Emission reduction activities, such as increased operational efficiency.

---

**Intensity figure**

2.756196853

**Metric numerator (Gross global combined Scope 1 and 2 emissions)**

379532

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

137701

**Scope 2 figure used**

Market-based

**% change from previous year**

8.03

**Direction of change**

Decreased

**Reason for change**

Emission reduction activities, such as increased operational efficiency and employee engagement.

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## C7. Emissions breakdowns

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### C7.1

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

Yes

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#### C7.1a

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

CO2	17053	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	22	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	9	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	0	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	0	IPCC Fourth Assessment Report (AR4 - 100 year)

## C7.2

---

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

North America	12567
Asia Pacific (or JAPA)	2592
Latin America (LATAM)	186
Europe, Middle East and Africa (EMEA)	1739

## C7.3

---

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

By activity

### C7.3c

---

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

Data center activities: The figure cited here represents fuel use for backup electricity at our standalone data centers in Austin, Texas and Salt Lake City, Utah.	395
Various business activities, including but not limited to manufacture of hardware and business services (office-based activities)	16689

## C7.5

---

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

North America	307089	281489	756564	63592
Asia Pacific (or JAPA)	102403	73111	141234	7884
Latin America (LATAM)	3515	2437	15102	2474
Europe, Middle East and Africa (EMEA)	76910	5411	211588	167505

**C7.6**

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

By activity

**C7.6c**

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

Data center activities: The figure cited here applies to our two largest data centers, Austin Data Center and Utah Compute Facility, as well as emissions from our 10 smaller data centers located in California, Colorado, and Utah in the U.S., and Reading and Linlithgow in the U.K.	79587	71638
Various business activities, including but not limited to manufacture of hardware and business services (office-based activities)	227019	176377
Emissions from colocation data center facilities associated with Oracle Cloud services	183311	114433

**C7.9**

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

Decreased

**C7.9a**

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

Change in renewable energy consumption	6825	Decreased	1.63	This calculation represents the emissions savings resulting from increased renewable energy consumption from 2017 to 2018 (95,409 MTCO <sub>2</sub> e in 2018 vs. 88,584 MTCO <sub>2</sub> e in 2017 = 6,825 MTCO <sub>2</sub> e increase in savings). In addition to increasing our renewable energy procurement through utilities/suppliers, we completed installations of new solar Photovoltaic (PV) arrays at our facilities in Pune and Mumbai, India. We also commenced onsite solar installations at our facility in Bengaluru, India. The emissions value percentage was calculated by dividing the estimated savings by the previous year's scope 1 and scope 2 emissions (417,923 MTCO <sub>2</sub> e). Therefore, we arrived at 1.63% through $6,825/417,923 \times 100$ .
Other emissions reduction activities	4497	Decreased	1.07	In 2018, an estimated 4,497 MTCO <sub>2</sub> e were reduced by our emissions reduction initiatives globally, and our total scope 1 and scope 2 emissions in the previous year amounted to 417,923 MTCO <sub>2</sub> e. Therefore, we arrived at 1.09% through $(4,497/417,923) \times 100 = 1.07$ . To achieve this, we implemented several emissions reduction initiatives, including leveraging automated systems to control heating, cooling, ventilation, lighting, and other energy-consuming equipment; LED lighting installation; lighting and HVAC system and control upgrades; domestic hot water upgrades; modified boiler systems to reduce operating times; submeter installation to monitor individual labs and large equipment. In addition, we improved our efforts to engage Oracle employees in reducing the company's environmental impact across our facilities globally.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	27128	Decreased	6.49	We further reduced our emissions through improved operational efficiencies, including a significant reduction in electricity use (6.3% year-over-year) at several Oracle facilities and data centers. In addition, the square footage in our operational control reduced by approximately 125K sq. ft., which resulted in additional emissions reductions. These measures reduced our total emissions by an estimated 29,422 MTCO <sub>2</sub> e. Conversely, we saw increased use at our backup diesel generator in India resulting from a prolonged electricity blackout in 2018, as well as increased natural gas use at several facilities globally. These factors increased our emissions by an estimated 2,294 MTCO <sub>2</sub> e. The emissions value percent was calculated by dividing the net emissions reduction (27,128 MTCO <sub>2</sub> e) by the previous years' scope 1 and 2 emissions (417,923 MTCO <sub>2</sub> e). Therefore, we arrived at 6.49% through $(27,128/417,923) \times 100$ .

## C7.9b

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

Market-based

## C8. Energy

### C8.1

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

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

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**C8.2**

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

Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

---

**C8.2a**

---

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

Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	65792	65792
Consumption of purchased or acquired electricity	<Not Applicable>	241456	878772	1120228
Consumption of purchased or acquired heat	<Not Applicable>	0	603	603
Consumption of purchased or acquired steam	<Not Applicable>	0	49	49
Consumption of purchased or acquired cooling	<Not Applicable>	0	3608	3608
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	12035	<Not Applicable>	12035
Total energy consumption	<Not Applicable>	253491	948824	1202315

---

**C8.2b**

---

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

Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

---

**C8.2c**

---

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

Natural Gas

---

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

62151

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

8506

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

53645

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Comment**

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

1575

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

1575

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

0

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Comment**

---

**Fuels (excluding feedstocks)**

Other, please specify (estimate of fuel use for owned vehicles)

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

2066

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

0

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

0

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

<Not Applicable>

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

<Not Applicable>

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

&lt;Not Applicable&gt;

**Comment****C8.2d****(C8.2d) List the average emission factors of the fuels reported in C8.2c.****Diesel****Emission factor**

0.25322

**Unit**metric tons CO<sub>2</sub>e per MWh**Emission factor source**

US EPA Emission Factors for Greenhouse Gas Inventories, 9 March 2018

**Comment****Natural Gas****Emission factor**

0.18123

**Unit**metric tons CO<sub>2</sub>e per MWh**Emission factor source**

US EPA Emission Factors for Greenhouse Gas Inventories, 9 March 2018

**Comment****Other****Emission factor**

0.1975

**Unit**metric tons CO<sub>2</sub>e per MWh**Emission factor source**

DEFRA Conversion Factors 2017 US EPA Emission Factors for Greenhouse Gas Inventories, 9 March 2018

**Comment**

This emission factor was derived from the DEFRA Conversion Factors 2017 repository > passenger vehicles category -- 0.29357 kgCO<sub>2</sub>e per miles for Average vehicle (assuming an average mileage of 10,000 per vehicle). The fuel consumption was estimated using EPA's EF Hub > Heat content for motor gasoline (.125 MMBtu/gal).

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

Electricity	22116	22116	12035	12035
Heat	53645	53645	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

## C8.2f

---

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

**Basis for applying a low-carbon emission factor**

Energy attribute certificates, Renewable Energy Certificates (RECs)

**Low-carbon technology type**

Wind

**Region of consumption of low-carbon electricity, heat, steam or cooling**

Other, please specify (United States and India)

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

16333

**Emission factor (in units of metric tons CO<sub>2</sub>e per MWh)**

0

**Comment**

In 2018, we purchased low carbon energy at several facilities, including 15,133 MWh and 1,200 MWh of renewable energy credits (RECs) in the U.S. and India respectively.

---

**Basis for applying a low-carbon emission factor**

Contract with suppliers or utilities ( e.g. green tariff), supported by energy attribute certificates

**Low-carbon technology type**

Other low-carbon technology, please specify (Type varies by supplier and region )

**Region of consumption of low-carbon electricity, heat, steam or cooling**

Other, please specify (Global)

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

57146

**Emission factor (in units of metric tons CO<sub>2</sub>e per MWh)**

0

**Comment**

This represents the zero carbon electricity purchased through suppliers at several locations around the world.

---

**Basis for applying a low-carbon emission factor**

Other, please specify (renewable use at colocation data centers)

**Low-carbon technology type**

Other low-carbon technology, please specify (Type varies by supplier and region )

**Region of consumption of low-carbon electricity, heat, steam or cooling**

Other, please specify (Global)

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**

167975

**Emission factor (in units of metric tons CO<sub>2</sub>e per MWh)**

0

**Comment**

This represents the zero carbon electricity purchased at Oracle's colocation data center facilities globally.

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## C9. Additional metrics

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

**Description**

Waste

**Metric value**

0.76

**Metric numerator**

Liters

**Metric denominator (intensity metric only)**

square footage (owned buildings)

**% change from previous year**

1

**Direction of change**

Decreased

**Please explain**

Oracle has a goal to achieve a 25 percent reduction in waste sent to landfill per square foot of owned facilities by 2020, against a 2015 baseline. As of 2018, Oracle had achieved this goal.

---

**Description**

Energy usage

**Metric value**

20.2

**Metric numerator**

kWh

**Metric denominator (intensity metric only)**

Unit of revenue (\$1000)

**% change from previous year**

5.6

**Direction of change**

Decreased

**Please explain**

Oracle has a goal to achieve a 20 percent reduction in energy use (kWh) per unit revenue (\$1000) by 2020, against a 2015 baseline.

---

**Description**

Other, please specify (Water use)

**Metric value**

87

**Metric numerator**

Liters of potable water

**Metric denominator (intensity metric only)**

square footage (owned buildings)

**% change from previous year**

4.6

**Direction of change**

Decreased

**Please explain**

Oracle has a goal to achieve a 25 percent reduction in potable water consumption per square foot of owned facilities by 2020, against a 2015 baseline.

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C10. Verification

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C10.1

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

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

C10.1a

---

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

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Oracle 2018 GHG Inventory Assurance Review Letter\_FINAL.pdf

Page/ section reference

1-2

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

---

Scope

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Oracle 2018 GHG Inventory Assurance Review Letter\_FINAL.pdf

Page/ section reference

1-2

Relevant standard

ISO14064-3

---

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

100

---

**Scope**

Scope 2 market-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Oracle 2018 GHG Inventory Assurance Review Letter\_FINAL.pdf

**Page/ section reference**

1-2

**Relevant standard**

ISO14064-3

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

100

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**C10.1b**

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

**Scope**

Scope 3- at least one applicable category

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Attach the statement**

Oracle 2018 GHG Inventory Assurance Review Letter\_FINAL.pdf

**Page/section reference**

1-2

**Relevant standard**

ISO14064-3

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**C10.2**

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

Yes

**C10.2a**

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

C8. Energy

Other, please specify (Total energy consumption (MWh))

ISO14064-3

In addition to our emissions data, we verified our total energy consumption (MWh) for 2018, as reported in C8.2a.

**C11. Carbon pricing**

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**C11.1**

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

No, and we do not anticipate being regulated in the next three years

**C11.2**

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

No

**C11.3**

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

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

**C12. Engagement**

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**C12.1**

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

Yes, our suppliers

Yes, our customers

**C12.1a**

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

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**

0.14

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

---

**% Scope 3 emissions as reported in C6.5**

46

**Rationale for the coverage of your engagement**

This engagement initiative covers Oracle's strategic direct hardware suppliers, representing a significant portion of Oracle's spend. As a member of the Responsible Business Alliance (RBA), we have established a formal process for engaging with our suppliers on a variety of issues related to climate change, including energy consumption and GHG emissions, water use, and hazardous substances. In 2018, we engaged with our strategic suppliers to report data on their carbon, water and waste footprints via the RBA platform, aiming to achieve a supplier response rate of 85% based on hardware spend. Oracle leverages quarterly scorecards for our strategic suppliers, and provides training to new supplier managers around quarterly Social and Environmental Responsibility (SER) deliverable requests and why they are important. In addition, Oracle is an active member of the RBA Environmental Sustainability working group, and contributed to revising language in the code to address energy and water issues in the supply chain. Oracle also evaluated the RBA environmental maturity model to determine how it may be applied to our own strategic manufacturing suppliers, in addition to being leveraged by other RBA members. These efforts help us to not only educate our supply chain on various climate related issues and strategies, but also to help us manage our own environmental impact, and that of our products.

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

The impact of engagement includes greater transparency into Oracle's supply chain, and the associated risks and areas for improvement. In 2018, we exceeded our goal (which also constitutes our measure of success) of engaging Oracle's hardware suppliers representing 85% of our total spend, ultimately receiving responses from 89%.

**Comment****Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**

1.5

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

35

**% Scope 3 emissions as reported in C6.5**

30

**Rationale for the coverage of your engagement**

Oracle's Internal Category Procurement Managers identify key suppliers, particularly those that have strong sustainability records to document and share supplier success stories that can be replicated. Currently, we have reached out to suppliers representing the top 80% indirect procurement spend to build a baseline for the Sustainable Procurement program, in addition to capturing our scope 3 footprint.

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

As part of Oracle's Sustainable Procurement program, we are requesting quantitative and qualitative reporting from our key indirect suppliers to better understand supplier behavior and to identify potential areas for improvement. These metrics are compiled into supplier success stories that are shared with Oracle employees company-wide. In 2018, we launched our first round of reporting via a supplier survey. The goal of the survey is to establish a baseline to assess suppliers' sustainability performance, which will allow us to track progress going forward, as well as identify and work with suppliers who do not meet our sustainability standards. The success of this initiative is measured by the percent of total procurement spend represented.

**Comment****C12.1b**

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

**Type of engagement**

Collaboration & innovation

**Details of engagement**

Run a campaign to encourage innovation to reduce climate change impacts

**% of customers by number**

0.14

**% Scope 3 emissions as reported in C6.5**

2.68

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

As a strong proponent of the circular economy, Oracle provides several Take Back programs for our hardware customers. In the absence of such programs, Oracle's hardware products could result in significant electronic waste at the end of their useful life. Hence, the rationale for offering these programs to our hardware customers is to help mitigate any environmental impacts or security risks that may be caused by improper disposal of old or decommissioned IT equipment. Customers who use our Take Back programs have access to free on-site services, including disk erasure, as concerns around data security continue to grow. Each year, approximately 40,000 spare parts are harvested, tested and provided to Oracle Service to support customers and extend the useful life of product. Customers who upgrade after 4-5 years of use help support other customers who choose to run a product for 8-12 years, thus conserving natural resources. With the growth of Oracle's Cloud business, we anticipate the percent of systems we take back versus systems we ship into the market to grow from ~16% today, to more than 50% over the next several years. Our Reverse Supply Chain is distributed across the 3 regions; Americas, Europe and Asia. Processing Take Back material locally acts as an investment in those regions, and reduces transportation miles, as well as associated carbon emissions.

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

Oracle's Take Back programs return 40,000 spare parts annually to service Oracle products, support customers, and extend the useful life of additional products. As a result, we are able to significantly reduce electronic waste in our operations and advance the circular economy. The success of this initiative is measured by the volume of material collected through Oracle's Take Back programs, and the percentage diverted from landfill. In FY18, Oracle took back more than 3 million lbs of product, of which 92.4% was recycled, 7.1% reused, and only 0.5% sent to landfill.

---

**Type of engagement**

Education/information sharing

**Details of engagement**

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

**% of customers by number**

**% Scope 3 emissions as reported in C6.5**

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

Oracle released a 'digibook' titled The Sustainable Supply Chain, with the goal of enabling our customers to advance sustainability within their own organizations. The digibook includes key sustainability initiatives companies are enabling today, how businesses across different industries are managing more sustainable operations, and Oracle's modern suite of solutions that help companies meet their sustainability goals. The publication was shared with supply chain managers and professionals from several companies. The rationale for selecting this group was to provide valuable guidance and thought leadership to both existing and prospective customers.

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

The Sustainable Supply Chain digibook has been shared with more than 7,400 users, including Oracle customers, and has reached additional users through online and in-person engagement, including blogs, customer campaigns, etc. Success is measured by the number of users reached.

---

**Type of engagement**

Education/information sharing

**Details of engagement**

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

**% of customers by number**

**% Scope 3 emissions as reported in C6.5**

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

Oracle OpenWorld is Oracle's annual customer conference, engaging over 60,000 attendees. The event is designed and implemented with sustainability in mind, and has set aggressive sustainability goals around emissions offset, water and waste reduction. During the event, Oracle customers are engaged in several sustainability sessions and have the opportunity to learn

about Oracle's climate change performance and strategy. In addition, Oracle hosts a Sustainability Innovation Awards event at OpenWorld each year, where we recognize customers who are using Oracle products and services to meet their own sustainability goals. 2018 marked the eleventh anniversary of these awards.

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

The success of this engagement is measured by the progress achieved toward our event sustainability goals (e.g. emissions offset, water and waste reduction), as well as the number of customers engaged through the Sustainability Innovation Awards. The impact of this engagement included progress toward Oracle's event sustainability goals. For example, Oracle and its venue partners offset 601 metric tons of carbon in 2018, which represents 100% of onsite carbon emissions at the event. 110,238,959 pounds CO<sub>2</sub> were offset by Oracle OpenWorld over the past 8 years, equivalent to keeping 10,708 cars off the road for one year or neutralizing emissions from 54,665,178 pounds of coal burned. Through the Sustainability Innovation Awards, we recognized several Oracle customers using our products to advance their own sustainability initiatives. The 2018 winners included the City of San Jose, National Grid, and the Orlando Utility Commission.

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#### **Type of engagement**

Education/information sharing

#### **Details of engagement**

Share information about your products and relevant certification schemes (i.e. Energy STAR)

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

#### **% Scope 3 emissions as reported in C6.5**

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

Oracle hosts several forums for building awareness and sharing best practices with our customers on an ongoing basis, through videos, customer case studies, and news. Oracle has a dedicated Sustainability YouTube channel and a Sustainability Matters blog, which are accessible to existing and potential customers around the world.

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

The success of this engagement is measured by the number of views garnered and subscribers engaged. The impact of engagement includes a growing audience of existing and potential customers through these online platforms. The Oracle Sustainability Solutions YouTube channel has more than 870 subscribers, and the customer success stories have collectively garnered more than 28,000 views till date.

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### **C12.3**

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

Trade associations

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### **C12.3b**

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

Yes

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### **C12.3c**

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

##### **Trade association**

Information Technology Industry Council (ITI)

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

Consistent

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

ITI's Environmental Leadership Council leads industry engagement in product materials selection and design; green procurement

standards and policies; product stewardship and e-recycling initiatives; and supply chain transparency and sustainability challenges.

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

Oracle serves on the Board of Directors of the Information Technology Industry Council (ITI) and works with ITI to promote improved energy efficiency and reduced energy use within states and the United States federal government. These actions align with ITI's position on climate change, and are considered among ITI's key focus areas.

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**Trade association**

Advanced Energy Economy (AEE)

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

Consistent

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

AEE is the primary association representing the advanced energy industry. They promote the environmental and economic benefits of a range of advanced energy solutions, including energy efficiency and tools to incorporate renewable energy into the electric grid.

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

Oracle serves on the Board of Directors of AEE and shapes all of AEE's policy positions on issues that impact the market size for our products, particularly the energy efficiency solutions we provide to utilities. We also help implement those policy positions by supporting advocacy efforts.

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**Trade association**

DigitalEurope

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

Consistent

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

DigitalEurope's Digital Sustainability Policy Group (DSPG) aims to be the trusted and preferred partner for environmental policy makers, reaching out for constructive discussion with other stakeholders. It advocates the integration of environmental considerations at the stage of product design with the aim of reducing all relevant potential environmental impacts over its entire life cycle. The aim is to demonstrate leadership in this area, helping to support other industries through advancement in electronics, software applications and services.

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

Oracle's work with DigitalEurope's Digital Sustainability Policy Group encompasses the following focus areas: Chemicals, Ecodesign, Waste, Resource efficiency. Each focus area addresses a number of topical issues including substance restrictions, eWaste, material and energy efficiency, GHG measuring, and ecolabels.

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**Trade association**

American Chamber of Commerce to the EU

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

Consistent

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

AmCham EU strives to promote a coherent, science-based and balanced approach to sustainable growth. It supports better regulation and facilitation of the transatlantic dialogue on environmental issues. The committee identifies, monitors, evaluates and makes policy recommendations on European environmental policies including: • Chemical legislation (REACH) • RoHS and Waste Electrical and Electronic Equipment (WEEE) Directive implementation • Circular economy • Resource efficiency and waste • Conflict minerals • Air quality

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

Oracle engages in committee work at AmCham EU, particularly in the environment committee and the transport, energy and climate committee. Both committees cover current issues like resource efficiency, waste and circular economy, RoHS implementation and review, as well as conflict minerals. A senior Oracle executive currently holds the position of Chairman of the Board for the organization.

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

The processes that Oracle has in place to ensure that all of our direct and indirect activities that influence policy are consistent with our overall climate strategy are:

Oracle's Environmental Steering Committee (ESC) – which includes representatives from several business units, including the Public Policy and Government Affairs teams, and which is led by Oracle's Chief Sustainability Officer (CSO) – has processes in place to ensure a common approach that is consistent with Oracle's overall strategy on climate change. These processes include risk identification and assessment, cross-functional marketing and communications, and stakeholder and supply chain engagement. The ESC meets quarterly, with sub-committees and working groups meeting more frequently.

#### C12.4

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

**Publication**

In mainstream reports

**Status**

Complete

**Attach the document**

Oracle Corporate Form 10-K\_FY2018.pdf

**Page/Section reference**

Business Risk Factors

**Content elements**

Governance

Risks & opportunities

**Comment**

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

Clean Cloud section\_Oracle Corporate Citizenship Report 2018.png

Customers section\_Oracle Corporate Citizenship Report 2018.png

Operations section\_Oracle Corporate Citizenship Report 2018.png

Operations section 2\_Oracle Corporate Citizenship Report 2018.png

CSO Message\_Oracle Corporate Citizenship Report 2018.png

Employees section\_Oracle Corporate Citizenship Report 2018.png

**Page/Section reference**

Sustainability section

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

**Comment**

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**Publication**

In voluntary communications

**Status**

Complete

**Attach the document**

Oracle Sustainability Matters blog.png

Oracle Sustainability Twitter.png

**Page/Section reference**

Oracle Sustainability Blog Oracle Sustainability social media accounts

**Content elements**

Strategy

Emission targets

Other metrics

**Comment**

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C14. Signoff

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C-FI

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

C14.1

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(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

Row 1	Chief Sustainability Officer and Group Vice President, Product Strategy	Chief Sustainability Officer (CSO)
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SC. Supply chain module

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SC0.0

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

Oracle is committed to developing practices and products that help protect the environment. We offer a comprehensive and fully integrated stack of cloud applications, platform services, and engineered systems that help our companies achieve environmental performance improvement, while creating business value. We employ socially and environmentally responsible business practices throughout our supply chain, facilities, and energy-efficient data centers.

To produce our hardware products that we market and sell to third-party customers and that we utilize internally to deliver as a part of our Oracle Cloud operations, we rely on both our internal manufacturing operations as well as third-party manufacturing partners. Our internal manufacturing operations consist primarily of materials procurement, assembly, testing and quality control of our Oracle Engineered Systems and certain of our enterprise and data center servers and storage products. For all other manufacturing, we generally rely on third-party manufacturing partners to produce our hardware-related components and hardware products and we may involve our internal manufacturing operations in the final assembly, testing and quality control processes for these components and products. We distribute most of our hardware products either from our facilities or partner facilities. Our manufacturing processes are substantially based on standardization of components across product types, centralization of assembly and distribution centers and a "build-to-order" methodology in which products generally are built only after customers have placed firm orders. Production of our hardware products requires that we purchase materials, supplies, product subassemblies and full assemblies from a number of vendors. Our hardware supply chain supplier network is diverse and multi-tiered, with several vendors specializing in the manufacture of specific parts and components. For this reason, we do not believe we can credibly allocate emissions to individual products and customers. Instead, we prefer to focus our resources on lowering our own energy use and emissions, as well as encouraging our suppliers to do the same.

To this end, Oracle engages with industry, trade, and government organizations to define standards and best practices around supply chain management. As a member of the Responsible Business Alliance (RBA), Oracle actively participates with other industry group members to address issues in our respective hardware supply chains. Oracle's direct hardware supply chain suppliers are also invited to RBA webinars and training sessions on energy efficiency and greenhouse gas (GHG) reporting. To further assess environmental impact in our hardware supply chain, we leverage a supplier scorecard, which helps us better measure and manage the environmental footprint of suppliers in our direct hardware supply chain.

As a strong proponent of the circular economy, Oracle offers various take back programs to allow our customers and suppliers to return excess used products or materials. These programs help protect the environment and provide valuable services to our customers. In FY18, we took back more than 3 million lbs of product, of which 99.5% was recycled or reused. We continue to work with contracted recycling sites and sites with R2 or e-Stewards certification in several countries. These certifications, coupled with our own audits, help ensure that our recyclers and their downstream processors have proper environmental, health and safety controls in place and are compliant with local law. We assist our customers in their end-of-life planning and in many cases offer de-install transportation and recycling services at no charge. As our customers increasingly move to Oracle Cloud, we will have greater control over the deployment and end-of-life treatment of our assets. As a result, we anticipate the percent of systems we take back versus systems we ship into the market to grow from ~16% today, to more than 50% over the next several years.

For more information, please visit [oracle.com/citizenship](https://oracle.com/citizenship).

## SC0.1

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

Row 1

## SC0.2

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

No

## SC1.1

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

## SC1.2

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

## SC1.3

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

Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Oracle's product portfolio spans more than 900 products, and our hardware supply chain consists of over 200 direct hardware suppliers around the world. Many of these suppliers specialize in the manufacture of specific parts and components, which makes it very difficult to measure the carbon footprint of finished products. For this reason, we are unable to accurately allocate emissions to individual products/product lines. Oracle engages with industry, trade, and government organizations to define consistent standards and practices around hardware supply chain environmental management. As a member of the RBA, Oracle actively participates with other industry group members to address issues in our respective hardware supply chains. Oracle's direct hardware suppliers are also invited to RBA webinars and training sessions on energy efficiency and GHG reporting. To further assess environmental impact in our hardware supply chain, we leverage a supplier scorecard, which helps us better measure and manage the environmental footprint of suppliers in our direct hardware supply chain.
Customer base is too large and diverse to accurately track emissions to the customer level	Oracle has over 430,000 customers in more than 175 countries around the world, many of whom use multiple Oracle products and services. This makes it very difficult to accurately allocate emissions to individual customers. Oracle continues to develop products and services that help protect the environment, and energy efficiency is an important consideration in our product design and manufacturing process. Calculating emissions data at the enterprise level is the most strategic and accurate approach for Oracle.

## SC1.4

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

No

## SC1.4b

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**(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.**

Oracle continues to develop products and services that help protect the environment, and energy efficiency is an important consideration in how we design and manufacture our products. That said, the emissions generated by our hardware products are contingent upon several factors that are beyond our control – such as our customers' usage patterns and business needs, and the energy efficiency of facilities where our equipment is manufactured and housed. For these reasons, we are unable to formulate a meaningful and standardized measure to calculate the emissions generated by our hardware products.

As we evolve our portfolio of products and services, we expect our supplier and customer networks to become increasingly diverse. Consequently, allocating emissions to individual products and customers will also become increasingly difficult. Given these factors, we believe that calculating emissions data at the enterprise level is the most strategic and accurate approach for Oracle.

**SC2.1**

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

**SC2.2**

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

No

**SC3.1**

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**(SC3.1) Do you want to enroll in the 2019-2020 CDP Action Exchange initiative?**

No

**SC3.2**

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**(SC3.2) Is your company a participating supplier in CDP's 2018-2019 Action Exchange initiative?**

No

**SC4.1**

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

No, I am not providing data

**Submit your response**

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

English

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

I am submitting my response   Public

Investors  
Customers

Yes, submit Supply Chain Questions now

**Please confirm below**

I have read and accept the applicable Terms