

Module: Introduction**Page: Introduction****CC0.1****Introduction**

Please give a general description and introduction to your organization.

Oracle offers a comprehensive and fully integrated stack of cloud applications, platform services, and engineered systems. With more than 420,000 customers in more than 145 countries, Oracle provides a complete technology stack both in the cloud and in the data center. Oracle's industry-leading cloud-based and on-premises solutions give customers complete deployment flexibility and unmatched benefits including application integration, advanced security, high availability, scalability, energy efficiency, powerful performance, and low total cost of ownership. For more information about Oracle (NYSE:ORCL), visit oracle.com.

Scale:

- US\$37 billion total GAAP revenue in FY16
- 420,000 customers in 145 countries
- US\$46 billion in R&D since 2004
- Approximately 120 acquisitions for over \$70 billion since 2005
- More than 25,000 partners worldwide
- More than 135,000 employees
- 16,000 customer support specialists, speaking 29 languages
- 18,000 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:

- #1 in Worldwide SaaS Enterprise Applications Revenue by Vendor for 1,000+ Business User Customer Segments, 2015
- Position on the 2016 Interbrand 100: 17
- More than 17,000 patents worldwide
- 40,000 developers and engineers
- Over 365 independent user communities representing more than 935,000 members
- 2.5 million registered members of the Oracle Technology Network Community

Other:

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

CC0.2

Reporting Year

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

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

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

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

Enter Periods that will be disclosed

Fri 01 Jan 2016 - Sat 31 Dec 2016

CC0.3

Country list configuration

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

Select country

Select country
United States of America
Rest of world

CC0.4

Currency selection

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

USD(\$)

CC0.6

Modules

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

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

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

Further Information

Module: Management

Page: CC1. Governance

CC1.1

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

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

CC1.1a

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

Oracle's Chief Sustainability Officer (CSO) oversees the company's sustainability initiatives and sets the strategic direction for Oracle's Sustainability Solutions – products that help thousands of Oracle customers to reduce their environmental impact.

The CSO, who reports to the Senior Vice President of Applications Development, chairs Oracle's Environmental Steering Committee (ESC), which was launched in 2008. The ESC defines the company's sustainability goals and meets quarterly to define strategy and monitor progress. The ESC is represented by individuals from different Oracle lines of business, who, in turn, lead larger working groups within their respective areas. Oracle's materiality assessment and environmental policy are reviewed on an annual basis at an in-person, multi-stakeholder meeting, where we identify key focus areas and action items. Each working group then meets on a monthly basis to review progress and report any key updates to the ESC.

The ESC includes the following members:

Jon Chorley, Chief Sustainability Officer & Group Vice President, SCM Product Strategy & PLM (Chair)
Randy Smith, Vice President, Global Real Estate and Facilities
Karl Braitberg, Senior Vice President, Worldwide Systems Operations
Laura Ipsen, General Manager & Senior Vice President Oracle Marketing Cloud
Elizabeth Snyder, Vice President, Human Resources, International
Ron Melanson, Vice President, Hardware Development
Christina Cavanna, Vice President, Corporate Marketing
Jason Feldman, Vice President, Global Procurement
Colleen Cassity, Executive Director, Corporate Citizenship, Giving & Volunteers
Meredith Golemon Bielke, Senior Director, International Trade Policy
Steve Lowrey, Senior Director Datacenter Automation & Global Desktop
Cliff Hilton, Director, EMEA Sustainability, Environment and Health & Safety
Evelyn Neumayr, Senior Director, Product Strategy
Rich Kroes, Director, Product Strategy

Among the ESC members, two report directly to Oracle co-CEO Safra Catz and one reports directly to Oracle co-CEO Mark Hurd. Four members are in the management chain of Oracle Executive Chairman and CTO Larry Ellison. All members of the ESC are senior managers at Oracle and, as a Committee, are empowered by and answerable to Oracle's co-CEO Safra Catz, who is also a member of Oracle's Board of Directors.

The ESC is also responsible for identifying strategic business opportunities with regard to climate change. For example, members of the ESC 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 R&D and training around the circular economy (Product Design and Hardware Development).

CC1.2

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

Yes

CC1.2a

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

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	Oracle's Global Green Events team recognizes employees with a monetary reward for contributing to making Oracle events sustainable and helping mitigate aspects of climate change such as greenhouse gas emissions and energy efficiency. For example, Oracle personnel implemented several sustainability measures at Oracle OpenWorld – from improving waste sorting programs to minimizing the use of non-compostable materials. As a result of these efforts, 64% of waste generated at the event was diverted from landfill in 2016, and 81% of menu ingredients were sourced from within 250 miles of San Francisco. In addition, 100% of onsite emissions were offset by Oracle.
All employees	Recognition (non-monetary)	Energy reduction project Efficiency project Behavior change related indicator	In 2016, 4,328 Oracle Volunteers completed 226 environmental projects, totaling more than 20,657 donated hours. For example, in an effort to assist in the mitigation of climate change, 120 Oracle Volunteers joined forces with the World Wildlife Fund (WWF) India to plant around 400 trees over the course of the year, which could sequester up to 400 tons of CO2 over a 40-year period. 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 a badge of excellence, an award certificate, and a \$500 donation to the partner nonprofit organization.
All employees	Recognition	Emissions	As part of the Sustainability Champions program, Oracle recognizes employees who help attain

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
	(non-monetary)	reduction target Energy reduction target Efficiency target Behavior change related indicator	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 2016 Sustainability Champions included employees who advocated sustainable practices such setting up a new office recycling program in Latin America, championing electric vehicle adoption, and eliminating signage waste from corporate events.
Energy managers	Recognition (non-monetary)	Energy reduction target Efficiency target	
Facility managers	Recognition (non-monetary)	Energy reduction target Efficiency target	
Other: Data center managers	Recognition (non-monetary)	Energy reduction target Efficiency target	
Other: Building site managers	Recognition (non-monetary)	Energy reduction target Efficiency target	

Further Information

Page: CC2. Strategy

CC2.1

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

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

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

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	Global	> 6 years	Assessments are performed by Oracle's Environmental Steering Committee (ESC), which meets every quarter and addresses 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 6 years. The ESC reports its findings to Oracle CEO Safra Catz annually.

CC2.1b

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

Company level:

Environmental risks and opportunities are assessed at a company level by several groups, including Global Real Estate & Facilities (which includes Environment Health & Safety and Energy Management), Worldwide Systems Operations, Public Policy, and Legal, who continuously monitor regulatory developments at international, national, state, and local levels. Potential risks are then documented and analyzed for appropriate responses. 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 Environmental Steering Committee (ESC) and its various working groups. Other climate-related opportunities, such as those associated with employee engagement and circular economy, are identified within the respective lines of business and collectively addressed by the ESC.

Asset level:

Regulatory risks are assessed at an asset level by several groups, including Global Real Estate & Facilities (which includes Environment Health & Safety and Energy Management), Worldwide Systems Operations, and Legal, who continuously monitor regulatory developments at international, national, state, and local

levels. Potential risks and opportunities are then documented and analyzed for appropriate responses. Oracle also has a dedicated Energy Director who is responsible to Real Estate and Facilities to set and meet emissions- and energy-reduction goals.

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

Oracle prioritizes the 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 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), and resource availability. 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.

CC2.1d

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

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

Yes

CC2.2a

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

The process of how climate change is integrated into Oracle's business strategy and the subsequent outcomes are:

i) How business strategy has been influenced:

Oracle's business strategy has been influenced by climate change in that we've incorporated an environmental policy that defines our commitment to sustainable business practices. The process by which Oracle integrates climate change issues into business strategy is through the Environmental Steering Committee (ESC). The ESC – whose members represent various lines of business – oversees the company's sustainability initiatives and meets quarterly to monitor progress. In these meetings, the materiality of each issue is analyzed, and the outcomes are formulated into business strategy in collaboration with the appropriate lines of business – e.g. Real Estate and Facilities, Product Strategy, Procurement. As an example of an outcome of climate change being integrated into our business strategy, Oracle's Real Estate and Facilities team has a process in place for setting sustainability goals that address energy and emissions reduction, water conservation, and waste reduction, helping Oracle improve its environmental footprint, while also driving operational efficiency and cost savings.

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

iii) The most important components of Oracle's short-term strategy that have been influenced by climate change include: Emissions and energy consumption, equipment selection and management, waste management, and travel minimization. Our short-term strategy includes a commitment to sustainability through several avenues such as:

- Sharing appropriate knowledge and best practices, and managing the consumption of energy, water, and other resources in our day-to-day operations;
- Incorporating environmental considerations into leasing, purchasing and procurement processes;
- Keeping our internal and external stakeholders informed about Oracle's environmental programs, and providing channels for employees to contribute to our efforts;
- Committing to comply with applicable environmental laws and regulations.

iv) The most important components of Oracle's long-term strategy that have been influenced by climate change include: Emphasizing environmental sustainability in our business operations, and developing sustainability solutions that help our customers manage their own environmental challenges. Internally, we have set aggressive, long-term emissions- and energy-reduction goals (base year 2015), including a science-based target for our Scope 1 and 2 emissions. Our goals include:

- Achieve a 65% reduction in absolute emissions by 2050
- Achieve a 33% target for renewable energy use at Oracle facilities globally by 2020
- Achieve a 20% reduction in energy per revenue by 2020

As Oracle's cloud business grows, Oracle has signed onto The Corporate Colocation and Cloud Buyers' Principles to help promote the adoption of renewable energy use in co-location data center facilities.

v) How this is gaining us strategic advantage over our competitors:

Oracle is uniquely positioned to deliver practical, concrete solutions that help our customers with their sustainability initiatives. Oracle gains strategic advantage over its competitors by offering a comprehensive and fully integrated stack of cloud applications, platform services, and engineered systems. For example, Oracle offers the Environmental Accounting & Reporting (EA&R) tool to help businesses conduct sustainability reporting. Similarly, Oracle Advanced Procurement and Oracle Manufacturing help businesses achieve sustainable sourcing and manufacturing goals.

Oracle endeavors to operate its own business per environmental best practices, and we use our own sustainability solutions, achieving significant benefits to our bottom line. In 2016, Oracle's campus in Redwood Shores, California was recognized as The Outstanding Building of the Year (TOBY), Corporate Facilities

category, by the Building Owners and Managers Association (BOMA) International. The TOBY Award is considered one of the most prestigious and coveted awards in the commercial real estate industry for sustainable building operations and maintenance practices.

vi) The most substantial business decisions made during the reporting year that were influenced by the climate change driven aspects of our strategy include:

- We conducted a Design for the Environment (DfE) workshop with representatives from Oracle's different hardware product lines to discuss the principles of the circular economy (e.g., promoting greater resource productivity to reduce waste and avoid pollution by design or intention). The workshop highlighted the crucial role that design plays in determining the environmental impact of products, and led to the creation of DfE guidelines that are referenced by Oracle engineers during the product design phase. This decision was influenced by the need to decrease the energy consumption and environmental footprint of our products.
- In 2016, Oracle expanded use of Environmental Accounting & Reporting (EA&R) – an Oracle software product that enables companies to better manage and report their energy and GHG emissions data. For example, Oracle leveraged EA&R to report on market-based emissions for the first time in 2016. This decision was influenced by the need to decrease energy consumption and greenhouse gas emissions with regard to climate change.
- Through the Sustainability Innovation Awards - at Oracle OpenWorld, 2016 - we recognized customers who use Oracle products to support their sustainability initiatives. This business decision was influenced by the need to develop and promote green business practices.
- In 2016, Oracle acquired Opower, a leading provider of energy efficiency cloud services to utilities. Opower's solutions support over 100 global utilities, such as National Grid, in delivering a modern digital customer experience.
- Oracle uses several programs to benchmark the environmental performance of its owned buildings. As of 2016, Oracle owned 26 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 4 LEED-certified facilities. The business decision to benchmark our buildings was influenced by the need to measure and reduce greenhouse gas emissions with regard to climate change, and is directly linked with Oracle's Scope 1 and 2 emissions reduction target.

CC2.2b

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

CC2.2c

Does your company use an internal price on carbon?

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

CC2.2d

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

CC2.3

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

Trade associations

CC2.3a

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

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

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

Yes

CC2.3c

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

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Information Technology Industry Council (ITI)	Consistent	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.	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.
DigitalEurope	Consistent	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.	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.
American Chamber of Commerce to the EU	Consistent	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	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.
Trans-Atlantic Business Council (TABC)	Consistent	The Trans-Atlantic Business Council (TABC) is a cross-sectoral business association representing global companies headquartered in the U.S. and EU. TABC's ICT Working Group seeks to realize the potential of the ICT sector in driving innovation, growth and welfare. The ICT Working Group's initiatives include case studies on automotive sustainable consumption and urban development.	An Oracle executive serves as the U.S. Co-Chair of TABC's ICT Working Group.

CC2.3d

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

CC2.3e

Please provide details of the other engagement activities that you undertake

CC2.3f

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

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 all business divisions, including the Public Policy team, and which is led by Oracle's Chief Sustainability Officer (CSO) – ensures a common approach that is consistent with Oracle's overall strategy on climate change. The full committee meets quarterly, with sub-committees and working groups meeting more frequently.

CC2.3g

Please explain why you do not engage with policy makers

Further Information

Page: CC3. Targets and Initiatives

CC3.1

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

Absolute target
 Intensity target
 Renewable energy consumption and/or production target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1+2 (market-based)	100%	20%	2015	370414	2020	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	Oracle self-assessed this target to be a mid-term science-based target.
Abs2	Scope 1+2 (market-based)	100%	65%	2015	370414	2050	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	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.

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1+2 (location-based)	77%	10%	Metric tonnes CO2e per unit FTE employee	2010	3.26	2016	No, but we are reporting another target which is science-based	We achieved our goal of reducing emissions by 10% per employee by 2016 for all facilities, excluding data centers (2010 base year). This goal has now been retired.
Int2	Scope 1+2 (location-based)	23%	6%	Other: Power Usage Effectiveness (PUE)	2010	1.573	2016	No, but we are reporting another target which is science-based	We achieved our 2016 goal to improve PUE by 6% for our portfolio of data centers (2010 base year). The actual improvement amounted to 10%. This goal has now been retired.

CC3.1c

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

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	10			Our 2016 goals included a goal to reduce energy use by 10% per employee over our 2010 base year for all facilities, excluding data centers. This goal has now been retired.
Int2	Decrease	6			Our 2016 goals included a goal to improve our data center Power Usage Effectiveness (PUE) by 6% over our 2010 base year. This translates to a 10% emissions savings in supporting infrastructure for our data centers, based on our 2010 data center portfolio.

CC3.1d

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

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
RE1	Electricity consumption	2015	754246	24%	2020	33%	Progress against this goal is measured based on total electricity consumption at facilities where we have data.

CC3.1e

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

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	20%	1.30%	As part of our 2020 goals, we plan to achieve a 20% reduction in absolute scope 1 + 2 emissions (market-based) by 2020, using a 2015 baseline. In 2016, we implemented a number of energy conservation projects, which contributed to reduced energy consumption and related emissions.
Abs2	2.8%	1.30%	Our goal is to achieve a 65% reduction in absolute scope 1 + 2 emissions (market-based) by 2050, using a 2015 baseline. In 2016, we implemented a number of energy conservation projects, which contributed to reduced energy consumption and related emissions.
RE1	20%	55.50%	As part of our 2020 goals, we plan to achieve 33% renewable energy use by 2020. In 2016, 100% of electricity use at our sites in the UK came from renewable sources. In addition, we purchased more than

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
			6,000 MWh of RECs in the U.S.
Int1	100%	100%	We achieved our goal to reduce emissions by 10% per employee by 2016 for all facilities, excluding data centers (2010 base year). This goal has now been retired.
Int2	100%	100%	We achieved our 2016 goal to improve our PUE by 6% for our portfolio of data centers (2010 base year). The actual improvement amounted to 10%. This goal has now been retired.

CC3.1f

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

CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

CC3.2a

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

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Group of products	<p>Many of Oracle's solutions enable our customers to be more environmentally sustainable and to reduce their GHG emissions. These solutions are broadly categorized under 'Risk and Performance Management' (including environmental data collection and reporting); 'Business Operations' (including transportation management, smart grid technologies, and product lifecycle management); and 'IT Infrastructure' (including energy efficient engineered systems and cloud computing).</p>	Avoided emissions	Other: Avoided emissions are reported on a customer-by-customer basis		Less than or equal to 10%	<p>Inherently, the benefits of many of these solutions are not just limited to environmental performance improvements, but also include cost reduction and continuous improvement potential. It is not within Oracle's policy to provide revenue breakdowns at the product level beyond what is available in our 10-K filings. 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. Given Oracle's commitment to developing practices and products that help protect the environment, this 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 FY16, Oracle spent \$5.8 billion on research and development of products and services, including those related to sustainability. In FY16 Oracle</p>

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
						also acquired Opower, the leading provider of customer engagement and energy efficiency software cloud services to utilities.

CC3.3

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

Yes

CC3.3a

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

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	84	
To be implemented*	34	3060
Implementation commenced*	19	1558

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Implemented*	51	5839
Not to be implemented	16	

CC3.3b

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

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Low carbon energy purchase	In 2016, we purchased low carbon energy at several facilities, including 6,057 MWh of renewable energy credits (RECs) in the U.S. and 40,658 MWh in zero carbon electricity in the U.K.	19026	Scope 2 (market-based)	Voluntary		5000	>25 years	<1 year	
Energy efficiency: Building services	The footprint of our global facilities portfolio increased 281,000 square feet from the base year of 2015. 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	3709	Scope 2 (location-based) Scope 2 (market-based)	Voluntary	271900	680000	1-3 years	6-10 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	systems with economizers and higher efficiency components and boiler and heating systems, increased monitoring, and undertook retro-commissioning. These measures have a median life of 1-12 years and an average persistency life of 7 years.								
Energy efficiency: Processes	In an effort to reduce our data center emissions, we implemented a number of voluntary measures, including the ongoing Lab Energy Optimization initiative, implemented 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.	1635	Scope 2 (location-based) Scope 2 (market-based)	Voluntary	118971	535409	4-10 years	6-10 years	

CC3.3c

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 energy efficiency and waste reduction on our internal Corporate Citizenship website and in other employee communications including newsletters, social media, and videos.
Employee engagement	Our Real Estate and Facilities team and the Oracle Volunteers program collaborate on an annual Earth Week initiative the week of April 22. 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 offices host a variety of educational activities to help employees learn about recycling, green products and services, eco-friendly work practices, and how to be environmentally conscious consumers.
Internal incentives/recognition programs	Oracle runs the 'Sustainability Champions' program which recognizes employees who are advancing environmental sustainability, both at work and at home. Sustainability Champions are recognized in Oracle's internal sustainability newsletter, and receive a "Sustainability Champion" badge to include in their employee profiles. Oracle's 2016 Sustainability Champions included employees who advocated sustainable practices such as setting up a new office recycling program in Latin America, championing electric vehicle adoption, and eliminating signage waste from corporate events.
Financial optimization calculations	Oracle's approach is to create environmentally as well as financially sustainable solutions. 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 endeavor to meet or exceed all 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 is committed to reducing its environment impact where practical and economically feasible. Our Real Estate and Facilities organization has a dedicated budget for several emissions reduction activities, including purchase of renewable energy certificates, commuter travel, and employee ride sharing programs. In 2016, 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 Cisco TelePresence 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.
Other	Oracle develops products that support more than 400,000 customers in 145 countries to employ our industry-leading technology to address their environmental initiatives in conjunction with other business objectives.

CC3.3d

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

Further Information

Page: CC4. Communication

CC4.1

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

Publication	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	Oracle's 2016 Form 10-K, Risk Factors, pg. 27 and 35	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC4.1/Oracle Corporation_ 2016 Form 10-K.pdf	
In voluntary communications	Complete	Corporate Citizenship Report, Sustainability Section	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC4.1/Sustainability section_Oracle Corporate Citizenship Report 2016.PNG	
In voluntary communications	Complete	Corporate Citizenship Report, Sustainability Section, CSO Message	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC4.1/CSO Message_Oracle Corporate Citizenship Report 2016.PNG	
In voluntary communications	Complete	Corporate Citizenship Report, Sustainability Section, Facilities, Energy and Emissions	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC4.1/Energy and Emissions section_Oracle Corporate Citizenship Report 2016.PNG	
In voluntary communications	Complete	Corporate Citizenship Report, Sustainability	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC4.1/Data Centers section_Oracle Corporate	

Publication	Status	Page/Section reference	Attach the document	Comment
		Section, Facilities, Data Centers	Citizenship Report 2016.PNG	
In voluntary communications	Complete	Corporate Citizenship Report, Sustainability Section, Facilities, Water and Waste	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC4.1/Water and Waste section_Oracle Corporate Citizenship Report 2016.PNG	
In voluntary communications	Complete	Corporate Citizenship Report, Sustainability Section, Supply Chain	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC4.1/Supply Chain section_Oracle Corporate Citizenship Report 2016.PNG	

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

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

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

CC5.1a

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Emission reporting obligations	The increasing threat of climate and extreme weather events to human health and the economy may give rise to future government regulations requiring organizations to account and disclose their emissions, and engage in efforts to minimize their environmental footprint. Such regulations could increase Oracle's operational costs associated with conducting annual carbon accounting, as well as ensuring compliance with any such regulations.	Increased operational cost	>6 years	Direct	Likely	Low	The estimated financial implications of future government regulations on emissions accounting and reporting could include increased operational costs, and the expense of manually accounting for emissions or purchasing a third party accounting solution, estimated at \$100,000 - \$150,000. Oracle anticipates estimated financial implications of this magnitude or greater in the future.	Some methods we use to manage this risk include: conducting annual carbon accounting and emissions reporting of company-wide operations (using Oracle's EA&R software), evaluating the best path toward carbon reduction targets, through cross-functional engagement among members of Oracle's Environmental Steering Committee. Additionally, in 2016 we undertook several emissions reduction initiatives at our facilities worldwide; for example, the installation of dimmable lighting, interior and exterior LED lights, advanced lighting controls, building HVAC controls,	Costs of conducting annual carbon accounting and monitoring are minimal.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>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. These measures helped avoid more than 3,700 MT of CO2e in 2016. For these reasons, Oracle is well positioned to meet potential future regulations around carbon emissions accounting and reporting. And by using its own EA&R software, Oracle is virtually eliminating the expense of manual accounting or</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								purchase of a third party accounting solution.	
General environmental regulations, including planning	Environmental laws and regulations primarily impact Oracle's hardware business, and could increase Oracle's operational cost, especially in foreign jurisdictions, given that a significant portion of our hardware revenues come from international sales. 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	Increased operational cost	1 to 3 years	Direct	Likely	Medium	The estimated financial implications of the risk before taking action include increased operational expenses from changes in environmental laws and regulations in countries where Oracle does business, as Oracle derives a substantial portion of revenues (approximately 50%) from outside the United States.	Oracle is a strong proponent of the circular economy. One of the methods we use to manage this risk is offering various take back programs that allow our customers and suppliers to return excess used products or materials. In FY16, Oracle's Reverse Supply Chain Organization collected more than 3 million lbs of product. Of the total material collected, 99.6% was either recycled or reused. Oracle conducts audits to help ensure that our recyclers and their downstream processors have proper Health & Safety controls in place and are	Costs of complying with general environmental regulations and certifying facilities are minimal.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>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 as we endeavor to comply with and implement these requirements. Other regulatory drivers also include regulations around product take back (the 'reverse supply chain'). In some cases this represents additional responsibility for Oracle to properly</p>							<p>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. In order to meet local compliance obligations associated with placing of electronic products, batteries and packaging on certain markets, Oracle has also joined compliance schemes and product stewardship programs in certain countries and jurisdictions. Additionally, Oracle's hardware manufacturing facilities are ISO</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	collect and dispose of old equipment. It also presents an opportunity to minimize e-waste by harvesting parts, and to realize value from recycled materials by working with third party recyclers.							14001 certified, and Oracle seeks to incorporate environmental considerations into procurement processes. For these reasons, we believe Oracle is well positioned to meet potential future environmental regulations.	
Fuel/energy taxes and regulations	Fuel and energy taxes and regulations have the potential to impact Oracle's business by driving up energy costs. As Oracle's cloud business grows, we are seeing increased energy use, especially at our data centers. This exposes Oracle to some financial risks – such as volatility of fuel prices – which could affect the cost of data center	Increased operational cost	>6 years	Direct	About as likely as not	Low	The estimated financial implications of the risk before taking action include rising or fluctuating fuel and energy taxes, as well as changing laws, agreements, or regulations that could affect Oracle's facilities and/or partner facilities, resulting in increased operational cost.	Some methods Oracle uses to manage this risk include: maintaining existing alternate sources of supply for most of our hardware products, when possible. This gives Oracle greater flexibility to manage its manufacturing expenses. In response to changing energy costs and regulations, Oracle is able to shift sourcing and	Costs of managing this risk, including maintaining existing alternate sources of supply, are minimal.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>operations. Energy taxes 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.</p>							<p>shipping, which reduces the distance that our material and products need to travel. Additionally, Oracle purchases energy in the open market when possible and uses advance purchasing and hedging to further minimize risk and diversify its energy portfolio. We strive to maximize energy efficiency in data centers and throughout our real estate portfolio to reduce exposure to energy price fluctuations. For example, we implemented a number of energy efficiency measures at our data centers in 2016, including the ongoing Lab Energy Optimization initiative, enhanced IT and cooling,</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								power monitoring and tracking, power usage effectiveness (PUE) tracking, airflow management, heat containment, hot aisle/cold aisle barriers, efficient airflow, efficient cooling production, airside economizer, evaporative humidification, and evaporative cooling. These measures resulted in an estimated emissions reduction of 1,635 MT CO ₂ e.	

CC5.1b

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Induced changes in natural resources	Climate change and weather-related events, such as droughts and floods, could impact the availability and supply of natural resources – including water and fuel – used to operate our facilities and manufacture our products. As a result, our business and supply chain operations could be disrupted or negatively impacted. For most of Oracle's hardware products, we have existing alternate sources of supply or such sources are readily available. However, these alternate sources may be subject to the same changes	Increased operational cost	>6 years	Indirect (Supply chain)	About as likely as not	Medium	In FY16, the hardware systems business accounted for 13% of Oracle's revenue, and our international hardware supply chain can be affected by changes in resource availability and the associated changes in pricing, which could have financial implications. Therefore, the estimated financial implications of the risk before taking action are supply-chain related and estimated to be minimal, and much less than 13% of our revenue.	The methods Oracle uses to manage this risk include: 1) engaging with our hardware suppliers to help reduce their susceptibility to changes in and shortages of natural resources. For example, Oracle periodically hosts webinars on sustainable management for our suppliers and industry colleagues, including one in March 2016; 2) maintaining alternate sources of supply for most of our hardware products; however, these alternate sources may be subject to the same shortages. In addition, for a few components we rely on a sole source supplier. We negotiate supply commitments with vendors early in the manufacturing process to ensure	Costs of monitoring potential risks to our supply chain and maintaining alternate sources of supply are minimal.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	and shortages. In addition, we do rely on sole sources for certain hardware components.							we have sufficient technologies and components for our hardware products to meet anticipated customer demand. In addition, we continually monitor potential risks of disruption to our supply chain operations and establish contingency plans as needed.	
Other physical climate drivers	Other physical climate drivers such as floods, hurricanes, earthquakes, or public health crises could contribute to economic and political uncertainty that could adversely affect our operations and financial condition, including our revenue growth and profitability. These factors generally have	Reduced demand for goods/services	>6 years	Direct	About as likely as not	Medium	The estimated financial implications of the risk before taking action include increased operational costs, and decreased revenue growth and profitability.	The methods we use to manage this risk are: implementing and maintaining a Business Continuity Management Plan (BCMP) and a Business Process Contingency Plan (BCP), both part of a formal emergency response process related to potential extreme events that could impact our employees, data centers or other operations and that could disrupt our business. The BCMP consists of	Costs of developing and implementing our formal business continuity system and HR protocols are minimal.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>the strongest effect on Oracle's sales of new software licenses, hardware systems products, hardware systems support and related services and, to a lesser extent, also may affect our renewal rates for software license updates and product support. Natural disasters and other public health crises could also have an adverse impact on our employees, their families, and their ability to work.</p>							<p>planning, testing, and execution in the areas of personal safety, crisis assessment and communications, business operations continuity, technology recovery, biological, chemical, and radiological threat preparedness, and supply chain continuity. Each of our internal lines-of-business (LoBs) maintain contingency plans pertaining to its function within the company – and as prescribed by our BCMP Program Management Office. Per our Business Continuity Policy, each type of contingency plan must be updated and tested at least annually. Senior management for a given LoB must review and approve planning and testing as performed. Our Security Oversight</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Committee and Audit Committee also review the effectiveness of our BCMP on a recurring basis.	
Change in mean (average) temperature	An increase in the mean (average) temperature could impact Oracle's business, especially in areas where we operate our data centers and labs. Hotter weather may result in higher energy consumption to cool our data centers and facilities, which could drive up operational cost. Increased demand for electricity could also result in a grid shutdown, which could negatively impact our business and	Increased operational cost	>6 years	Direct	Likely	Medium	The estimated financial implications of the risk before taking action include increased operational costs, and decreased revenue growth and profitability.	The methods we use to manage this risk include: Oracle designs, builds, and operates some of the most energy-efficient data centers in the industry. 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. 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 for leveraging outside air for	Costs of managing this risk are minimal in scale.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	operations.							cooling. In addition, we have uninterruptible power supply (UPS) systems and generators for all of our key sites and data centers.	

CC5.1c

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fluctuating socio-economic conditions	According to the National Bureau of Economic Research, higher temperatures resulting from climate change may substantially reduce industrial output, investment, innovation, and political stability. This trend may have several	Reduced demand for goods/services	>6 years	Direct	About as likely as not	Low	The estimated financial implications of the risk before taking action include slowdowns in IT spending and fluctuating currencies. An example specific to currency fluctuations: movements in international currencies relative	One method we use to manage these risks is close monitoring of sales trends, our sales pipeline, and movements in international currencies relative to the United States dollar. In addition, we have a program which primarily utilizes foreign currency	Costs of managing this risk are minimal in scale.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>economic implications, including slowdowns in IT spending and currency fluctuations, both of which could affect Oracle's revenue, as well as that of other companies.</p>						<p>to the United States dollar during the three months ended November 30, 2016, compared with the corresponding prior year period, decreased our revenues by 1%, and operating expenses by 1%.</p>	<p>forward contracts designed to offset the risks associated with certain foreign currency exposures. A second management method is our design of ever more energy-efficient products and services that help both Oracle and its customers reduce their energy costs and thereby better weather fluctuating socio-economic conditions. The attractiveness of these products and services helps drive sales. For example, Oracle's Enterprise Manager allows monitoring and management of individual servers and storage systems and also entire application environments to help ensure</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								maximum utilization of IT assets – driving lower energy and cooling costs. Similarly, Oracle Cloud Computing provides on-demand access to a shared and highly efficient pool of computing resources, which helps save energy and space.	
Changing consumer behavior	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 and investors are taking sustainability into account when	Reduced demand for goods/services	3 to 6 years	Direct	About as likely as not	Low	The estimated financial implications of the risk before taking action include decreased revenue growth and profitability.	The methods that Oracle is using to manage this risk include: establishing and implementing aggressive sustainability goals around energy consumption, emissions reduction, renewable energy, water and waste. For example, our 2020 goals include 33% renewable energy use and 20% reduction in absolute emissions (base	Costs of managing this risk are minimal in scale.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	making purchasing and investment decisions. If Oracle fails to meet stakeholder expectations around sustainability, our business could be adversely impacted.							year: 2015). A second management method is continually developing energy-efficient products that enable Oracle and its customers to manage their environmental footprint and meet their carbon reduction goals. In addition, Oracle consistently strives to meet or exceed standards for environmental and corporate social responsibility, and to be a model corporate citizen. As such, Oracle ranked #10 in the U.S. and #17 in the world on Newsweek's 2016 Green Rankings.	

CC5.1d

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

CC5.1e

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

CC5.1f

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

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

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

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

CC6.1a

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fuel/energy taxes and regulations	Fuel/energy taxes and regulations could increase companies' operating costs, which in turn, is likely to drive up demand for energy-efficient products and services. This could represent a significant business opportunity for Oracle, as our cloud product offerings, such as Software-as-a-Service and Platform-as-a-Service, help our customers to save fuel/energy and storage space, as well as reduce their	Increased demand for existing products/services	1 to 3 years	Indirect (Client)	Very likely	High	Estimated financial implications of these opportunities are increased sales from increased demand for existing products and services. For example, Oracle's total Cloud revenues increased by 62% to \$1.1 billion in the quarter ended November 30, 2016 as compared with the same period in 2015. Additionally, there's an opportunity for increased	One method Oracle is using to manage this opportunity is continually identifying and developing products and services that help Oracle and its customers better manage exposure to fuel/energy taxes and regulations. In May 2016, Oracle acquired Opower, the leading provider of customer engagement and energy efficiency software cloud services to utilities. Opower's solutions support over	Costs associated with measuring and communicating the environmental benefits of Oracle's products are included in our marketing budgets, and are minimal in scale. Costs associated with relevant R&D in order to continue to make products that will meet our customers' evolving needs and capitalize on these climate-related opportunities are moderate in scale. In FY16, Oracle

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>exposure to fuel/energy related taxes by reducing their energy needs on a normalized basis. According to a 2011 study published by CDP titled, "Cloud Computing – The IT Solution for the 21st Century," cloud computing has the potential to reduce companies' carbon emissions. Through virtualization and running servers at higher utilization rates, the total energy required to support a given service is reduced. By leveraging cloud services, companies are</p>						<p>operational efficiency resulting in cost savings for Oracle and its customers. For example, the CDP study titled "Cloud Computing – The IT Solution for the 21st Century" estimates that by 2020 (base year: 2011), large U.S. companies that use cloud computing can achieve annual energy savings of \$12.3 billion, and annual carbon reductions equivalent to 200 million barrels of oil – enough to power 5.7 million cars for one year. This</p>	<p>100 global utilities, such as National Grid, in delivering a modern digital customer experience. Opower's big data platform stores and analyzes over 600 billion meter reads from 60 million utility end customers, enabling utilities to proactively meet regulatory requirements, decrease the cost to serve, and improve customer satisfaction. For these reasons, Oracle is well positioned to address current and future fuel/energy taxes and regulations, while helping our customers do the same.</p>	<p>spent \$5.8 billion on research and development of products and services, including those related to sustainability.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	able to reduce their fuel/energy consumption, as well as any associated costs.						represents a tremendous opportunity for Oracle to not only reduce energy costs internally, but also grow our Cloud Computing business and help other organizations reduce their impact on the environment.		
Emission reporting obligations	Around the world, companies are facing increasing pressure to reduce emissions and improve efficiency in their operations. These pressures—both internal and external—drive a requirement to provide	Increased demand for existing products/services	1 to 3 years	Indirect (Client)	Very likely	Medium	Estimated financial implications of these opportunities are: increased sales from greater demand for existing products and services. For example, the business benefits from our internal use of Oracle Environmental Accounting	One method Oracle is using to manage this opportunity is continually developing sustainability solutions, such as EA&R, that enable Oracle and its customers to manage their emissions reporting obligations and meet their carbon reduction goals.	Costs associated with measuring and communicating the environmental benefits of Oracle's products are included in our marketing budgets, and are minimal in scale. Costs associated with relevant R&D in order to continue to

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>sustainability-related data that is comprehensive, auditable, and timely. Global mandatory as well as voluntary reporting schemes require companies to undergo extensive and expensive data audits to maintain a ledger of up-to-date emissions factors and to compare figures on an annual basis. For instance, regional regulatory mandates such as the Carbon Reduction Commitment (CRC) in the United Kingdom and Australia's National Greenhouse</p>						<p>& Reporting annually include an estimated \$1.2M savings in annual utility spend; 95% reduction in staffing needs for data collection; and 50% reduction in reporting cycle time.</p>	<p>Oracle works with its customers to meet their business needs in the ongoing development of our solutions. Oracle's product 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. Oracle's commitment to tracking and</p>	<p>make products that will meet our customers' evolving needs and capitalize on these climate-related opportunities are moderate in scale.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>and Energy Reporting (NGER) Act require accurate and transparent greenhouse gas reporting. Information voluntarily disclosed to organizations such as CDP also needs to be provided with a high degree of confidence in order to protect an organization's credibility and brand. Oracle provides several solutions, namely the Oracle Environmental Accounting and Reporting (EA&R) tool, that enable organizations to capture environmental data either</p>							<p>reporting GHG emissions for our own facilities has informed our consistent efforts to decrease energy consumption and emissions everywhere financially feasible. This has resulted in energy efficiency R&D projects across our facilities. As an example in 2016, our Austin Data Center utilized innovative technologies such as hot-air containment and variable airflow cooling resulting in energy savings of 16 million kilowatt hours annually. These proactive efforts help prepare us for current and future emissions</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	electronically or manually; convert that to greenhouse gas emissions; manage compliance with mandatory and voluntary greenhouse gas reporting schemes; and identify opportunities for CO2 emissions and cost reductions. Should emissions reporting obligations become mandatory or more stringent, there is an opportunity for increased sales for Oracle based on products designed to support tracking and reporting.							reporting obligations, and enable us to assist our customers with their emissions reporting and carbon reduction needs.	
General environmental	Oracle's solutions help	Increased demand for	1 to 3 years	Indirect (Client)	Very likely	Medium	Estimated financial	One method Oracle is using	Costs associated

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Environmental regulations, including planning	enable its customers to manage their compliance with applicable regulations, including planning. For example, Enterprise Asset Management helps customers confirm that machines are operating in accordance with regulatory requirements to enable safe operating conditions. Oracle's products also directly support consumer interest in energy efficiency, helping Oracle to support customers in achieving their sustainability goals and meeting	existing products/services					implications of these opportunities include increased sales from higher demand for existing and future products and services.	to manage this opportunity is continually developing products that enable Oracle and its customers to manage their compliance with environmental regulations, including planning. Oracle's Sustainability Solutions enable our customers to measure, manage, and report on environmental performance while also helping to drive financial performance improvement. For example, by using Oracle Planning and Budgeting Cloud Service, our customer Communications Test Design, Inc. (CTDI) was	with measuring and communicating the environmental benefits of Oracle's products are included in our marketing budgets, and are minimal in scale. Costs associated with relevant R&D in order to continue to make products that will meet our customers' evolving needs and capitalize on these climate-related opportunities are moderate in scale.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>environmental regulations. Oracle's planning tools, such as Enterprise Performance Planning, can be used to assess the impact of potential future legislation through scenario planning and what-if analyses. Additionally, Oracle's Supply Chain solutions enable organizations to plan and manage their supply network, taking into account the risk of supply chain disruption due to climate related events.</p>							<p>able to decommission three to six servers in its data center. This has resulted in annual savings of \$7,500 to \$15,000, as well as an upfront avoided cost of \$150,000 in hardware for processing servers and data storage. Additionally, by using Oracle Cloud, CTDI can reduce its energy use by 70% to 80% on average versus running on-premise servers.</p>	

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Induced changes in natural resources	Given the risk of climate-induced resource shortages, it is becoming increasingly important for companies to incorporate resource efficiency into their operations and the development of their products. Oracle utilizes many of its own solutions to address induced changes in and shortages of natural resources such as fuel and water. These solutions are categorized under Risk and Performance Management (including the module Oracle Environmental Accounting &	Reduced operational costs	1 to 3 years	Direct	Likely	Medium	Estimated financial implications of these opportunities are related to operational cost savings and a reduction in the day to day costs of running our business. For example, the business benefits from our internal use of Oracle Environmental Accounting & Reporting annually include an estimated \$1.2M savings in annual utility spend; 95% reduction in staffing needs for data collection; and 50% reduction in reporting cycle time. Similarly, we achieved significant benefits in 2014	One method Oracle is using to manage this opportunity is continually developing products and programs that help Oracle and its customers to address induced changes in natural resources, and subsequently, reduce operational costs. Oracle's cloud product offerings enable our customers to reduce their environmental footprint and save fuel/energy and space, through access to a shared and highly-efficient pool of computing resources. Another management method is to	Costs associated with lowering our own GHG emissions and improving our environmental footprint are included in our operational budgets, and are moderate in scale. Costs associated with relevant R&D in order to continue to make products that will meet our customers' evolving needs and capitalize on these climate-related opportunities are moderate in scale. In FY16, Oracle spent \$5.8 billion on research and development of products and services, including those related to

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Reporting); Operations (including transportation management and smart grid technologies); and IT Infrastructure (including energy efficient hardware such as Oracle Engineered Systems). Inherently, the benefits of many of these solutions are not just limited to environmental performance improvements, but also include cost reduction and continuous improvement potential.</p>						<p>from the internal implementation of Oracle Depot Repair, a tool that enables us to automate and manage our returns and take-back programs through the Oracle Returns Management System (ORMS). These benefits included cost savings of \$8.2 million in reduced spares from Last Time Buy (LTB) requests, with 74% of five-year LTB requests deferred compared to only 18% in the prior year.</p>	<p>maximize the volume of electronic equipment collected and managed in an environmentally sound manner through our electronic product recyclers. For example, in FY16 we took back a total of 3 million lbs of electronic waste through Oracle's Product Take Back and Recycling Program. 99.6% of the material was either recycled or reused. This enables us to not only conserve natural resources by minimizing electronic waste, but also to reduce our operational costs by reusing whole systems or spare</p>	<p>sustainability.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other physical climate opportunities	Oracle products support flexibility in information sharing and access, which may be in higher demand if physical climate parameters change. This opportunity has the potential to increase Oracle's sales. Oracle is in the unique position of providing solutions that cover all aspects of the nexus of IT and sustainable business practices, hardware, technology and applications, from cloud data centers to business intelligence to smart utility grids. These	Increased demand for existing products/services	1 to 3 years	Indirect (Client)	Likely	Medium	Estimated financial implications of these opportunities are increased sales from higher demand for existing products and services.	parts. One method Oracle is using to manage this opportunity is conducting R&D in the realm of energy-efficient products. Oracle works with its customers to develop software and hardware solutions that help them better manage their own environmental challenges. For example, by using Oracle SPARC T5 servers' built-in virtualization capabilities, our customer Bank Asya was able to consolidate and better utilize system resources, helping to reduce hardware physical space requirements by 80%.	Costs associated with measuring and communicating the environmental benefits of Oracle's products are included in our marketing budgets, and are minimal in scale. Costs associated with relevant R&D in order to continue to make products that will meet our customers' evolving needs and capitalize on these climate-related opportunities are moderate in scale.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>solutions are categorized under Risk and Performance Management (including the module Oracle Environmental Accounting & Reporting); Operations (including transportation management and smart grid technologies); and IT Infrastructure (including energy efficient hardware such as Oracle Engineered Systems). Inherently the benefits of many of these solutions are not just limited to environmental performance improvements, but also include cost reduction and continuous improvement</p>								

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	potential.								

CC6.1c

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	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. This trend has the potential to boost the market for green products and services that enable consumers to minimize their own	Increased demand for existing products/services	1 to 3 years	Indirect (Client)	Likely	Medium	Estimated financial implications of these opportunities are increased sales from increased demand for existing products/services. For example, Oracle's total Cloud revenues increased by 62% to \$1.1 billion in the quarter ended November 30, 2016 as compared with the same period in 2015. According to a	One method Oracle is using to manage this opportunity is communicating the benefits of Oracle's Sustainability Solutions, both internally and externally, as well as recognizing customers who use Oracle technology to address global sustainability business challenges. For example, Oracle presented Sustainability	Costs associated with measuring and communicating the environmental benefits of Oracle's products are included in our marketing budgets, and are minimal in scale. Costs associated with relevant R&D in order to continue to make products that will meet our customers'

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	environmental footprint. As the market for sustainability products and services expands, so does Oracle's opportunity to increase sales and revenue from growing demand for our existing products/services. Oracle's products, such as Cloud Computing, provide our customers on-demand access to a shared and highly efficient pool of computing resources that helps save energy and space. This opportunity has the potential to increase Oracle's sales.						study published by the Morgan Stanley Institute for Sustainable Investing titled "Sustainable Signals" (published Feb 2015) the business opportunities for sustainability-focused companies are expected to be between \$3 trillion and \$10 trillion annually by 2050, or up to 4.5 percent of global GDP. This represents a significant opportunity for Oracle to increase sales and revenue from growing demand for its Sustainability Solutions.	Innovation Awards to ten customers, including Qualcomm and Manheim, at the Oracle OpenWorld Conference in 2016. Another management method is continually developing products and services that help our customers reduce their environmental footprint and strengthen their sustainability efforts.	evolving needs and capitalize on these climate-related opportunities are moderate in scale. In FY16, Oracle spent \$5.8 billion on research and development of products and services, including those related to sustainability.
Reputation	Oracle's increasing emphasis on environmental sustainability,	Reduced operational costs	1 to 3 years	Direct	Likely	High	Estimated financial implications of these opportunities are	One method Oracle is using to manage this opportunity is continually	Costs associated with measuring and lowering our own GHG

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>both internally and externally, has the potential to strengthen our brand value and reputation. By implementing several of our own sustainability solutions, we are able to reduce our operational costs, while demonstrating our commitment to environmental responsibility. In recognition of our efforts, Oracle ranked #10 in the U.S. and #17 in the world on Newsweek's 2016 Green Rankings, which assesses the world's largest companies on corporate sustainability and environmental impact. Oracle's campus in Redwood Shores, California was also named The Outstanding Building of the</p>						<p>related to operational cost savings and a reduction in the day to day costs of running our business, as well as increased demand for existing products/services. For example, the business benefits from Oracle's use of EA&R annually include an estimated \$1.2M savings in utility spend; 95% reduction in staffing needs for data collection; and 50% reduction in reporting cycle time.</p>	<p>developing energy-efficient products that enable Oracle and its customers to manage their environmental footprint and achieve their sustainability goals. In addition, Oracle consistently strives to meet or exceed standards for environmental and corporate social responsibility, and to be a model corporate citizen, which helps strengthen our reputation. As such, Oracle ranked #10 in the U.S. and #17 in the world on Newsweek's 2016 Green Rankings. Oracle's commitment to tracking and reporting GHG emissions for our own facilities has</p>	<p>emissions are included in our operational budgets, and are moderate in scale. Costs associated with relevant R&D in order to continue to make products that will meet our customers' evolving needs and capitalize on these climate-related opportunities are moderate in scale.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Year (TOBY), Corporate Facilities category, by the Building Owners and Managers Association (BOMA) International in 2016.							informed our consistent efforts to decrease energy consumption and emissions everywhere financially feasible. For example, we replaced four chillers with high efficiency mag-lev bearing units at our Austin Data Center, saving an estimated 2.4 million Kilowatt hours and \$200k in energy costs annually.	
Reputation	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	Other: Ability to attract and retain top talent	1 to 3 years	Direct	Very likely	High	Potential financial implications of this opportunity include costs savings associated with employee retention, recruitment, and training of new hires.	One method Oracle is using to manage this opportunity is communicating our sustainability efforts and accomplishments, both internally and externally. For example, Oracle's Corporate Citizenship Report highlights	Costs associated with communicating Oracle's environmental efforts and achievements are included in our marketing budgets, and are minimal in scale.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>increasingly important to job seekers and employees, Oracle's reputation as a leader in sustainability could help us attract and retain top talent.</p>							<p>our sustainability efforts and achievements in the areas of facilities, supply chain, products, and employee engagement. Each year, through the Oracle Giving and Oracle Volunteers programs, we support hundreds of environmental nonprofit organizations globally. Additionally, Oracle continued promoting the 'Sustainability Champions' program in 2016, through which we recognize employees who are advancing environmental sustainability, both at work and at home.</p>	

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

CC6.1e

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

CC6.1f

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

Further Information

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

Page: CC7. Emissions Methodology

CC7.1

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

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Thu 01 Jan 2015 - Thu 31 Dec 2015	11741
Scope 2 (location-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	396576
Scope 2 (market-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	358673

CC7.2

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

Please select the published methodologies that you use

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

CC7.2a

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

CC7.3

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

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

CC7.4

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
Natural gas	0.18123	metric tonnes CO2e per MWh	United States: U.S. Environmental Protection Agency (EPA)
Natural gas	0.18551	metric tonnes CO2e per MWh	Australia: Australian Government Department of the Environment National Greenhouse Accounts Factors
Natural gas	0.18400	metric tonnes CO2e per MWh	Rest of the world: Department for Environment, Food and Rural Affairs (DEFRA)

Further Information

We use regional standards, including International Energy Agency (IEA), U.S Environmental Protection Agency (EPA), Department for Environment, Food and Rural Affairs (DEFRA), and Australian Government Department of the Environment National Greenhouse Accounts Factors. Purchased electricity emissions factors are specific to the geographic location of each site in which we operate (Oracle operates 762 sites in 89 countries). We validate and update our emissions factors annually.

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

CC8.1

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

Operational control

CC8.2

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

11293

CC8.3

Please describe your approach to reporting Scope 2 emissions

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

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO₂e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
399993	354428	

CC8.4

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

Yes

CC8.4a

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

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Refrigerants	Emissions are not	No emissions excluded	No emissions excluded	We estimate that emissions from refrigerants account for less than 1% of our total emissions inventory (approximately 0.84%). Therefore, we have determined this source

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
	relevant			to be immaterial, based on our threshold that defines "material" as all emission sources that account for the top 95% of our total emissions. That said, we do take this source into consideration when implementing emissions reduction activities.
Diesel	Emissions are not relevant	No emissions excluded	No emissions excluded	We estimate that emissions from diesel account for approximately 0.16% of our total inventory, and are therefore immaterial. That said, we do take this source into consideration when implementing emissions reduction activities.
Owned vehicles and fire suppressant equipment	Emissions are not relevant	No emissions excluded	No emissions excluded	We also take owned vehicles and fire suppressant equipment into consideration when implementing emissions reduction activities, but have determined they are not material to our total emissions inventory (owned vehicles account for approximately 0.1% and fire suppressants account for approximately 0.2%).

CC8.5

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

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Data Gaps	We utilized an Oracle software product called Environmental Accounting & Reporting (EA&R), which enabled us to track energy use and calculate emissions, resulting in improved data accuracy. For select facilities where data wasn't available, we did not extrapolate for scope 1 emissions.
Scope 2 (location-	More than 2% but less than or equal	Data Gaps Extrapolation	We utilized an Oracle software product called Environmental Accounting & Reporting (EA&R), which enabled us to track energy use and calculate emissions, resulting in improved data accuracy. The

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
based)	to 5%	Metering/ Measurement Constraints	emissions data were derived from metered invoices provided by our energy suppliers. Most of our smaller data centers in our mixed use facilities are not separately monitored for energy use. We are in the process of implementing a plan that will allow us to monitor energy use for our data centers at these mixed use facilities.
Scope 2 (market-based)	More than 2% but less than or equal to 5%	Data Gaps Extrapolation Metering/ Measurement Constraints	We utilized an Oracle software product called Environmental Accounting & Reporting (EA&R), which enabled us to track energy use and calculate emissions, resulting in improved data accuracy. The emissions data were derived from metered invoices provided by our energy suppliers. Most of our smaller data centers in our mixed use facilities are not separately monitored for energy use. We are in the process of implementing a plan that will allow us to monitor energy use for our data centers at these mixed use facilities. For our market-based emissions calculation, we obtained supplier-specific emission factors for several facilities globally. Where supplier-specific factors were not available, we followed the Scope 2 Guidance hierarchy, and used either residual or location-based factors.

CC8.6

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

Third party verification or assurance process in place

CC8.6a

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

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Oracle 2016 GHG Assurance Review Letter_FINAL.pdf	1-2	ISO14064-3	100

CC8.6b

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

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

CC8.7

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

Third party verification or assurance process in place

CC8.7a

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

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Oracle 2016 GHG Assurance Review Letter_FINAL.pdf	1-2	ISO14064-3	100
Market-based	Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Oracle 2016 GHG Assurance Review Letter_FINAL.pdf	1-2	ISO14064-3	100

CC8.8

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

Additional data points verified	Comment
Renewable energy products	Oracle's purchases of renewable energy certificates (RECs) are verified as part of the third party verification process.
Other: Oracle OpenWorld sustainability data	

CC8.9

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

No

CC8.9a

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

Further Information

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

CC9.1

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

Yes

CC9.1a

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

Country/Region	Scope 1 metric tonnes CO2e
North America	7768
Asia Pacific (or JAPA)	1738
Europe, Middle East and Africa (EMEA)	1787

CC9.2

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

CC9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)
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CC9.2b

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

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

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
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CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)
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Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC10.1

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

Yes

CC10.1a

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

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market- based approach (MWh)
North America	263237	225787	585868	6057
Asia Pacific (or JAPA)	94051	93463	121742	
Europe, Middle East and Africa (EMEA)	39855	32328	99714	40658
Latin America (LATAM)	2850	2850	10012	

CC10.2

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

By activity

CC10.2a

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

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

CC10.2b

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

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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CC10.2c

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

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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. Additional business activities are managed within the smaller facilities and, as such, emissions data for these locations is included in the noted figure.	98602	77712
Various business activities, including but not limited to manufacture of hardware and business services (office based activities)	301391	276716

Further Information

Page: CC11. Energy

CC11.1

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

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

CC11.2

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

Energy type	MWh
Heat	1978
Steam	103
Cooling	4170

CC11.3

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

57638

CC11.3a

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

Fuels	MWh
Natural gas	56228
Diesel/Gas oil	1410

CC11.4

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

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
Energy attribute certificates, Renewable Energy Certificates (RECs)	6057	0	In 2016, we purchased low carbon energy at several facilities, including 5,400 MWh of renewable energy credits (RECs) at Oracle's Austin Data Center.
Contract with suppliers or utilities, supported by energy attribute certificates	40658	0	This represents the zero carbon electricity purchased at all our facilities in the UK.

CC11.5

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

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
812495	811085	1410			

Further Information

Page: CC12. Emissions Performance

CC12.1

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

Decreased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	6.3	Decrease	In 2016, an estimated 24,370 MTCO ₂ e were reduced by our emissions reduction projects, and our total scope 1 and scope 2 emissions in the previous year amounted to 386,721 MTCO ₂ e. Therefore, we arrived at 6.3% through $(24,370/386,721)*100= 6.3\%$. To achieve this, we implemented several emissions reduction initiatives, including: employee engagement; purchasing renewable energy credits; 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.
Divestment			
Acquisitions	6.7	Increase	In 2016, Oracle acquired several companies, which had an impact on our global employee headcount as well our facilities portfolio.
Mergers			
Change in output			
Change in methodology	5.8	Decrease	In an effort to continually improve our reporting, we made a few amendments to our emissions calculation methodology for 2016. We improved our formula for extrapolating emissions at facilities where data isn't available.
Change in boundary			

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Change in physical operating conditions			
Unidentified			
Other			

CC12.1b

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

Market-based

CC12.2

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

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.0000098217	metric tonnes CO2e	37236000000	Market-based	4.82	Decrease	Emission reduction activities such as increased operational efficiency.

CC12.3

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

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
2.65	metric tonnes CO2e	full time equivalent (FTE) employee	137925	Market-based	8.26	Decrease	Emission reduction activities such as increased operational efficiency, and employee engagement.

Further Information

Page: **CC13. Emissions Trading**

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.1a

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

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership
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CC13.1b

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

CC13.2

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

No

CC13.2a

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

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

Page: **CC14. Scope 3 Emissions**

CC14.1

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	40644	This figure represents the estimated emissions associated with two categories of purchased goods: furniture and computers. The emissions were calculated by multiplying the spend data for both categories of goods by the corresponding conversion factors as outlined in the DEFRA 2012 Conversion Factor Repository, Annex 13.		
Capital goods	Relevant, calculated	296193	Oracle used the value of Property, Plant, and Equipment (PP&E) as indicated in our balance sheet to determine our capital expenditures for fiscal year 2016. The upstream impact of these investments was calculated using the following emission factors: 589,000 mtCO2e/\$1B for buildings, 454,000 mtCO2e/\$1B for electronic equipment, and 464,000 mtCO2e/\$1B for other.		
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	23999	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		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Greenhouse Gas Conversion Factor Repository (2016) for Electricity and Natural Gas in all other countries.		
Upstream transportation and distribution	Relevant, calculated	35103	These are emissions from third party service providers who move products or product components to various manufacturing locations and to our customers globally. The emissions are estimated using an equation from the World Resources Institute (WRI) Greenhouse Gas Protocol: Distance Traveled x Total Weight x WRI GHG Protocol emissions cofactor per transport mode. To calculate this, our vendor has developed an internal tool which uses 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; 3) GHG Protocol emissions cofactors per primary mode of transport.		Our transportation and distribution vendor provides us with one figure, which includes both upstream and downstream emissions. We estimate that the scale of our upstream and downstream operations is roughly equal. Therefore we are reporting 50% of the total emissions figure (70,206 MT CO2) in each category.
Waste generated in operations	Relevant, calculated	812	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		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			lbs per yd ³ . 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.		
Business travel	Relevant, calculated	188451	This data is acquired from Oracle's travel vendors, Hertz and Avis. Hertz uses the following emission factors as established by The Climate Registry: 8.78 kg CO ₂ /gallon of petrol and 10.21 kg CO ₂ /gallon of diesel. The following GWPs were used: CO ₂ : 1, CH ₄ : 21, N ₂ O: 310. 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 (2016).		
Employee commuting	Relevant, calculated	81.85	This number was calculated using annual mileage data from Oracle's employee shuttle service providers. The emissions were estimated using the following emission factors: CO ₂ : 0.107 (kg CO ₂ /passenger-mile), CH ₄ : 0.0006 (g CH ₄ /passenger-mile), N ₂ O: 0.0005 (g N ₂ O/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		The figure represents emissions data from our employee shuttle providers for our offices in Redwood Shores and Santa Clara, CA. This figure does not include emissions from individual employee commuting. With more than 135,000 employees globally, located in over 80 countries, flex working schedules and telecommuting, we are unable to provide a calculation for individual employees.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			with emissions data from Table 2-17 from the U.S. Greenhouse Gas Emissions and Sinks: 1990–2005.		
Upstream leased assets	Not relevant, explanation provided				Oracle leases a number of facilities and equipment such as copiers. All emissions related to these upstream leased assets are included within our Scope 1 and 2 GHG inventory.
Downstream transportation and distribution	Relevant, calculated	35103	These are emissions from third party service providers who move products or product components to various manufacturing locations and to our customers globally. The emissions are estimated using an equation from the World Resources Institute (WRI) Greenhouse Gas Protocol: Distance Traveled x Total Weight x WRI GHG Protocol emissions cofactor per transport mode. To calculate this, our vendor has developed an internal tool which uses 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; 3) GHG Protocol emissions cofactors per primary mode of transport.		Our transportation and distribution vendor provides us with one figure, which includes both upstream and downstream emissions. We estimate that the scale of our upstream and downstream operations is roughly equal. Therefore we are reporting 50% of the total emissions figure (70,206 MT CO2) in each category.
Processing of	Not				Subsequent to manufacturing, Oracle hardware is

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
sold products	relevant, explanation provided				not processed further.
Use of sold products	Relevant, calculated	17552	<p>Oracle has multiple families of servers, each of which has many models, available in different configurations, with different power use capabilities. It is impossible to precisely calculate emissions for our customers' energy use around the globe, across our entire product portfolio. For this reason, we used data from one very popular family of servers as the basis for our calculation/estimation. Our methodology and assumptions are as follows: - For the purposes of this calculation, we assumed an equal number of units sold across the various configurations. - The power use for each configuration was estimated using the publicly available "Sun Power Calculators," available at this link: http://www.oracle.com/us/products/servers-storage/sun-power-calculators/index.html. - The results were multiplied by the US Average Domestic Electricity Emission Factor of 0.676 MT of CO2 per MWh (in accordance with the US Energy Information Administration, Domestic Electricity Emission Factors, 1999-2002). - We assumed that, on average, our customers ran workloads on their servers 50% of the time. - Lastly, we assumed an average Power-Utilization-Effectiveness (PUE) of 1.5 for our customers' data</p>		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
End of life treatment of sold products	Not relevant, explanation provided		centers.		<p>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 less than 0.4% to landfill. In FY16, Oracle took back more than 3 million lbs of product, of which 93.6% was recycled, 6% reused, and 0.4% 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:</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					http://www.oracle.com/us/products/servers-storage/take-back-and-recycling/index.html
Downstream leased assets	Relevant, calculated	11604	This figure was calculated by multiplying the total square feet of subleased space by 17.3 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.		
Franchises	Not relevant, explanation provided				Oracle does not have any franchisees.
Investments	Not relevant, explanation provided				Oracle is not a financial institution. Our "investments" are primarily debt investments without known use of proceeds.
Other (upstream)					
Other (downstream)					

CC14.2

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

Third party verification or assurance process in place

CC14.2a

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

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/13/14013/Climate Change 2017/Shared Documents/Attachments/CC14.2a/Oracle 2016 GHG Assurance Review Letter_FINAL.pdf	1-2	ISO14064-3	29

CC14.3

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

Yes

CC14.3a

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

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Waste generated in operations	Emissions reduction activities	14.53	Decrease	Oracle is committed to minimizing its waste, and we have implemented numerous waste management programs and initiatives across our global facilities. Through a combination of emissions reduction activities, including employee engagement, improved data analysis, and an increased emphasis on recycling and composting, we have made significant progress toward achieving our waste reduction goals. We exceeded our 2016 goal to reduce waste to landfill per employee by 15%, and are now working to achieve a 25% reduction in waste to landfill per square foot by 2020 (base year: 2015).
Employee commuting	Other: The increase in emissions reflects growth in Oracle's alternative transportation program and employees' increased utilization of our shuttle services.	27.26	Increase	

CC14.4

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

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

CC14.4a

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

Methods of engagement:

- Oracle engages with our suppliers, customers, and other partners in the value chain on GHG emissions. For example, we periodically host webinars on sustainable management for our suppliers and industry colleagues. Additionally, we participate in the Electronic Industry Citizenship Coalition's (EICC) Greenhouse Gas

Reporting process. Oracle's suppliers are invited to EICC webinars/training sessions on energy efficiency and greenhouse gas reporting.

• While Oracle has an impact itself, we can have an even larger impact through the practical, concrete sustainability solutions that we provide to our customers to help with their sustainability initiatives. Oracle provides a range of products that assist our customers in decreasing their energy use and lowering GHG emissions. For example: Oracle's cloud product offerings, such as Software-as-a-Service and Platform-as-a-Service, help our customers to save fuel/energy and space, as well as reduce their exposure to fuel/energy related taxes by reducing their energy needs on a normalized basis.

Other examples of products that we provide to help our customers reduce their own GHG emissions and their environmental impact include:

- o Oracle Engineered Systems: Reducing energy needs
- o Oracle's server, storage, network & desktop virtualization technologies: Increasing utilization, and lowering energy use
- o Oracle Real Application Clusters: Saving electricity, cooling, and floor space
- o Oracle Advanced Compression: Lowering storage requirements and saving energy
- o Oracle Product Lifecycle Management (PLM): Reducing risk by managing a product's environmental compliance in its design phase
- o Oracle Strategic Network Optimization: Optimizing constrained natural resources
- o Oracle Lean Manufacturing: Reducing waste using lean manufacturing principles
- o Oracle Reverse Logistics: Increasing reverse supply chain efficiencies while addressing increasing product take-back requirements
- o Oracle Procurement: Ensuring use of sustainable suppliers
- o Oracle Governance, Risk, and Compliance (GRC) management: Formalizing the scope around green initiatives, establishing targets, and then measuring progress
- o Oracle On Demand: Driving down power consumption and space requirements

Strategy for prioritizing engagement and measuring success:

While maximizing our own sustainability is our top priority, we also prioritize the sustainability of our strategic hardware suppliers. We measure success based on the percentage of our top direct hardware supply chain manufacturing suppliers who disclose their GHG emissions. To quantify this process, Oracle uses a supplier scorecard. In order to receive points on the scorecard, suppliers are required to report on their energy, water, and waste footprints in addition to many other items. Supplier responses are among the many factors Oracle considers in making business decisions.

CC14.4b

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

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Active engagement	200	85%	In 2016, we established a goal to survey our direct hardware suppliers and manufacturers that collectively represented at least 85 percent of our total direct hardware supply chain expenditure. We exceeded this goal, ultimately receiving responses from first-tier suppliers representing approximately 90 percent of our direct hardware supply chain expenditures in 2016.

CC14.4c

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

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

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

Name	Job title	Corresponding job category
Jon Chorley	Chief Sustainability Officer and Group Vice President, Supply Chain Management Product Strategy	Other: Chief Sustainability Officer

Further Information

Module: ICT

Page: ICT1. Data center activities

ICT0.1a

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

Yes

ICT1.1**Please provide a description of the parts of your business that fall under “data centers”**

Oracle operates the following data centers, which accounted for approximately 25% of our total energy use in 2016:

- The Austin Data Center (ADC) – located in Austin, Texas – is highly energy-efficient, and was awarded an EPA ENERGY STAR certification.
- The Utah Compute Facility (UCF) – located in West Jordan, Utah – employs state-of-the-art energy efficiency innovations, and is also EPA ENERGY STAR certified.
- Five smaller data centers in the United States (California, Colorado, and Utah) and five in the United Kingdom (Reading and Linlithgow).

The type of data center activities Oracle carries out.

Activities conducted through Oracle data centers include:

1. Internal data management.
2. Cloud services.
3. Other customer-related services (e.g., support, training, etc.).
4. Product development.
5. Website development and provisioning.
6. Other business operations.

ICT1.2**Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the data centers component of your business**

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

ICT1.3**What percentage of your ICT population sits in data centers where Power Usage Effectiveness (PUE) is measured on a regular basis?**

Percentage	Comment
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ICT1.4

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

ICT1.4a

Please provide your average PUE across your data centers

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

Please provide the range of PUE values across your data centers

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

Please provide your PUE values of all your data centers

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

Please provide details of how you have calculated your PUE value

ICT1.6

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

ICT1.6a

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

ICT1.7

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

Status in reporting year	Energy efficiency measure	Comment
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ICT1.8

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

ICT1.8a

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

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

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

ICT1.9a

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

ICT1.10

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

ICT1.10a

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

ICT1.11

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

Further Information**Page: ICT2. Provision of network/connectivity services**

ICT0.1b

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

No

ICT2.1

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

ICT2.2

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

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

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

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

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

ICT2.5

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

ICT2.5a

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

Further Information

Page: ICT3. Manufacture or assembly of hardware/components

ICT0.1c

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

Yes

ICT3.1

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

ICT3.4

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

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

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

ICT3.6

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

ICT3.7

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

ICT3.7a

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

Further Information

Page: ICT4. Manufacture of software

ICT0.1d

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

No

ICT4.1

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

ICT4.2

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

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

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

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

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

ICT4.5

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

ICT4.5a

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

Further Information

Distribution of software on tangible media does not comprise a significant component of our business. Customer adoption of electronic transmission, over traditional tangible shipments, represents the vast majority of our distribution for software, documentation, and educational course materials and has for years. We have closed our software warehouse operations and now provide tangible shipments to only a very small number of customers directly from small office locations.

Page: ICT5. Business services (office based activities)

ICT0.1e

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

Yes

ICT5.1

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

The types of activities that fall under business services (office-based activities):

Oracle is a global company that designs, produces and markets computer software and hardware, and provides sales, consulting, education and training in the application and use of our products.

ICT5.2

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

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment
Business services (office based activities)					

ICT5.3

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

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment
	metric tonnes CO2e	Square meter				

ICT5.4

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

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment
	MWh	Square meter				

Further Information

Page: **ICT6. Other activities**

ICT0.1f

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

No

ICT6.1

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

ICT6.2

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

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

ICT6.3

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

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

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

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

CDP