Bank of America

CDP Climate Change 2017 Information Request



# Climate Change 2017 Information Request Bank of America

**CDP** 

**Module: Introduction** 

Page: Introduction

CC0.1

#### Introduction

Please give a general description and introduction to your organization.

Bank of America is one of the world's leading financial institutions, serving individual consumers, small and middle-market businesses and large corporations with a full range of banking, investing, asset management and other financial and risk management products and services. The company provides unmatched convenience in the United States, serving approximately 46 million consumer and small business relationships with approximately 4,600 retail financial centers, approximately 15,900 ATMs, and leading online (www.bankofamerica.com) and mobile banking platforms with approximately 34 million active accounts and more than 22 million mobile active users. Bank of America is a global leader in wealth management, corporate and investment banking and trading across a broad range of asset classes, serving corporations, governments, institutions and individuals around the world. Bank of America offers industry-leading support to approximately 3 million small business owners through a suite of innovative, easy-to-use online products and services. The company serves clients through operations in all 50 states, the District of Columbia, the U.S. Virgin Islands, Puerto Rico and more than 35 countries. Bank of America Corporation stock (NYSE: BAC) is listed on the New York Stock Exchange. (As of December 31, 2016.)

At Bank of America, we are guided by a common purpose to make financial lives better through the power of every connection. We deliver on this through a strategy of responsible growth and a focus on environmental, social and governance leadership. Through these efforts, we are driving growth—investing in the success of our employees, helping to create jobs, develop communities, foster economic mobility and address society's biggest challenges—while managing risk and providing a return to our clients and our business.

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

## 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.

**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

The Corporate Governance Committee of the Board of Directors has ultimate responsibility for climate change. As stated in its Charter, this Committee is responsible for periodically reviewing the company's strategy, policies and practices regarding environmental, social and related governance (ESG) matters that are significant to the company and receiving updates from the Global ESG Committee, which is the management-level committee responsible for significant ESG activities.

The Global ESG Committee is accountable to the chief executive officer and is chaired by Anne Finucane, Vice Chairman. Ms. Finucane is the executive management team member with direct responsibility for leading the company's ESG efforts. The Global ESG Committee, which is comprised of senior leaders across every business line and support group, meets at least three times a year and reports regularly to the Corporate Governance Committee of the Board of Directors. This structure ensures that emerging ESG issues, as well as concerns raised by advocates, regulators and other stakeholders, are integrated into our core business decisions and are being reviewed and managed at the highest levels of the company. In addition to our global governance of ESG, we have established regional committees in Latin America, Asia Pacific and Europe, the Middle East and Africa (EMEA) to guide our ESG strategy and ensure accountability at the regional level.

The Global ESG Committee serves as an integration point for various internal working groups with responsibility for environmental and social issues, including our Global Environmental Operations Group (which was one of its first subcommittees), the Supplier Diversity and Sustainability working group and the Global Wealth & Investment Management Impact Investing Council. Each of these groups is comprised of senior leaders from across the bank and has very specific responsibilities within our environmental initiatives. Together, they ensure that we have a robust, comprehensive and integrated platform for governing and executing climate change-related strategies.

The Global Environmental Operations Group oversees our environmental operational goals, including our greenhouse gas and energy use reduction goals and is responsible for developing strategies and implementing initiatives to ensure successful achievement of these goals. The Global Wealth and Investment Management (GWIM) Impact Investing Council was created to expand the ESG products and services we offer wealth management clients – regardless of their asset level – giving them the opportunity to focus investments to address climate change, resource scarcity or environmental issues more broadly, in addition to other important social and governance issues. The Supplier Diversity and Sustainability working group is building upon our existing supplier diversity program by reviewing ESG issues relevant to our supply chain and leading efforts to integrate them into our procurement approach.

As part of our commitment to positive environmental change, we have a dedicated internal team that works full-time on our environmental initiatives. Our Global Environmental Group (GEG), which is part of Ms. Finucane's Global Marketing and Corporate Affairs group, focuses on four strategic areas: Transformational Finance, Operations, Employee Programs & Nonprofit Partnerships and Governance & Policy and operates under the direction of our Global Environmental Executive Alex Liftman. The GEG identifies and helps to capitalize on emerging trends that present new business opportunities for the bank, while identifying trends that present risk to the company from both a business and operations perspective and helping us to manage those risks. The group establishes and has accountability for environmental goals for the company – from our \$125 billion environmental business commitment to a suite of operational goals – and ensures resources across the company are mobilized to meet these goals. The group also manages the company's environmental employee engagement program, called My Environment, which grew in 2016 to approximately 20,000 participants. The GEG's scope includes working with partners on philanthropic grants, developing and updating policies, and serving as subject matter experts with internal and external partners.

#### CC1.2

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

Yes

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

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Corporate executive team	Monetary reward	Emissions reduction target Other: Progress towards ESG goals	As part of our Responsible Growth strategy we have added Environmental, Social and Governance (ESG) metrics to our corporate executive team's performance dashboard. These metrics include progress towards our \$125B environmental business goal, the value of ESG assets under management and our performance in ESG ratings/rankings. These metrics are tracked quarterly and reported to the Board.
Environment/Sustainability managers	Monetary reward	Emissions reduction target Supply chain engagement Other: Development of low-carbon business activity, reporting of climate change activities	The Global Environmental Group is tasked with catalyzing and supporting the development of low-carbon business activity, the delivery of GHG reduction targets, coordinating the monitoring and reporting of climate change activities, and engaging with our vendors on the management of climate change. The team is incentivized (monetarily and through corporate recognition), based on its success in these areas.
Business unit managers	Monetary reward	Emissions reduction project Emissions reduction target	Delivering operational GHG emissions reduction targets: Teams, responsible for our internal operations, including but not exclusively the Real Estate Services team are incentivized to successfully implement activities and initiatives that support energy efficiency and manage and reduce GHG emissions.
Business unit managers	Monetary reward	Emissions reduction project Other: Management of climate change opportunities	Realization of climate change related revenue opportunities: Lines of business that focus directly on climate change and environment-related revenue streams are evaluated based on their management of these opportunities. For example, teams such as Energy Services and Renewable Energy Finance (energy efficiency, solar & wind equipment finance) are paid based on the volume and scale of energy efficiency and renewable energy transactions they complete.
All employees	Monetary reward	Emissions reduction project	Incentivizing use of low carbon vehicles for employees in the US, Canada and UK: Our low-carbon vehicle program has provided nearly 9,000 reimbursements since its inception in 2006. Through this initiative, employees receive a \$4,000 reimbursement for the purchase or \$2,000 for a lease of a new, eligible, highway-capable electric vehicle or hydrogen fuel cell vehicle. In 2016, new participants in the low-carbon vehicle program achieved an estimated cumulative emissions reduction of nearly 1,200 metric tons of CO2.
All employees	Monetary reward	Emissions reduction project	Reducing cost of residential solar installation: In 2016, we continued our partnerships with SolarCity and SunPower to offer our employees a discount on residential solar power contracts. To date, 195 employees have chosen to power their homes with solar energy through the program. By educating employees on the benefits of solar energy and addressing the barriers to installation, the program

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
			continued to grow in 2016, garnering positive feedback from all involved.
All employees	Monetary reward	Efficiency project	Employee ideas for efficiency projects: as part of our Simplify and Improve program, employees are encouraged to submit ideas on how to make the company more effective and efficient. Employees submitting ideas through the online forum "Speak Up!" and other channels are eligible to receive a monetary incentive if their idea is the first of its kind and selected for implementation. Conserving resources and reducing waste through green initiatives has been a common theme and many employees have been rewarded for their suggestions.
All employees	Other non- monetary reward	Other: Volunteer service	Supporting environmental volunteerism: Last year, Bank of America volunteers donated approximately 2 million hours globally, helping address critical needs in the communities where they live and work, including over 40,000 volunteer hours devoted to environmental causes. Since 2010 employees have logged over 260,000 volunteer hours on environmental efforts. We support employee volunteerism by offering full-time employees up to two hours of time off each week to volunteer at organizations of their choice. In addition, employees who volunteer regularly with an organization may apply for a volunteer grant from the Bank of America Charitable Foundation for that organization.
All employees	Other non- monetary reward	Other: Charitable contributions	Matching donations: The Bank of America Charitable Foundation Matching Gifts program encourages employees to contribute to qualifying charitable organizations. This program supports employee giving by offering a way to double – up to \$5,000 per person each calendar year – employees' cash or securities contributions to their favorite charitable organizations and thus improve their communities. In 2016, the Bank of America Charitable Foundation provided \$27 million in matching gifts on behalf of employee donations.

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	We consider risks and opportunities across our global operations.	> 6 years	Our Global ESG Committee meets quarterly and has among its responsibilities the identification of ESG risks and opportunities. The Committee's recommendations are reported to the Corporate Governance Committee of the Board. Our Risk Framework describes seven key risk types that are managed across the business; strategic, credit, market, liquidity, operational, compliance and reputational risks. Additionally, our Environmental and Social Risk Policy Framework provides clarity and transparency around how we manage environmental and social risks. Climate change is considered a component of several risk types, including credit risk, operational risk, and reputational risk. Credit risks include the potential for physical climate changes as well as regulations to negatively impact our clients' operations. Transactions can also carry reputational risks for our business. See Further Information for more detail.

## CC2.1b

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

## Company

Our Global ESG Committee has among its responsibilities the identification of ESG risks and opportunities and includes our Global Risk Chief Operating Officer and Enterprise Credit Risk Executive. The Committee's recommendations are reported to the Corporate Governance Committee of the Board.

We engage our stakeholders to help us better understand relevant environmental and social issues and determine which should be included in our published Environmental and Social Risk Policy Framework (ESRPF). Our ESRPF describes how we identify, evaluate and control environmental and social risks as part of

our overall risk framework. In developing the ESRPF, we benchmarked our existing policies and positions against industry best practices and reviewed the results of our ESG materiality assessment. The ESRPF is reviewed by the Global ESG Committee every two years, or more frequently as material issues develop.

#### Asset

Annual assessments consider physical risks to our facilities from factors including severe weather, wildfires and flooding. Our Business Continuity group assesses risks associated with planned recovery facilities for our major locations. The assessment results are reported to business units using the major recovery facilities who then remediate the risk (e.g. by using another site) or escalate the risk for senior management review.

Assessments consider potential shared risk between production and recovery facilities based on probable risks for a given geography and the specific locations of the production and recovery sites. For example, a production and recovery facility located a short distance apart from each other on the Florida south coast may have a shared hurricane risk.

We have completed an assessment to identify supplier categories at highest risk from flooding and we have developed detailed disaster recovery plans for suppliers in high risk categories.

#### CC2.1c

## How do you prioritize the risks and opportunities identified?

Material ESG risks and opportunities are those that have an impact on our stakeholders' decisions to work with us, whether as a client, investor, vendor or community partner. We collect feedback from internal and external sources, including via our National Community Advisory Council, to determine our most important issues. We completed an ESG materiality assessment in 2016, working with BSR who conducted interviews with executives and surveyed external stakeholders to determine key issues of interest. The outcomes of these interviews were reviewed, prioritized and agreed upon by our Global ESG Committee. ESG Investing and Low-Carbon Financing are among the 5 issues identified as most relevant to our ongoing growth and success.

Our ESRPF identifies the environmental and social topics we recognize to be of heightened importance to our company and our stakeholders, and our approach to them. Recognizing that certain sectors may be more exposed to climate change risks than others, we engage in enhanced due diligence for business activities in these sectors to evaluate the associated risks, including physical, regulatory and reputational risks. Sectors of heightened sensitivity include arctic drilling, coal, palm oil and forestry. The ESRPF sets out our positions on these matters, including certain minimum client requirements found within our policies. For example, we require clients whose business is focused on ownership and management of palm oil plantations and operations to have their operations certified to the Roundtable on Sustainable Palm Oil standard or equivalent or to have in place an outlined action plan and schedule for certification.

For CDP reporting, we consider risks and opportunities with potential financial implications of over \$10 million per year to be substantive.

At the facility level, our Proximity Risk Program prioritizes risk based on scores derived through the assessment of the severity and likelihood of occurrence for each risk category.

Is climate change integrated into your business strategy?

Yes

#### CC2.2a

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

- i) Integration of environmental and climate change strategy into our business strategy is overseen by our Vice Chairman, Anne Finucane who reports to the CEO and chairs our Global ESG Committee, acting as the Committee's liaison to the Board. This Committee makes recommendations to the company's management team and board of directors. This structure ensures that ESG issues including those raised by external stakeholders, are integrated into our core business decisions and are reviewed and managed at the highest levels of the company. The Committee is an integration point for various internal working groups with responsibility for environmental and social issues, including our Global Environmental Operations Group, regional ESG Committees, the Global Wealth & Investment Management Impact Investing Council and our new Supplier Diversity and Sustainability working group.
- ii) There are several examples of how our business strategy has been influenced by climate change. In 2007, we announced a 10-year, \$20B environmental business initiative to address climate change and natural resource demands. In 2012, we exceeded this commitment four years early and in 2013 we began a new target of \$50B over 10 years, which then increased to \$125 billion in 2015. This is an indicator of the growing climate finance business opportunity. Since beginning our second goal in 2013, we have financed more than \$49B in environmental business activities. As another example, in 2016 we set new operational goals, including a 50% GHG emissions reduction, a 40% energy reduction, becoming carbon neutral and purchasing 100 percent renewable electricity. As a further example, we incorporated a climate change position into our November 2016 Environmental and Social Risk Policy Framework (ESRPF), which provides clarity and transparency on how we identify, evaluate, measure and control environmental and social risks throughout our business.
- iii) Aspects of climate change influencing our strategy include physical climate change, policy and legislation, reputational concerns and economic incentives, all of which drive risk and opportunities for our clients. This presents us with opportunities to provide financing for climate mitigation and adaptation. Institutional investors are seeking high quality ESG research and advice that supports their investment decisions. Environmentally conscious consumers are looking for financing solutions that help them reduce their environmental impacts. Reducing our operational impact saves us money, increases our resilience, engages our employees and supports our commitment to a lower carbon economy.
- iv) During 2017, we are working to accelerate the transition towards a low-carbon economy. Examples include our issuance and underwriting of green bonds as well as our Catalytic Finance Initiative to stimulate at least \$10B of new investment into high-impact clean energy projects, particularly in emerging economies. We are also providing intellectual capital and funding for research into policy and new innovative financing solutions that will support this transition.
- v) Over the longer term, we will focus on achieving our 2020 operational goals and realizing our 10 year \$125B environmental business goal, bringing associated

investment opportunities to our clients and clients. Our efforts emphasize energy efficiency and storage, renewable energy, transportation, waste and water and consist primarily of lending, equipment finance, capital markets and advisory activity, carbon finance, and advice and investment solutions for clients. We will also continue to provide charitable grants to nonprofit organizations focused on environmental sustainability issues.

The Sustainable Energy for All (SE4All) Global Tracking Framework estimates that a doubling in the share of renewable energy in the global energy mix will require investment of \$442B-\$650B per year. Realizing this growth will depend in part on whether financing can transition from individual 'bespoke' transactions to become routine, where primary and secondary markets are institutionalized and capital is provided at scale. During the next 10 years, we will continue to focus our efforts towards influencing such outcomes where possible.

vi) Our environmental commitment supports business growth, promotes a greener global economy and helps address the impacts of climate change while helping our clients meet their own sustainability objectives. This contributes to our top-line growth and positions us to capitalize on the longer-term opportunities that exist. This will provide a strategic advantage in our industry and deliver long term value for our shareholders. In 2016, we were recognized for our environmental leadership by the Dow Jones Sustainability Index, Environmental Finance Green Bond Awards, Green Bond Pioneer Awards, PR News CSR Awards, Asset Magazine, and ASDA Environmental Leadership Awards.

vii) In 2016 we decided upon a suite of new goals to reduce our operational environmental impacts by 2020, including becoming carbon neutral, reducing location-based GHG emissions by 50 percent, energy use by 40 percent, and water use by 45 percent globally. We committed to purchasing 100 percent renewable electricity and joined RE100, a global renewable energy initiative led by The Climate Group in partnership with CDP and part of the We Mean Business Take Action campaign. In addition, we announced our first quantitative goals to address supply chain emissions. We aim to maintain a 90% response rate to CDP supply chain survey requests and increase the number of our CDP supply chain responding vendors who report GHG emissions to 90% by 2020. The aspects of climate change influencing these decisions include the need to reduce GHG emissions and our desire to lead by example in climate related issues.

viii) The Paris Agreement goals are consistent with our work to help drive the transition to a low-carbon and more sustainable economy. The Intended Nationally Determined Contributions (INDCs) have helped us identify where the investment needs are in emerging markets and in what specific technologies. For example, more than 1,700 new GW of solar and wind will be required by 2030, 70% of which will be in emerging markets. That has helped us assess what kinds of investment will be required and through what financial products and ties in with our approach in helping to facilitate more issuance of green bonds in emerging markets to fund deployment of renewables. We were among 30 companies that signed an open letter which appeared the Wall Street Journal expressing support for the United States remaining in the Paris Agreement. The US government's decision to withdraw from the Agreement does not affect our commitment to help finance sources of renewable, clean energy as part of our approach to responsible growth.

ix) Our new GHG goal is consistent with science-based target setting methods which are based on IPCC's 2oC scenario.

#### 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

# CC2.3

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

Trade associations Funding research organizations Other

## 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?
American Council on Renewable Energy	Consistent	The American Council on Renewable Energy (ACORE) is a non-profit organization dedicated to advancing the renewable energy sector through market development, policy changes, and financial innovation. ACORE works with its members to educate the public and decision makers about effective policies that will promote renewable energy development. The US Partnership for Renewable Energy Finance (US PREF) is	The Global Head of Power and Renewables, Investment Banking group is a member of the ACORE board and participates in ACORE and US PREF speaking events and in organized meetings with members of the legislative and executive branches of the US government. Our goal in participating in US PREF is to provide expert input to policy makers on how the renewable energy finance market works.

.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?
		managed by the ACORE and is a coalition of senior level financiers who invest in all sectors of the energy industry, including renewable energy. US PREF members meet with policymakers to provide their perspectives on how renewable energy finance policies affect the market, and how proposed policies could affect the market. US PREF is not a lobbying organization or an advisory committee to government, rather it is an educational program that provides expert input on how the renewable energy finance market works. US PREF activities include ongoing dialogue with Administration officials, members of Congress and their staffs, and other government officials involved in developing policy. When requested, PREF members provide testimony before a committee or subcommittee of Congress, or submit testimony for inclusion on the public record of a hearing. Members author white papers that provide detailed information on how the renewable energy finance market works and analyze how specific policies affect the market.	This is with a view to informing renewable energy policies that support continued expansion of the renewable energy market in an efficient and effective way.
American Wind Energy Association	Consistent	The American Wind Energy Association (AWEA) focuses on the value of wind energy as an effective, fact-based mechanism to reduce carbon emissions. AWEA is the national trade association for the US wind industry. With thousands of wind industry members and wind policy advocates, AWEA promotes wind energy as a clean source of electricity for American consumers. The AWEA policy team advocates for policies to promote wind energy and educates members of Congress in Washington, DC and officials in state capitals throughout the country about wind power.	The Global Head of Power and Renewables in our Investment Banking group is on the AWEA Board of Directors and holds the position of Treasurer. The Board has supervision, control, and direction of the affairs and policies of the Association. In that role, Board members hear updates, provide input at their own discretion, and may be asked to vote on various matters.

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

Yes

#### CC2.3e

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

Through our membership in trade associations and advocacy organizations, we take an active public policy stance on climate change issues, advocating for a stable and predictable regulatory environment with a goal to advance clean energy and a low-carbon economy. In the US, we encourage the development of a clear, federal standard for GHG reductions that would give investors the certainty they need to plan for the future. We are a member of the American Wind Energy Association, Solar Energy Industries Association and the US Partnership for Renewable Energy Finance, managed by the American Council on Renewable Energy, Ceres and the Center for Climate and Energy Solutions (C2ES). Our goal as members of these groups is to help unlock capital flows to renewable energy projects, provide expert input on how renewable energy finance policies affect the market and advocate for policies that promote renewables as a clean source of electricity.

Following our active participation in the 2015 Paris COP21 event, our Managing Director of Climate Finance attended the 2016 COP22 event in Marrakesh, participating in several speaking events and discussions. These included how to scale up the \$100 billion by 2020 climate finance commitment made during COP15 in Copenhagen and engaging mainstream capital markets in low-carbon investment opportunities through new products such as green bonds, yieldcos and climate-focused smart-beta funds.

Our Global Chair of Corporate and Investment Banking is a principal with the Global Innovation Lab, a Commissioner with the Energy Transitions Commission which we also sponsor, and co-chairs the Finance Committee of the UN Secretary General's Initiative, Sustainable Energy for All (SE4All).

The Global Innovation Lab is a group of climate experts from governments, pension funds, investment banks, project developers and development finance institutions providing support to the identification and piloting of cutting edge climate finance instruments with the aim of driving billions of dollars of private investment into climate change mitigation and adaptation in developing countries.

The Energy Transitions Commission (ETC) was convened to identify pathways for change in our energy systems in support of economic growth and a better climate. The work of the Commission includes objective research and wide engagement with actors in the energy system. The ETC's flagship report, launched on 25 April 2017, sets out achievable pathways to limit global warming to well below 2°C while stimulating economic development and social progress.

We participate in the C2ES Business Environmental Leadership Council (BELC) and attend regular BELC calls and meetings. According to C2ES, BELC is the largest US-based group of companies focused on addressing climate change challenges and supporting mandatory climate policy. We have been a member of the Ceres coalition since the late 1990s and have been a key participant and Clean Trillion Sponsor of the recurring Ceres UN Investor Summit on Climate Risk and annual Ceres conferences. We engage with Ceres in climate policy related activity and played a pivotal role with Ceres in developing the financial sector statement on climate change.

We provide intellectual capital and funding research into policy solutions that will support the transition to a low carbon economy, including promoting financial innovation to increase low-carbon investment. The public work we support is directly aligned with our strategy and includes the advancement of low carbon technologies as well as solutions for building climate change resilience.

Since 2010, the Bank of America Charitable Foundation (BACF) has provided funding support to the UC Berkeley Center for Law, Energy & the Environment, which educates the next generation of environmental leaders and proposes policy solutions. BACF funds a Climate Change fellow position and co-sponsors the Center's Climate Change and Business Research Initiative which connects leaders from business, government, nonprofits and academia to address pressing environmental and energy needs and serves as a conduit to experts and a clearinghouse for the latest climate change policy research. The Initiative has published many studies including on transportation, renewable energy, water and energy efficiency and energy storage, to inform California's decision-makers on policies necessary for businesses to prosper in the era of climate change.

BACF has provided financial support to the Clean Air Task Force since 2013. The Task Force's mission is to catalyze the rapid global development of low carbon energy and other climate-protecting technologies through research and analysis, public advocacy leadership and partnerships with the private sector. In the US, the Task Force works closely with the Administration and leaders in Congress in a non-partisan, data driven way, to develop climate policies and regulations grounded in science, technology, and the law.

#### 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?

Our Global ESG Committee oversees our policy engagement activities that relate to climate change and acts as an integration point for various internal working groups with responsibility for environmental and social issues. These include the Global Environmental Operations Group, regional ESG Committees, Supplier Diversity & Sustainability working group and the Global Wealth & Investment Management Impact Investing Council. Each of these groups is comprised of senior leaders from across the bank but has specific responsibilities for our environmental initiatives. Together, they ensure the bank has a robust, consistent and integrated platform for governing and executing climate change-related strategies.

Our Global Environmental Group (GEG) is responsible both for coordinating our overall climate change strategy and for leading our company's efforts to engage with policymakers on this issue. This helps to ensure that our policy engagement objectives are in alignment with our overall climate change strategy. GEG and members of our risk management groups actively communicate and work with business lines engaged with clients in low carbon sectors as well as those that are engaged with more carbon intensive sectors to ensure that they are aware of our position on climate change and operate in accordance with that position. Our direct and indirect policy engagement efforts are aimed at supporting the competitiveness of and markets for low carbon technologies as well as promoting greenhouse gas emissions reductions in carbon intensive sectors. Our approach is to identify and partner with a range of stakeholders, including non-governmental organizations, academics and clients whose objectives are aligned with our own, and we have several long-standing partnerships that we believe have made meaningful steps towards addressing the climate change mitigation challenge.

Our Environmental and Social Risk Policy Framework (ESRPF) clearly and transparently articulates our positions on and approach to certain topics and sectors that we recognize as being of heightened sensitivity and importance to us and our stakeholders, including those that carry elevated climate change concerns. Implementation of our ESRPF helps to ensure that employees across our business are taking a consistent approach to these topics and sectors. In 2016, approximately 2,500 employees were trained on the ESRPF. The training was targeted at employees potentially working with areas of heightened environmental and social risk and included risk management committees and senior leaders. We also developed internal reference guides on key topics, including palm oil, arctic drilling and our coal policy to support implementation of our ESRPF. Environmental and social risk management is also included at a high level in our company-wide Risk Framework training. In 2017 we will roll out a global risk based ESRPF training plan with mandatory and voluntary elements.

## **Further Information**

Continuation of CC2.1a Examples of where we have considered risks and opportunities beyond a 6 year time horizon include our 10-year environmental business goal, our recent work to update our Environmental and Social Risk Policy Framework and our signatory support of the Carbon Principles, a best practice due diligence standard for evaluating financing for companies that are considering new power plant construction in the US and for ensuring that the long-term costs of carbon are taken into account even in the absence of regulation.

# Page: CC3. Targets and Initiatives

## CC3.1

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

Absolute target Renewable energy consumption and/or production target

## CC3.1a

## Please provide details of your absolute target

.ID	Scope	.% of emissions in scope	.% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	.Target year	Is this a science- based target?	Comment
Abs1	Scope 1+2	100%	100%	2010	1806516	2020	Yes, but this target	We are committing to achieve carbon neutrality for

.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
	(market- based)						has not been approved as science-based by the Science Based Targets initiative	Scope 1 and 2 emissions by 2020.
Abs2	Scope 1+2 (market- based)	100%	100%	2010	1806516	2040	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	We are committing to maintain carbon neutrality through at least 2040.
Abs3	Scope 1+2 (location- based)	100%	50%	2010	1812031	2020	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	In tandem with the carbon neutrality goal, we are committing to reduce our location-based emissions by 50%. In addition to our 2020 GHG emissions reduction and renewable electricity targets, we have set several complementary operational goals. These include a 40% reduction in energy use from 2010-2020 and to have 20% of our real estate portfolio LEED certified by 2020.

# 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	2010	3277110	1%	2020	100%	

# CC3.1e

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

.ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	60%	75%	
Abs2	20%	75%	
Abs3	60%	83%	
RE1	60%	64%	

# 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	Green bonds are fixed income, liquid financial instruments for raising debt capital for climate mitigation or adaptation projects or programs and other environmentally beneficial activities. Since green bonds first came onto the market nearly a decade ago, we have been a leader in developing the market through collaborating with peers, being the lead underwriter in 2014, 2015 and 2016 according to Bloomberg New Energy Finance. In 2016, we issued our third and largest corporate green bond for \$1 billion to help finance renewable energy generation, which brings our total to \$2.1 billion in directly issued green bonds. Through our own issuances, we are advancing renewable energy generation by financing new projects— such as a multistate residential solar portfolio and a wind turbine facility in Oklahoma. We led the underwriting of \$25 billion in green bonds on behalf of 27 clients in 2016 alone. We led offerings for clients including the Chinese automobile company Zhejiang Geely Holdings (\$400 million), the New York Metropolitan Transportation Authority (\$588 million), Banco Nacional de Costa Rica (\$500 million) and the European Investment Bank (five bonds in 2016). Proceeds from these bonds are helping to finance various emissions-reducing projects.	Avoided emissions	Other: Green Bond Principles			
Group of products	We provide a range of financial services and products that assist our clients in reducing or avoiding GHG emissions. We increased our second environmental business initiative from \$50 billion to \$125 billion by 2025 to support low-carbon and sustainable business. Our efforts emphasize energy efficiency, renewable energy, transportation, waste and water and consist primarily of lending, equipment finance, capital markets and advisory activity, carbon finance, and advice and investment solutions for clients. Our equipment finance Energy Services team supplies financing	Avoided emissions	Other: Sustainability Impact Assessment method we co- developed with EY			

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
	for a wide range of energy efficiency and renewable energy assets that meet client needs in municipal, federal, education, institutions, and healthcare markets. The team works directly with established contractors and Energy Services Companies (ESCOs) to provide financing for energy conservation measures (building envelope improvements, central plant retrofits, solar assets, etc.). Our Renewable Energy Finance team provides tax advantaged capital, debt and related financial solutions to clients with respect to a wide range of commercial and utility-scale renewable energy (wind and solar) projects (Energy Services and Renewable Energy financing totaled \$3.3 billion in 2016). Our Commercial Real Estate Banking group provides financing for projects pursuing and using LEED certification, ENERGY STAR, brownfields redevelopment and the use of renewable energy tax credits (\$1.1 billion in 2016), while our Global Investment Banking and Debt Capital Markets groups facilitate capital flows to clients developing and adopting clean technologies (\$7.2 billion in 2016). Our Consumer Vehicle lending group provides loans for hybrid/electric vehicle purchases (\$371 million in 2016) while our Global Wealth and Investment Management group offers ESG investment solutions for our investor clients (\$19 million in 2016). Through the provision of such financing and advisory services, we facilitate and enable investment in clean technologies, energy efficiency and renewable energy, which in turn results in reduced and/or avoided GHG emissions.					
Group of products	We provide opportunities for both our employees and our clients to reduce paper consumption. To achieve reductions in client paper use across our businesses, our strategy includes everything from statement suppression to electronic payments to our envelope-free deposit image ATMs. Our mobile and online banking capabilities also provide technology-driven channels for	Avoided 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
	our clients' convenience and helps reduce their travel to and from financial centers.					

# 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	600	
To be implemented*	400	9000
Implementation commenced*	400	9000
Implemented*	570	11200
Not to be implemented	600	

CC3.3b

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

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	Approximately 570 energy efficiency projects were implemented in 2016, including lighting and HVAC equipment and controls upgrades, data center equipment and controls, and decommissioning unneeded equipment. Since 2004, we have completed more than 10,000 efficiency projects. Since 2010, we've exited 37 data centers, consolidating our computing operations into significantly fewer buildings, which reduces overall emissions.	11200	Scope 1 Scope 2 (location- based) Scope 2 (market- based)	Voluntary	2800000	22500000	4-10 years	3-5 years	
Low carbon energy purchase	Purchase of US RECs and UK REGOs	605000	Scope 2 (market- based)	Voluntary					

# CC3.3c

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

Method	Comment
Dedicated budget for other emissions reduction activities	Dedicated budget for renewable energy
Financial optimization calculations	
Internal finance mechanisms	
Employee engagement	

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	Pages 5, 9	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC4.1/Bank of America 2016 Annual Report.pdf	2016 Annual Report		
In voluntary communications	Complete	Whole document	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC4.1/Bank of America 2016 ESG Highlights.pdf	2016 Environmental, Social and Governance Highlights		
In voluntary communications	Complete	Pages 1, 6, 7	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC4.1/Bank-of-America-2016-ESG-Summary-Report.pdf	2016 Environmental, Social and Governance Report		
In voluntary communications	Complete	Pages 1-2, 6-12	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC4.1/Bank-of-America-2016-ESG-Performance-Data-Summary.pdf	2016 Environmental, Social and Governance Performance Data Summary		

Publication	Status	Page/Section reference	Attach the document	Comment		
In voluntary communications	Complete	Website with multiple applicable pages and documents	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC4.1/Bank of America Corporate Environmental Sustainability website.pdf	Environmental sustainability website http://about.bankofamerica.com/en-us/what-guides-us/environmental-sustainability.html		
In voluntary communications	Complete	Whole document	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC4.1/Bank of America Press Release_Operational Goals.pdf	Operational goals press release		
In voluntary communications	Complete	Whole document	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC4.1/Bank of America Press Release_Third Green Bond.pdf	Third green bond press release		

**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
Uncertainty surrounding new regulation	We have made significant investments towards financing the transition to a low carbon economy through lending, investing, capital raising, advisory services and developing financing solutions for our clients. Policies and regulations that place a price on carbon, require emission reductions or incentivize clean energy and/or energy efficiency are important for creating a framework that supports our investments in low-carbon technologies and energy efficiency. Regulatory uncertainty takes various forms, including delayed passage of regulatory	Other: Increased risk profile for financing	1 to 3 years	Direct	About as likely as not	Medium	Given our commitment to developing a leading low carbon banking business, legislative uncertainty presents a potential cost to us and also serves to increase the risk profile for certain low carbon transactions. While it is difficult to accurately quantify the financial implications, we estimate the potential delayed or unrealized revenue resulting from regulatory uncertainty to be in excess of \$10 million annually.	We advocate for stable and predictable regulation and partner with others to raise understanding of the policy conditions needed to support the transition to a low carbon economy. The following are specific examples of our advocacy. We participate in the US Partnership for Renewable Energy Finance (PREF), a coalition of senior level financiers who invest in all sectors of the energy industry. Our aim is to provide expert input to policy makers on how the renewable energy finance market works with a focus on impacting renewable energy policies that support continued expansion of the	We estimate additional costs of approximately \$100,000 per year for trade association membership fees. We expect to incur these costs over the next 10 years.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	Cost of management
	changes, impacts of lawsuits on the existence and structure of market making legislation and changes in government. Regulatory uncertainty has the potential to negatively impact our business due to increased risks, reduced incentives or both and presents specific risks to our low carbon financing business. Uncertainty exists regarding the future of climate policy in several important regions, including the US where existing federal regulations related to climate change are currently under review, and the UK where the future regulatory							renewables market in an efficient and effective way. Our Global Head of Power and Renewables in our Investment Banking group participates in PREF speaking events and other organized meetings with members of the legislative and executive branches of the US government. We also participate in the American Wind Energy Association and the Solar Energy Industry Association. In response to policy developments, we are diversifying our low-carbon business geographically and in terms of service lines to mitigate the impact of regulatory uncertainty. Our renewable energy projects are underwritten to ensure qualification	

.Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	Cost of management
	framework is unclear following the 2016 vote to leave the European Union. Our Renewable Energy Finance (REF) team specializes in tailored financing products and services for renewable energy projects and equipment. REF's offerings include tax equity investments and a variety of structured debt products. The REF team works closely with our investment banking, commodities and structured solutions teams to raise capital for renewable energy clients. Prior to 2016, the pattern of expiration and short-term renewal of the US production tax							for applicable incentives. In addition, we are working to reduce the cost of capital associated with wind, solar and other projects to make them cost competitive with traditional fuels, which in turn will reduce the market's reliance on tax incentives.	

Risk driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	credit resulted in a wildly fluctuating wind power market. This increased the risk profile and undermined the attractiveness of wind energy projects for investors such as ourselves. Uncertainty around the future of the investment tax credit before it was renewed in late 2015 similarly affected the solar energy market. Although not as potentially impactful, net metering rules face opposition in some states. For example, in December 2015, the Nevada Public Utilities Commission established lessgenerous net metering rates which curtailed new rooftop solar								

.Risk driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	installations during 2016. These are examples of uncertain regulatory conditions that can have a negative impact on our renewable energy business.								
Other regulatory drivers	We have indirect exposure to legislation through clients. We have relationships with most of the US Fortune 100 companies and the Fortune Global 500, as we are among the world's largest global commercial, corporate, investment banking and markets franchise. We are indirectly exposed to credit risk as a result of the direct impacts of	Other: Increased credit risk	3 to 6 years	Indirect (Client)	About as likely as not	Medium- high	Our clients' profitability could be affected if they do not prepare for new legislation, if they face a proliferation of regional legislation or if legislation is poorly designed. This could result in negative financial implications for our business.	We require all clients to comply with legislation, and through our ESRPF we evaluate and mitigate environmental risks associated with client transactions. Sectors with heightened risk levels are subject to enhanced due diligence. As an example, transactions where the majority use of proceeds is identified as supporting palm oil production are subject to enhanced due diligence. This	By supporting the effective integration of environmental risks and operational activities across our business and by assisting the development and implementation of our ESRPF, our Global Environmental Group (GEG) is central to our management of this risk. The total annual operating cost of the GEG is approximately \$7 million. We expect to incur similar annual costs over

Risk driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	legislation on our clients. Depending on the sector and geographic location, many of our business clients are already subject to climate change regulation, such as the European Trading Scheme. Others face new regulatory requirements such as the emissions trading regime in China. The proliferation of regional and national regulatory regimes introduces significant complexity and costs for companies operating in multiple regions. If not effectively anticipated and managed, such new regulations could adversely							consists of a formal review of the transaction by a subject matter expert on risks attributed to palm oil. The reviewer discusses environmental and social risks with the client, reviews client disclosures, completes a media search and has the client complete a Palm Oil Client Questionnaire. Clients whose business is focused on ownership and management of palm oil plantations and operations are required to have their operations certified to the Roundtable on Sustainable Palm Oil standards or equivalent, or have in place an outlined action plan and schedule for certification. Incorporation of these requirements	the next decade.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	Cost of management
	impact our clients' profitability and this in turn could have financial implications for our company by impacting their ability to service debts or make new investments. The palm oil industry provides a specific example of potential client exposure for our company. Included among the environmental and social concerns surrounding palm oil production are GHG impacts relating to the cultivation of palm oil on peatland, land-use change in existing and new plantations, and processing and production facilities. Concerns surrounding the environmental							in our ESRPF helps to mitigate risks associated with potential client exposure to current and future mandatory requirements in this sector. We trained approximately 2,500 employees, including senior leaders and risk committee members, on the ESRPF in 2016. Training was targeted at employees potentially working with heightened risk areas. We also developed internal reference guides, including on palm oil, arctic drilling and our coal policy to support ESRPF implementation.	

.Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	and social impacts of this industry are driving discussions among policy makers about the potential role of regulation in mitigating these impacts. For example, in April 2017 the EU Parliament voted to support a resolution calling for mandatory standards including minimum sustainability criteria for imports of palm oil and products containing palm oil to the European Union which is the second largest market for palm oil imports.								

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
Other physical climate drivers	With offices in Hong Kong, Japan, the Philippines, Taiwan, China and Australia, our Asian and Australian operations are vulnerable to an increase in the severity, duration and/or frequency of tropical storms experienced in these regions. Our operations in the southern and eastern United States, including our headquarters in Charlotte, North Carolina, are also vulnerable to an increase in the severity, duration and frequency of seasonal storms and potential for severe weather conditions. We	Other: Potential for business disruption and impacts to employee health and safety	1 to 3 years	Direct	About as likely as not	Medium	Implications include facility repair costs, lost work time, increased utility costs, retail outlet closures, lost revenue, and increased insurance premiums. To illustrate the financial implications of individual events, the total operational losses from the direct impacts of Superstorm Sandy on our facilities were approximately \$33 million. We track work order costs on repairs after severe weather events, and will use this data as it develops to	Our Building Disaster Recovery Planning (BDRP) team prepares our facilities for natural disasters. During 2016, the team managed response and recovery for 131 global events, 58 of which were natural disasters. In partnership with vendors, the team delivers preparedness and response training for natural disasters, including hurricanes. Through our My Work program and the provision of laptop, tablets and ML fobs to employees, employees can work remotely and are able to support operations should an impact occur, such as severe weather. In such an event, clients are	We estimate the additional costs of business continuity planning and recovery as a result of climate induced changes to be over \$100,000 per year. We anticipate annual costs associated with our business continuity planning for as long as we are in business.

Risk driver	Description	.Potential impact	Timeframe	.Direct/ Indirect	Likelihood	.Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	operate over 4,700 US retail financial centers, some of which are vulnerable to the physical impacts of climate risk with the potential to disrupt the accessibility of our retail outlets to our clients. Physical risks in the US take the form of increased frequency and severity of storms with related flooding, particularly affecting the coastal southern and eastern states, and extreme heat events resulting in drought conditions and numerous wildfires across the West, Central and Southeast regions. This could lead to temporary or, in the event of severe damage, permanent closure of one of our						understand trends associated with climate risk.	encouraged to use online banking, mobile telephone banking, and contact centers. We have a large, distributed ATM network and reciprocal agreements for our clients to use ATMs operated by other banks. We have a fleet of mobile financial centers and mobile ATMs strategically located within the U.S. for immediate deployment to areas impacted by natural disasters. In late 2016, our US Regional Support team prepared for a significant hurricane (Matthew), driving broader awareness of the threats and enabling central coordination of continuity plans for business lines. Our systems, platforms, and applications all performed without interruption, despite record-setting	

.Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	financial centers. Physical climate risks in the US are compounded by aging infrastructure, critical infrastructure dependencies, expanding urban areas in tornado zones, coastal population expansion and a lack of associated forward investment as highlighted in a March 2014 report by National Climate Assessment. Our operations in Europe are also vulnerable to climate change impacts. Early 2016 saw a continuation of impact from severe rain events in the UK, causing utility failure and flooding of major transit routes and employee homes. Climate change may contribute to							hurricane force winds, driving rains, substantial flooding, and widespread power outages. As a result of our management measures, we consider the residual risk level to be low.	

.Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	.Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	certain types of events occurring in locations that have not typically experienced them in the past and therefore tend to be less prepared. For example, Atlanta and North Carolina were badly affected by snow and ice during unusually active winter weather patterns in early 2015, which also produced recordsetting snowfall totals in the northeastern US. During 2016, while churning along the Southeast Coast, Hurricane Matthew delivered significant damages to the coastal areas of Florida, Georgia, and South Carolina. Climate change may contribute to less predictability around the types,								

.Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	timing and location of severe weather events, and we account for this in our business continuity planning.								
Other physical climate drivers	We are exposed to the impacts our clients face from physical climate changes. Our clients' businesses could be affected due to changing market conditions, increasing operational, capital maintenance and insurance costs, reduced staff health, safety and productivity and increased asset depreciation rates. If the profitability or viability of a client or a group of clients is adversely affected, this could have an adverse economic effect on our business of providing investment and other financing	Other: Credit risk	1 to 3 years	Indirect (Client)	About as likely as not	Medium- high	Physical climate change could impose a financial cost on our clients, for example through direct damage to their facilities, increased insurance premiums, and lost revenue due to facility closures, lost work time and production or distribution delays. This could have negative financial implications for our business.	In each region, our business units have assigned risk managers to focus on locally relevant issues (including in relation to climate change). From the potential impact of water stress on agricultural clients to tidal surge impacts on coastal real estate, each of our lines of business accounts for climate-related risks in vetting transactions and client relationships. Transactional and client risk assessments are supported by our global research teams which cover climate related topics in their research and reports and identify associated risks and opportunities for	By supporting the effective integration of environmental risks and operational activities across our business and by coordinating the internal project evaluating the potential implications of physical climate change, our Global Environmental Group (GEG) is central to our management of this risk. The total annual operating cost of the GEG is approximately \$7 million. We expect to incur similar annual costs over the next decade.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	services to these clients. For our investor clients, climate change risk will have an impact at the level of asset class, industry sector and sub-sector. Sectors at greatest long-term risk include agriculture, insurance, and travel and tourism all of which are vulnerable to the physical effects of climate change. Flooding is an area of potential exposure for our company. There is scientific consensus that flood risks are increasing in many regions due to climate change. According to a 2013 FEMA study, rising seas and increasingly severe weather are expected to increase the areas of the US at risk of floods by up to							investors. During 2016, we progressed an internal project to evaluate the potential implications of physical climate change for our organization. The scope of the project, which is supported by an external consultant, includes our direct operations as well as our exposure to the impacts our clients face from physical climate changes. Regarding the latter, the project is focused on a sub-group of client sectors; assessing the implications of potential changes from severe weather events, such as flooding and drought, and other physical risks for our portfolio in each of these sectors. Once complete, our aim is for the analysis to provide an indicator of how resilient our current client portfolio	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	45% by 2100. Increased flood incidence and severity could lead to our clients defaulting on their mortgage payments if, for example, flood insurance premiums become unaffordable. Clients may also find themselves in a negative equity situation due to housing values being impacted when insurance costs rise due to expanding flood hazard zones and increased flood incidence and severity. Of our current portfolio of US real estate secured loans, 4% are in a flood zone, with the majority being residential loans (98%) and the remaining, commercial loans (2%). A March 2016 Thematic							is to physical climate related impacts and to also provide any recommendations regarding follow on analysis and/or other actions for us to take.	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	Investing report that we produced states that climate change and the carbon-intensive economy are already causing unprecedented damage to financial stability via physical, liability and transition risks and that without action, the cost of climate change will rise to 1-5% of GDP/year. Global investment portfolios could lose up to 45% of their value by 2020, and investors could see average returns erode by 26-138% by 2050. The Heat Stress (Future Climate) Index by Verisk Maplecroft predicts that manufacturing hubs in SE Asia may experience significant productivity decreases over the next 30 years								

Risk driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	due to rising temperatures and extreme heat stress impacting labor forces.								

CC5.1c

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

.Risk driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
Reputation	As one of the world's largest financial institutions, protecting our brand among our clients, shareholders, as well as governments and NGOs, is of vital importance. As societal concern about climate change has grown, there has	Reduced demand for goods/services	1 to 3 years	Direct	About as likely as not	Low- medium	There are possible financial implications to our company if we are unable to fulfill our commitments to direct capital to low-carbon technologies/activities and reduce our operational environmental impacts; effectively integrate climate change considerations into our lending and investment activity; or do not provide transparency into our areas of action. These implications	We act in many ways to ensure that we set, achieve, and communicate meaningful climate change commitments. Metrics linked to our \$125 billion environmental business initiative are included in performance dashboards for	By supporting the effective integration of environmental risks and operational activities across our business, spearheading our My Environment employee engagement program and working with many different external

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	become an increasing awareness across a range of our stakeholders that we in the financial services sector can and should support the transition to a low carbon economy. We are subject to reputational risk directly, for example if we are not considered to be making meaningful public commitments on climate change or if we do not make meaningful progress towards our commitments. Having made significant public commitments, including our 10-year \$125						could include loss of client relationships/business, failure to secure new business and/or reduced valuation. With regards to new business specifically, the typical revenue value of RFPs we receive each year that incorporate environmental, social and governance requirements is above \$10 million. We consider this value to be one measure of the financial implications to our business of maintaining and enhancing our strong ESG practices.	our corporate executive team. Our individual lines of business have specific and measurable climate-related goals and metrics. We ensure senior level oversight of our programs through our Global ESG Committee and supporting governance structure. We encourage external stakeholder input to our programs. A specific example of this engagement is our National Community Advisory Council (NCAC), which provides us with external perspectives	stakeholders, our Global Environmental Group (GEG) helps to protect our environmental reputation both internally and externally. The total annual operating cost of the GEG is approximately \$7 million. We expect to incur similar annual costs over the next decade.

.Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	Cost of management
	billion environmental business initiative and the new 2020 operational goals we announced in 2016, the credibility and associated business value of these initiatives to our company could be undermined by perceptions that seem to counter our commitments. Our investors are increasingly interested in our sustainability commitments and progress, as investor understanding of the relationship between sustainability and business performance grows. If we							on important environmental and social challenges we face. A diverse group of US leaders comprise the NCAC to represent civil rights, consumer advocacy, community development and environmental sustainability. In 2015, we strengthened the NCAC's environmental expertise by adding members from the Clean Air Task Force, Nature Conservancy, USGBC, C2ES and WRI. During 2016 the NCAC shared their expertise with us on issues such as	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	are perceived to be falling behind on our environmental commitments, this could affect our standing in indices that highlight sustainability credentials and could potentially lead to clients switching their business to other financial institutions. We are receiving an increasing number of requests for proposals for banking services that include queries on our policies and practices, and how they align with those of our clients. We are subject to reputational risk indirectly through our lending and other financial							environmental risk and climate change impacts on low and moderate income communities. Issues reviewed with the NCAC include energy poverty, water infrastructure and climate change, and extreme weather resilience. Finally, we communicate our efforts to our stakeholders by reporting externally on our public commitments and progress towards them through CDP and in our ESG and Annual Reports.	

.Risk driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	Cost of management
	services if we are not perceived to be adequately evaluating and mitigating environmental and social risks associated with client transactions. As we state in our Environmental and Social Risk Policy Framework (ESRPF), while environmental and social issues can cross many risk types, they most often present reputational risk. In our ESRPF, we recognize that certain sectors and topics, such as palm oil, forestry, arctic drilling and coal are of heightened sensitivity and								

Risk driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	Cost of management
	importance to us and our stakeholders. Through our ESRPF, we have developed clear position statements regarding how we evaluate and mitigate the social and environmental risks associated with client transactions in these sectors.								

## 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

## 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
International agreements	The agreement made at the U.N. Conference on Climate Change (COP21) in Paris provides a framework to drive forward international action on climate change, and is expected to generate significant opportunities to increase our business. The Agreement provides for international mechanisms to promote climate friendly finance, carbon trading, technology transfer and adaptation to climate change impacts. It will give momentum to	Other: Increased demand for existing products/services & new products/services	3 to 6 years	Indirect (Client)	Virtually certain	Medium- high	By generating opportunities for our climate finance business, we anticipate that implementation of the Paris Agreement will result in well over \$10 million of additional business annually for us. This will result generally from helping to us to deliver on our 10 year \$125 billion environmental business initiative and specifically through our Catalytic Finance Initiative (CFI). We originally launched our CFI in 2014 with a \$1 billion commitment	In response to the opportunity created by the INDCs developed in conjunction with the Paris Agreement, we have developed and expanded innovative financing structures and new partnerships. The CFI is one example of action we are taking to tackle these challenges. The CFI aims to create an environment in which clean energy innovations and infrastructure projects are easier to finance,	By closely monitoring developments associated with COP21, the Paris Agreement and the INDCs, working with our lines of business and leading our CFI, our Global Environmental Group is spearheading our efforts to realize related opportunities for increasing our climate finance business. The total annual operating cost of the GEG is approximately \$7 million. We expect to incur similar annual costs over the next decade.

Opportunity driver	Description	Potential impact	Timeframe	.Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	national emission reduction plans and targets, and the related actions of international, sub-national and private sector organizations. As an example of the opportunity for us, the Intended Nationally Determined Contributions (INDCs) developed in response to the Agreement has generated opportunities for our Catalytic Finance Initiative. The INDCs have helped us identify where the investment needs are in emerging markets and in what specific						and a goal to stimulate at least \$10 billion in new investment into high-impact clean energy projects through additional partnerships. In 2016, following COP21, the CFI was expanded to include several leading financial organizations and \$8 billion in total capital commitments towards clean energy innovations and projects. By working together, this leading group of global financial institutions and investors can combine their efforts to increase	developing new structures that can be piloted in one location and then scaled more broadly. The new partnership created in 2016 through our expansion of the CFI following the Paris Agreement increased the funding commitment and combined expertise in a range of specialty areas including clean energy infrastructure finance, green bonds, project finance, green asset-backed securities,	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	technologies. These opportunities will be driven by a ramping up of investment in mitigation measures such as renewable energy technologies, smart grids and energy storage. For example, we now know that more than 1,700 new GW of solar and wind will be required by 2030, 70% of which will be in emerging markets. That has helped us assess what kinds of investment will be required and through what financial products. Achieving the goals of COP21 will						funding and significantly accelerate the transition to clean energy solutions.	emerging markets investment and advisory assistance, and approaches to blending public and private finance. In 2016, under the CFI, we served as placement agent and joint arranger for Vela Energy in a €404 million solar project bond backed by a portfolio of 35 solar photovoltaic projects in Spain. Project bonds and asset- backed securities focused on renewable energy are in the early stages of development,	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	mean transforming the global economy, and the kind of lending and investing that will be needed for this transformation requires financial services firms, such as ours, that have the scale and influence to make a real difference. We believe our \$125 billion environmental business commitment, along with the other financial commitments made by our peers, will help mobilize the capital needed for this transition to a low-carbon economy through sustainable							but have the potential to attract significant capital from institutional investors interested in fixed income products that can deliver reliable, competitive returns over long-term periods. We also arranged a \$204 million green project bond under the CFI for wind developer Energia Eolica S.A, in Peru.	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	and environmental business activities. We were among 30 companies that signed an open letter which appeared in the Wall Street Journal expressing support for the United States remaining in the Paris Agreement. The US government's decision to withdraw from the Agreement does not affect our commitment to help finance sources of renewable, clean energy as part of our approach to responsible growth.								
Other regulatory	Our Renewable	Increased demand for	1 to 3 years	Indirect (Client)	More likely than not	Medium	We estimate the possibility	We track and incorporate	The total annual

Opportunity driver	Description	Potential impact	Timeframe	.Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
drivers	Energy Finance (REF) business benefits significantly from US federal tax incentives such as the investment tax credit and production tax credit and state policies such as renewables portfolio standards, interconnection standards for renewables and net metering rules. With these regulatory drivers and market dynamics, including falling technology costs and increased demands, our REF business has more than quadrupled	existing products/services					of approximately \$10 billion in additional business towards our environmental business initiative over the next three years from this opportunity. We expect regulatory incentives to influence the viability of renewable energy projects and large scale capital energy efficiency projects.	regulatory incentives into our clean energy strategic planning and transactional work. We tailor the way we are developing our business and advising clients in response to the evolving regulatory landscape for clean energy. As an example of how we actively manage this opportunity, in 2016 we completed a fourth renewable energy transaction with Lincoln Clean Energy, a portfolio company of I Squared	operating cost of our Renewable Energy Finance and Energy Services groups which provide financing to renewable energy projects and capital energy efficiency projects is approximately \$23 million.

Opportunity driver	Description	Potential impact	Timeframe	.Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	since 2013. Our Energy Services team, which provides financing for large scale energy efficiency capital projects, benefits from the improved returns on investment that result from government action directed towards incentivizing energy efficiency. Partly due to policy incentives and led by wind and solar, renewables represented more than half the new power capacity around the world in 2015, reaching a record 153 gigawatts (GW), 15%							Capital, an independent global infrastructure investment manager. The transaction was the result of a collaborative effort between our Cross Asset Solutions and Strategies (CASS), Commodities and Renewable Energy Finance teams. CASS and Renewable Energy Finance led a tax equity commitment for the wind project, and further were lead arranger and bookrunner in a construction and term back leverage	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	more than the previous year. In October 2016, the International Energy Agency (IEA) significantly increased its five-year growth forecast for renewables thanks to strong policy support in key countries as well as sharp cost reductions. According to the IEA, renewables surpassed coal in 2015 to become the largest source of installed power capacity in the world. The 2016 edition of the IEA's Medium-Term Renewable Market Report projects							construction facility while Commodities structured and wrote an innovative 13-year power hedge for the project. We brought in a tax equity co-investor, and another bank to participate in its loan commitments, allowing us to provide Lincoln Clean Energy with execution certainty while managing total exposure to the project. The project is expected to generate approximately 1,000,000 megawatt-hours of clean energy per year, enough to	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	renewable growth at 13% more between 2015 and 2021 than it did in the previous year's forecast, due mostly to stronger policy backing in key regions.  According to the IEA, renewables will remain the fastest-growing source of electricity generation over the next five years, with their share growing to 28% in 2021 from 23% in 2015.  Renewables are expected to cover more than 60% of the increase in world electricity generation over the medium term, rapidly closing							power approximately 90,000 US homes.	

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

CC6.1b

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
Change in precipitation extremes and droughts	We believe that bond issuances are one of the best tools for companies, municipalities and other entities to finance the \$280 billion to \$500 billion of investment that UNEP estimates in its 2016 Adaptation Finance Gap report will be needed for global climate adaptation by 2050. This, in	New products/business services	3 to 6 years	Indirect (Client)	Likely	Medium- high	Green bond issuances are an area of significant growth opportunity for the bank. We estimate the potential implication of this opportunity to be over \$20 billion of annual business activity for our company, across climate mitigation and adaptation	Our green bonds business is key to our management of this opportunity. We have grown our Debt Capital Markets team focused on green bonds to four people and we are actively educating our relationship bankers across corporate and investment banking and public finance to be able to offer this financing tool	We estimate additional costs in support of our green bond and other climate adaption financing activities. We expect to incur these costs over at least the next 10 years.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	Cost of management
	turn, provides an opportunity for us to provide additional products and services. Green bonds are fixed income, liquid financial instruments for raising debt capital for climate mitigation and adaptation initiatives and were created to increase funding of such initiatives by accessing the \$100 trillion bond market and expanding the investor base for climate projects worldwide. We have been a leader in developing the green bond market since it began a decade ago. We worked with peers to develop						bond issuances.	to our clients. In 2016, we issued our third and largest corporate green bond for \$1 billion. Bloomberg New Energy Finance recognized us as the number one underwriter of green bonds for the past three years and we led the underwriting of \$25 billion in green bonds on behalf of 27 clients in 2016 alone. In 2016, we served as green structuring agent, joint bookrunner and joint lead manager on MTR Corporation Limited's inaugural \$600M green bond financing low carbon transportation, energy efficiency, sustainable real estate, climate adaptation,	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	the Green Bond Principles to ensure the credibility of the market, we were the first corporation to issue a benchmark sized green bond, and have led the market in underwriting. While most green bonds issued to date have focused on mitigation, there is significant potential, especially in areas such as municipal green bonds, for funds to be raised for adaptation projects and this creates opportunities for our green bonds business. The need to mobilize additional adaptation finance is particularly pressing in							biodiversity, water management, and pollution prevention. We are also active as one of 20 principals in the Global Innovation Lab for Climate Finance. The Lab identifies, develops, and pilots transformative climate finance instruments and aims to drive billions of dollars of private investment into climate change mitigation and adaptation in developing countries. As a principal, we review submissions to the Lab, discuss the merits of each proposal, help improve the structure to make each idea more investable, and participate in	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	developing countries where adaptation capacity is often the lowest while needs are high. Through partnerships such as the Global Innovation Lab, we are participating in efforts to pilot new forms of innovative climate finance solutions which will be needed to broaden investment opportunities both generally, and for our company specifically, in climate mitigation and adaptation in these important economic growth regions.							working groups to help bring the finalist instruments to market.	

## 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
Reputation	As one of the world's largest financial institutions, we are experiencing increasing interest from our stakeholders including employees, investors, clients, NGOs and policymakers in our environmental performance and initiatives. To the extent that we can positively differentiate ourselves, for example through operational goals and initiatives, innovative financing solutions and partnerships, and	Increased demand for existing products/services	1 to 3 years	Indirect (Client)	Likely	Medium	Reputational opportunities have possible financial implications for our company through the potential to attract new clients and drive additional revenue, improve stock price, and reduce costs associated with employee turnover. While it is very difficult to comprehensively quantify the positive financial implications, we estimate the potential for over \$10 million of additional revenue per year to result from a reputation for leadership in the environmental financing field.	One way that we work to build our reputation is to actively participate in external programs that recognize organizations for their environmental leadership. One example is the US EPA Climate Leadership Awards. In 2015, we became the first financial services company to win the Organizational Leadership Award which recognizes companies for their commitment to reduce GHG emissions while also demonstrating leadership in their climate-related business strategies. In early 2017, we received from EPA two Excellence in GHG Management awards - GHG Goal Setting, which we also won in 2013,	By supporting the effective integration of environmental risks and opportunities across our business, spearheading our My Environment program, working with many different external stakeholders, and leading our participation in environmental events, surveys, indices and recognition programs, our Global Environmental Group helps to build our environmental reputation both internally and externally.

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	environmental risk policies, we have an opportunity to enhance our brand, attract new employees, investors and clients and increase employee retention rates. We discuss this overall theme in our 2016 ESG Report. In her letter to our stakeholders, our Vice Chairman, Anne Finucane says 'we believe the market will ultimately reward companies with responsible business practices and a long-term view'. As our clients and other stakeholders seek to address environmental							and GHG Goal Achievement. To receive these awards, we developed an application including information on our GHG inventory, goals, reduction activities, and other leadership actions. We also build our reputation through employee engagement. Our My Environment program exists to drive positive environmental change by helping employees act as better environmental stewards at work, at home and in their communities. Each year we offer a variety of programs for employees, such as expert webinars and discussion courses, "take action" programs, and many volunteer opportunities. In	The total annual operating cost of the GEG is approximately \$7 million. We expect to incur similar annual costs over the next decade.

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	challenges and opportunities in key growth markets such as the Asia-Pacific region, they are looking to work with and learn from financial services partners with a reputation for building a demonstrable track record and body of expertise on these topics. Bloomberg New Energy Finance recognized us as the number one underwriter of green bonds globally in 2014, 2015 and 2016. This global leadership position has served to support the growth of our Asia-Pacific green bonds							2016, we launched our first EcoChallenge in partnership with the Northwest Earth Institute. During the two-week challenge, employees created a profile, joined a team and committed to taking one new positive action to improve the environment. Across the globe 285 teams were formed and more than 3,200 employees participated.	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	business – and in 2016 we led 18 of the 22 international Green Bond transactions out of Asia, number one among all banks, according to Dealogic. We were recently recognized by the Asset Magazine as the Best ESG Bank in Asia, a new award category in 2017. The rapid and significant growth of our My Environment employee engagement program to approximately 20,000 active employee members across 31 countries in 2016 serves to illustrate the importance of								

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	environmental issues and our performance to our employees.								
Changing consumer behavior	Factors including increased understanding and awareness about climate change and its causes and effects, as well as policy, reputational and financial factors are driving increased client demand for our low-carbon products and services. Opportunities exist across our lines of business. During 2016, our Commercial Real Estate and Community Development Banking business provided \$1.1 billion towards	New products/business services	1 to 3 years	Indirect (Client)	Likely	Medium- high	We estimate that changing client and client demand for low-carbon financing represents an opportunity for \$125 billion in additional business for us from 2013 to 2025. This represents the lending, equipment finance, capital markets and advisory activities, and carbon markets finance to clients around the world to be delivered through our current \$125 billion initiative. As an illustration of this opportunity, increasing client demand helped us deliver \$15.9	Our Global Environmental Group (GEG) identifies and helps to actualize trends that present new business opportunities for the bank. Leaders from across our business work alongside members of the GEG to gather and report market data and other information to influence our transformational financing activities. Our impact investing program, launched in 2013, provides a case study of how we are developing our business to meet rapidly growing client demand – in this instance, for investments that have a positive impact on society	The activities of our GEG support the efforts of our business lines to anticipate and respond to changing client demands. The total annual operating cost of the GEG is approximately \$7 million. We expect to incur similar annual costs over the next decade.

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	financing of LEED and EPA ENERGY STAR certified buildings while our Global Leasing business provided \$3.3 billion in equipment and tax equity financing for energy- efficiency projects and renewable- energy projects. Our Global Investment Banking and Debt Capital Markets groups provide equity and debt capital and advisory services to low- carbon clients (\$7.2 billion in 2016). In the past year, our Consumer Vehicle lending group lent clients \$371 million to help						billion towards our environmental business initiative in 2016.	or the environment without sacrificing performance. A 2016 US Trust study found that 74% of investors say they would be more likely to work with an advisor who could offer investment strategies that result in both competitive returns and a positive impact on society. Our GWIM business is equipping advisors to help clients take ESG factors into account in their investment decisions. GWIM introduced Implementation Guidance for a range of impact investment solutions, including those focused on environmental sustainability. This guidance helps advisors work with their clients to assess and reduce	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	them purchase low-carbon vehicles. Our research has found that investors, and particularly millennial investors, are increasingly focused on ESG factors when making investment decisions. This creates opportunities for our Global Wealth and Investment Management (GWIM) business. As of December 31, 2016, GWIM clients had more than \$11.3 billion in assets with a clearly defined ESG approach. Across the industry, there has been a 33 percent increase in assets under							the carbon exposure of their portfolios. In early 2017, a new impact investing guide was also introduced to help our advisors gain a deeper understanding of the interest and opportunities in this area, including how to identify and address the needs of a growing number of clients. We anticipate a magnitude rating of high over the next 10 years.	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	management in ESG-type funds in just the last two years. And as millennials' wealth grows, there could be an inflow of \$15–20 trillion into ESG investments over the next 20 to 30 years. Investors increasingly understand that taking ESG performance into account isn't just the right thing to do, it may also make good business sense. A 2016 Equity Strategy Focus Point report from our Global Research team, titled "ESG: good companies can make good stocks," found that a company's								

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	ESG performance could be an indicator of its future stock performance.								
Other drivers	The success of our business is reliant upon the economic and social health of the communities we serve. Increased clean energy investment over the past decade has driven meaningful growth in clean energy jobs. According to a 2016 report by Environmental Entrepreneurs, more than 2.5 million people now work in the clean energy sector across the United States. Another 2016 study prepared by	Other: Improved economic and social well-being	1 to 3 years	Indirect (Client)	About as likely as not	Low	Through the Bank of America Charitable Foundation (BACF)'s philanthropic efforts and our financing activities we can contribute to local economic development, while also contributing to the low-carbon economy. We are not currently able to quantify the indirect benefits to our business.	Through community development and philanthropic programs, BACF invests in partnerships that provide sustainable solutions to challenges facing communities. As a case study, BACF has, since 2015, partnered with and provided funding for the GivePower Foundation. This NGO's mission is to leverage solar applications to improve people's lives in impoverished communities by impacting seven sectors; education, water, health, food security, economic development, telecommunications and conservation.	In 2016, we provided more than \$21 million in philanthropic support to organizations focused on climate change and other environmental opportunities. In support of our environmental business initiative, we will continue to invest in nonprofit organizations focused on climate change and other environmental issues.

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	ICF International for NextGen Climate America attempts to quantify the economic impacts of the transition to a low carbon economy and concludes that deep decarbonization of the US economy has a net positive impact on the overall economy in terms of jobs, GDP, and income per household. Under different scenarios, the economy could add more than a million jobs by 2030 and up to 2 million jobs by 2050. Much of the developing world lacks access to							Building a traditional electrical grid to reach remote areas is in many cases prohibitively expensive. However, as solar energy becomes more affordable, the developing world has an opportunity to embrace a distributed energy model that is more affordable and better for the environment. Access to this clean, affordable energy will create transformational economic and educational opportunities that can move millions out of poverty. GivePower Foundation partnered with another NGO, Build-On, to provide solar power to schools constructed by Build-On in communities in	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	.Management method	.Cost of management
	electricity. Lack of electricity impairs economic, education, health, environment and social outcomes. India for example is the 3rd largest GHG emitter and its power sector has one of the highest carbon intensities. Coal is the dominant power source in India and is driving massive public health problems –13 out of the 20 most polluted cities are in India. 300 million people still live without access to electricity in India. This country's goals of poverty eradication and economic							several regions including Africa, Latin America and Asia. From 2014-16, GivePower Foundation provided affordable, clean and resilient power to more than 2000 schools, creating transformational education opportunities for children and adults. We expect a medium opportunity rating over the next 10 years.	

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	development will drive massive energy growth. If this is not met through clean, sustainable energy India's GHG emissions and public health issues will increase very significantly. The World Health Organization estimates that between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, from malnutrition, malaria, diarrhea and heat stress. The direct damage costs to health, excluding costs in health-								

Opportunity driver	Description	Potential impact	Timeframe	.Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	determining sectors such as agriculture and water and sanitation, is estimated by the WHO to be between \$2-4 billion per year by 2030. Reducing emissions of greenhouse gases through better transport, food and energy-use choices can result in improved health, particularly through reduced air pollution. Through our financing activities and our philanthropic efforts we are working to support the transition to a low-carbon economy, while creating jobs								

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	.Cost of management
	and enhancing the economic health and social well- being of communities around the world.								

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	Fri 01 Jan 2010 - Fri 31 Dec 2010	141929
Scope 2 (location-based)	Fri 01 Jan 2010 - Fri 31 Dec 2010	1670103
Scope 2 (market-based)	Fri 01 Jan 2010 - Fri 31 Dec 2010	1664587

#### 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

Other

#### 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

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) provides the overarching methodology for the bank's GHG inventory. The following source specific documents are used as guidance for methodologies, emission factors and the collection of activity data:

EPA Emission Factors for Greenhouse Gas Inventories, November 2015

US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources

US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources

US EPA Center for Corporate Climate Leadership: Indirect Emissions from Purchased Electricity

US EPA Center for Corporate Climate Leadership: Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases

#### CC7.3

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

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

# CC7.4

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

.Fuel/Material/Energy	Emission Factor	.Unit	Reference
			Please see attached Excel spreadsheet for all emissions factors

#### **Attachments**

https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/CDP 2017 Question 7 4 Emission Factors - Bank of America.xlsx

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

83473

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
973299	369084	Our market-based emissions include the impact of renewable energy certificates (RECs) purchased in the United States and Renewable Energy Guarantees of Origin (REGOs) in the United Kingdom. All U.S. RECs we purchase are Green-e certified. Emissions reflect supplier-specific emission rates where available, all of which comply with Scope 2 Guidance criteria. Emissions reflect residual mix factors for European facilities. Residual mix factors are not currently available for facilities outside of Europe.

#### 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?

No

#### CC8.5

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

Scope	.Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 5% but	Data Gaps	For facilities that do not have actual energy consumption data, the data are extrapolated using data from

Scope	.Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
	less than or equal to 10%	Extrapolation	our operationally controlled facilities. We attempt to continually increase the amount of actual data available. There is the potential for facilities or emission sources to be omitted from the inventory, though significant measures are taken to ensure all facilities and emissions sources are included. Other potential sources of uncertainty are errors in billing by fuel suppliers, and errors in data entry and transferring of the data. We have quality control procedures in place to review monthly and annual consumption data, checking that it conforms to expected seasonal patterns and that there are no larger-than-expected discrepancies from month to month or year to year.
Scope 2 (location- based)	More than 5% but less than or equal to 10%	Data Gaps Extrapolation	For facilities that do not have actual energy consumption data, the data are extrapolated using data from our operationally controlled facilities. We attempt to continually increase the amount of actual data available. There is the potential for facilities or emission sources to be omitted from the inventory, though significant measures are taken to ensure all facilities and emissions sources are included. Other potential sources of uncertainty are errors in billing by fuel suppliers, and errors in data entry and transferring of the data. We have quality control procedures in place to review monthly and annual consumption data, checking that it conforms to expected seasonal patterns and that there are no larger-than-expected discrepancies from month to month or year to year.
Scope 2 (market- based)	More than 5% but less than or equal to 10%	Data Gaps Extrapolation	For facilities that do not have actual energy consumption data, the data are extrapolated using data from our operationally controlled facilities. We attempt to continually increase the amount of actual data available. There is the potential for facilities or emission sources to be omitted from the inventory, though significant measures are taken to ensure all facilities and emissions sources are included. Other potential sources of uncertainty are errors in billing by fuel suppliers, and errors in data entry and transferring of the data. We have quality control procedures in place to review monthly and annual consumption data, checking that it conforms to expected seasonal patterns and that there are no larger-than-expected discrepancies from month to month or year to year.

# 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	Reasonable assurance	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC8.6a/BAML 2016 CDP Verification Statement 4-28-17.pdf	Whole document	ISO14064- 3	100

#### 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	Reasonable assurance	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC8.7a/BAML 2016 CDP Verification Statement 4-28-17.pdf	Whole document	ISO14064- 3	100
Market- based	Annual process	Complete	Reasonable assurance	https://www.cdp.net/sites/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC8.7a/BAML 2016 CDP Verification Statement 4-28-17.pdf	Whole document	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		
Other: Sustainability metrics in CSR report	Other sustainability metrics such as energy consumption, water use, and waste generation were verified for our Environmental Social and Governance report.	

#### CC8.9

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

No

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
United States of America	73244
United Kingdom	4970
India	3029
China	163
Japan	74
Australia	9
Ireland	568
South Africa	22
Canada	147
Singapore	50
Mexico	81
Russia	103
Germany	1
Italy	105
Brazil	55
France	11

.Country/Region	Scope 1 metric tonnes CO2e
Saudi Arabia	6
Rest of world	835

# CC9.2

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

By GHG type By activity

#### CC9.2c

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

.GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	57771
CH4	26
N2O	107
HFCs	25568

# CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)
Stationary combustion	46797
Mobile combustion	11108
Refrigerants	24932
Other Fugitive	636

# **Further Information**

The Singapore entry covers all Southeast Asia - Singapore, Malaysia, Philippines, Thailand, and Indonesia.

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)
United States of America	846817	278003	1941560	1276340
United Kingdom	48004	11674	116502	92319
India	45534	45534	57609	0
China	11301	11301	14615	0
Japan	4627	4627	8381	0
Australia	2414	2414	2214	0
Ireland	1108	1647	2578	0
South Africa	716	716	819	0
Canada	318	318	4017	0
Singapore	6715	6715	13067	0
Mexico	557	557	1236	0
Russia	316	316	720	0
Germany	388	613	811	0
Italy	529	569	1310	0
Brazil	295	295	2367	0
France	23	14	380	0
Saudi Arabia	183	183	242	0
Rest of world	3454	3587	7384	0

# CC10.2

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

By activity

# 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)
Electricity	964879	360664
Steam	6937	6937
Chilled Water	1484	1484

# **Further Information**

The Singapore entry covers all Southeast Asia - Singapore, Malaysia, Philippines, Thailand, and Indonesia.

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

Energy type	.MWh
Heat	0
Steam	30621
Cooling	14375

# CC11.3

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

300434

# CC11.3a

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

Fuels	.MWh
Natural gas	247970
Distillate fuel oil No 2	6268
Residual fuel oil	0
Liquefied petroleum gas (LPG) 1284	
Jet kerosene	28128
Motor gasoline	12396
Diesel/Gas oil	4389

# 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)	1276340	0	All US RECs are Green-e certified.
Energy attribute certificates, Guarantees of Origin	92319	0	UK REGOs
Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company	292	0	

# CC11.5

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

.Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	.Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
2130816	2130816	292	292	292	

# 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	59	Decrease	We have reduced market-based emissions across our portfolio primarily by consolidating space, implementing energy-efficiency projects, and purchasing renewable energy. Like others, we have also benefited from a less carbon-intensive utility grid. The market-based emission reduction was 670,449 t CO2e, divided by our total emissions in the previous year of 1,135,733 t CO2e gives a 59% reduction through (670,499/1,135,733)*100 = 59%.
Divestment			
Acquisitions			
Mergers			
Change in output			
Change in methodology	1	Decrease	Improved data quality
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

# CC12.1b

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

Market-based

#### CC12.2

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

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	-% change from previous year	Direction of change from previous year	.Reason for change
0.0000054	metric tonnes CO2e	83701000000	Market- based	60	Decrease	Absolute market-based emissions decreased 60% primarily due to emission reduction activities, including consolidating space, implementing energy-efficiency projects, and purchasing renewable energy. Like others, we have also benefited from a less carbonintensive utility grid. Total revenue increased about 1%. The net result is a decrease in emissions per unit revenue.

# 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
2.2	metric tonnes CO2e	full time equivalent (FTE) employee	208000	Market- based	59	Decrease	Absolute market-based emissions decreased 60% primarily due to emission reduction activities, including consolidating space, implementing energy-efficiency projects, and purchasing renewable energy. Like others, we have also benefited from a less carbonintensive utility grid. The number of employees decreased 2%. The net result is a decrease in emissions per FTE employee.
0.0056	metric tonnes CO2e	square foot	81003282	Market- based	56	Decrease	Absolute market-based emissions decreased 60% primarily due to emission reduction activities, including consolidating space, implementing energy-efficiency projects, and purchasing renewable energy. Like others, we have also benefited from a less carbonintensive utility grid. Square feet of facility area decreased 10%. The net result is a decrease in emissions per square foot.

Page: CC13. Emissions Trading

# CC13.1

Do you participate in any emissions trading schemes?

Yes

# 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
European Union ETS	Fri 01 Jan 2016 - Sat 31 Dec 2016	0	1594	1594	Facilities we operate but do not own

#### CC13.1b

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

Two of our facilities participate in the EU ETS. We purchase allowances to cover our obligations. We also consider energy efficiency and other emission reduction opportunities as appropriate and feasible.

# CC13.2

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

No

# 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	1944781	Cradle-to-gate emissions from our purchased goods and services are calculated by aggregating our total spend data into standard vendor sector categories. The spend in each category is multiplied by sector-specific cradle-to-gate emission factors from UK Defra in Annex 13 of its "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting." GWPs are IPCC Second Assessment Report (SAR - 100 year).	0.00%	
Capital goods	Relevant, calculated	312588	In previous years, cradle-to-gate emissions from our purchased goods and services were calculated by aggregating our total spend data into standard vendor sector categories. The spend in each category is multiplied by sector-specific cradle-to-gate emission factors. In 2015, spend by category data were not available. Thus, an emissions per spend figure was calculated for each vendor based on 2014 data and applied to each vendor. Emissions factors are from UK Defra in Annex 13 of its "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting." GWPs are IPCC Second Assessment Report (SAR - 100 year).	0.00%	
Fuel-and-energy- related activities (not included in Scope 1 or 2)	Relevant, calculated	208087	The activity data used to quantify these activities' emissions are the quantity consumed of each energy type, such as electricity or natural gas. Consumption by fuel type is then multiplied by emission factors for each of the	0.00%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra Guidelines for other countries. Emission factors for T&D losses are location-based and taken from EPA's eGRID database for the US, and on UK Defra Guidelines for other countries. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).		
Upstream transportation and distribution	Relevant, calculated	15968	This figure encompasses emissions from armored cars, check couriers, contracted shuttle buses, hired black cars, and vehicles owned by our facility management partners that are dedicated to serving our facilities. Emissions from transportation of mail and parcels are not included in this category, but are included in purchased goods and services. Activity data for the emission sources are obtained from the internal group that manages this transportation. Emissions were calculated using EPA Emission Factors for Greenhouse Gas Inventories and Climate Leaders Mobile Source Guidance. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).	100.00%	
Waste generated in operations	Relevant, calculated	10761	This figure represents emissions associated with waste disposed of via landfilling or incineration. It does not include wastewater	100.00%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	.Explanation
			treatment. Avoided emissions from recycling or composting are not included. Data on waste quantity, composition, and disposal method are obtained by our waste management providers. Emissions from waste are calculated using methodologies and emission factors from the EPA's Waste Reduction Model (WARM). This model calculates emissions based on a lifecycle analysis, including emissions from the long-term decomposition of waste in a landfill or from upstream sources/sinks. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).		
Business travel	Relevant, calculated	154531	Business travel includes air travel, rail travel, rental cars, and hotel stays. Air and rail travel activity data were obtained from the bank's travel agency. Rental car activity data is provided by rental car providers. Hotel data are aggregated by bank staff. Emissions were calculated using emission factors and methodologies from the Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting, EPA Emission Factors for Greenhouse Gas Inventories, Climate Leaders Mobile Source Guidance, and Climate Leaders Business Travel and Commuting Guidance. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).	100.00%	
Employee commuting	Relevant, calculated	373481	Commuting distances were based on the previous year's calculations of distance from	0.00%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			employees' homes to primary work location as calculated with mapping software. The number of commuting days per year was based on typical patterns for office employees and those on flexible and remote work schedules, and adjusting for time off and travel days. Typical travel modes were determined using company data on employee use of public transportation and vanpools. The result was a calculation of annual commuting miles by travel mode. Total emissions for each mode of transportation were calculated using emission factors and methodologies from EPA Emission Factors for Greenhouse Gas Inventories, Climate Leaders Mobile Source Guidance, Climate Leaders Business Travel and Commuting Guidance, and Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).		
Upstream leased assets	Not relevant, explanation provided				Under the operational control approach of defining our inventory boundary, emissions from all upstream leased assets are included in our Scope 1 and Scope 2 emissions.
Downstream transportation and distribution	Relevant, calculated	1500000	This figure represents emissions associated with client travel to and from retail financial centers and ATMs. It currently does not include client travel to wealth management facilities or other facilities. Activity data used to quantify these emissions includes measured data on	0.00%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			the number of teller and ATM visits and a rough approximation of distance traveled based on average client travel time to our facilities. The mode of travel was assumed based on the availability of parking at facilities. Data were used to calculate total miles and gallons of gasoline consumed. Emissions were calculated using emission factors and methodologies from the EPA Emission Factors for Greenhouse Gas Inventories and Climate Leaders Mobile Source Guidance. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).		
Processing of sold products	Not relevant, explanation provided				We have no emissions in this category because we do not sell intermediate products that require processing into final products.
Use of sold products	Relevant, calculated	5000	This figure represents emissions associated with client use of computers for online banking. The activity data used to quantify these emissions include tracking data on the number and length of online banking sessions. Based on research, assumptions were developed for the mix of laptop and desktop computers. The total online time is used to calculate the amount of total electricity consumed, which is multiplied by the US average eGRID location-based emission factor for electricity. Computer wattage values are based on data from the EPA. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).	0.00%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
End of life treatment of sold products	Relevant, calculated	18000	This figure represents emissions associated with the disposal of credit and debit cards and client mailings. Activity data used to quantify emissions include the number and weight of cards issued and the total weight and type of paper for mailings. This figure represents emissions associated with waste disposed via landfilling or incineration, and doesn't include avoided emissions from recycling or composting. Emissions from waste are calculated using methodologies and emission factors from the EPA's Waste Reduction Model (WARM). This model calculates emissions based on a life-cycle analysis, including emissions from the long-term decomposition of waste in a landfill or from upstream sources/sinks. GWPs are IPCC Fourth Assessment Report (AR4 - 100 year).	0.00%	
Downstream leased assets	Not relevant, explanation provided				Emissions in this category are insignificant, because we have an inconsequential amount of owned spaced that is leased to others.
Franchises	Not relevant, explanation provided				We do not operate any franchises.
Investments	Relevant, not yet calculated				Because our industry faces significant challenges in tracking and reporting on financed greenhouse gas emissions, we have been working with the World Resources Institute (WRI) and the U.N. Environment Programme Finance Initiative (UNEP FI) on an ongoing

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
					project called the Portfolio Carbon Initiative, to develop a set of standard methodologies for accounting of greenhouse gas emissions attributed to financial products and services. We participate in the Advisory Committee and technical working groups contributing to the project, and we are also providing financial support to the initiative.
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/2017/52/1452/Climate Change 2017/Shared Documents/Attachments/CC14.2a/BAML 2016 CDP Verification Statement 4-28-17.pdf	Whole document	ISO14064- 3	100

# CC14.3

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

Yes

# CC14.3a

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

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Change in methodology	23	Increase	Improvement in data quality.
Purchased goods & services	Change in output	6	Decrease	The reduction in emissions is due to a reduction in our total spend.
Capital goods	Change in methodology	264	Increase	Improvement in data quality.

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Emissions reduction activities	3	Decrease	We have reduced emissions across our portfolio primarily by consolidating space and implementing energy-efficiency projects. Like others, we have also benefited from a less carbon-intensive utility grid.
Upstream transportation & distribution	Change in output	2	Increase	The increase in emissions is due to an increase in miles traveled.
Upstream transportation & distribution	Change in methodology	6	Increase	Improvement in data quality
Waste generated in operations	Change in methodology	29	Decrease	Change in emission factors
Waste generated in operations	Emissions reduction activities	5	Decrease	The amount of landfilled and incinerated waste decreased.
Business travel	Change in output	16	Decrease	Business travel mileage decreased.
Employee commuting	Change in output	4	Decrease	This emissions reduction was due to a decrease in total employee headcount.
Use of sold products	Change in methodology	44	Decrease	Improvement in data quality.
End-of-life treatment of sold products	Change in output	4	Decrease	The number of credit cards and the amount of paper materials provided to clients decreased.
End-of-life treatment of sold products	Change in methodology	21	Decrease	Improvement in data quality.

# CC14.4

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

Yes, our suppliers Yes, our customers

#### CC14.4a

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

We engage with our clients on GHG emissions and climate change strategies in a range of ways. On individual transactions, we engage with clients when our review indicates the need for mitigation to minimize certain environmental impacts associated with the project in question. We prioritize these types of engagements based on an evaluation of the severity of environmental risks associated with each individual transaction. One measure of success is whether we can come to agreement among the involved parties on appropriate mitigation activities. Another measure of success is our ability to limit our exposure to reputational risks related to these types of client engagements as shown by a lack of (or limited) campaigns or other activist action against our company.

We also engage by responding to client requests for information about our GHG emissions and climate change strategies. This includes responding to numerous client-specific Requests for Proposals that incorporate questions on our climate change commitments and performance. We also respond to the CDP Supply Chain survey in response to client requests for us to do so. We prioritize these requests by aiming to be responsive to all of them. Measures of success include positive feedback from the clients to which we respond to RFPs and our CDP Supply Chain score.

Importantly, we directly connect with a wide range of clients to ensure increased investment in low-carbon technologies/activities and the successful delivery of our 10-year, \$125 billion environmental business goal, which will rely on effective engagement with this stakeholder group. By way of example, we have reached out to numerous commercial, corporate and municipal clients to encourage participation in the burgeoning green bond market, and we have incorporated ESG/Impact Investing into our regular engagement with individual and institutional investor clients in order to grow that platform. We also engage with a wide range of clients in the energy sector – from producers to generators – to encourage and assist them in transitioning to lower carbon energy sources. The growth of our green bond, ESG investing and overall low-carbon business initiatives are clear measures of success.

#### CC14.4b

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

.Type of engagement	Number of suppliers	.% of total spend (direct and indirect)	Impact of engagement	
Active engagement	195	50%	Since 2009, we have invited suppliers to respond to the CDP supply chain questionnaire, which helps us track greenhouse gas emissions and associated risks that impact our global supply chain. Our selection process for inviting vendors takes into account a) environmental impact (using sector level UK Defra GHG emission intensity factors) and b) spend (as a proxy for how much business we do with the vendor). However, if a vendor has been engaged in the past but spend with the vendor has dropped below our threshold, we continue to engage with them. In 2016, we	

.Type of engagement	Number of suppliers	.% of total spend (direct and indirect)	Impact of engagement
			requested disclosures from 195 suppliers and achieved a best-in-class response rate of 90 percent. Following the survey, we provide individualized feedback regarding each vendor's level of transparency and performance to the participating vendors and their vendor managers. This has facilitated ongoing dialogue between the bank and our vendors which promotes collaboration and provides us with a meaningful opportunity to recognize leadership among our highest-performing vendors. In 2016, we set our first-ever goals to address greenhouse gas emissions in our supply chain with two vendor engagement goals: to maintain a response rate to CDP supply chain information requests of at least 90 percent, and for 90 percent of CDP supply chain responding vendors to disclose GHG emissions. We have been recognized as one of 29 companies on CDP's supplier engagement leader board for engaging our suppliers on carbon emissions and climate-related risks over the past year. In addition to engaging our own supply base through CDP, we continue to integrate environmental sustainability criteria into our supplier sourcing processes by providing our sourcing managers with specific questions regarding supplier sustainability practices and scoring criteria for incorporation into Requests for Proposals and Requests for 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
Paul M. Donofrio	Chief Financial Officer	Chief Financial Officer (CFO)

CDP