

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

---

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

Please give a general description and introduction to your organization.

Comerica Incorporated (NYSE: CMA) is a financial services company headquartered in Dallas, Texas, and strategically aligned into three major business segments: The Business Bank, The Retail Bank, and Wealth Management. The Business Bank provides companies of all sizes with an array of credit and non-credit financial products and services. The Retail Bank delivers personalized small business banking and financial products and services to consumers. Wealth Management serves the needs of high net worth clients and institutions. At 12/31/2016, Comerica had total assets of approximately \$US 73 billion, total loans (net of unearned income) of approximately \$US 49.1 billion, total deposits of approximately \$US 59.0 billion, and 7,960 employees on a full time equivalents (FTE) basis (source: Comerica's 2016 Annual Report). In addition to Texas, Comerica Bank is also located in Arizona, California, Florida and Michigan, with select businesses operating in several other states, as well as in Canada and Mexico. As of 12/31/2016, Comerica had 457 U.S. banking centers, with 209 in Michigan, 127 in Texas, 97 in California, 17 in Arizona, and 7 in Florida. To view additional information about Comerica, please visit our company website at [www.comerica.com](http://www.comerica.com).

---

**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](mailto:respond@cdp.net).

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

---

**Further Information**

**Module: Management**

**Page: CC1. Governance**

---

**CC1.1**

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

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

---

**CC1.1a**

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

The Enterprise Risk Committee (ERC) of the Board of Directors oversees the company's sustainability and climate change programs. This sub-set of the company's Board of Directors provides oversight of policies, procedures, and practices relating to enterprise-wide risk and compliance with bank regulatory requirements.

---

**CC1.2**

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

Yes

---

**CC1.2a**

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

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Energy managers	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Efficiency project Other: Behaviour change related indicator	Meeting energy and emission reduction goals and targets. Comerica's 2016 sustainability action plan included a range of projects and initiatives designed to carry out our climate change and emissions reduction strategy, including efforts to improve our energy efficiency, enhance our carbon accounting system, optimize our use of technology, and communicate progress to our stakeholders. Key managers in all areas to which these projects were assigned – including our outsourced (CBRE) corporate energy managers and managers in our Corporate Real Estate & Security (responsible for real estate and security operations) had goals and objectives related to these initiatives in their annual performance management plans. The annual performance review process considers performance in these areas among other factors in awarding merit increases and bonuses for the year.
Facility managers	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Efficiency project Other: Behaviour change related indicator	Meeting energy and emission reduction goals and targets. Comerica's 2016 sustainability action plan included a range of projects and initiatives designed to carry out our climate change and emissions reduction strategy, including efforts to improve our energy efficiency, enhance our carbon accounting system, optimize our use of technology, and communicate progress to our stakeholders. Key managers in all areas to which these projects were assigned – including our outsourced (CBRE) facility managers, chief engineers, and Director of Operations – had goals and objectives related to these initiatives in their annual performance management plans. The annual performance review process considers performance in these areas among other factors in awarding merit increases and bonuses for the year.
Other: Environment/sustainability managers	Monetary reward	Emissions reduction target Efficiency target Other: Behaviour change related indicator	Meeting energy and emission reduction goals and targets. Comerica's 2016 sustainability action plan included a range of projects and initiatives designed to carry out our climate change and emissions reduction strategy, including efforts to improve our energy efficiency, enhance our carbon accounting system, optimize our use of technology, engage colleagues on sustainability, and communicate progress to our stakeholders. Key sustainability colleagues – including our Corporate Sustainability Director and Senior Sustainability Officer, had goals and objectives related to these initiatives in their annual performance management plans. The annual performance review process considers performance in these areas among other factors in awarding merit increases and bonuses for the year.
Business unit managers	Monetary reward	Other: Environmental lending goals	Managers of our Environmental Services business units have goals for developing business with biogas, recycling, and other environmental services industries. Other business units are also encouraged to support green lending in the 14 environmentally-beneficial lending categories that we track as they meet all the financial needs of these

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
			customers. The annual performance review process for select business unit managers considers performance in these areas among other factors in awarding merit increases and bonuses for the year.
Other: Capital Projects Managers	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Efficiency project	Meeting energy and emission reduction goals and targets. Comerica's 2016 sustainability action plan included a range of projects and initiatives designed to carry out our climate change and emissions reduction strategy, including efforts to improve our energy efficiency, enhance our carbon accounting system, optimize our use of technology, and communicate progress to our stakeholders. Key Corporate Real Estate & Security and outsourced (CBRE) Project Management Team members for all areas to which these capital projects were assigned had goals and objectives related to these initiatives in their annual performance management plans. The annual performance review process considers performance in these areas among other factors in awarding merit increases and bonuses for the year.
All employees	Monetary reward	Other: Living Comerica's core value of Involvement	Sustainability is a priority area under Comerica's core value of Involvement. Actions taken by colleagues that showcase Comerica's core values are considered in colleague performance plans. The annual review process considers performance on the company's core values among other factors in awarding merit increases and bonuses for the year. There are numerous ways that colleagues can showcase their involvement at Comerica, including participation in Comerica green office teams, diversity teams, and community volunteerism events (including environmentally-focused events), our Master of Diversity Awareness Program, and our Master of Sustainability Awareness Program, to name a few.

#### Further Information

**Page: CC2. Strategy**

#### CC2.1

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

Integrated into multi-disciplinary company wide risk management processes

**CC2.1a**

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

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	Risks and opportunities are evaluated across North America, with a focus on the United States as this is the primary location for the majority of our business operations. For example, we carefully identify the specific regional vulnerabilities to climate change to which our key operating assets are exposed across our geography in order to ensure that risk mitigation and adaptation strategies are appropriately matched to the risks we expect to face.	> 6 years	Climate change risks, opportunities, & developments (i.e., legal, regulatory, scientific, etc.) are monitored continuously by the Corporate Sustainability Office. Climate change strategy is reviewed at least annually during the company's corporate sustainability program review by the Enterprise Risk Committee of the Board. Progress & challenges are reported & discussed at least quarterly with the Sustainability Council, a group of senior managers from across the organization under the leadership of the Chief Financial Officer (executive sponsor). Our climate change risk & opportunity management process is intended to serve the needs of our primary governance bodies & other internal and external stakeholders (e.g., Sustainability Council including colleague representative from Enterprise Risk department, other managers and employees, investors, customers, suppliers, host communities, NGOs, etc).

**CC2.1b**

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

The Corporate Sustainability Office (CSO) is assigned the lead role in identifying, monitoring, and communicating climate change risks/ opportunities to the company's executive management team and to the Enterprise Risk Committee of the Board of Directors. The CSO is assisted by cross-functional work groups

comprised of managers from relevant company departments (e.g., Finance, Corporate Real Estate, Purchasing, Human Resources) and by the Comerica Sustainability Council (comprised of senior managers from across the organization). Physical risks to the company's assets are identified and managed primarily by the Corporate Real Estate and Corporate Continuity and Recovery Management (CCRM) teams.

Members of these work groups/teams are involved in making determinations about the significance of climate change risks/ opportunities and for helping to define and execute our climate change strategy and initiatives. Our process for assessing how climate change risks/opportunities may affect the company as a whole and specific business units, operations, geographies, or assets is based on reading available scientific and policy literature; monitoring regulatory developments at international, national, state, and local levels; participating in conferences where climate change issues are addressed by a broad range of experts; acquainting ourselves through research/dialogue with the concerns of NGOs, investors, and other stakeholders working on climate change issues; and monitoring the climate change risk management practices of other companies both within and outside of our own financial services industry. We then apply the lessons learned and the insights gained - as appropriate - to both the company as a whole and to its specific assets, lines of business, and geographical footprint.

---

### CC2.1c

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

The Corporate Sustainability Office (CSO) works with the Comerica Sustainability Council (comprised of internal operations-focused and external customer/community-focused senior managers from across the organization) to prioritize our actions and strategy. Comerica's climate change risk management process is designed to identify, communicate, and - where necessary - mitigate regulatory, physical (including weather-related), and other risks and opportunities (e.g., reputation, supply chain, changing customer preferences, emerging business opportunities, etc.) that have the potential to significantly impact the successful execution of our business strategy. We conduct an ongoing review of potential climate change risks and opportunities associated with our business, and work to understand how these risks and opportunities may affect our assets, operations, financial position, cash flows, and competitive position. The identified risks and opportunities are communicated to our directors, executive management team, business unit managers, Sustainability Council members, employees, and other key stakeholders through our sustainability governance and communication processes.

The annual process for setting climate change and other sustainability priorities considers: (1) the financial significance, if any, of identified risks and opportunities (i.e., whether they are likely to have a notable effect on our financial position, earnings, competitive position, reputation/brand value, and/or ability to execute our business strategy), (2) the costs, benefits, and expected returns of various potential projects and initiatives, (3) stakeholder views on our climate change and other sustainability priorities, (4) industry norms and accepted good practices within the financial services industry, and (5) organizational resources and capacity.

---

### CC2.1d

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

Main reason for not having a process	Do you plan to introduce a process?	Comment
--------------------------------------	-------------------------------------	---------

**CC2.2**

**Is climate change integrated into your business strategy?**

Yes

**CC2.2a**

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

(i) Comerica integrates the management of climate change risks/opportunities into its business strategy. In 2008, we developed a formal sustainability strategy (including climate change) that is reviewed & updated on an annual basis. 2016 brought no significant changes to the strategy. We implement annual sustainability action plans to drive our progress & communicate our priorities to stakeholders. To date, we have implemented projects to reduce energy use, emissions & associated operating costs & initiatives to reduce long-term supply chain risks & develop new revenue streams from lending to green companies & projects (e.g. LEED/green construction, energy efficiency upgrades, recycling companies). Since 2008, we have created new policies, procedures, operating practices, governance structures, accountabilities & training programs to support this strategy & ensure progress. The annual action plans are developed by the Sustainability Council with input from business units & approved by the Enterprise Risk Committee of the Board (ERC). Results are reviewed annually by the ERC and the Sustainability Council. KPIs are tracked quarterly or annually & measurable performance targets (such as our 20% by 2020 GHG emissions reduction goal) are put in place. Since 2014, Sustainability has been communicated to colleagues as a priority area under our company's core value of Involvement. (ii) Some examples of climate change influence on the strategy includes our reimagined workplace initiative (CoWork) to use real estate space more efficiently, projects to improve the energy efficiency of our facilities (including around energy management systems & LED lighting), work of our Mission Control Team to develop/implement a long-term data center management strategy, implementation of water saving technologies, additional paperless processes, ongoing management of our energy & carbon management system, & our Master of Sustainability Awareness Program for operation-focused colleagues to drive sustainability awareness & behavioral changes. (iii) Our strategy has been influenced by regulatory, physical, & other risks associated with climate change (e.g. impacts on reputation & brand, higher energy costs, changing consumer preferences, CSR expectations of stakeholders, future physical and regulatory risks), by opportunities for innovation and potential competitive advantage (e.g. environmentally beneficial lending), & a desire to proactively manage our citizenship obligations & long-term competitiveness. We use a Sustainable Value Creation Road Map to illustrate to key stakeholders how we see our climate change & other sustainability objectives being integrated into and contributing to our overall business strategy. The Map includes four clusters of initiatives- grouped according to how they contribute to value creation- including initiatives that: a) Support our license to operate, responsible citizenship, good corporate governance, enhanced reputation & brand b) Drive cost & risk reduction & support climate protection c) Support new competencies, markets, products & services d) Help to develop new green/low carbon economy revenue opportunities. (iv) Since the true costs of natural resource scarcity & climate change are not fully reflected in market prices through natural capital assessments & regulatory responses thus far have not created robust demand for sustainable products & services, we do not see U.S. demand for clean energy technologies, energy



efficiency, and other green products & services as a significant driver of our business strategy in the short-term (next 1-2 years). Our strategy, therefore, continues to focus on pursuing opportunities for improved energy and resource efficiency in our own operations; setting additional goals and targets; and implementing initiatives that reduce costs and risks. We also seek to act as a trusted advisor to our customers, including those supporting a greening economy both now and into the future. We continue to expand internal education efforts to prepare our staff for future revenue opportunities - expected to emerge in the medium term (next 3 to 5 years) & on a larger scale in the long term. Examples of short-term strategy include our previous 15% real estate GHG emissions reduction target, achieved in 2013 via a variety of energy efficiency, technology and space optimization projects, which helped us to realize costs savings of over \$10MM and helped us to achieve our current 20% by 2020 real estate GHG emissions reduction goal 3 years early. Our medium-term strategy is to capitalize on knowledge that we have gained regarding operational efficiencies & share it with customers. We have begun to engage with customers through educational opportunities (e.g., energy efficiency webinar, customer-focused newsletters) & one-on-one conversations. (v) The long-term strategy (5 or more years out) is to proactively identify and pursue additional energy & resource efficiency opportunities inside the company & in our supply chain and to seek promising business opportunities consistent with our business model as these develop in response to economic & regulatory forces that increasingly reflect the growing scarcity of resources & the accelerating impacts of climate change. We expect there will be internal & external opportunities to improve long-term performance & generate value through innovation in the areas of energy & water conservation, climate protection & adaptation, operational & resource efficiency, supply chain management, & the provision of business solutions to society's growing sustainability challenges. (vi) Our current short and long-term strategy has not changed over the last year & has not been directly influenced by the Paris Agreement. However, our strategic initiatives are in line with the goals of the Paris Agreement. (vii) Although it is difficult to measure, we have seen evidence to date that our status as 'an early mover' within our tier of the U.S. banking industry may have conferred some strategic advantages over some competitors, including enhanced reputation & brand awareness from listings on sustainability indexes (e.g. our 2016 A- CDP score, our 2016 FTSE4Good Index & Thomson Reuters Large Cap ESG Indexes), access to certain customers & business opportunities because of our sustainability positioning, reduced operating costs, & increased support from key stakeholders to whom climate change & sustainability issues are important. We also believe the integration of climate change strategy into our business contributes to employee engagement & talent attraction. (vii) Comerica uses forward-looking analyses currently required by federal banking regulations. Comerica has not conducted a 2 degrees C forward-looking scenario analysis.

---

#### CC2.2b

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

---

#### CC2.2c

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

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

---

#### CC2.2d

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

---

**CC2.3**

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

Other

---

**CC2.3a**

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

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
----------------------	--------------------	-----------------------	-------------------------------

---

**CC2.3b**

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

---

**CC2.3c**

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

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
-------------------	--	---	---

---

**CC2.3d**

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

CC2.3e

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

We believe that responsible businesses should work to reduce their energy use and emissions, provide products and services to support the development of a lower carbon economy, and help their value chains prepare for those impacts of climate change that are unavoidable. In past years, colleagues representing our Corporate Sustainability Office have contributed our perspective as a financial services company to the search for solutions that promote climate protection & adaptation. We have engaged with concerned stakeholders as an individual company, primarily by participating as speakers & panelists at public forums, conferences, meetings, and symposia on climate change policy and legislative issues as well as on products and technologies designed to mitigate climate risk. Our contribution to such dialogues has typically focused on sharing information about our own approach to climate change & on helping public sector & NGO policy experts to understand how various policy frameworks may affect the efforts of commercial lenders to increase their lending in support of low carbon solutions & technologies. We have spoken about our own emission reduction initiatives & about efforts to develop new products & services, such as loans for energy efficiency projects & clean technology companies.

Consistent with our Environmental Policy Statement, adopted in late 2008, Comerica has encouraged climate change mitigation via the adoption of cost-effective market-based mechanisms. While we have not lobbied or advocated against command-and-control approaches, we believe that market-based approaches are significantly more likely to promote innovation & contain mitigation costs. We believe that policy frameworks which establish price signals for carbon should encourage investments in both energy efficiency & in the types of technologies needed to drive the transition to a low carbon future.

Comerica engaged with various industry and non-profit organizations whose work supports climate change policy & sustainability initiatives. Comerica volunteered for & participated in the UNEP-FI financed emissions initiative to help develop financial services industry guidance on how to assess & mitigate risks associated with greenhouse gas emissions in a company's loan portfolio in 2014. We also continue to lead & participate in monthly informal bank Sustainability Director roundtable calls to help drive the financial service industry's focus on climate change & to make progress on sustainable business practices at Comerica. This group also engages with organizations such as The Task Force on Climate-related Financial Disclosures (TCFD) to understand & respond to emerging trends that impact our industry. As part of our 2014-2015 Relevancy Assessment work & our 2016-2017 investor-focused engagement, we also reached out to our stakeholders including environmental non-profits, community partners, impact investors, ESG raters, suppliers, customers, employees, etc. to get their feedback on our company's most important environmental, social & governance focus areas. The engagements included input from environmental non-profits and several impact investors, including CDP, who provide public policy advocacy on climate and energy in the U.S.

Comerica was represented again in 2016 on the Executive Committee and Board of Governors of the Environmental Banker's Association (EBA). The EBA represents a forum for banks and practitioners to share best practices around a multitude of environmental issues, including environmental risk management, climate change, and general sustainability issues. In 2014, Comerica was a founding member of the Sustainability Council of Orange County (California), now called SustainOC, which provides support through sustainability education and mentoring to Orange County communities and businesses. Comerica was one of the first public companies in Michigan to support the Detroit 2030 District, which focuses on reducing emissions, water, and transportation impacts within Detroit, Michigan, & serves on the District's Advisory Board. Comerica was also represented as a board member on the Michigan Saves organization, which assists with financing of energy efficiency projects in commercial and residential applications. Comerica serves on the External Advisory Board of the Erb Institute for Global Sustainable Enterprise at the University of Michigan's Ross School of Business & works to help harness the power of business to address global sustainability issues. Comerica chairs the Environmental Affairs Committee of the Michigan Banker's Association, which has provided recommendations to state and federal legislators on the

impacts of banking and environmental legislation on issues including climate change. Comerica has also begun to engage with service providers & policy specialists on issues related to the treatment of renewable power purchase agreements in light of banking regulations such as the Volcker Rule.

---

**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?**

While we currently do not have a specific policy to ensure all of our direct and indirect activities are consistent with our climate change and sustainability strategy, our Corporate Sustainability Director reviews our employee board participation database. We review organizations on which employees sit in a board-level role annually. Organizations whose policies and positions would appear to be in conflict with our climate and sustainability strategy are identified and follow-up discussions with specific board members held, if necessary. In 2016, no board-level participation by employees in organizations whose climate change policies were in conflict with our own was identified.

---

**CC2.3g**

Please explain why you do not engage with policy makers

---

**Further Information**

**Page: CC3. Targets and Initiatives**

---

**CC3.1**

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

Absolute target

---

**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 (location-based)	98.6%	20%	2012	80533	2020	No, as there is currently no established science-based targets methodology in this sector	Having achieved our first GHG emissions reduction target a year ahead of schedule in 2013, Comerica set a new absolute target in 2014. The new GHG emissions reduction target combines the 'Legacy Comerica' and 'Legacy Sterling' portfolios and sets a new combined portfolio emissions base year of 2012. The new base year is 2012 as it is the earliest year where the 'Legacy Sterling' activities data is available, since Comerica acquired Sterling Bancshares in July 2011. The current GHG emissions reduction target is: "Comerica will reduce the total Scope 1 and Scope 2 GHG emissions associated with its occupied real estate by 20% below the 2012 base year emissions total of 80,533 by 2020, removing 16,107 MtCO2e from its carbon footprint". Comerica achieved this more aggressive GHG emissions reduction target three years early through a combination of mitigation activities, rationalization and consolidation of real estate, and engagement with building occupants on energy efficiency best practices. While we are unable to have our goal verified as science-based (as a financial services company), we believe this goal is generally consistent with a science-based target, and our achievement of an average reduction of 5.6% annually during the goal period likely exceeds the reductions need to achieve a 2 degree C trajectory.

CC3.1b

Please provide details of your intensity target

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

CC3.1c

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

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
----	---	--	---	--	---------

CC3.1d

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

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
----	--------------------------------	-----------	--	---------------------------------	-------------	-----------------------------------	---------

CC3.1e

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

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	50%	100%	<p>Four years into our 8-year target period, we are excited to announce that we have achieved our second generation GHG emissions reduction goal. As of 12/31/16, Comerica had reduced its 2012 base year Real Estate GHG emissions of 80,533 MtCO<sub>2</sub>e by 18,072 MtCO<sub>2</sub>e (equal to 22.4% reduction or 112% of the 20% reduction goal). GHG emission reductions this year are primarily due to the following: (1) real estate rationalization and consolidation initiatives, (2) energy efficiency and conservation measures, (3) energy efficiency awareness engagement with building occupants, and (4) milder weather conditions. A major initiative to consolidate office space and improve operational efficiency (RaCC) was initiated in 2009 and continued through 2016. Since the majority of Comerica's GHG emissions are related to the consumption of energy in our facilities, our ability to reduce GHG emissions is largely dependent upon reducing the energy used by our facilities. In 2012, we began a systematic approach to identifying energy improvement opportunities and reviewing operational practices for enhanced energy efficiency. ASHRAE-level energy audits were completed and specific opportunities for "quick wins" or immediate energy savings were identified and implemented. For those opportunities requiring capital funding, complete financial analysis and technology recommendations were developed. We continue to ramp up strategic planning for energy efficiency improvement projects, focusing on key concepts (lighting, facility environmental controls, building envelope) for Comerica facilities. In addition, reviews were performed for Retail locations slated for 2016 Refurbish/Transformation projects. The reviews identified opportunities to improve energy and water conservation while the projects were still in the design phase. Many of these recommendations were incorporated in the project scope, including upgrading to programmable thermostats and LED lighting.</p>

CC3.1f

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

**CC3.2**

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

Yes

**CC3.2a**

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

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Company-wide	As part of our commercial lending operations, we make loans and commitments to various companies that are engaged in environmentally beneficial projects and activities. These "green loans" are tracked in 14 different categories, such as renewable energy, green buildings, and vehicle electrification. Our green lending categories are generally consistent with the Climate Bonds taxonomy.	Avoided emissions	Climate Bonds Taxonomy	1.8%	Less than or equal to 10%	% revenue is estimated based on the size of the green loan portfolio in relation to our overall loan portfolio, as we do not currently track and report this metric as stated.

**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**

<b>Stage of development</b>	<b>Number of projects</b>	<b>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</b>
Under investigation	31	
To be implemented*	366	9146
Implementation commenced*	0	0
Implemented*	67	3183
Not to be implemented	0	

---

**CC3.3b**

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

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	In addition to its major facilities consolidation initiative, the company also implemented a number of projects to improve the energy efficiency of various facilities it operates. These projects were primarily comprised of interior and exterior lighting upgrades (LED), HVAC upgrades, high efficiency natural gas boiler installation, building envelope improvements, VAV replacement projects, and building operational setting modifications. We continued auditing our facilities to identify energy efficiency improvements, completing ASHRAE Energy Audits and Walk-throughs as part of Retail Refurb/Transformation Projects, implementing "Quick Wins" identified during the audits. New LED interior lighting was implemented at several of our larger facilities. Energy reductions from these projects primarily affect the Scope 2 electricity and Scope 1 natural gas emissions, which are included in the company's emission reduction target. (Voluntary, active in 2016).	1227	Scope 1 Scope 2 (location-based) Scope 2 (market-based) Scope 3	Voluntary	293190	5265397	4-10 years	16-20 years	
Energy efficiency:	Server rationalization and virtualization initiatives continued in		Scope 2 (location-	Voluntary					

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
Processes	<p>2016. We have also continued the conversion of our older technology servers to the “Next Generation” configuration. The “Next Generation” servers increase operational efficiency and reduce the space needed for server racks and resultant room cooling. The project has enabled decommissioning of unneeded servers, reducing wasted energy. CO2e savings associated with our data center improvement initiatives are not currently estimated. In 2016, our Mission Control Team continued work on the Comprehensive Management Plan for our data centers. The team completed the 5-Year Vision Plan, which sets standards and protocols for efficient management of the Data Center. The team completed installation of a project that enables sub-metering of the data center power usage and quality, providing energy usage trend data and quantification of energy used by data center IT equipment separate from cooling and lighting energy usage. These projects help to reduce Scope 2 electricity emissions which are included in our corporate emissions reduction target. (Voluntary, active in</p>		based) Scope 2 (market-based)						

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
	2016).								
Transportation: use	Throughout 2016, Comerica continued efforts to reduce emissions from corporate business travel by promoting the use of videoconferencing. Corporate Jet usage decreased in 2016 as compared to 2015. Corporate vehicle fleet increased overall, with an increase in large fleet vehicle emissions being partially offset by decreases in medium fleet vehicle emissions. (Voluntary, active in 2016)	501	Scope 1	Voluntary	3399817		<1 year	Ongoing	
Other	One of the company's more significant emission reduction initiatives during the year was the continuation of its rationalization, consolidation and closure (RaCC) program, designed to reduce the amount of real estate required for the company's long-term operations by closing certain facilities and consolidating employees and functions into others. During 2016, the company implemented or commenced implementation of various RaCC and space consolidation projects. The projects enabled the reduction in our annual averaged portfolio square footage by	1455	Scope 1 Scope 2 (location-based) Scope 2 (market-based) Scope 3	Voluntary	229276		<1 year	>30 years	Cost to implement this initiative is not available

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
	226,933 SF. The estimated avoided emissions associated with this consolidation and closure effort total 1455 MtCO2e. This initiative reduces Scope 1 and Scope 2 real estate emissions which are included in the company's emission reduction target. The savings shown in the adjoining table only reflect the energy savings realized during 2016 (as compared to 2015 spend), and do not include other operational savings derived from the initiative. (Voluntary, active in 2016).								

**CC3.3c**

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

Method	Comment
Employee engagement	Internal communications and development of the Master of Sustainability Awareness Program to educate and engage employees on corporate sustainability initiatives and policies and sustainable action.
Other	Development of best practices and lessons learned that are shared between facilities management, building engineering, and energy & sustainability personnel. Comerica also implemented programs at its larger campus facilities to schedule lighting

Method	Comment
	and HVAC operation with building user occupancy by zones within the facilities, realizing immediate energy savings. These best practices were rolled out to a broader group within our organization.
Other	Deployment of a robust electronic energy & carbon management system to identify energy and emission reduction opportunities and track performance. During 2016, building-level energy usage intensities were benchmarked using this database system, to identify higher usage intensity facilities to target for energy auditing and efficiency improvement measures. This system serves as the single system of data records management for all of the Company's Scope 1, Scope 2, and Scope 3 activities.
Other	Continuing work of our Mission Control Team to integrate facility management, energy management, corporate real estate, corporate information services, and capital project management groups to heighten awareness of energy efficiency and operational best practices for the data centers. This cross-functional team made significant progress on the development of a comprehensive Data Center Management Plan and created the first-ever 5-Year Vision Plan, which sets the roadmap for consolidation and optimization of data center space and associated operating equipment and infrastructure. The plan is expected to build efficiency, reliability, and sustainability processes into current-day and future operation of the company's data centers. The Mission Control Team (MCT) is a "special forces" team, reporting to executive-level representatives of the company's Mission Critical Facilities Group (MCFG). The MCFG's and MCT's efforts are the first major step towards coordinating Information Technology, Corporate Real Estate, Facilities Management, Critical Environments Engineering, Project Management, and Energy & Sustainability activities around the company's Mission Critical Facilities.
Dedicated budget for energy efficiency	During annual budget planning for implementation of energy efficiency initiatives, we separately highlight those capital projects expected to have a positive energy reduction impact (and subsequent GHG emissions reduction) to help drive approval for those expenditures. These analyses are utilized by Comerica's executive leadership when determining funding approval.
Compliance with regulatory requirements/standards	Corporate review and participation in State-mandated building Energy Efficiency programs, such as Assembly Bill 802 and Title 24 Energy Use Requirements rules for California sites.
Other	Upgrade of our utility bill-pay vendor software platform to one that utilizes Optical Character Recognition (OCR) technology for all processed billing statements, providing a high level of data accuracy (>99%) and improved records management. The upgraded platform also provides improved site-level, utility-level, regional-level, and portfolio-wide tracking and trending for consumption as well as cost information. Site data can easily be downloaded with detailed reporting, bill image confirmation, and site-specific Heating Degree Day and Cooling Degree Day data for weather normalization analysis.
Lower return on investment (ROI) specification	Comerica's executive leadership supported a lower return on investment (ROI) for energy and sustainability improvement projects in late 2012, expanding the expected pay-back period for sustainability improvement projects from less than typically 3 years up to 8-10 years (on a case-by-case basis). This leadership initiative significantly lowered the ROI threshold and increased the potential to consider additional future capital improvement projects with a sustainability component.
Partnering with governments on technology development	During 2016, Comerica continued its program for uploading site energy and water consumption information into the US EPA Energy Star Portfolio Manager database. The information is helping our team to benchmark Comerica facilities, track usage and performance, and set targets on a facility-specific level for performance improvements. The data was utilized for the company's participation in the 2016 USGBC/USEPA Battle of the Buildings (BOTB) Challenge.
Employee engagement	In 2016, Comerica participated in both the National BOTB Competition the Regional (Michigan) BOTB Competition.

Method	Comment
	"Comerica's Carbon Crushers" participated in the competition to cut energy usage and build energy conservation awareness for building occupants and Facility Management/Engineering personnel. As part of the challenge, energy audits were completed for the competition sites, and "Quick Wins" for energy conservation were identified and immediately implemented. Larger, capital budget type projects were also identified and recommended for the 2017 budget process. The program was a great success, and Comerica was awarded 1st Place and 2nd Place for Financial Category - Michigan BOTB Energy Intensity Reduction, and 1st Place for Financial Office –ENERGY STAR National Building Competition BOOTCAMP.
Other	Comerica developed a Dormant Space Policy, which set protocols for HVAC operation, plug load disconnection, IT equipment removal, and window treatments to help reduce solar load.
Dedicated budget for energy efficiency	In 2016, we laid the groundwork for implementation of the Building Management System and programmable thermostat project in 2017 as well as an expanded LED program, which have the potential to significantly reduce our building energy use and real estate-related greenhouse gas emissions.
Other	Comerica continues its Rationalization, Consolidation, and Closure (RACC) program for owned or leased facilities to increase operational efficiency by reducing overall square footage. Additionally in 2016, there were 16 banking center closures associated with Comerica's GEAR Up initiative.

**CC3.3d**

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

**Further Information**

**Page: CC4. Communication**

**CC4.1**

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

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Underway - previous year attached	Pages 16-17, 26-29, 39-40	<a href="https://www.cdp.net/sites/2017/40/3640/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/Comerica_2015_Comerica_Sustainability_Progress_Report.pdf">https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/CC4.1/Comerica_2015_Comerica_Sustainability_Progress_Report.pdf</a>	The 2015 Comerica Sustainability Progress Report (attached) was published in July 2016. Our 2016 Comerica Corporate Responsibility Report is anticipated to be published in July 2017.
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	Pages 7 and 18	<a href="https://www.cdp.net/sites/2017/40/3640/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/2016%20Comerica%20Incorporated%20Annual%20Report_FINAL.pdf">https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/CC4.1/2016 Comerica Incorporated Annual Report_FINAL.pdf</a>	Mention of Comerica's 2020 Environmental Sustainability Reduction Goals progress, sustainability recognition for climate change management, and discussion of Risk factors including potential physical risks of climate change



Publication	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	Page 7	<a href="https://www.cdp.net/sites/2017/40/3640/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/2017%20Comerica%20Incorporated%20Proxy%20Statement.pdf">https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/CC4.1/2017 Comerica Incorporated Proxy Statement.pdf</a>	Mention of Comerica's 2020 Environmental Sustainability Goals, including resource and emission reduction goals.

---

#### Further Information

### Module: Risks and Opportunities

#### Page: CC5. Climate Change Risks

---

##### CC5.1

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

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

---

##### CC5.1a

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Air pollution limits	Certain regulatory risks are anticipated to be diminished in this current U.S. federal political climate (but not necessarily at the state level). We view this as a medium term risk. Regulations designed to limit greenhouse gas emissions via command and control approaches such as the U.S. EPA's GHG regulations under the Clean Air Act could potentially have a negative impact on the company's costs for energy and other goods and services which it purchases from its supply chain. Companies which become subject to such regulations -- for example, electric utility companies -- could incorporate increased regulatory compliance costs into	Increased operational cost	3 to 6 years	Indirect (Supply chain)	Very likely	Low	Many of the risk drivers in CC5.1a have the potential to impact the cost of energy. A 10-20% increase in the cost of energy could have an impact on the order of \$1MM to \$2MM annually. Other operational impacts are expected to be less than \$1MM annually. It should be noted this risk driver overlaps with others listed in CC5.1a. It is unlikely for all risk drivers to be realized simultaneously; therefore estimated financial implications cannot be	Comerica's real estate and energy management teams work to implement a yearly action plan designed to decrease our energy and water consumption, thereby reducing our exposure to price fluctuations. Projects have included a variety of energy efficiency & conservation initiatives at our facilities. In 2014 after realizing our previous GHG reduction target, we set a goal to reduce our real estate	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy efficiency of our corporate

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>their prices, causing price-inflating ripple effects in their downstream value chains. Such regulations could also negatively impact some of the company's more energy- and emissions-intensive commercial/industrial clients (borrowers to whom we provide commercial loans), and diminish their profits, cash flow, and creditworthiness. This could potentially result in increased credit costs for Comerica. U.S. EPA is beginning to regulate (under the Clean Air Act) some major sources of GHG emissions in the United States, where a very high percentage of Comerica's business is conducted. This type of risk would therefore apply to all of the key geographical markets</p>						aggregated across multiple risk drivers.	GHG emissions by 20% by 2020 from a 2012 baseline year (which was exceeded 3 years early by year-end 2016). On the procurement side, we evaluate sustainability risks in our supply chain by scoring environmental performance data from our largest vendors that represent over 30% of spend. With respect to our customers, we actively manage our risks by: controlling our aggregate exposure to companies and sectors which are 'higher risk' for significant	facilities are tracked separately and our 2016 spend was approximately \$5.3MM.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>in the U.S. where Comerica does business, although the impacts on any particular supplier or client affected by such regulation would vary greatly according to such company-specific factors as location (eGRID region), fuel mix, degree of energy efficiency, or degree of preparedness for regulation. Comerica is not a significant emitter of GHGs itself and does not therefore expect to be subject to significant air pollution control limits in the foreseeable future.</p>							<p>regulatory impacts from climate change; broad diversification by sector, geography, and individual customers of Comerica's loan portfolio; and credit monitoring practices and loan structures which are designed to mitigate credit risk (e.g., periodic loan reviews, loan terms and conditions, collateral support for many loans, average term maturities under 5 years, etc.) Changes in the regulatory climate are communicated to affected business units</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								primarily through the Sustainability Council.	
Cap and trade schemes	Certain regulatory risks are anticipated to be diminished in this current U.S. federal political climate (but not necessarily at the state level). We continue to view this as a medium term risk. Regulations designed to limit greenhouse gas emissions via cap-and-trade approaches such as the former Waxman-Markey and Kerry-Lieberman bills, or California's Global Warming Solutions Act (AB 32) could potentially have a negative impact on the company's costs for energy as well as other goods and services which it purchases from its supply chain. Companies which become subject to an	Increased operational cost	3 to 6 years	Indirect (Supply chain)	Very likely	Low	Many of the risk drivers in CC5.1a have the potential to impact the cost of energy. A 10-20% increase in the cost of energy could have an impact on the order of \$1MM to \$2MM annually. Other operational impacts are expected to be less than \$1MM annually. It should be noted this risk driver overlaps with others listed in CC5.1a. It is unlikely for all risk drivers to be realized simultaneously; therefore estimated financial	Projects have included a variety of energy efficiency & conservation initiatives at our facilities. In 2014 after realizing our previous GHG emission reduction target, we set a goal to reduce our real estate GHG emissions by 20% by 2020 from a 2012 baseline year (which was exceeded 3 years early by year-end 2016). On the procurement side, we evaluate sustainability risks in our	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	emissions cap could incorporate increased regulatory compliance costs into their prices, causing price-inflating ripple effects in their downstream value chains. Such regulations could also negatively impact some of the company's more energy- and emissions-intensive commercial/industrial clients (commercial borrowers to whom we provide loans), and diminish their profits, cash flow, and creditworthiness. This could potentially result in increased credit costs for Comerica. California, one of the five key market states in which Comerica operates, launched a cap-and-trade program under AB 32 in 2012 with compliance obligations for power generators and heavy industry GHG						implications cannot be aggregated across multiple risk drivers.	supply chain by scoring environmental performance data from our largest vendors that represent over 30% of spend. With respect to our customers, we actively manage our risks by: controlling our aggregate exposure to companies and sectors which are 'higher risk' for significant regulatory impacts from climate change; broad diversification by sector, geography, and individual customers of Comerica's loan portfolio; and credit monitoring practices and loan structures	efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	emitters beginning with 2013 GHG emissions. We do not believe that it is likely that other key market states in which we operate will adopt cap-and-trade systems in the next five years. Comerica is not a significant emitter of GHGs itself and does not therefore expect to be subject to cap-and-trade regulations in the foreseeable future.							which are designed to mitigate credit risk (e.g., periodic loan reviews, loan terms and conditions, collateral support for many loans, average term maturities under 5 years, etc.) Changes in the regulatory climate are communicated to affected business units primarily through the Sustainability Council.	
Fuel/energy taxes and regulations	Certain regulatory risks are anticipated to be diminished in this current U.S. federal political climate (but not necessarily at the state level). We continue to view this as a medium term	Increased operational cost	3 to 6 years	Indirect (Supply chain)	More likely than not	Low-medium	Many of the risk drivers in CC5.1a have the potential to impact the cost of energy. A 10-20% increase in the cost of energy could have an	Comerica's real estate and energy management teams work to implement a yearly action plan designed to decrease our energy and	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>risk. Regulations designed to reduce greenhouse gas emissions indirectly by imposing (higher) taxes on (and increasing the cost of) energy sources -- with the goal of reducing demand and spurring efficiency - could affect the company either directly or indirectly, depending upon whether the tax is levied directly on the company (the end consumer) or the supplier of the energy -- or indeed, on any other supplier which is forced to raise the prices of its goods and service to recover increased energy costs. Price inflation in many different parts of the supply chain could result, including, for example, for purchases of natural gas, jet fuel, motor fuels, electricity, water, paper goods, commercial air travel,</p>						<p>impact on the order of \$1MM to \$2MM annually. Other operational impacts are expected to be less than \$1MM annually. It should be noted this risk driver overlaps with others listed in CC5.1a. It is unlikely for all risk drivers to be realized simultaneously; therefore estimated financial implications cannot be aggregated across multiple risk drivers.</p>	<p>water consumption, thereby reducing our exposure to price fluctuations. Projects have included a variety of energy efficiency &amp; conservation initiatives at our facilities. In 2014 after realizing our previous GHG emission reduction target, we set a goal to reduce our real estate GHG emissions by 20% by 2020 from a 2012 baseline year (which was exceeded 3 years early by year-end 2016). On the procurement side, we evaluate</p>	<p>is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.</p>



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	ground transport services, courier services, food, IT equipment, fleet vehicles, etc. The broad imposition of higher energy taxes could also negatively impact the company's more energy- and emissions-intensive commercial/industrial clients (borrowers), and diminish their profits, cash flow, and creditworthiness. This could potentially result in increased credit costs for Comerica.							sustainability risks in our supply chain by scoring environmental performance data from our largest vendors that represent over 30% of spend. With respect to our customers, we actively manage our risks by: controlling our aggregate exposure to companies and sectors which are 'higher risk' for significant regulatory impacts from climate change; broad diversification by sector, geography, and individual customers of Comerica's loan portfolio; and credit monitoring	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								practices and loan structures which are designed to mitigate credit risk (e.g., periodic loan reviews, loan terms and conditions, collateral support for many loans, average term maturities under 5 years, etc.) Changes in the regulatory climate are communicated to affected business units primarily through the Sustainability Council.	
Carbon taxes	Certain regulatory risks are anticipated to be diminished in this current U.S. federal political climate (but not necessarily at the state level). We	Increased operational cost	>6 years	Indirect (Supply chain)	About as likely as not	Low-medium	Many of the risk drivers in CC5.1a have the potential to impact the cost of energy. A 10-20% increase in the	Comerica's real estate and energy management teams work to implement a yearly action plan designed	Costs are dispersed across many cost centers and a considerable portion of our expenditures

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>continue to view this as a longer term risk (&gt;6 years). Regulations designed to reduce greenhouse gas emissions indirectly by imposing taxes on (and increasing the cost of) carbon-containing energy sources according to their level of carbon content or relative contribution to climate change could affect the company either directly or indirectly, depending upon whether the tax is levied directly on the company (the end consumer) or the supplier of the energy -- or indeed, on any other supplier which is forced to raise the prices of its goods and service to recover increased energy costs. Price inflation in many different parts of the supply chain could result, including, for example, for</p>						<p>cost of energy could have an impact on the order of \$1MM to \$2MM annually. Other operational impacts are expected to be less than \$1MM annually. It should be noted this risk driver overlaps with others listed in CC5.1a. It is unlikely for all risk drivers to be realized simultaneously; therefore estimated financial implications cannot be aggregated across multiple risk drivers.</p>	<p>to decrease our energy and water consumption, thereby reducing our exposure to price fluctuations. Projects have included a variety of energy efficiency &amp; conservation initiatives at our facilities. In 2014 after realizing our previous GHG emission reduction target, we set a goal to reduce our real estate GHG emissions by 20% by 2020 from a 2012 baseline year (which was exceeded 3 years early by year-end 2016). On the procurement</p>	<p>would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>purchases of natural gas, jet fuel, motor fuels, electricity, water, paper goods, commercial air travel, ground transport services, courier services, food, IT equipment, fleet vehicles, etc.</p> <p>Legislation such as U.S. Senate bill 332- The Climate Protection Act (which died in Congress) proposed to establish a carbon tax on CO2 emissions and methane from major emitters. The broad imposition of carbon taxes could also negatively impact the company's more energy- and emissions-intensive commercial/industrial clients (borrowers), and diminish their profits, cash flow, and creditworthiness. This could potentially result in increased credit costs for Comerica.</p>							<p>side, we evaluate sustainability risks in our supply chain by scoring environmental performance data from our largest vendors that represent over 30% of spend. With respect to our customers, we actively manage our risks by: controlling our aggregate exposure to companies and sectors which are 'higher risk' for significant regulatory impacts from climate change; broad diversification by sector, geography, and individual customers of Comerica's loan portfolio;</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								and credit monitoring practices and loan structures which are designed to mitigate credit risk (e.g., periodic loan reviews, loan terms and conditions, collateral support for many loans, average term maturities under 5 years, etc.) Changes in the regulatory climate are communicated to affected business units primarily through the Sustainability Council.	
Product efficiency regulations and standards	Certain regulatory risks are anticipated to be diminished in this current U.S. federal political climate (but not	Increased operational cost	3 to 6 years	Indirect (Supply chain)	Very likely	Low	Many of the risk drivers in CC5.1a have the potential to impact the cost of energy. A	Comerica's real estate and energy management teams work to implement a	Costs are dispersed across many cost centers and a considerable

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	necessarily at the state level). We view this as a medium term risk (3-6 years). Regulations designed to reduce greenhouse gas emissions indirectly by imposing energy-efficiency requirements on product design and performance could negatively affect the company by increasing its operating or transaction costs in places and/or under circumstances where product suppliers (e.g., landlords of buildings in which the company rents space, manufacturers of IT equipment or vehicles purchased by the company, etc.) become subject to regulatory directives to improve the energy efficiency of their products. To the extent that this increases their costs, it could have price-inflating impacts on						10-20% increase in the cost of energy could have an impact on the order of \$1MM to \$2MM annually. Other operational impacts are expected to be less than \$1MM annually. It should be noted this risk driver overlaps with others listed in CC5.1a. It is unlikely for all risk drivers to be realized simultaneously; therefore estimated financial implications cannot be aggregated across multiple risk drivers.	yearly action plan designed to decrease our energy and water consumption, thereby reducing our exposure to price fluctuations. Projects have included a variety of energy efficiency & conservation initiatives at our facilities. In 2014 after realizing our previous GHG emission reduction target, we set a goal to reduce our real estate GHG emissions by 20% by 2020 from a 2012 baseline year (which was exceeded 3 years early by year-end	portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>their downstream value chains. For example, some municipalities in various parts of the key Comerica markets of California and Texas (e.g. San Francisco, Berkeley, Phoenix, Austin, Dallas) have passed local ordinances and changes to building codes (e.g., the State of California implemented a mandatory green building code in 2011) that requires certain new or existing buildings to meet new and higher energy efficiency standards over time. Thus the company could be affected by such directives directly when it constructs new facilities or indirectly via impacts on its supply chain. The company's clients and their properties could also become subject to such regulations, with</p>							<p>2016). Additionally, we have entered a portion of our buildings into Energy Star Portfolio Manager to help with benchmarking and reporting of our energy consumption. On the procurement side, we evaluate sustainability risks in our supply chain by scoring environmental performance data from our largest vendors that represent over 30% of spend. With respect to our customers, we actively manage our risks by: controlling our aggregate exposure to</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>resulting impacts on their profits, cash flow, and asset values(for example, if the costs of mandated energy efficiency improvement cannot be recovered from tenants in the form of higher rents). This could potentially result in increased credit costs for Comerica.</p>							<p>companies &amp; sectors which are 'higher risk' for significant regulatory impacts from climate change; broad diversification by sector, geography &amp; individual customers of Comerica's loan portfolio; and credit monitoring practices &amp; loan structures which are designed to mitigate credit risk (e.g., periodic loan reviews, loan terms and conditions, collateral support for many loans, average term maturities under 5 years.) Changes in the regulatory climate are</p>	



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								communicated to affected business units primarily through the Sustainability Council.	
Product labeling regulations and standards	Certain regulatory risks are anticipated to be diminished in this current U.S. federal political climate (but not necessarily at the state level). We continue to view this as a shorter term risk. Regulations designed to reduce greenhouse gas emissions indirectly by requiring product labeling which discloses product energy, emissions, or other environmental performance factors -- in an attempt to influence the choices and purchasing decisions of consumers and businesses -- could negatively affect the company by	Increased operational cost	1 to 3 years	Indirect (Supply chain)	Very likely	Low	Many of the risk drivers in CC5.1a have the potential to impact the cost of energy. A 10-20% increase in the cost of energy could have an impact on the order of \$1MM to \$2MM annually. Other operational impacts are expected to be less than \$1MM annually. It should be noted this risk driver overlaps with others listed in CC5.1a. It is unlikely for all risk drivers to be realized simultaneously;	Comerica's real estate & energy management teams work to implement a yearly action plan designed to decrease our energy & water use, thereby reducing exposure to price fluctuations. Projects included a variety of energy efficiency & conservation initiatives. Also, we have entered a portion of our buildings into Energy Star Portfolio	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>increasing its operating and transaction costs in places where it or its suppliers (e.g., landlords of properties which we rent) find themselves holding less energy-efficient assets compared to similar assets in their location and class. Some of these assets would likely trade at lower fair market values upon disclosure of sub-standard energy performance. In addition, some of the company's clients (e.g., certain commercial real estate borrowers) could also potentially experience the need to choose between diverting cash flow to energy efficiency improvements or accepting asset value declines as disclosure laws take hold. Such diversions of cash flow (if not</p>						<p>therefore estimated financial implications cannot be aggregated across multiple risk drivers.</p>	<p>Manager to help with benchmarking and reporting of our energy consumption. In 2014 after realizing our previous GHG emission reduction target, we set a goal to reduce our real estate emissions by 20% by 2020 from 2012 baseline year (which was exceeded 3 years early by year-end 2016). On procurement side, we evaluate sustainability risks in our supply chain by scoring environmental performance data from our largest vendors that represent over 30% of</p>	<p>projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>recoverable through higher rents) or asset value declines could result in reduced debt service capacity or reduced collateral coverage for the company's loans and could increase our credit costs. Two examples of such building energy performance disclosure laws are in California and Texas, two of Comerica's key market states. As of June 1, 2014, the City of Austin, Texas requires energy benchmarking and disclosure for buildings of at least 10,000 square feet. CA approved a state-wide benchmarking program mandated by Assembly Bill 802 in 2015. There was no statewide energy use disclosure requirement for 2016, but regulations are underway and are anticipated to be implemented shortly.</p>							<p>spend. For customers, we actively manage our risks by: controlling our aggregate exposure to companies &amp; sectors which are 'higher risk' for significant regulatory impacts from climate change; broad diversification by sector, geography, and individual customers of Comerica's loan portfolio; and credit monitoring practices &amp; loan structures designed to mitigate credit risk (e.g., periodic loan reviews, loan terms &amp; conditions, collateral support for</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								many loans, average term maturities under 5 years, etc.) Changes in the regulatory climate are communicated to affected business units primarily through Sustainability Council.	
Uncertainty surrounding new regulation	Certain regulatory risks are anticipated to be diminished in this current U.S. federal political climate (but not necessarily at the state level). We view this as a medium term risk. According to the Center for Climate and Energy Solutions, there were over 100 climate change-related bills introduced in the 114th Congress (2015-2016), 70% of which support climate action in some form	Reduced demand for goods/services	3 to 6 years	Indirect (Client)	About as likely as not	Low	Based on a number of factors, we judge the likely financial impacts on credit costs (i.e., incremental loan losses) due to regulatory impacts on our clients to be small in the foreseeable future. Operational impacts are expected to be less than \$1MM annually. It	Comerica's real estate & energy management teams work to implement a yearly action plan designed to decrease our energy & water consumption, thereby reducing our exposure to price fluctuations. Projects have included a variety of energy	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>(down from 131 in the 113th Congress). This continuing uncertainty about how businesses may be impacted by climate change and energy regulation in the future has slowed momentum among our customers for embracing some lower carbon and energy efficiency solutions, which may, in turn, reduce our ability to expand lending for clean technology and energy efficiency projects. In addition, media attention associated with some failed renewable energy companies has increased risk and reduced demand for some types of renewable energy lending.</p>						<p>should be noted this risk driver overlaps with others listed in CC5.1a. It is unlikely for all risk drivers to be realized simultaneously; therefore estimated financial implications cannot be aggregated across multiple risk drivers.</p>	<p>efficiency &amp; conservation initiatives at our facilities. In 2014 after realizing our previous GHG emission reduction target, we set a goal to reduce our real estate GHG emissions by 20% by 2020 from a 2012 baseline year (which was exceeded 3 years early by year-end 2016). On the procurement side, we evaluate sustainability risks in our supply chain by scoring environmental performance data from our largest vendors that represent over 30% of spend. With</p>	<p>strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>respect to our customers, we actively manage our risks by: controlling our aggregate exposure to companies and sectors which are 'higher risk' for significant regulatory impacts from climate change; broad diversification by sector, geography, and individual customers of Comerica's loan portfolio; and credit monitoring practices and loan structures which are designed to mitigate credit risk (e.g., periodic loan reviews, loan terms and conditions, collateral</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								support for many loans, average term maturities under 5 years, etc.) Changes in the regulatory climate are communicated to affected business units primarily through the Sustainability Council.	

**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
Change in temperature extremes	The company could experience negative impacts on its business and operations --	Increased operational cost	1 to 3 years	Indirect (Supply chain)	Very likely	Low	Comerica is exposed to a number of risks related to the physical impacts	Our current methods for managing our exposures to these risks include	Costs are dispersed across many cost centers and a considerable

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	including increased operating costs -- from more frequent or prolonged periods of high temperatures ("heat waves") in a variety of areas in which it operates, especially in summer. These may be associated with increased cooling costs, occasional power challenges as the grid struggles to accommodate rising levels of peak demand, as well as with an increase in heat-related morbidity and mortality (including heat stroke and asthma) which could affect company employees and contractors, increase healthcare costs,						of climate change but does not believe at this time those risks are reasonably likely to have a significant effect on our financial condition or results of operations in the foreseeable future (i.e., within the next 10 years). However, these risks, in the longer term, could increase our costs of operating in the affected geographical regions, either directly or indirectly via impacts on our supply chain, clients, or host communities. For example, increases to heating and cooling costs of 5% to 10% could have an impact on the order of \$500K to \$1MM	researching, identifying, and monitoring possible physical risks linked to climate change (by region) in areas in which we operate; not unduly concentrating our operating assets in any one location that is 'high risk' for the physical effects of climate change; operating a robust business continuity management program which includes alternative processing strategies; maintaining appropriate geographical and business/sector diversification in our loan portfolio; maintaining insurance coverage for our properties and requiring the same of loan clients whose properties we finance; increasing efforts	portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range.



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	and decrease worker productivity.						annually. Additionally, disruptions to business from increased frequency or severity of storm events could impact net income. A 0.5% decrease in net income could have an impact of approximately \$2.4MM (based on 2016 figures).	to better understand and mitigate climate change risks in our supply chain; and implementing initiatives to reduce the company's consumption of natural resources (including energy, paper products, water, and land/real estate) which could be negatively affected (in terms of cost or availability) by climate change over time.	
Change in precipitation pattern	Projected changes in the amount, distribution, patterns, and extremes of precipitation - which vary considerably by region across the company's footprint - have the potential to increase operating challenges and	Increased operational cost	1 to 3 years	Indirect (Supply chain)	Very likely	Low	Comerica is exposed to a number of risks related to the physical impacts of climate change but does not believe at this time those risks are reasonably likely to have a significant effect on our financial condition or results of operations in the	Our current methods for managing our exposures to these risks include researching, identifying, and monitoring possible physical risks linked to climate change (by region) in areas in which we operate; not unduly concentrating our operating assets in	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	costs for the company, its suppliers, and clients. Examples of areas that could be affected include business continuity; the availability, quality, and cost of water; the productivity of agriculture (and the resultant cost of food); the risk of flooding (as a result of heavy rain events, including flash floods); and the risk of droughts (which can affect the frequency and severity of wildfires as well as water availability, agricultural productivity, and the spread of pests). The company operates in some drought-prone and water-stressed areas of						foreseeable future (i.e., within the next 10 years). However, these risks, in the longer term, could increase our costs of operating in the affected geographical regions, either directly or indirectly via impacts on our supply chain, clients, or host communities. For example, increases to heating and cooling costs of 5% to 10% could have an impact on the order of \$500K to \$1MM annually. Additionally, disruptions to business from increased frequency or severity of storm events could impact net income. A 0.5% decrease in net	any one location that is 'high risk' for the physical effects of climate change; operating a robust business continuity management program which includes alternative processing strategies; maintaining appropriate geographical and business/sector diversification in our loan portfolio; maintaining insurance coverage for our properties and requiring the same of loan clients whose properties we finance; increasing efforts to better understand and mitigate climate change risks in our supply chain; and implementing initiatives to reduce the company's consumption of natural resources (including energy,	dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	the western and southwestern United States, including portions of CA, TX, and AZ, which are already experiencing some of these challenges.						income could have an impact of approximately \$2.4MM (based on 2016 figures).	paper products, water, and land/real estate) which could be negatively affected (in terms of cost or availability) by climate change over time.	
Sea level rise	Projected increases in sea level rise in certain areas in which the company operates, including parts of coastal FL, TX, and, to a lesser extent, CA, could negatively affect the company, its suppliers, and clients and create increased operating costs for all by causing damage to coastal infrastructure and real estate, beaches and other recreational areas, and more frequent or	Increased operational cost	>6 years	Indirect (Client)	Very likely	Low	Comerica is exposed to a number of risks related to the physical impacts of climate change but does not believe at this time those risks are reasonably likely to have a significant effect on our financial condition or results of operations in the foreseeable future (i.e., within the next 10 years). However, these risks, in the longer term, could increase our costs of operating in the affected	Our current methods for managing our exposures to these risks include researching, identifying, and monitoring possible physical risks linked to climate change (by region) in areas in which we operate; not unduly concentrating our operating assets in any one location that is 'high risk' for the physical effects of climate change; operating a robust business continuity management program which includes alternative processing	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>severe coastal flooding due to storm surge events. Damages to coastal real estate could, for example, result in increased costs for maintenance, re-construction, re-location, or insurance (to the extent coverage is available). Salt water intrusion into coastal drinking water aquifers in places such as Florida and California could affect the availability and cost of water for the company, its suppliers, and clients.</p>						<p>geographical regions, either directly or indirectly via impacts on our supply chain, clients, or host communities. For example, increases to heating and cooling costs of 5% to 10% could have an impact on the order of \$500K to \$1MM annually. Additionally, disruptions to business from increased frequency or severity of storm events could impact net income. A 0.5% decrease in net income could have an impact of approximately \$2.4MM (based on 2016 figures).</p>	<p>strategies; maintaining appropriate geographical and business/sector diversification in our loan portfolio; maintaining insurance coverage for our properties and requiring the same of loan clients whose properties we finance; increasing efforts to better understand and mitigate climate change risks in our supply chain; and implementing initiatives to reduce the company's consumption of natural resources (including energy, paper products, water, and land/real estate) which could be negatively affected (in terms of cost or availability) by climate change over time.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Tropical cyclones (hurricanes and typhoons)	<p>North America has been hard hit by extreme weather events within recent decades. Comerica Bank operates solely within North America, primarily within our key markets of TX, CA, MI, AZ and FL. Projected future increases in peak wind intensities and near storm precipitation in connection with tropical hurricanes (cyclones) could have a range of negative impacts on the company and its value chain in certain areas in which the company operates, including parts of coastal FL and TX. Damage to real estate and infrastructure from coastal</p>	Increased operational cost	3 to 6 years	Indirect (Client)	Very likely	Low	Comerica is exposed to a number of risks related to the physical impacts of climate change but does not believe at this time those risks are reasonably likely to have a significant effect on our financial condition or results of operations in the foreseeable future (i.e., within the next 10 years). However, these risks, in the longer term, could increase our costs of operating in the affected geographical regions, either directly or indirectly via impacts on our supply chain, clients, or host communities. For example, increases to heating and	Our current methods for managing our exposures to these risks include researching, identifying, and monitoring possible physical risks linked to climate change (by region) in areas in which we operate; not unduly concentrating our operating assets in any one location that is 'high risk' for the physical effects of climate change; operating a robust business continuity management program which includes alternative processing strategies; maintaining appropriate geographical and business/sector diversification in our loan portfolio; maintaining insurance coverage for our properties and	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>flooding, storm surge, and high-intensity winds (coastal and inland) could result in higher operating costs in the affected regions, including, for example, increased construction costs for more robust facilities, higher insurance costs, reconstruction costs after hurricane events, and business interruption expenses. The company's own business and facilities as well as those of clients in the affected regions could be negatively affected by tropical hurricanes. In some cases, there could be negative impacts</p>						<p>cooling costs of 5% to 10% could have an impact on the order of \$500K to \$1MM annually. Additionally, disruptions to business from increased frequency or severity of storm events could impact net income. A 0.5% decrease in net income could have an impact of approximately \$2.4MM (based on 2016 figures).</p>	<p>requiring the same of loan clients whose properties we finance; increasing efforts to better understand and mitigate climate change risks in our supply chain; and implementing initiatives to reduce the company's consumption of natural resources (including energy, paper products, water, and land/real estate) which could be negatively affected (in terms of cost or availability) by climate change over time.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	on the ability of clients to repay loans.								
Induced changes in natural resources	The potential physical effects of climate change associated with changes in temperature and precipitation patterns (and their extremes) -- as outlined above -- could also induce natural resource changes affecting food crops, forestry ecosystems, water availability, species distribution, biodiversity, and other natural resources on which the company, its supply chain, and clients depend. Any scarcity or disruption of uses of these natural resources could contribute to increased operational and	Increased operational cost	>6 years	Indirect (Supply chain)	Very likely	Low	Comerica is exposed to a number of risks related to the physical impacts of climate change but does not believe at this time those risks are reasonably likely to have a significant effect on our financial condition or results of operations in the foreseeable future (i.e., within the next 10 years). However, these risks, in the longer term, could increase our costs of operating in the affected geographical regions, either directly or indirectly via impacts on our supply chain, clients, or host	Our current methods for managing our exposures to these risks include researching, identifying, and monitoring possible physical risks linked to climate change (by region) in areas in which we operate; not unduly concentrating our operating assets in any one location that is 'high risk' for the physical effects of climate change; operating a robust business continuity management program which includes alternative processing strategies; maintaining appropriate geographical and business/sector diversification in our loan portfolio;	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	logistical costs and challenges for the company, its suppliers, and clients.						<p>communities. For example, increases to heating and cooling costs of 5% to 10% could have an impact on the order of \$500K to \$1MM annually. Additionally, disruptions to business from increased frequency or severity of storm events could impact net income. A 0.5% decrease in net income could have an impact of approximately \$2.4MM (based on 2016 figures).</p>	<p>maintaining insurance coverage for our properties and requiring the same of loan clients whose properties we finance; increasing efforts to better understand and mitigate climate change risks in our supply chain; and implementing initiatives to reduce the company's consumption of natural resources (including energy, paper products, water, and land/real estate) which could be negatively affected (in terms of cost or availability) by climate change over time.</p>	

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	Many stakeholders, including a growing number of institutional investors, view a company's sustainability and climate change performance as a proxy for the overall quality of its risk and opportunity management systems. Recent studies also indicate that stakeholders have rising expectations for companies in the areas of corporate social responsibility and citizenship and expect those companies to be proactive in providing solutions to society's sustainability challenges. Failure to successfully execute a	Reduced stock price (market valuation)	Up to 1 year	Direct	Very likely	Low-medium	There are additional risks associated with climate change which are neither regulatory nor physical in nature. For example, reputation risks that could have a 0.5% negative impact on market capitalization would equate to roughly \$60MM (based on a market capitalization of approximately \$12B at year-end 2016). While acknowledging these risks, we do not at this time believe that they are likely to have a significant effect on our financial condition or results of operations in the foreseeable future (i.e., within 10 years) due to the risks not yet being a more important market	Growing numbers of individuals, companies, and investors will likely recognize the need to respond to climate change risks and opportunities and are expected to show a preference for doing business with financial institutions which are committed to working with them to solve the world's sustainability challenges. To manage this issue, we established an enterprise-wide corporate sustainability program and adopted a climate change strategy. Annually, we implement a sustainability action plan, which includes initiatives to manage climate change risks and to identify	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>credible, transparent, and responsible sustainability and climate change strategy could thus have negative consequences for the company's reputation, potentially causing it to lose (or not attract) investors, customers, employees, or a range of business opportunities that might otherwise be available.</p>						<p>determinant and due to our existing approach to anticipate the risks and address the expectations of stakeholders.</p>	<p>opportunities both inside the company and within our value chain. These have included a variety of energy efficiency &amp; conservation initiatives in company-owned and controlled buildings; server virtualization initiatives; and the incorporation of higher energy-efficiency standards into the design of our new banking centers. We also significantly reduced the number of printers in use across our footprint and greatly expanded our videoconferencing capabilities to reduce corporate business travel. We have continued to aggressively rationalize the</p>	<p>separately and our 2016 spend was approximately \$5.3MM.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								amount of space the company utilizes for its operations, and continued to dedicate resources to projects to improve the energy performance of our data centers.	
Changing consumer behavior	As the values, expectations, and needs of consumers and customers change over time in response to sustainability drivers in the global economy, including climate change, companies which do not respond to these fundamental changes with appropriate products, services, and customer experiences can risk losing these customers to	Reduced demand for goods/services	3 to 6 years	Direct	Very likely	Medium	There are additional risks associated with climate change which are neither regulatory nor physical in nature. For example, consumer demand risks that could have a 0.5% negative impact on market capitalization would equate to roughly \$60MM (based on a market capitalization of approximately \$12B at year-end 2016). While acknowledging these risks, we do	Consumer preferences are actively studied via internal and external surveys to understand our client's expectations for desirable products, services, and experiences. To inform our customers on sustainability issues, we have developed customer communications on energy efficiency and greenwashing as well as have conducted one-	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	more responsive, innovative, or attractive competitors. Failure by Comerica to anticipate how and when the needs of our customers may translate into demand for new products and services could leave us without the business strategy we need to maintain and grow the business.						not at this time believe that they are likely to have a significant effect on our financial condition or results of operations in the foreseeable future (i.e., within 10 years) due to the risks not yet being a more important market determinant and due to our existing approach to anticipate the risks and address the expectations of stakeholders.	on-one conversations with customers. On the lending side, we continue to evaluate carbon regulatory risks associated with higher risk sectors within the loan portfolio. We also use a green loan tracking system to enable us to capture and report environmentally beneficial loans and commitments from across the portfolio. As of 12/31/2016, we had identified approximately \$888MM of total loans and commitments to green companies and projects.	emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.
Fluctuating socio-economic conditions	Suboptimal performance of the company's value chain (e.g., customers, employees, suppliers, alliance partners, and host	Reduced stock price (market valuation)	>6 years	Indirect (Client)	Very likely	Low-medium	There are additional risks associated with climate change which are neither regulatory nor physical in nature. For example,	Consistent with our commitment to help our value chain prepare for the challenges of climate change, we have engaged with a variety of	Costs are dispersed across many cost centers and a considerable portion of our expenditures

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	communities in which we do business) in preparing to manage the risks and find new opportunities which are associated with climate change could cause communities and markets which are key to the company's success to experience a decline in economic and social prosperity. If a region's citizens, businesses, and communities are not taking the steps necessary to prepare and position themselves well for a climate-challenged, low carbon, and resource-constrained future, then that region and its people and						value chain risks that could have a 0.5% negative impact on market capitalization would equate to roughly \$60MM (based on a market capitalization of approximately \$12B at year-end 2016). While acknowledging these risks, we do not at this time believe that they are likely to have a significant effect on our financial condition or results of operations in the foreseeable future (i.e., within 10 years) due to the risks not yet being a more important market determinant and due to our existing approach to anticipate the risks and address the expectations of stakeholders.	stakeholders on energy, climate change, and other sustainability issues - including our suppliers, customers, employees, NGOs, policy makers, and representatives of host communities in which we operate. Our engagement process includes biennial consultations with external stakeholders which are facilitated by a third-party consultant and which cover all aspects of our sustainability program, including climate change and emissions management issues. Our recent stakeholder consultations in 2014-2015 and 2016-2017 confirmed that our	would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to \$400K range. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	businesses could find themselves at a competitive disadvantage when compared to better prepared and more adaptive regions.							progress is in line with stakeholder expectations.	
Uncertainty in market signals	Our commercial banking relationships exist in numerous industries and business types. Climate change and associated policies and regulations may change the dynamics within certain industry types. For example, shifts to renewable energy may impact traditional oil and gas companies which may become less profitable and/or operate with periods of increased volatility and decreased certainty. Our	Reduced stock price (market valuation)	3 to 6 years	Indirect (Client)	Likely	Low-medium	There are additional risks associated with climate change which are neither regulatory nor physical in nature. Concentrated involvement with higher carbon risk industries that perform below expectations present a risk to our stock price. Similarly, significant underperformance of renewable energy businesses could impact business operations. A 0.5% negative impact on market capitalization would equate to roughly \$60MM	The company's Enterprise-Wide Risk Management Committee, established by the Enterprise Risk Committee of the Board, is responsible for governance over the risk management framework, providing oversight in managing the Corporation's aggregate risk position and reporting on the comprehensive portfolio of risks as well as the potential impact these risks can have on the Corporation's risk profile and	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate annual staff time dedicated to climate change strategy, energy, and emissions management likely falls into the \$200K to

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	exposure to industry concentrations disproportionately affected by climate change may present additional risks to our business performance. Similarly, uncertainty around incentives for some forms of renewable industries may also affect the performance of those businesses.						(based on a market capitalization of approximately \$12B at year-end 2016).	resulting capital level. These include, but are not limited to, existing and emerging risk matters related to credit, market, liquidity, operational, compliance and strategic conditions. We work to actively manage market concentrations and to anticipate the risks and address the expectations of stakeholders.	\$400K range. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.

CC5.1d

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

CC5.1e

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

---

CC5.1f

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

---

**Further Information**

**Page: CC6. Climate Change Opportunities**

---

CC6.1

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

Opportunities driven by changes in regulation

Opportunities driven by changes in physical climate parameters

Opportunities driven by changes in other climate-related developments

---

CC6.1a

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



Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other regulatory drivers	Comerica is a provider of financial products and services, with small and medium-size businesses (SMEs) representing our core customer base. The company responds to demand for commercial loans from viable, creditworthy businesses whose own products and services meet society's many needs. The opportunities we have identified are not associated with any single regulatory driver listed in the CDP's	Increased demand for existing products/services	>6 years	Indirect (Client)	Likely	Unknown	The level of regulatory and policy uncertainty at the state and federal levels makes it difficult to forecast both the speed and magnitude of regulatory changes and to predict that they could be financially significant for the company. These factors are more likely than not to cause demand for 'green' and 'low carbon' finance to evolve slowly and gradually among small and medium-size companies which comprise Comerica's core customer base. Over the longer term, if we were to have increases	We continue to position our company for the opportunities which are beginning to emerge. To capture information (for future planning purposes) about the current state of 'green lending' at Comerica, we implemented a 'green loan' tracking system in 2012 and identified over \$888MM of environmentally beneficial loans and commitments as of 12/31/16, including loans for green buildings, energy efficiency projects, solar, wind, biogas, vehicle electrification,	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate that annual staff time dedicated to the management of climate change opportunities would likely fall into the \$250K to \$500K range.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>standard drop-down menu. Rather they are beginning to emerge -- or could emerge in the future -- from a variety of regulatory drivers that seek to mitigate climate change and reduce GHG emissions by significantly improving energy efficiency and conservation, electrifying transportation, de-carbonizing electricity, deploying carbon capture and storage, and preserving carbon sinks such as forests. Thus air pollution limits, cap and</p>						<p>in 'green' loans of roughly 50% it could potentially increase the size of our environmentally beneficial loan portfolio to approximately \$1.3B (based on year end 2016 figure of \$888MM).</p>	<p>and other purposes which support mitigation and climate protection. In 2016, we communicated sustainability topics to customers through one-on-one interactions. Educated customers should be in a better position to understand mitigation options as climate change risks become more significant to their business operations. We are continuing to evaluate the overall business case for deploying additional resources on this potential opportunity.</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>trade schemes, emission reporting obligations, energy or carbon taxes, building and product efficiency regulations as well as product labeling requirements can all play a role in influencing the ways in which our customers across our key U.S. markets conduct business in the future, identify opportunities for growth, and the purposes for which they seek loans from Comerica. Comerica has</p>								

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>already observed some increase in the demand of our customers for clean tech and alternative energy finance (e.g., wind, solar, biofuels, and landfill gas to energy projects) in recent years. We believe that there may be increased demand in the future for loans for energy-efficiency and green retrofits of existing buildings across our key markets, although demand so far has been slow to develop. Other areas in which there could be</p>								

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>opportunities for our customers -- and, by extension, for us -- include smart grid technologies, green chemistry, energy-efficient industrial automation and equipment, electric/hybrid power trains, carbon capture &amp; storage, bio-materials, and advanced battery &amp; fuel cell technologies. Service companies which provide a range of energy and green design consulting as well as other climate change mitigation and</p>								

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	adaptation services may represent another source of opportunity for Comerica in the years ahead.								

**CC6.1b**

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other physical climate opportunities	Comerica is a provider of financial products and services, with small and medium-size businesses (SMEs) representing our core customer base. The company responds to	Increased demand for existing products/services	>6 years	Indirect (Client)	More likely than not	Unknown	We expect future opportunities associated with providing financial products & services to those involved in preventing, mitigating, & adapting to the physical effects of climate change. Given the uncertainties	Comerica's approach to managing these potential opportunities at this time is to conduct on-going monitoring and research into public and private sector efforts to understand and	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>demand for commercial loans from viable, creditworthy businesses whose own products and services meet society's many needs. The opportunities we have identified are not associated with any single physical risk driver listed in the CDP's standard drop-down menu. Rather they are likely to emerge over time from a variety of physical risk drivers that are projected to become more visible and impactful as the 21st century progresses. We would expect our future opportunities</p>						<p>associated with estimating the timing and magnitude of potential physical changes, we are currently unable to quantify the overall financial implications. Over the longer term, if we were to have increases in 'green' loans of roughly 50% it could potentially increase the size of our environmentally beneficial loan portfolio to approximately \$1.3B (based on year end 2016 figure of \$888MM).</p>	<p>improve general forecasting capabilities with regard to the likely physical impacts of climate change in the key areas of the United States in which we conduct business. We are still primarily in the information-gathering stage with regard to this aspect of climate change opportunity and have not as yet tried to forecast or position ourselves to exploit future demand for financial products and services that could materialize as a result of the physical effects of climate change.</p>	<p>We estimate that annual staff time dedicated to the management of climate change opportunities in this area would not exceed \$25K per year in the near term.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>related to the physical effects of climate change - including changes in temperature patterns and extremes, precipitation patterns and extremes, sea level rise, storm surge, flash floods, drought events, and induced changes in natural resources -- to arise from opportunities our customers in our key U.S. markets may have to provide goods &amp; services which prevent, mitigate, or otherwise respond or adapt to the physical effects of climate change (e.g. real estate and</p>								



Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>infrastructure maintenance and repair, water resources management, emergency response and management services; etc.). A wide variety of potential issues could influence such demand, including severe weather events, risk of property or infrastructure damage, evolving public health &amp; safety challenges, water and resource scarcity issues, changes in the productivity of agriculture and forestry, and many other possible events and occurrences.</p>								

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	Comerica is aware that the sentiments, values, and expectations of many stakeholders are evolving in response to growing concerns about the environment and climate change. In particular, investor and NGO interest in this area appears to be growing and deepening -- as is the pressure for greater corporate social responsibility and leadership in this area. Successful execution of a	Increased stock price (market valuation)	1 to 3 years	Direct	Very likely	Unknown	Strategic management of climate change and sustainability carries with it the opportunity to differentiate and enhance our reputation and brand and to strengthen relationships with key stakeholders on whom we are dependent for our long-term success. While we are not currently able to quantify the overall financial implications, we believe there is some evidence that our movement on these issues over the past seven years has improved	Growing numbers of individuals, companies, and investors are expected to recognize the need to respond to climate change risks and opportunities and show a preference for doing business with financial institutions which are committed to working with them to solve the world's sustainability challenges. To manage these opportunities, Comerica established an enterprise-wide corporate sustainability program and adopted a climate change strategy. We have publicized our efforts to create a more sustainable	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated from other staff responsibilities. We estimate that annual staff time dedicated to the management of climate change opportunities in this area would not exceed \$50K per year. Budgets for projects that enhance the energy efficiency of our

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	credible sustainability and climate change strategy can both improve a company's operating performance (e.g., by reducing costs) and increase stakeholder trust in the company's governance and brand. We believe that we have an opportunity to enhance the company's reputation and brand among key constituencies (such as investors, customers, employees, civil society, and host communities) and thus to create greater long-term						relationships with stakeholders to whom these issues are important. For example, impacts on reputation that could have a 0.5% positive impact on market capitalization would equate to roughly \$60MM (based on a market capitalization of approximately \$12B at year-end 2016).	company in our annual sustainability reports and have begun to integrate sustainability into our brand identity and core values. We have implemented an annual sustainability action plan, which has included initiatives to manage climate change risks and opportunities inside the company and within our value chain. Internally, these efforts have included a variety of energy efficiency & conservation initiatives in our buildings. We also reduced the number of stand-alone printers in use across our footprint and expanded our videoconferencing capabilities to reduce corporate business travel. In 2014, after realizing	corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	value for our owners.							our previous GHG emissions reduction target, we set a goal to reduce our real estate GHG emissions by 20% by 2020 from a 2012 baseline year (and achieved 3 years early). On the procurement side, we evaluate the sustainability risks in our supply chain by scoring environmental performance data from our largest vendors that represent over 30% of spend.	
Changing consumer behavior	Comerica is aware that the sentiments, values, and expectations of many consumers are evolving in response to growing concerns about the environment and climate change.	Increased demand for existing products/services	1 to 3 years	Direct	More likely than not	Unknown	Strategic management of climate change and sustainability carries with it the opportunity to differentiate and enhance our reputation and brand and to strengthen relationships with key stakeholders on	We have noticed in recent years a growing number of local governments are asking banks which compete for their relationships to provide detailed information on their environmental & sustainability performance. Some asset managers preferentially target their investments to	Costs are dispersed across many cost centers and a considerable portion of our expenditures would be on staff time which is not separately tracked or easily segregated

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Although the urgency of responding to climate change risks has diminished somewhat for some American consumers during the recent deep recession, we believe that a growing number of individuals and businesses are likely to be persuaded - over time - of the wisdom of confronting this issue. We believe that these consumers can also show a preference for doing business with companies and brands that have been responsible and credible						whom we are dependent for our long-term success. While we are not currently able to quantify the overall financial implications, we believe there is some evidence that our movement on these issues over the past six years has improved relationships with stakeholders to whom these issues are important. Over the longer term, if we were to have increases in 'green' loans of roughly 50% it could potentially increase the size of our environmentally beneficial loan portfolio to approximately \$1.3B (based	companies which are committed to improving their ESG performance; other investors are beginning to view companies with a climate change and sustainability strategy as better long-term managers of risk & opportunity and therefore as better investment choices. We continue to monitor carbon regulatory risk in higher risk sectors within the loan portfolio. We have implemented a green loan tracking system to enable us to capture and report environmentally beneficial loans and commitments from across the portfolio (approximately \$888MM of total loans/commitments to green companies/projects as of 12/31/2016). We continue to	from other staff responsibilities. We estimate that annual staff time dedicated to the management of climate change opportunities in this area would not exceed \$50K per year. Budgets for projects that enhance the energy efficiency of our corporate facilities are tracked separately and our 2016 spend was approximately \$5.3MM.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>leaders on these issues. For those existing or prospective customers for whom these issues are already important, we believe we have an opportunity to strengthen their loyalty or to make a case for doing business with Comerica.</p>						<p>on year end 2016 figure of \$888MM).</p>	<p>explore the demand among our commercial and industrial customers for energy-efficiency finance for building retrofits. In 2016, we communicated sustainability topics to customers through one-on-one interactions. We have engaged with a variety of stakeholders on energy, climate change, and other sustainability issues - including our suppliers, customers, employees, NGOs, policy makers, and representatives of host communities in which we operate. Our recent stakeholder consultations in 2014-2015 and 2016-2017 confirmed that our progress is in line with stakeholder expectations.</p>	

---

CC6.1d

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

---

CC6.1e

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

---

CC6.1f

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

---

**Further Information**

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

**Page: CC7. Emissions Methodology**

---

CC7.1

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

<b>Scope</b>	<b>Base year</b>	<b>Base year emissions (metric tonnes CO2e)</b>
Scope 1	Sun 01 Jan 2012 - Mon 31 Dec 2012	6949.81
Scope 2 (location-based)	Sun 01 Jan 2012 - Mon 31 Dec 2012	74784.25
Scope 2 (market-based)	Thu 09 Feb 2017 - Thu 09 Feb 2017	

---

**CC7.2**

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

**Please select the published methodologies that you use**

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

---

**CC7.2a**

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



---

**CC7.3**

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

Gas	Reference
CO2	IPCC Fifth Assessment Report (AR5 - 100 year)
CH4	IPCC Fifth Assessment Report (AR5 - 100 year)
N2O	IPCC Fifth Assessment Report (AR5 - 100 year)
Other: R-22	IPCC Fifth Assessment Report (AR5 - 100 year)
Other: R-134a	Other: The Climate Registry (AR5-100 year)
Other: R-410a	Other: The Climate Registry (AR5-100 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
----------------------	-----------------	------	-----------

---

**Further Information**

Please refer to our 2016 emission factors in the attached Excel spreadsheet.

---

**Attachments**

[https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Emission Factors for 2017 CDP Response 7 4 052517 Final.xlsx](https://www.cdp.net/sites/2017/40/3640/Climate%20Change%202017/Shared%20Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Emission%20Factors%20for%202017%20CDP%20Response%207%204%20052517%20Final.xlsx)

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

---

**CC8.1**

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

Operational control

---

**CC8.2**

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

6608

---

**CC8.3**

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

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a	We are reporting a	We are reporting our Scope 2 Location-Based emissions and Scope 2 Market-Based emission for 2016

Scope 2, location-based	Scope 2, market-based	Comment
Scope 2, location-based figure	Scope 2, market-based figure	activities. At this time, we are only able to use the eGRID location-based emission factors as our market-based energy providers are not able to calculate market-based emission factors.

**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
56723	56723	Comerica reports both Market-Based Electricity Emissions and Location-Based Electricity Emissions. Comerica has signed contractual instruments for Electricity (Texas locations) and for natural gas (Michigan locations). Comerica contacted the Texas contract issuer, Reliant Energy, for site-specific emission factors to utilize in the calculation of Market-Based emissions. Reliant Energy has not instituted processes to determine the site-specific emissions and is currently not able to provide an emission factor for our reporting purposes. Since we are not able to obtain an emission factor from the contract agent, we are following the WRI Guidance on Hierarchy for selection of market-based emission factors. Our 2016 data utilizes the 2012 eGRID Emissions Rates. We continue to pursue PPA-provided emissions rates and will incorporate them as they become available.

**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

CC8.4a

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

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded

CC8.5

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

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Data Gaps Assumptions Data Management	Data gaps include the following: (1) lack of actual fuel consumption data and precise vehicle weight data for the company's fleet vehicles; (2) lack of precise data on volumes of diesel fuel actually combusted by company-owned back-up generators. Assumptions made to work around these gaps included the following: (1) Total fleet vehicle emissions are estimated on the basis of vehicle mileage data (i.e., odometer readings) reported by fleet vehicle drivers at the beginning and at the end of the reporting year, using the DEFRA emission factors appropriate for the known engine size of each vehicle; (2) Diesel fuel quantities purchased during the year are used as a reasonable estimate of diesel fuel consumed via combustion by each back-up generator. All diesel fuel purchases are assumed to have been consumed and are applied to the emissions factor. The accuracy of our Scope 1 natural gas emissions depends on the reliability of a number of our vendors' data management systems, including: (1) those of utility companies which generate consumption activity data, (2) our automated bill payment system, from which all activity data is then extracted for purposes of calculating our GHG emissions, and (3) our automated energy & carbon management (ECM) system, which performs the CO2e calculations. We assume that utility companies are accurately capturing and reporting our consumption data; that our bill payment software is properly capturing and reporting the

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
			activity data reflected in the underlying utility bills; and that our energy & carbon management software solution is correctly calculating the resulting emissions. We do perform a range of QA/QC checks on the data and investigate any apparent anomalies. We have further attempted to ensure the accuracy of this data via both internal and external verification checking of our systems and calculations.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Data Gaps Metering/ Measurement Constraints Data Management	The accuracy of our Scope 2 emissions estimates depends on the reliability of a number of our vendors' data management systems, including:(1) those of utility companies which generate consumption activity data for purchased steam, chilled water, and electricity at our metered facilities, (2) our automated bill payment system, from which all activity data is then extracted for purposes of calculating our GHG emissions, and (3) our automated energy & carbon management (ECM) system, which performs the CO2e calculations. We assume that utility companies are accurately capturing and reporting our consumption data; that our bill payment software is properly capturing and reporting the activity data reflected in the underlying utility bills; and that our energy & carbon management software solution is correctly calculating the resulting emissions. We do perform a range of QA/QC checks on the data and investigate any apparent anomalies. For those of our leased facilities which are not metered, we estimate electricity emissions by extrapolating the average electricity consumption per square foot from like-kind or similar Comerica facilities in the same region which are metered. In those relatively few instances where we do not have like-kind metered facilities in the same region, we use an all-office average consumption rate to estimate electricity consumption. We have further attempted to ensure the accuracy of this data via both internal checking and external verification of our data management systems and calculations.
Scope 2 (market-based)	More than 2% but less than or equal to 5%	Assumptions Metering/ Measurement Constraints Data Management	The accuracy of our Scope 2 emissions estimates depends on the reliability of a number of our vendors' data management systems, including:(1) those of utility companies which generate consumption activity data for purchased steam, chilled water, and electricity at our metered facilities, (2) our automated bill payment system, from which all activity data is then extracted for purposes of calculating our GHG emissions, and (3) our automated energy & carbon management (ECM) system, which performs the CO2e calculations. We assume that utility companies are accurately capturing and reporting our consumption data; that our bill payment software is properly capturing and reporting the activity data reflected in the underlying utility bills; and that our energy & carbon management software solution is correctly calculating the resulting emissions. We do perform a range of QA/QC checks on the data and investigate any apparent anomalies. For those of our leased facilities which are not metered, we estimate electricity emissions by extrapolating the average electricity consumption per square foot from like-kind or similar Comerica facilities in the same region which are metered. In those relatively few instances where we do not have like-kind metered facilities in the same region, we use an all-office average consumption rate to estimate electricity consumption. We have further attempted to ensure the accuracy of this data via both internal checking and external verification of our data

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
			management systems and calculations. Additionally, the Power Purchase Agreement vendor for our Texas Electricity PPA contracts (Reliant Energy) was not able to provide site-specific emission factors for our market-based emissions. The 2012 eGRID Emission Factors were utilized in their place.

**CC8.6**

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

Third party verification or assurance process in place

**CC8.6a**

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

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Comerica 2016 GHG emissions Verification Statement.pdf">https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Comerica 2016 GHG emissions Verification Statement.pdf</a>	Pages 1-3	ISO14064-3	100

**CC8.6b**

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

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

**CC8.7**

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

Third party verification or assurance process in place

**CC8.7a**

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

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Comerica 2016 GHG emissions Verification Statement.pdf">https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Comerica 2016 GHG emissions Verification Statement.pdf</a>	Pages 1-3	ISO14064-3	100
Market-	Annual	Complete	Limited	<a href="https://www.cdp.net/sites/2017/40/3640/Climate Change">https://www.cdp.net/sites/2017/40/3640/Climate Change</a>	Pages 1-3	ISO14064-	100

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 (%)
based	process		assurance	2017/Shared Documents/Attachments/CC8.7a/Comerica 2016 GHG emissions Verification Statement.pdf		3	

#### 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
Year on year change in emissions (Scope 1 and 2)	Bureau Veritas has conducted Comerica's greenhouse gas emissions verification for more than two consecutive years and have verified year on year changes in Scope 1 and 2 emissions (2016 vs. 2015) as part of their verification work.
Year on year change in emissions (Scope 3)	Bureau Veritas has conducted Comerica's greenhouse gas emissions verification for more than two consecutive years and have verified year on year changes in Scope 3 emissions (2016 vs. 2015) as part of their verification work.

#### CC8.9

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

No

#### CC8.9a



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

---

**Further Information**

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

---

**CC9.1**

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

No

---

**CC9.1a**

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

Country/Region	Scope 1 metric tonnes CO2e

---

**CC9.2**

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

By GHG type  
By activity

---

**CC9.2a**

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

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

---

**CC9.2b**

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
----------	--	----------	-----------

---

**CC9.2c**

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
----------	--

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	6596
CH4	3.50
N2O	8.97

---

**CC9.2d**

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

Activity	Scope 1 emissions (metric tonnes CO2e)
Mobile Combustion (transport)	870.3
Stationary Combustion (heating and emergency generators)	5249.4
Fugitive Emissions (refrigerants)	488.7

---

**Further Information**

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

---

**CC10.1**

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

Yes

**CC10.1a**

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

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	56690.15	56690.15	97840	0
Canada	9.05	9.05	97	0
Mexico	24.01	24.01	53	0

**CC10.2**

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

By activity

**CC10.2a**

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

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

---

**CC10.2b**

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

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

---

**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 consumption (metered space)	45603.53	45603.53
Electricity consumption (unmetered space, estimated)	10193.08	10193.08
Estimated Natural Gas - Heat	925.40	925.40
Estimated Propane - Heat	1.20	1.20

---

**Further Information**

**Page: CC11. Energy**

---

**CC11.1**

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

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

---

**CC11.2**

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

Energy type	MWh
Heat	33344
Steam	0
Cooling	0

---

**CC11.3**

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

4095

---

**CC11.3a**

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

Fuels	MWh
-------	-----

Fuels	MWh
Jet kerosene	2910
Distillate fuel oil No 2	506
Motor gasoline	679

**CC11.4**

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

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	0	0	Comerica has executed a PPA with Reliant Energy to provide electricity for Comerica properties located in Texas. The total electricity consumption (metered and estimated) in 2016 for the Texas facilities was 28,574 MWh. Comerica requested site-specific emission factors from Reliant Energy for the market-based reporting purposes. Reliant Energy is not able to provide emissions data at this time. Location-based eGRID emission factors were utilized in the calculation of emissions for market-based reporting in 2016. Comerica will continue to request the site-specific data from Reliant Energy for future CDP reporting, as the PPAs will run through 2020.

**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
92865	92865	0	0	0	In 2016, Comerica did not operate any renewable energy generation sources. Except for low carbon electricity, heat, steam or cooling that may be offered as part of the regional mix of energy sources provided by local utility providers, Comerica did not purchase or generate low carbon energy sources. The company continues to evaluate the feasibility of implementing new solar PV or wind energy generation projects at its corporate facilities. Recent advances in renewable energy generation equipment are encouraging and improves the business case and risk evaluation analyses, improving the potential for future implementation.

**Further Information**

**Page: CC12. Emissions Performance**

**CC12.1**

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

Decreased

**CC12.1a**

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



Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	4.64	Decrease	A number of different types of energy conservation projects were implemented during 2016 to improve the operational efficiency of our real estate portfolio and reduce associated GHG emissions. The implemented projects included conversion of interior and exterior lighting to LED; installation of new high efficiency natural gas boilers; installation and continuous commissioning improvements of Building Management Systems; conducting ASHRAE Energy Audits and implementing "Quick Win" Energy and Water Conservation Measures; and implementing standardized temperature and lighting set points and setbacks to trim energy usage during occupied and unoccupied times. New projects to improve building envelope efficiency were also implemented in 2016, including replacement of barrel-style atrium glass, installing new building wall insulation, and caulking windows and doorways. The Dormant Space Policy continued implementation during 2016, setting protocols for HVAC operation, plug load disconnection, IT equipment removal, and window treatments to reduce solar load. These projects totalled over 1,227 MtCO <sub>2</sub> e in avoided emissions and represent approximately 1.79% of the 2015 Scope 1 and Scope 2 emissions. Comerica also continued its Rationalization, Consolidation, and Closure (RACC) program for owned or leased facilities during 2016 to increase operational efficiency. The estimated avoided emissions associated with this consolidation and closure effort total 1,455 MtCO <sub>2</sub> e and represent approximately 2.12% of the 2015 Scope 1 and Scope 2 emissions. Reductions in the use of the company's jet and travel emissions avoided through videoconferencing totaled 501 MtCO <sub>2</sub> e (or 0.73% of 2015 Scope 1 and Scope 2 emissions). Together these emissions reduction activities removed 3,183 MtCO <sub>2</sub> e from the 2015 Scope 1 and Scope 2 emissions (4.64% reduction).
Divestment			
Acquisitions			
Mergers			
Change in output			
Change in methodology	0.04	Increase	During 2016, the new GHG accounting methodology for the estimation of heat at facilities where the heat source is not directly metered by Comerica ("Estimated Heat - Natural Gas" and "Estimated Heat - Propane") expanded to the complete portfolio. The full portfolio estimation for these new reporting activities increased the Scope 2 emissions total for 2016 by 24.9 MtCO <sub>2</sub> e (0.04% of 2015 Scope 1 & 2 total).
Change in boundary	0.44	Decrease	Contractions in the subleased spaces that Comerica leases out to sub-tenants occurred during 2016. This resulted in reassignment of energy-related emissions from the "Downstream Assets" Scope 3 category to the Scope 2 energy category. Overall, the subleased space energy emissions decreased by 298.94 MtCO <sub>2</sub> e (0.44%) from 2015's totals.
Change in physical operating conditions	2.39	Decrease	Weather patterns influenced energy usage in our facilities during 2016, with milder weather conditions prevailing across the regions that typically consume the greatest proportion of energy in Comerica's facilities portfolio. Metered electricity usage was down 4,955 MWh (6.4%) and Natural Gas usage was down 4,290 MWh (13.2%) from 2015's totals.
Unidentified			

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Other	0.26	Decrease	Diesel fuel-related emissions decreased during 2016 by 175 MtCO <sub>2</sub> e (0.26% of 2015 Scope 1 & 2 totals) due to the decreased usage of the stand-by electricity generators. The 2015 diesel fuel activity was elevated due to the usage of stand-by electricity generator power at one of the company's Data Center locations during system maintenance activities. No extended use of the stand-by generators was needed in 2016.

**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?**

Location-based

**CC12.2**

**Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO<sub>2</sub>e 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
.000021396	metric tonnes CO <sub>2</sub> e	2960000000	Location-based	12.08	Decrease	We saw a significant decrease in our intensity metric due to a significant reduction in Scope 1 and 2 emissions, which were a result of emission reduction initiatives to rationalize and consolidate

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
						our occupied space, improve energy efficiency in the facilities where we maintain operational control, and reduce travel in the corporate airplane. Energy consumption in 2016 was also lower due to milder weather conditions for the year in our key markets. Although our 2016 gross revenues were up 5% from 2015, our Scope 1 and 2 emissions were down 7.68% (a similar trend to 2015 vs. 2014). Total Scope 1 and 2 emissions in 2016 were 63,332 MtCO <sub>2</sub> e.

**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
7.98	metric tonnes CO <sub>2</sub> e	full time equivalent (FTE) employee	7933	Location-based	3.42	Increase	There was a slight increase in this intensity metric, primarily due to a significant decrease in the Comerica FTE count (10.73%) in 2016 vs. 2015, which occurred primarily in the second half of 2016. Our combined Scope 1 and 2 GHG emissions decreased by 5,271 MtCO <sub>2</sub> or 7.68%. Reduced emissions were a result of emission reduction initiatives to rationalize and consolidate our occupied space, improve energy

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
							efficiency in the facilities where we maintain operational control, and reduce travel in the corporate airplane. These activities, in combination with milder weather for the year in our key markets, contributed to the reduced Scope 2 emissions.
0.0125	metric tonnes CO2e	square foot	5064895	Location-based	3.55	Decrease	We saw a slight decrease in our intensity metric primarily due to our Scope 1 and 2 emission reduction initiatives (trimming our occupied space, implementing energy efficiency projects, and reducing corporate Scope 1 travel). These direct activities, in combination with milder weather conditions during the year in our key markets, resulted in a decrease of 5,271 MtCO2 or 7.68% of our Scope 1 and Scope 2 GHG emissions. We reduced our Comerica portfolio of real estate by 226,933 square feet from 2015's average four quarters square foot total, a decrease of 4.29%. Our emissions reduction was in line with our square footage reduction.

**Further Information**

**Page: CC13. Emissions Trading**

**CC13.1**

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

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

---

**CC13.1a**

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

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

---

**CC13.1b**

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

---

**CC13.2**

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

Yes

---

**CC13.2a**

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

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance
Credit purchase	Landfill gas	Comerica is contracting to purchase verified emissions reduction credits associated with the Southex Greenwood Farms project in Tyler, Texas. The project consists of a landfill gas capture project that primarily upgrades LFG for natural gas pipeline injection. The credits are used to offset emissions from business travel in 2016 corresponding to our fleet of owned vehicles and our corporate jet.	CAR (The Climate Action Reserve)	871	871	Yes	Voluntary Offsetting

**Further Information**

**Page: CC14. Scope 3 Emissions**

**CC14.1**

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	3458	<p>The lifecycle emissions calculated within this estimate include paper, computer and carpeting emissions. (1) Paper: LCA-based emissions of office/marketing papers (1797.44 MtCO2e) were calculated according to Environmental Paper Network Paper Calculator, Version 3.2.1 using quantities of paper types purchased by Comerica, categorized according to paper type (coated or uncoated free sheet) and percentage of post-consumer recycle content. GWPs provided from the IPCC AR4-100 year (CO2=1, CH4=25, N2O=298). Lifecycle analysis and data quality documentation is provided at: <a href="https://s3.amazonaws.com/EPNPaperCalc/documents/Paper_Calculator_Documentation_V4_June+2015.pdf">https://s3.amazonaws.com/EPNPaperCalc/documents/Paper_Calculator_Documentation_V4_June+2015.pdf</a> (2) Computers: LCA-based emissions of laptop, desktop, notebook, tablet and mobile workstation computers (1389.44 MtCO2e) were calculated based on product-specific information provided by supplier (Dell) and quantities of units purchased by Comerica (2,154 notebooks, 2 desktops, 1,269 all-in-one units, and 372 displays). Emission factors: notebook (297-408 kg CO2e/unit), desktop (427 kg CO2e/unit), all-in-one units (468-480 kg CO2e/unit) and displays (233 kg CO2e/unit). Dell published updated lifecycle analysis summary documents from 2013-2015 to provide emission factors for their laptop, desktop, and workstation computer models. For the Dell lifecycle analysis estimations, please refer to <a href="http://www.dell.com/learn/us/en/uscorp1/corp-comm/environment_carbon_footprint_products?c=us&amp;l=en&amp;s=corp&amp;cs=uscorp1">http://www.dell.com/learn/us/en/uscorp1/corp-comm/environment_carbon_footprint_products?c=us&amp;l=en&amp;s=corp&amp;cs=uscorp1</a>. (3) Carpeting: The LCA-based emissions of carpet purchases (270.82 MtCO2e) were calculated based on product-specific information provided by suppliers and unit quantities purchased by Comerica (23,488 yd2 carpet tile and 1,229 yd2 carpet broadloom). Emission factors: carpet tile emission factors range from 6.4 to 17.4 kg CO2e/yd2 for carpet tile brands and the broadloom carpet emission factor is 7.68 kg CO2e/ yd2. Lifecycle analysis test was performed by PE Americas in 2009 conducted for Shaw. Interface and Mohawk LCAs developed using GaBi software.</p>	100.00%	We currently purchase goods and services (predominantly services) from a large number of suppliers. Many of these suppliers are relatively small in size and do not comprise a significant portion of our annual spend. Since 2012, we have expanded emissions reporting for a number of manufactured products

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
					<p>we purchase in larger quantities, including life-cycle emissions associated with office copy paper, other papers, laptop and desktop personal computers, and carpeting. The LCA emissions associated with those purchases are reported in this row. This figure only captures these specific purchases</p>



Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					and does not represent emissions related to all of our purchases of goods and services. For purposes of determining the percentage of emissions calculated here using primary data, we have used actual quantities of paper stocks purchased by the company during the year, but have assumed that the Environment

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
					<p>al Paper Network Paper Calculator should be assumed to yield industry-average emissions data and should thus be classified as a secondary data source. Emissions provided represent 99% of Comerica computer and 100% of paper and carpet purchases in 2016.</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Capital goods	Relevant, calculated	303	<p>(i) Type and source of data: The lifecycle emissions calculated within this category includes our furniture emissions. Emission factors were provided by Herman Miller, broken down by furniture model. (ii) Methodology: The LCA-based emissions of furniture purchases (303.43 MT CO2e) were calculated based on product-specific information (tables, chairs, cubicles, and task lights) provided by the suppliers and unit quantities purchased by Comerica ( furniture pieces). Per an email communication on 3/29/2017 with Becky Hedin, Eco-Inspired Design Coordinator in the Safety and Sustainability department at Herman Miller, Herman Miller continues to calculate the total lifecycle emissions of their products using Life Cycle Assessment (LCA) software called GaBi. They also use TRACi 2.1 methodology for GWP (100 years). TRACI 2.1 uses the 2001 IPCC Second Annual Report global warming potentials (GWP) of 21 for CH4 and 310 for N2O. The Herman Miller chair and several of their system, filing, and storage products have been third party reviewed and verified. Knoll furniture purchases represented 5% of furniture spend in 2016; however the majority of this spend was for 2015 purchases that were included in the 2015 emissions calculation. The remainder of the spend was primarily on parts, which do not have an emission factor, so Knoll purchases are not considered in this emission estimate. This emissions estimate represents 90% of furniture spend in 2016 and all of Herman Miller's 2016 purchases.</p>	100.00%	We have not yet taken a close look at capital goods - apart from those fixed assets with relatively short lives (e.g., personal computers, etc.) which are included above in our purchased goods and services number as well as furniture. Our capital goods purchases (i.e., purchases of plant, property, furniture and

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					<p>major equipment) are believed to vary significantly from year to year. The LCA emissions associated with furniture purchases are reported in this row. This figure only captures these specific purchases and does not represent emissions related to all of our purchases of capital goods.</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	5095	(i) Type and source of data: The emissions calculated within this category includes grid gross loss emissions associated with electricity transmission and distribution line losses for our metered and unmetered (or estimated) purchased electricity within the United States. Line loss emissions were calculated using over 99.9% of our generated Scope 2 electricity emissions (non U.S. based electricity generation was not included in line loss emissions estimate, which represents less than 0.1% of the electricity emissions generated by Comerica). (ii) Methodology: The electricity transmission/ distribution line losses were calculated using Comerica's location-based Scope 2 U.S. metered and unmetered electricity emissions (MtCO2e) and U.S. EPA's Compiled eGRID 2012 (released 10/08/2015), eGRID Grid Gross Loss (%) year 2012 data. eGRID 2012 uses the IPCC AR4-100 year GWPs. The electricity (metered and unmetered) data was first downloaded from the environmental & energy management system, sorted by eGRID and then assembled by eGRID Grid Loss region. The corresponding eGRID Gross Loss Factor (as a decimal) was then applied to the totals calculated for each eGRID region. The U.S. EPA line loss estimate equation, provided in a U.S. EPA slide deck "How to use eGRID for Carbon Footprinting Electricity Purchases in Greenhouse Gas Emission Inventories," was used to estimate the line loss emissions.	80.70%	We believe that our Scope 3 emissions would include sources related to extraction, production, and transportation of coal consumed in the generation of the electricity we consume as well as from the generation of electricity that is lost in transmission and distribution. This figure only captures

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 Scope 2 electricity transmission/distribution line losses and does not represent all Scope 3 fuel- and energy-related activity emissions.
Upstream transportation and distribution	Relevant, calculated	1177	Emissions in this category currently include our Fedex shipment deliveries and Brinks transport services. (1) Fedex: (i) Type and source of data: These CO2 emissions (195.95 MT) account for all Fedex Express and Ground-shipped packages in 2016 (through 12/31/2016). (ii) Methodology: Fedex uses a proprietary and confidential methodology to calculate emissions, which they indicate is consistent with the WRI Greenhouse Gas Protocol. Fedex uses the customer's Fedex account number to calculate associated emissions attributable to that account. Their methodology changed over the last year resulting in more accurate data (now FedEx reportedly calculates package emissions based on route distances from origin to destination, instead of the previous calculation tool that used zone averages to estimate emissions). Documentation on the emissions calculation was provided by Fedex via email. (2) Brinks: (i) Type and source of data: The Brinks CO2 emissions (980.97 MT) account for transport services. The emission factor used was 10.2184888 kg CO2e per gallon of diesel fuel consumed based on EPA Emission Factors for Greenhouse Gas Inventories, modified 11/19/2015 and based on an average Brinks diesel delivery vehicle of 6mpg and including the addition of AR5 GWPs for CH4 and N2O. (ii) Methodology: Brinks calculates their corporate-wide diesel fuel consumption for their customer	100.00%	Emissions in this category currently include our Fedex shipment deliveries and Brinks transport services. (1) Fedex: (i) Type and source of data: These CO2

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
			<p>accounts (9.6 million for 2016) and estimates what percent of revenue Comerica represents, only rounding to the nearest 1% revenue level. Based on the information, Comerica calculates the amount of diesel fuel attributed to the Comerica account (total diesel fuel consumption multiplied by the percent of revenue that Comerica represents). While this methodology most likely significantly over-estimates our transport emissions with Brinks, we recognize that there are still unreported emissions with other transport services within our key markets where data is not currently available, like Loomis which represented 5% of armored transport spend in 2016, and our courier services besides FedEx. Brinks represented 92% of 2016 armored transport spend.</p>		<p>emissions (195.95 MT) account for all Fedex Express and Ground-shipped packages in 2016 (through 12/31/2016).  (ii)  Methodology: Fedex uses a proprietary and confidential methodology to calculate emissions, which they indicate is consistent with the WRI Greenhouse Gas Protocol. Fedex uses</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					<p>the customer's Fedex account number to calculate associated emissions attributable to that account. Their methodology changed over the last year resulting in more accurate data (now FedEx reportedly calculates package emissions based on route distances from origin to</p>



Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					destination, instead of the previous calculation tool that used zone averages to estimate emissions). Documentation on the emissions calculation was provided by Fedex via email. (2) Brinks: (i) Type and source of data: The Brinks CO2 emissions (980.97 MT) account for transport services. The emission factor used

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
					<p>was 10.2184888 kg CO2e per gallon of diesel fuel consumed based on EPA Emission Factors for Greenhouse Gas Inventories, modified 11/19/2015 and based on an average Brinks diesel delivery vehicle of 6mpg and including the addition of AR5 GWPs for CH4 and N2O. (ii) Methodology:</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					Brinks calculates their corporate-wide diesel fuel consumption for their customer accounts (9.6 million for 2016) and estimates what percent of revenue Comerica represents, only rounding to the nearest 1% revenue level. Based on the information, Comerica calculates the amount of diesel fuel

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
					<p>attributed to the Comerica account (total diesel fuel consumption multiplied by the percent of revenue that Comerica represents). While this methodology most likely significantly over-estimates our transport emissions with Brinks, we recognize that there are still unreported emissions with other transport services</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					within our key markets where data is not currently available, like Loomis which represented 5% of armored transport spend in 2016, and our courier services besides FedEx. Brinks represented 92% of 2016 armored transport spend.
Waste generated in operations	Relevant, calculated	521	(i) Type and source of data: Life-cycle emissions of our landfilled solid waste, according to the US EPA's WARM Model, Version 14, updated March 2016. WARM model uses GWPs from the IPCC AR4-100 year (CO2=1, CH4=25, N2O=298). Represents the landfill disposal of approximately 1,501.4 tons of mixed municipal solid waste (MSW). Emission factor (based on national average	100.00%	This number corresponds to the life-cycle

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
			<p>scenario) = 0.34712 MtCO2e per (short) ton disposed. (ii) Methodology: Roll off bins at larger owned office buildings/service centers are directly weighed. A waste estimation protocol was developed to estimate waste quantities on the basis of facility/site information, collection schedule, pick-up frequency, container size, and industry average data (standard unit weight per volume of container based on waste type) for the remaining unweighed waste containers. The total landfilled waste was calculated based on direct weighed and estimated waste quantities sent to the landfill. The landfilled waste estimate was then plugged into U.S. EPA's WARM model to estimate lifecycle emissions associated with landfill disposal. Documentation on the emissions calculation methodologies used in the EPA WARM model are provided at <a href="https://www3.epa.gov/warm/SWMGHGreport.html">https://www3.epa.gov/warm/SWMGHGreport.html</a></p>		<p>emissions of our landfilled mixed municipal solid waste. All of the company's other waste streams are recycled. We currently divert from the landfill approximately 63% of the total solid waste generated. This landfilled emissions estimate encompasses 100% of Comerica's disposed landfill waste, but only the</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					roll-off container waste (4.6% of total landfilled waste in 2016 is directly weighed at the receiving landfill. The remaining emissions are estimated based on container size, pick up frequency, and industry average data.
Business travel	Relevant, calculated	3426	(1) Employee Air Travel in Commercial Airlines: (i) Type and source of data: Calculated using miles supplied by company's air travel management vendor; Emission Factors: 0.14196023424 kg CO2/passenger mile; 0.00001609344 kg CH4/passenger mile, 0.00133575552 kg N2O/passenger mile (Source: DEFRA, UK Government Conversion Factors for greenhouse gas (GHG) reporting, V.1.0, 2016, average short haul flight (no radiative forces included)). (ii) Methodology: Current	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
			<p>systems do not capture total air passenger miles for that portion of total air spend occurring outside the travel vendor's system or actual flight haul distances associated with company's air travel activity data. Total employee passenger miles flown were applied to emission factors. Emission volumes were converted to metric tons of CO2e. Simplified estimation procedure used to account for activity data gaps in total air travel spend where annual air travel spend from the corporate manual &amp; automated employee reimbursement exceeds the air mile spend from corporate air travel vendor system; Assumptions: All flights are assumed to be short haul in length (i.e., less than 2,299 miles one-way). (2) Employee Business Travel in Employee-Owned Cars &amp; Rental Cars: (i) Type and source of data: Calculated using miles supplied by company's automated &amp; manual travel reimbursement systems and rental car vendor system; Emission Factors: 0.47276 kg CO2/mile, 0.00057 kg CH4/mile, 0.00081 kg N2O/mile (Source: DEFRA, UK Government Conversion Factors for greenhouse gas (GHG) reporting, V.1.0, 2016, broken down by engine size) (ii) Methodology: Current systems do not capture total vehicle miles for that portion of total rental car travel spend which occurs outside travel vendor's system or engine size for both rental cars and personal (employee-owned) vehicles utilized for business travel. Total employee vehicle miles were applied to the emission factors. Emission volumes were then converted to metric tons of CO2e. Simplified estimation procedure used to account for activity data gaps in this portion of the total rental car travel spend; Assumptions: All vehicle miles are assumed to be in vehicles with large-sized engines (greater than 2.1 liters in size). Comerica used GWPs from IPCC AR5-100 year (CO2=1, CH4=28, N2O=265) to calculate the travel emissions within our Environmental/Energy Management System.</p>		
Employee commuting	Relevant, calculated	29327	<p>(i) Type and source of data: Employee commuting emissions were calculated using the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The emissions included in this estimate include employee commuting emissions from across our markets. (ii) Methodology: The emissions were calculated using estimates of total annual miles driven per year by personal vehicle, carpooling with or without another employee, bus and train transport and emissions factors from (1) US EPA, Emission Factors for Greenhouse Gas Inventories, Table</p>	24.00%	Over 1,900 employees provided complete responses to the



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
			<p>8, Last Modified: 11/19/2015 (for light duty truck/large SUV, bus, and train transport), (2) <a href="http://www.ucusa.org/clean-vehicles/electric-vehicles/ev-emissions-tool">http://www.ucusa.org/clean-vehicles/electric-vehicles/ev-emissions-tool</a> (for electric vehicle transport), and (3) DEFRA, UK Government Conversion Factors for greenhouse gas (GHG) reporting, V.1.0, 2016 (for subcompact to full-size gasoline and diesel, hybrid, CNG, LPG, and motorcycle transport). GWPs provided from the IPCC AR4-100 year (CO2=1, CH4=25, N2O=298). An employee commuting questionnaire was posted on the company intranet for the month of December 2016. The data captured related to estimating commuting emissions included the number of days/week worked in the office and from home during the average work week. We also captured the mode of transport taken and the type (fuel and size) of vehicle driven. The primary data from over 1,900 employees who completed the questionnaire was extrapolated to create total emissions for the entire employee base of over 8,100 employees at year-end 2016. Assumptions made for the estimate include: (1) Those employees who responded to the questionnaire have an average of 20 vacation/holiday days/year, (2) We used the Defra emission factors for large gasoline engine cars in Europe to represent U.S. medium gasoline cars, emission factors for medium European gasoline-engine cars to represent U.S. small engine cars, and emission factors for small European gasoline-engine cars to represent U.S. sub-compact engine cars since engines are commonly smaller in Europe than in the U.S., (4) When a colleague reported that they worked from home or took alternate transportation occasionally, we assumed that this related to 15 times per year.</p>		questionnaire , a 24% employee response rate for 2016.
Upstream leased assets	Not relevant, explanation provided				All of our upstream leased assets are included in the company's Scope 1 and

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					Scope 2 emissions
Downstream transportation and distribution	Not relevant, explanation provided				The company's business is the provision of financial services. We do not transport any significant amounts of sold goods to end consumers.
Processing of sold products	Not relevant, explanation provided				The company's business is the provision of financial services. We do not process any significant amounts of intermediate products sold

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					by downstream companies (e.g., manufacturers)
Use of sold products	Not relevant, explanation provided				The company's business is the provision of financial services. We do not sell any significant amounts of products which directly consume energy (fuels or electricity) during use.
End of life treatment of sold products	Not relevant, explanation provided				The company's business is the provision of financial

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
					services. We do not sell any significant amounts of products which require waste treatment and disposal at the end of their life.
Downstream leased assets	Relevant, calculated	1606	(1) Subleased Corporate Jet: A portion of our corporate jet emissions are not attributable to Comerica employees or for Comerica business. We have separated this out from our Scope 1 travel emissions. (i) Type/source of data: We use the same GHG emission factors for Corporate Jet: 9.49266351669493 kg CO2 per US Gallon/0.00518142084933629 kg CH4 per US Gallon/0.0898131144451823 kg N2O per US Gallon (Source: DEFRA, UK Government Conversion Factors for GHG reporting, V.1.0, 2016, Passenger Vehicle - Aviation Turbine Fuel, converted from liters). (ii) Methodology: The aircraft flight log identifies whether jet was used for Comerica business purposes (Scope 1) or subleased to non-Comerica business entities (Scope 3). The non-Comerica jet fuel usage is tallied & reported as a Scope 3 Subleased Corporate Jet activity. Activity volumes are taken from jet logs that detail dates of use, user name, quantity of fuel used & cost of fuel. The data is collected in pounds of jet fuel used and converted to U.S. Gallons (lbs. x .14793 = U.S. Gallon) prior to applying emissions factor. (2) Real Estate Assets (i) Type and source of data: Activity volumes are taken from utility bills for metered facilities that are transferred to Scope 3 from Comerica's location-based Scope 2 based on the subleased nature of the assets. Emission factors for electricity based on U.S. EPA's Compiled eGRID 2012 (released	38.90%	Emissions from properties that we (as lessor) lease or sub-lease to other companies or tenants; including natural gas, steam, and both metered and unmetered

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
			10/08/2015) for each applicable location; Natural Gas (Source: USEPA Emission Factors for Greenhouse Gas Inventories, modified 11/19/2015). Comerica used GWPs from IPCC AR5-100 year (CO2=1, CH4=28, N2O=265) to calculate the travel emissions within our Environmental/Energy Management System. (ii) Methodology: For those facilities which are not metered, we estimate electricity emissions by extrapolating the average electricity consumption per square foot from like-kind or similar Comerica facilities in same region which are metered. In those relatively few instances where we do not have like-kind metered facilities in same region, we use an all-office average consumption rate to estimate electricity consumption.		(estimated) electricity.
Franchises	Not relevant, explanation provided				The company does not operate franchises.
Investments	Relevant, not yet calculated		Currently, we do not believe that there is a sufficient methodology for reporting emissions with associated financial services products that are implementable in an economically justifiable context.		Our Corporate Sustainability Office previously participated in UNEP-FI working groups, focused on developing financial industry guidance on

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
					how to account for emissions associated with financial services loans and investments. In addition, we sponsored a masters-level research project at a major university to evaluate financed emissions methodologies and associated sustainability metrics.
Other (upstream)	Not relevant, explanation				Not applicable

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
	n provided				
Other (downstream)	Relevant, calculated	278	<p>Employee Business Travel in CBRE Fleet Car, CBRE Employee-Owned Cars &amp; Rental Cars and Air Travel related to the Comerica account: (i) Type and source of data: Emission Factors: Large engine 0.47276 kg CO2 per mile, 0.00057 kg CH4 per mile, 0.00081 kg N2O per mile; Medium engine 0.32103 kg CO2 per mile, 0.00057 kg CH4 per mile, 0.00081 kg N2O per mile; (Source: DEFRA, UK Government Conversion Factors for greenhouse gas (GHG) reporting, V.1.0, 2016, Passenger Vehicle, broken down by engine size) (ii) Methodology: For CBRE Fleet Vehicle mileage, the odometer readings are collected by the Facility Managers to whom the fleet vehicles are assigned and are tracked in a fleet vehicle mileage worksheet. Business travel in personal vehicles or rental cars: A report is run in the CBRE travel reimbursement system on a quarterly basis to determine employee reimbursement mileage and rental car mileage conducted by CBRE and reimbursed by Comerica. Assumptions: All personal and rental car vehicle miles are assumed to be for large-sized engines (above 2.0 liters in size). Total employee vehicle miles are applied to the emission factors to get vehicle emissions by category. (2) Employee Business Travel by Air related to the Comerica account: (i) Type and source of data: Emission Factors: 0.14196023424 kg CO2/passenger mile, 0.00001609344 kg CH4/passenger mile, and 0.00133575552 kg N2O/passenger mile (Source: DEFRA, UK Government Conversion Factors for greenhouse gas (GHG) reporting, V.1.0, 2016, business travel air-short haul) (ii) Methodology: The CBDO calculates air travel mileage, using an online air mileage calculator (<a href="http://www.milecalc.com/">http://www.milecalc.com/</a>), and adds that mileage to each corresponding air travel receipt from the reimbursement system. The mileage for each air travel entry is then totaled quarterly to obtain the total air travel mileage for the reporting period. GWPs from IPCC AR5-100 year (CO2=1, CH4=28, N2O=265) were used to calculate the CBRE travel emissions within our Environmental/Energy Management System.</p>	100.00%	Travel data is provided by CBRE.

---

**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**

<b>Verification or assurance cycle in place</b>	<b>Status in the current reporting year</b>	<b>Type of verification or assurance</b>	<b>Attach the statement</b>	<b>Page/Section reference</b>	<b>Relevant standard</b>	<b>Proportion of reported Scope 3 emissions verified (%)</b>
Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/40/3640/Climate%20Change%202017/Shared%20Documents/Attachments/CC14.2a/Comerica%202016%20GHG%20emissions%20Verification%20Statement.pdf">https://www.cdp.net/sites/2017/40/3640/Climate Change 2017/Shared Documents/Attachments/CC14.2a/Comerica 2016 GHG emissions Verification Statement.pdf</a>	Pages 1-3	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	Emissions reduction activities	15	Decrease	Emission reductions in this category resulted primarily from paper reductions across all paper categories. There was a 16.5% decrease in overall paper emissions over 2015. 95% of our office copy paper contained 30% post-consumer recycled content and 100% of marketing papers were FSC-certified. In 2016, our carpet emissions decreased by 5% primarily due to a reduction in carpet purchases. 97% of our carpet purchases in 2016 contained recycled content.
Purchased goods & services	Other: Cyclical nature of purchases	620	Increase	We anticipate emissions within this Scope 3 category will fluctuate over time due to the cyclical nature of product purchases. This emission increase in Purchased Goods & Services resulted primarily from a significant purchase of new computers in 2016. In 2016, 100% of our laptop, desktop, and workstation computer purchases met the IEEE EPEAT® Gold Rating.
Capital goods	Other: Cyclical nature of purchases	29	Decrease	We anticipate emissions within this Scope 3 category will fluctuate over time due to the cyclical nature of furniture purchases. The decrease shown in this category is related to a reduction in furniture purchased in 2016. When we do purchase furniture, we look for energy efficient and environmentally-certified options. In 2016, 94% of our furniture purchases carried the BIFMA level® certification.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Emissions reduction activities	6	Decrease	Electricity Line Loss emissions decreased by 6.4% in 2016. Electricity usage decreased in 2016 due to energy efficiency projects, less severe weather, and square footage reductions within our real estate portfolio. The reduction in electricity has a direct impact on the emissions related to electricity transmission/distribution line losses.
Upstream transportation & distribution	Change in methodology	16	Decrease	We anticipate emissions within this Scope 3 category will fluctuate over time due to the cyclical nature of services purchased. There was a decrease in our FedEx shipping for 2016, primarily due to a more accurate methodology that FedEx put in place in 2016 for tracking package distances. Although not included in our Scope 3 upstream transport & distribution emissions estimate, FedEx offsets companies' FedEx Express envelope shipping. This resulted in a 33.6 MtCO2 offset in 2016 based on Comerica's FedEx Express envelope shipments.
Upstream transportation & distribution	Other: Cyclical nature of purchases	53	Increase	We anticipate emissions within this Scope 3 category will fluctuate over time due to the cyclical nature of services purchased. In 2016, Brinks began representing a higher percentage of our armored transport spend (92% in 2016 vs. 69% in 2015) so additional transport emissions are covered within this emissions estimate. Our Brinks-related transport emissions increased by 53%. This was also due to a significant increase in

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
				overall diesel fuel consumption by Brinks (9.6MM in 2016 vs. 6.3MM in 2015). We likely over-reported our armored vehicle/cash vault services-related emissions since this calculation is based on Comerica representing 1% of Brinks revenues (the lowest % that Brinks will use for their emissions estimation), but we have been told that Comerica likely represents much less than 1%.
Waste generated in operations	Change in methodology	27	Decrease	Our landfilled waste emissions decreased in part due to an updated EPA WARM Model emission factor. The emission factor decreased by 27% in the EPA WARM Model Version 14 for mixed solid waste (0.35 MtCO <sub>2</sub> e per (short) ton disposed at a landfill in 2016 vs 0.48 MtCO <sub>2</sub> e per (short) ton disposed at a landfill in 2015).
Waste generated in operations	Change in methodology	5	Decrease	Our landfilled waste emissions decreased in part due to a 5% reduction in Comerica waste landfilled. The landfilled waste generated by our facilities decreased by 82 US tons in 2016, primarily due to the Waste Optimization Program which reduced the frequency of container collection and size for our Retail facilities. After considering the emission reduction due to the change in emission factor (195 MtCO <sub>2</sub> e decrease), the remaining emissions reduction is due to the reduction activities or Waste Optimization Program.
Business travel	Emissions reduction activities	18	Decrease	Total Scope 3 employee business travel emissions decreased due to a reduction in employee air travel related to a focus on expenses in 2016. Business travel emissions were down across all tracked travel categories (air travel, personal vehicle reimbursement, and rental cars). Employee business travel emissions would have likely been higher, if not for the use of our videoconferencing systems, which helped avoid approximately 1,755 business trips equating to approximately 404 MtCO <sub>2</sub> e.
Employee commuting	Unidentified	11	Decrease	Comerica's employee commuting emissions would have been slightly higher if not for some of our some employees working from home, riding their bike to work or walking to work. These activities resulted in a 383 MtCO <sub>2</sub> e emissions avoidance based on over 1,900 survey respondents. There is uncertainty in the emissions estimate since our emissions are based on responses from approximately 24% of the employee population. Additionally, Comerica launched an internal online Employee Commute connection site in 2016 to help connect Comerica employees who want to carpool to and from work.
Downstream leased assets	Emissions reduction activities	17	Decrease	Our subleased real estate assets (Subleased Metered Electricity, Subleased Estimated Electricity, and Subleased Natural Gas) collectively decreased by 17.7% in 2016 as compared to 2015. The reductions in the downstream leased assets totals are due to energy conservation projects implemented at the Metered locations and RaCC activities that helped to shed a total of 299 MtCO <sub>2</sub> e and 13,918 square feet of subleased space

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
				from the portfolio. Additionally, our Subleased Corporate Jet usage decreased in 2016 by 3,038 US gallons of fuel or 30 MtCO <sub>2</sub> e.
Other (downstream)	Change in methodology	10	Increase	CBRE Travel increased in 2016 primarily due to an increase in CBRE travel activity and due to a change in methodology (CBRE Travel- Air was added as a new activity and added 14.5 MtCO <sub>2</sub> e to the combined 2016 CBRE Travel activities emissions number. There was also a slight increase in the DEFRA gasoline vehicle emission factors (up 0.5-1.3% over 2015).

**CC14.4**

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

Yes, our suppliers

**CC14.4a**

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

**CC14.4b**

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

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Active engagement	34	39%	<p>We have a large number of suppliers, many of whom are smaller service providers with relatively small spend. Our Green Procurement Workgroup has focused on larger suppliers of goods &amp; service (\$4+ million) or smaller suppliers to the extent that they provide significant quantities of physical (manufactured) goods that have an environmental footprint (e.g., paper products, computers &amp; electronic equipment) that could potentially be given preference on the basis of product environmental attributes. Information provided by suppliers in response to our Sustainability questionnaire is then used to score &amp; assign suppliers to performance bands (A through F). Our goal is to repeat the surveys every three years to monitor performance &amp; increase our spend by 5 percent, as feasible, each scoring round with suppliers that fall in the sustainability scoring target range (A-C). After Round 1 scoring, the Green Procurement group lead &amp; the Corporate Sustainability team conducted performance reviews with suppliers that fell short of an acceptable sustainability score &amp; suggested potential improvements. Our plan is to reach out to suppliers who score below a C if they do not increase their score by one grade over the previous scoring round. We have increased our percentage of total spend with suppliers in scoring waves 1-4 by 1%, while the spend dollars with suppliers within the target range increased by 14% (Round 2 vs. Round 1). The average score of supplier scoring waves 1-4 increased by 7% Round 2 vs. Round 1. With regard to products (rather than services) we purchase in significant quantities &amp; where we believe we have an opportunity to select greener products (e.g., paper, electronics, furniture, carpets), we also evaluate key environmental attributes of product and the overall environmental performance of the supplier. To date, we have used publicly available information (e.g., third-party eco-labeling programs, where available) to understand the environmental attributes of various products that might make them 'preferred' purchases for us. In 2016, 100% of our computer and display purchases met the IEEE EPEAT® Gold Rating, 97% of our carpet purchases contained recycled content, &amp; 94% of our Herman Miller furniture purchases carried the BIFMA level® certification.</p>

CC14.4c

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

Further Information

Module: Sign Off

---

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
David E. Duprey	Executive Vice President and Chief Financial Officer	Chief Financial Officer (CFO)

---

Further Information

CDP 2017 Climate Change 2017 Information Request