

Welcome to your CDP Climate Change Questionnaire 2019

C0. Introduction

C_{0.1}

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

Assurant, Inc. ("Assurant" or the "Company") is a global provider of risk management solutions in the housing and lifestyle markets, protecting where people live and the goods they buy. The Company operates in North America, Latin America, Europe and Asia Pacific through three operating segments: Global Housing, Global Lifestyle and Global Preneed. The Company partners with clients who are leaders in their industries to provide consumers a diverse range of protection products and services. Through its Global Housing segment, the Company provides lender-placed homeowners insurance; renters insurance and related products (referred to as "Multifamily Housing"); manufactured housing and flood insurance and other specialty products (referred to as "Specialty and Other"). Through its Global Lifestyle segment, the Company provides mobile device protection products and related services and extended service products and related services for consumer electronics and appliances (referred to as "Connected Living"); vehicle protection and related services (referred to as "Global Automotive"); and credit and other insurance (referred to as "Global Financial Services and Other"). Through its Global Preneed segment, the Company provides pre-funded funeral insurance and annuity products.

On May 31, 2018, Assurant completed the acquisition of TWG Holdings Limited and its subsidiaries ("TWG"). TWG specializes in the underwriting, administration and marketing of service contracts on a wide variety of consumer goods, including automobiles, consumer electronics and major home appliances. In addition, on August 1, 2018, Assurant closed on the sale of our mortgage solutions business and no longer provides property appraisal, preservation and valuation services.

Assurant is a Fortune 500 company, a member of the S&P 500, and is traded on the New York Stock Exchange under the symbol "AIZ". Assurant had approximately \$41 billion in assets as of December 31, 2018 and approximately \$8 billion in revenues for the year ended December 31, 2018.

C_{0.2}

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

Start date	End date	Indicate if you are providing emissions data for past
		reporting years



Row	January 1,	December 31,	No
1	2018	2018	

C_{0.3}

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

Argentina

Australia

Brazil

Canada

Chile

China

Colombia

France

Germany

India

Italy

Japan

Mexico

Netherlands

Peru

Puerto Rico

Republic of Korea

Singapore

Spain

United Kingdom of Great Britain and Northern Ireland

United States of America

C_{0.4}

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

USD

C_{0.5}

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

Operational control



C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Board-level committee	Managing our climate-related issues ultimately rests with our Board of Directors. Assurant faces the greatest risk exposure to climate change through our lender-placed, voluntary homeowners, renters and flood property insurance offerings, particularly in coastal regions prone to hurricanes. The Board's Finance and Risk (F&R) Committee (together with the Board) has oversight responsibility for Assurant's investment strategies and enterprise risk management, including oversight of our risk appetite (including climate-related risk) and the integrity and adequacy of our risk mitigation strategies. Our Global Head of Risk reports results to the F&R Committee on a regular basis and periodically to the Board. Additionally, the Board's Nominating and Corporate Governance Committee oversees our material Environment, Social and Governance (ESG) efforts, including Climate Action, and receives an annual update compiled by our CSR/ESG Governing Oversight Board.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate- related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding risk management policies	The Office of Risk Management (ORM), which coordinates our risk management activities, is led by our Global Head of Risk. Our internal risk governance structure is headed by our Chief Strategy Officer, who is responsible for the strategic direction of our enterprise risk management and oversees the ORM. The ORM develops risk assessment and risk management policies, facilitates reporting and prioritizing in the



	assessment of risk, and coordinates with Internal Audit
	Services and other departments and committees
	charged with functions related to risk management. Our
	Global Head of Risk reports results to the Finance &
	Risk Committee on a regular basis and periodically to
	the Board.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify Chief Strategy Officer	Both assessing and managing climate-related risks and opportunities	Quarterly
Other committee, please specify Reinsurance Risk committee	Both assessing and managing climate-related risks and opportunities	Quarterly
Other committee, please specify CSR/ESG Oversight Governance Committee	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

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

The Chief Strategy Officer, Chief Financial Officer and Chief Communication & Marketing Officer, who each report directly to our CEO, and Global Head of Risk oversee functions responsible for climate-related actions, policies and risk mitigation and management. Our Global Head of Risk leads Assurant's global Office of Risk Management (ORM). The ORM coordinates our risk management activities and is led by our Global Head of Risk. Our internal risk governance structure is headed by our Chief Strategy Officer, who is responsible for the strategic direction of enterprise risk management and oversees the ORM. The ORM develops risk assessment and risk management policies, facilitates reporting and prioritizing in the assessment of risk, and coordinates with the Internal Audit Services department and other departments and committees charged with functions related to risk management. The ERC, which is chaired by our CEO and composed of our Chief Strategy Officer, Chief Financial Officer, Chief Legal Officer, and Global Head of Risk is responsible for the strategic direction of



the Company's enterprise risk management, including climate-related risk. The Global Head of Risk provides updates to the Board's F&R Committee and the Board.

Climate-related issues are monitored by the Reinsurance Risk Committee (RRC), which reports into the Business Risk Committee (BRC), and subsequently the F&R Committee through regular updates from the Global Head of Risk on risk appetite related to reinsurance, changes to catastrophic risk, and material issues in catastrophe prone areas where Assurant plans to take on business. The BRC, which is chaired by our Global Head of Risk and includes senior members of risk management, all the Business Unit Leaders and leaders of all the functional support areas of the Company, is responsible for the interdisciplinary oversight of business unit and enterprise risks and the design, management and recommendation of the risk appetite framework and limits. The BRC reports and provides regular updates to the ERC. The RRC, which reports to the BRC, focuses on the insurance risk across the enterprise and approves the use of reinsurance to mitigate these risks.

Our risk committees integrate social and environmental factors into their practices by monitoring relevant potential long-term concerns that could impact our business, such as climate change. When the committees identify long-term risks, they work with other company functions to implement necessary programs and processes. Effective enterprise risk management is crucial in the allocation of climate-related risks in our business.

Additionally, a cross-enterprise Assurant CSR/ESG Governing Oversight Committee identifies, reports and recommends actions related to climate matters on a quarterly basis as part of the company's CSR/ESG Dashboard, which is shared with the company's Management Committee. This board and process includes four members of Assurant's Management Committee, among other functional leaders and subject matter experts representing Risk Management, Corporate Social Responsibility, Investor Relations, Legal, Human Resources, Innovation and Customer Experience areas.

C1.3

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

Yes

C1.3a

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

Who is entitled to benefit from these incentives?

Facilities manager

Types of incentives



Recognition (non-monetary)

Activity incentivized

Energy reduction target

Comment

Energy/emission reduction goals between 2 to 5 percent are included in the yearly performance goals for facility managers and maintenance teams. Meeting or exceeding these goals are an important component of these employees' annual performance review.

Who is entitled to benefit from these incentives?

Executive officer

Types of incentives

Recognition (non-monetary)

Activity incentivized

Energy reduction target

Comment

By executive officer, we are referencing select vice presidents in areas such as Corporate Real Estate and Facilities. These select vice presidents have energy/emission reduction goals between 2 to 5 percent that are included in the yearly performance goals. Meeting or exceeding these goals are an important component of these employees' annual performance review.

C2. Risks and opportunities

C2.1

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

	From (years)	To (years)	Comment
Short-term	0	1	
Medium-term	1	3	
Long-term	3	15	

C2.2

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



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

C2.2a

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

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	For our Global Housing and Global Lifestyle businesses, our RRC monitors catastrophe exposure monthly and reports results to the F&R Committee of the Board on a regular basis. Our RRC reviews and approves our catastrophe reinsurance activities. Annually, through our catastrophe reinsurance program, we work to reduce our company's financial exposure while protecting millions of homeowners and renters against severe weather and other hazards.

C2.2b

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

Additionally, the BRC meets monthly to focus on all key risks (i.e., inherent risks greater than \$5 million Net Operating Income across the full spectrum of Assurant's risk taxonomy). The BRC, which is chaired by our Global Head of Risk and includes senior members of risk management, the Business Unit Leaders and leaders of all the functional support areas of the Company, is responsible for the interdisciplinary oversight of business unit and enterprise risks and the design, management and recommendation of the risk appetite framework and limits. The BRC reports and provides regular updates to the ERC.

Assurant prioritizes risks and opportunities based upon each business unit's exposure to catastrophe, flood, fire and other climate-related events. Assurant's business most prone to climate change impacts relate to the homes for which we provide lender-placed, voluntary and flood insurance through Assurant Global Housing. To enhance our understanding of our significant risk exposure to catastrophic events, we purchase aftermarket information that provides us additional building characteristics, which we include in our modelling process and supply to our panel of more than 40 reinsurers. We employ catastrophe models for various geographic regions that contain long-term (5-year) projections, which allow us to make more accurate assumptions on the frequency of hurricanes or other climate-related events to determine pricing and guide appropriate risk-taking within the Company. We work with modelling agencies to improve their models with guidance from our in-house meteorologist, hydrologist and catastrophe modelers.



The Office of Risk Management, in collaboration with corporate real estate and facilities, assesses all Assurant facilities for exposure to severe climate-related events and recommends improved climate resiliency where appropriate. For example, we fortified our Miami, Florida office with hurricane resistant glass that provides protection from hurricanes rated up to category 5 and a full electrical generator capacity for use during a tropical cyclone and/or long-term power outage. We also provide optional electrical generators to most large facilities, with additional generators for data protection in select locations. We strategically relocated our data centers in the United States several years ago, so they are in regions less vulnerable to catastrophic events. We also use technology platforms that allow for virtual workstyles and data transfer to other facilities in the case of severe weather events.

For our Global Lifestyle business line, our critical vendors are contractually obliged to let us review and approve of their business continuity programs, plans and disaster response protocols.

In 2017, Assurant completed a materiality assessment to help identify, prioritize and validate our most significant ESG impacts, risks and opportunities, including climate change. In September 2018, we published our first Corporate Social Responsibility (CSR) Report, which discussed our most significant ESG topics identified by this assessment, including climate action.

C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Assurant's Office of Risk Management and government relations group closely monitors risks relating to current and emerging regulations. For example, Assurant closely monitors our risks from being an administrator of the National Flood Insurance Program provided by FEMA in the United States. Assurant works with state and national regulators, focusing especially on our relationships in areas facing elevated risk from climate change, such as those along the coasts, or national programs exposed to this risk, like FEMA. We believe engagement with regulators provides the best path to address climate-related risks while ensuring access to fair-priced insurance. We also offer lower insurance rates for structures that are built inland or adopt climate-resilient improvements in regions where local regulations allow it. Our approach to regulator engagement advocates for policies that



		help to mitigate climate-related risk. For example, insurance policies that incent lower-risk behaviors, like adopting climate resilient construction practices. We also work closely with state and local insurance departments to promote fair assessments of building construction that actively mitigate their properties' climate change risks.
Emerging regulation	Relevant, always included	Our industry faces substantial regulatory compliance responsibilities and our ability to successfully monitor and respond to regulatory imperatives is crucial to our business. Assurant's Office of Risk Management and government relations group closely monitor risks relating to current and emerging regulations. In addition, several Assurant employees also serve on committees of the Insurance Institute for Business and Home Safety (IBHS), and we provide financial support through our company's membership to further research methods aimed at fortifying homes and improving flood resiliency.
Technology	Relevant, sometimes included	Assurant's 2017 materiality assessment identified Innovation and Technology as one of our top five ESG topics. Innovation is core to meeting and anticipating our customers' needs and an integral part of our continued success. As digital distribution and access, for example, lead to increased connections between consumers and technology, as well as increased consumer expectations, our commitment to encouraging and supporting innovation is more important than ever.
Legal	Relevant, always included	Assurant's 2017 materiality assessment identified Ethics and Compliance as one of our top five ESG topics. Assurant's reputation as an ethical, fair and honest company is paramount. We understand that to maintain customer trust, we must have a framework in place to promote ethical behavior and compliance with law and regulation.
Market	Relevant, always included	As we strengthen our climate strategy, we continue expanding our understanding of consumer needs and global trends, including a more comprehensive look at global climate change impacts. To maintain market leadership, we will continue to incorporate climate change risks and opportunities into our decision-making processes and maximize our operational efficiency.
Reputation	Relevant, sometimes included	Assurant's 2017 materiality assessment identified Customer Relations as one of our top five ESG topics. A failure to meet customer needs, preferences or timeframes could compromise Assurant's position as a market leader.
Acute physical	Relevant, always included	Assurant purchases forward-looking catastrophe and storm models from several modeling agencies. Our in-house meteorologist, hydrologist and catastrophe modelers also work with modeling agencies to help improve Assurant's models. Assurant employs a proprietary view of risk, which combines and adjusts results from several models to arrive at a comprehensive annual assessment of



		our climate-related risk, policy rates and reinsurance costs.
		The Office of Risk Management, in collaboration with Corporate Real Estate and Facilities, assesses all Assurant facilities for exposure to severe climate-related events and recommends improved climate resiliency where appropriate. For example, we fortified our Miami, Florida office with hurricane resistance glass that provides protection from hurricanes rated up to category 5 and full electrical generator capacity for use during a tropical cyclone and/or long-term power outage. We also provide optional electrical generators to most large facilities, with additional generators for data protection in select locations. We strategically relocated our data centers in the United States several years ago, so they are in regions less vulnerable to catastrophic events. We also use technology platforms that allow for virtual workstyles and data transfer to other facilities in the case of severe weather events.
Chronic physical	Relevant, sometimes included	We continue to bolster our understanding of climate change issues impacting our business. We review thought leadership, such as the UNEP Insurance 2030 Report and CERES Insurer Climate Risk Disclosure Survey Report and Scorecard, to provide suggestions and actions to improve our climate change risk mitigation.
Upstream	Relevant, always included	Assurant regularly engages with key stakeholders across our value chain, which includes key upstream suppliers. Responsible risk sharing, largely from reinsurance, forms the foundation of Assurant's risk mitigation strategy. Assurant considers reinsurers as strategic partners/suppliers and credits transparency to our strong relationships with more than 40 global firms.
Downstream	Relevant, always included	Assurant regularly engages with key stakeholders across our value chain, which includes key downstream customers and consumers. As insurance companies increase their underwriting criteria and pricing of their insurance products in locations with exposure to catastrophes, many homeowners have trouble securing and maintaining affordable coverage. For many, relocating is not an option. We believe that with the right approach, we can provide insurance for consumers currently in homes susceptible to extreme weather while maintaining sound actuarial standards. In addition, several of Assurant's business partners have made commitments to reduce GHG emissions, which may relate to Scope 3 emissions allocated to our operations. A failure to meet these customers' emissions goals or timeframes could compromise Assurant's position as a business partner.

C2.2d

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



Our Global Head of Risk leads Assurant's global Office of Risk Management (ORM). The ORM coordinates our risk management activities and is led by our Global Head of Risk. Our internal risk governance structure is headed by our Chief Strategy Officer, who is responsible for the strategic direction of our enterprise risk management and oversees the ORM. The ORM develops risk assessment and risk management policies, facilitates reporting and prioritizing in the assessment of risk and coordinates with the Internal Audit Services department and other departments and committees charged with functions related to risk management. The Company's internal risk governance structure is headed by the ERC, which is chaired by our CEO and composed of our Chief Strategy Officer, Chief Financial Officer, Chief Legal Officer, and Global Head of Risk. It is responsible for the strategic direction of the Company's enterprise risk management, including climate-related risk. The Global Head of Risk provides updates to the Board's F&R Committee. Climate-related issues are monitored by the RRC. which reports to the BRC. The RRC focuses on insurance risk across the enterprise and approves the use of reinsurance to mitigate these risks. The Global Head of Risk provides quarterly updates on risk appetite related to reinsurance, changes to catastrophic risk, and material issues in catastrophe prone areas where Assurant plans to take on business. The BRC, which is chaired by our Global Head of Risk and includes senior members of risk management, all the Business Unit Leaders and leaders of all functional support areas of the Company, is responsible for the interdisciplinary oversight of business unit and enterprise risks and the design, management and recommendation of the risk appetite framework and limits. The BRC reports and provides regular updates to the ERC.

Our risk committees integrate social and environmental factors into their practices by monitoring relevant potential long-term concerns that could impact our business, such as climate change. When the committees identify long-term risks, they work with other company functions to implement necessary programs and processes.

With exposure to natural catastrophe through our insured properties, Assurant maintains a high-quality panel of reinsurers, works with state regulators and incentivizes flood-prone individuals to use physical risk management tools. Our reinsurance program reduces our financial exposure to climate change and enhances our ability to protect more than three million homeowner and renter policyholders against severe weather and other hazards.

Our 2019 catastrophe reinsurance program includes \$1.16 billion in coverage, protecting more than 3 million homeowners and renters. To help verify the strength of the 2019 program, the Company tested the program against several of the most significant historical catastrophes dating back to the 1850s using industry-leading catastrophe models. Through the testing, the model showed that if these events were to recur today (e.g., Hurricane Andrew, Hurricane Katrina or superstorm Sandy), Assurant's loss would be well within the U.S. catastrophe reinsurance program's limit.

We also prioritize opportunities that address the underlying causes of climate risk. For example, we educate consumers and regulators about the benefits of adopting climate-resilient improvements when constructing or repairing homes. To incentivize these behaviors, we offer discounts to those who have fortified their homes to mitigate the impacts of floods, hurricanes



or other severe weather. Most of our international homeowners' policies offer discounts to customers who build with more resilient materials and install wind mitigation features.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Increased insurance claims liability arising from climate-related impacts

Company- specific description

In Global Housing, our lender-placed insurance is subject to a sizable portion of this risk. Lender-placed insurance products accounted for approximately 55 percent of Global Housing's net earned premiums, fees and other income for the twelve months ended December 2018. Catastrophe losses, including human-made catastrophe losses, could materially reduce our profitability and have a material adverse effect on our results of operations and financial condition.

U.S. regulation requires a bank or mortgage servicer to maintain gap-free insurance coverage if a homeowner's insurance lapses or fails to meet minimum requirements set by a bank or mortgage servicer. Because of the nature of lender-placed insurance, Assurant cannot assess the property prior to the insurance activating. Additionally, properties may turn to lender-placed insurance after other insurance companies refused to cover the property due to elevated risk. Assurant has observed an increase in lender-placed insurance in areas with higher exposure to tropical cyclones, especially along the



coasts (e.g., New York) and the Gulf of Mexico (e.g., Florida and Texas). In Florida, the increased risk and costs from hurricanes has led many insurers to withdraw from the state. Citizens Property Insurance, the state-founded insurer (the insurer of last resort), can reject covering a property for limited reasons. In this manner, Assurant's lender-placed insurance may take the role of insurer of last resort on properties with high climate-related risks. In other areas prone to drought, such as California, properties experiencing higher fire risk exposure may receive an Assurant lender-placed policy. Lender-placed insurance inherently carries substantial risk. As the percentage of risk relating to climate increases, Assurant must better understand, reduce, and mitigate climate-related risk.

Time horizon

Medium-term

Likelihood

Unlikely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,240,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

On Assurant's property portfolio, the probability of a \$80M Catastrophe Loss is ~1 in 4 years. Above this level Assurant is protected by reinsurance up to a \$1.24B event loss which has an occurrence probability of 1 in 173 years. The 2019 Catastrophe Reinsurance Program includes coverage in the Caribbean of up to \$177.5 million in excess of \$17.5 million, and the extension of our 2018 Latin America protection of up to \$427.5 million in excess of \$4.5 million. Renewals subject to changes in coverage amount, retention and cost. The 2019 program includes \$1.16 billion in coverage, protecting more than 3 million homeowners and renters. We tested the program against several of the most significant historical catastrophes dating back to the 1850s using industry-leading catastrophe models. The model showed if these events were to recur today (e.g., Hurricane Andrew, Hurricane Katrina or superstorm Sandy), Assurant's loss would be well within the U.S. catastrophe reinsurance program's limit.

Management method

Responsible risk sharing, largely from reinsurance, forms the foundation of Assurant's risk mitigation strategy. Assurant considers reinsurers as strategic partners and credits



transparency to our strong relationships with more than 40 global firms. In addition, the diversified composition of Assurant's business portfolio helps to mitigate the impacts from risks associated with a single physical location or business line. As we continue to grow our businesses into new regions and markets, we further spread our physical and business risks. With the acquisition of TWG, we have reduced our Global Housing segment from 65% of earnings in 2015 to around 40% of projected earnings in 2019-2021, adding balance to our earnings contribution mix.

Assurant purchases forward-looking catastrophe and storm models from several modelling agencies. Our in-house meteorologist, hydrologist and catastrophe modelers also work with modelling agencies to help improve Assurant's models. Assurant employs a proprietary view of risk, which combines and adjusts results from several models to arrive at a comprehensive annual assessment of our climate-related risk, policy rates and reinsurance costs.

Cost of management

165,000,000

Comment

Cost of management refers to Assurant's approximate property catastrophe reinsurance premiums in 2019. The potential financial impact is the cumulative coverage of our property catastrophe reinsurance program. Actual reinsurance premiums will vary if exposure changes significantly from estimates or if reinstatement premiums are required due to catastrophe events.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

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

Type of financial impact

Increased insurance claims liability arising from climate-related impacts

Company- specific description

Catastrophe losses, including human-made catastrophe losses, could materially reduce our profitability and have a material adverse effect on our results of operations and financial condition. In Global Housing, our participation in FEMA's NFIP is subject to a portion of this risk.



In the U.S., FEMA's NFIP subsidizes properties considered "preferred risk", or those with higher exposure to climate change risks. In 1983, the NFIP started the collaborative Write Your Own (WYO) Program, which allows private insurers to issue and service flood insurance. FEMA assumes all risks and underwriting costs associated with these policies, but the NFIP's total debt, as of June 2019, is reported to exceed \$20 billion, which does not include any debts incurred from Hurricanes Harvey, Irma and Maria. Unless FEMA adopts higher premiums that reflect increased climate-related risk and incentivizes risk reducing behaviors, like relocation or flood resilient construction, the NFIP's increasing debt may restrict future claim reimbursements to insurers. FEMA's lack of policies and incentives that prevent or reduce climate-related risk also hinders Assurant's ability to use similar tools to address the underlying causes of climate-related risk.

In addition, Congress must also reauthorize the NFIP periodically. A failure to reauthorize the NFIP, beyond the current extension period of September 30, 2019, would effectively stop the sales and renewal of NFIP flood policies, which may reduce our role as the second largest administrator in the WYO program.

Time horizon

Medium-term

Likelihood

Unlikely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

100,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

At present, Assurant is one of the largest administrators of policies in the WYO Program. Thus, any late, reduced, or denied repayment poses a risk to future profits. The risk of FEMA not honoring its obligations to insurers is remote, but the potential financial impacts of this occurring would be significant to our business. If FEMA pays only 80 percent of their obligations on a gross loss of \$500 million during a bad flood season, it could result in an estimated potential financial impact of \$100 million assumes FEMA pays only 80 percent of their obligations on gross losses of \$500 million occurred in a bad flood season.



Management method

Assurant works with state and national regulators, focusing especially on areas facing elevated risk from climate change, such as along the coasts, or national programs exposed to this risk, like FEMA. We believe engagement with regulators provides the best path to address climate-related risks while ensuring access to fair-priced insurance. We also offer lower insurance rates for structures that are built inland or adopt climate-resilient improvements in regions where local regulations allow it.

As one of the largest flood insurance carrier for the U.S. government under the voluntary NFIP, Assurant educates FEMA and national legislators on flood catastrophe models and the climate-related flood risk that may influence future policy. In regulator outreach, Assurant stresses the need to accelerate insurance policy and products that incentivize lower-risk behaviors, like adopting climate resilient construction practices, and thus address an underlying cause of climate-related risk.

Cost of management

3,500,000

Comment

The cost of management estimates the total shared costs for various business functions that support Risk 2, Risk 3, Opportunity 1, and Opportunity 2. This estimate represents a portion of our costs to run our legal, compliance, government relations, and actuarial teams. \$3,500,000 is the mean of our \$2,000,000 to \$5,000,000 estimated range.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

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

Type of financial impact

Increased costs and/or reduced demand for products and services resulting from fines and judgments

Company- specific description

We are subject to extensive laws and regulations, which increase our costs and could restrict the conduct of our business. Violations or alleged violations of such laws and regulations could have a material adverse effect on our reputation, business and results of operations. Our business is also subject to risks related to reductions in the insurance premium rates we charge. Changes in insurance regulation may reduce our profitability and limit our growth.



In the United States, insurance regulators seek to maintain orderly markets, which can lead to moderation of indicated rate movements. One of the unintended consequences of this can be a potentially insufficient differential in insurance rates for properties with high risk exposure to climate events and those with low exposure. Some state insurance departments do not allow the use of computer models in rate proposals, and in some cases the use of models is highly restricted. The evolving nature of climate change risk is not well captured without the ability to model situations and exposures on a goforward basis, and the ability to build in pricing and underwriting preference for those insured that actively mitigate their exposure to climate change related risk.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

20,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Faced with an inability to charge rates commensurate with risk, insurance companies can experience reduced profitability, reduce capacity, or even withdraw capacity from a given area or state. For example, some state insurance offices work to keep rates affordable, but many properties near coastal regions or other catastrophe-prone areas have a much greater catastrophe risk. The potential financial impact is based on estimated differences between our proposed rates and the approved rates from state regulators. Currently, state regulators allow models calibrated to historical averages and do not consider forward-looking models when reviewing rates. The stated impact of \$20 million is the mean of our \$10 million to \$30 million estimate for the potential impact of regulators not approving higher rates based on forward-looking climate models and approving lower rates based on historical averages, which may not properly reflect how climate change affects weather patterns.

Management method

Assurant works with state and national regulators, focusing especially on our relationships in areas facing elevated risk from climate change, such as those along the



coasts, or national programs exposed to this risk, like FEMA. We believe engagement with regulators provides the best path to address climate-related risks while ensuring access to fair-priced insurance. We also offer lower insurance rates for structures that are built inland or adopt climate-resilient improvements in regions where local regulations allow it.

As one of the largest flood insurance carrier for the U.S. government's NFIP, Assurant helps to educate FEMA and national legislators on flood catastrophe models and climate-related flood risk that may influence future policy. In all regulator outreach, Assurant stresses the need to accelerate insurance policy and products that incentivize lower-risk behaviour, like adopting climate resilient construction practices, and thus address an underlying cause of climate-related risk.

In addition, the diversified composition of Assurant's business portfolio helps to mitigate the impacts from risks associated with a single physical location or business line. As we continue to grow our businesses into new regions and markets, we further spread our physical and business risks.

Cost of management

3,500,000

Comment

The cost of management estimates the total shared costs for various business functions that support Risk 2, Risk 3, Opp. 1, and Opp. 2. This estimate represents a portion of our costs to run our legal, compliance, government relations, and actuarial teams. \$3,500,000 is the mean of our \$2 million to \$5 million estimated range.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Increased insurance claims liability arising from climate-related impacts

Company- specific description

In Global Housing, our voluntary flood and property insurance is subject to a portion of this risk. Catastrophe losses, including human-made catastrophe losses, could materially reduce our profitability and have a material adverse effect on our results of operations and financial condition.



Assurant assumes all risk and costs associated with primary (voluntary) flood insurance policies, unlike flood insurance issued under the NFIP. As climate change impacts precipitation and the likelihood for hurricanes and storms that lead to flooding, risk exposure on primary flood insurance increases. Along with this risk, the effects of climate change may increase the demand for primary flood insurance. In 2018, roughly 19 percent of Assurant's Global Housing segment revenue was from voluntary manufactured housing and other voluntary insurance (including flood). As we continue expanding our flood insurance products, we face increasing exposure to properties with flood risk.

As we grow our voluntary property insurance offerings in Central and South America through our Latin American and Caribbean Dwelling Program, Assurant faces increased risk exposure to properties in regions impacted by climate change-related catastrophes. Regions with high population growth are also catastrophe-prone regions, such as Chile, and Mexico. These countries are more likely affected by tsunamis, earthquakes and hurricanes and rely on different catastrophe modelling than the U.S. regions where we mainly operate.

Time horizon

Medium-term

Likelihood

Very unlikely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

600,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

Our 2018 catastrophe reinsurance program absorbed more than \$600 million in total gross losses and supported policyholders during numerous natural disasters. In July of this year, we finalized our 2019 program with \$1.16 billion in coverage, protecting more than 3 million homeowners and renters. To help verify the strength of the 2019 program, the Company tested the program against several of the most significant historical catastrophes dating back to the 1850s using an industry-leading catastrophe model. Through the testing, the model showed that if these events were to recur today (e.g.,



Hurricane Andrew, Hurricane Katrina or superstorm Sandy), Assurant's loss would be well within the U.S. catastrophe reinsurance program's limit.

Management method

Responsible risk sharing, largely from reinsurance, forms the foundation of Assurant's risk mitigation strategy. Assurant considers reinsurers as strategic partners and credits transparency to our strong relationships with more than 40 global firms. In addition, the diversified composition of Assurant's business portfolio helps to mitigate the impacts from risks associated with a single physical location or business line. As we continue to grow our businesses into new regions and markets, we further spread our physical and business risks.

Assurant purchases forward-looking catastrophe and storm models from several modelling agencies. Our in-house meteorologist, hydrologist and catastrophe modelers also work with modelling agencies to help improve Assurant's models. Assurant employs a proprietary view of risk, which combines and adjusts results from several models to arrive at a comprehensive annual assessment of our climate-related risk, policy rates and reinsurance costs.

Cost of management

165,000,000

Comment

Cost of management refers to Assurant's approximate catastrophe reinsurance premiums in 2019. The potential financial impact is the cumulative coverage of our property catastrophe reinsurance program. Actual reinsurance premiums will vary if exposure changes significantly from estimates or if reinstatement premiums are required due to catastrophe events.

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Customer



Opportunity type

Products and services

Primary climate-related opportunity driver

Development of climate adaptation and insurance risk solutions

Type of financial impact

Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)

Company-specific description

We see an opportunity for new regulations and building codes that mitigate climate risk. Currently, many state regulators and national legislators limit variance in property insurance rates and do not recognize risk mitigation efforts from homeowners and lenders. Assurant could to work with state regulators and legislators on regulation to decrease property insurance rates for those homeowners that mitigate climate risk by living/building away from coasts, following modern building standards, and avoiding low-elevation areas. For example, state insurance regulatory departments could differentiate rates based on property locations and construction risk abatement. Also, individuals with flood insurance through FEMA's NFIP do not always receive credit for their climate risk mitigations. We have the opportunity to provide differentiated prices where appropriate and become a leader in acknowledging and responding to these mitigation efforts.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Supporting new state regulations that reward climate risk mitigations may reduce our costs for reinsuring climate related risks. The stated potential financial impact of \$5 million assumes improved building codes encourage better building practices, which generates a 5 percent improvement on losses in a year with \$100 million of losses.



Strategy to realize opportunity

Assurant works with state and national regulators, focusing especially on areas facing elevated risk from climate change, such as along the coasts, or national programs exposed to this risk, like FEMA. We believe engagement with regulators provides the best path to address climate-related risks while ensuring access to fair-priced insurance. We also offer lower insurance rates for structures that are built inland or adopt climate-resilient improvements in regions where local regulations allow it.

Our approach to regulatory engagement advocates for policies that help to mitigate climate-related risk. For example, insurance policies that incentivize lower-risk behaviour, like adopting climate resilient construction practices. We also work with state and local insurance departments to promote fair assessments of building construction that actively mitigate their properties' climate change risks.

In addition, several Assurant employees serve on committees of the IBHS, and we provide financial support through our company's membership to further research methods aimed at fortifying homes and improving flood resiliency.

Cost to realize opportunity

3,500,000

Comment

The cost to realize opportunity estimates the total shared costs for various business functions that support Risk 2, Risk 3, Opportunity 1, and Opportunity 2. This estimate represents a portion of our costs to run our legal, compliance, government relations, and actuarial teams. \$3,500,000 is the mean of our \$2,000,000 to \$5,000,000 estimated range.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Type of financial impact

Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

Company-specific description



As insurance companies increase their underwriting criteria and pricing of their insurance products in locations with exposure to catastrophes, many homeowners have trouble securing and maintaining affordable coverage. For many, relocating is not an option. We believe that with the right approach, we can provide insurance for consumers currently in homes susceptible to extreme weather while maintaining sound actuarial standards.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

10,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In states or regions experiencing capacity restrictions on voluntary homeowner's insurance, it is possible that use of lender-placed insurance could increase. Areas with increased lender-placed insurance are typically also affected by consistent price increases from the NFIP. The stated potential financial impact of \$10 million assumes we add \$100 million in new premiums from states or regions experiencing capacity restrictions on voluntary homeowner's insurance and/or price increases from the NFIP.

Strategy to realize opportunity

Through our lender-placed insurance products, which also serve to protect lenders, consumers are provided the opportunity to secure coverage when other options may not be available. Assurant is prepared and committed to remaining in catastrophe-prone areas we service. We take a long-term approach that is responsible to consumers, investors and society.

While we provide coverage for homeowners who lose coverage because of climate risk, we do not underwrite policies in repetitive loss zones, as we believe it is important to follow responsible building practices. We also educate consumers and regulators about the benefits of adopting climate-resilient improvements when constructing or repairing homes. To incentivize these behaviours, we offer discounts to those who have fortified their homes to mitigate the impacts of floods, hurricanes or other severe weather. Many



of our homeowners policies offer discounts to customers who build with more resilient materials and install wind mitigation features.

Cost to realize opportunity

3,500,000

Comment

The cost to realize opportunity estimates the total shared costs for various business functions that support Risk 2, Risk 3, Opportunity 1, and Opportunity 2. This estimate represents a portion of our costs to run our legal, compliance, government relations, and actuarial teams. \$3,500,000 is the mean of our \$2,000,000 to \$5,000,000 estimated range.

The stated potential financial impact of \$10 million assumes we add \$100 million in new premiums from states or regions experiencing capacity restrictions on voluntary homeowner's insurance and/or price increases from the National Flood Insurance Program (NFIP).

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Type of financial impact

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

Company-specific description

Assurant operates two facilities in the United States and one facility in the United Kingdom that provide mobile phone repair and logistics services. In helping consumers protect their increasingly connected lives, Assurant processed 7.9 million mobile devices in 2018, repairing or reselling them while adhering to rigorous environmental practices. We also recycled 930 thousand mobile devices last year through certified partners, reusing valuable materials and reducing the amount of e-waste dumped in landfills. In 2018, we achieved a device reuse rate of 87 percent and recycled 79.1 percent of our total waste.

Time horizon

Current

Likelihood



Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

Our client contracts define service level standards to refurbish and reuse mobile devices instead of providing replacements or selling components, and to do so in environmentally responsible ways. Incentives are built into the contracts with our clients that we seek to achieve. Reuse and recycling of components, for example, is less expensive than replacement as the average cost of providing a replacement phone is \$200 and more waste would be created. We estimate the value of these incentives to be approximately \$1 million.

Strategy to realize opportunity

Our mobile repair facilities track monthly device reuse and recycle rates and landfill conversion rates. We also maintain ISO 9001 and 14001 certifications at our York, Pennsylvania facility.

By refurbishing mobile devices instead of simply providing replacements or selling components, we create a win-win-win for our business, clients, and environment. We measure the percentage of units received from customers which go back to customers in good working condition. We use that information to look for opportunities to increase device repair rates, such as through battery replacements, to support our goals to increase device reuse rates and recycle more waste.

During the past several years, we have made significant investments (of approximately \$250,000) in recycling compactors at our mobile device repair facilities to increase our landfill diversion rate, a service-level standard defined with our clients. In 2018, we increased device reuse rates to 87 percent and recycled 79.1 percent of total waste.

Cost to realize opportunity

250,000

Comment



C2.5

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

your busines	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	High Risk Impact: Assurant faces the greatest risk exposure to climate change through our lender-placed, voluntary homeowners, renters and flood property insurance offerings, particularly in coastal regions prone to hurricanes. We educate consumers and regulators about the benefits of adopting climate-resilient improvements when constructing or repairing homes. To incentivize these behaviours, we offer discounts to those who have fortified their homes to mitigate the impacts of floods, hurricanes or other severe weather. For example, most of our international homeowners policies offer discounts to customers who build with more resilient materials and install wind mitigation features. We also offer index-based insurance in certain geographies susceptible to climate change to protect consumers who are indirectly affected by extreme weather events. Index-based insurance provides coverage to businesses that are indirectly impacted by climate change, such as a business owner whose surrounding neighbourhood was damaged by a natural disaster.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	Low Risk Impact: We rely on numerous vendors and other third parties, including independent contractors, to conduct business and provide services to our clients. For example, we use vendors and other third parties for business, information technology, call center and other services. If a climate-related business continuity event impacts a vendor, we could experience interruptions to our operations or delivery of products and services to our customers, which could have a material adverse effect on our business, financial condition and results of operations. Assurant addresses business continuity and disaster recovery plans and protocols in its contracts with critical vendors language regarding our access to their business continuity and disaster recovery plans and protocols. We review these plans as part of our due diligence practices and facilitate exercises with them on how they should respond to an event and notify Assurant.
Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	Medium Risk Impact: The risk of business disruption from a climate-related catastrophe, such as a hurricane or flooding, is more pronounced in certain geographic areas, including major metropolitan centers, like New York City, where our corporate offices are located, and certain catastrophe-prone areas, like Miami, Florida, where we have significant operations. The Office of



		Risk Management, in collaboration with Corporate Real Estate and Facilities, assesses all Assurant facilities for exposure to severe climate-related events and recommends improved climate resiliency where appropriate. For example, we fortified our Miami, Florida office with hurricane resistant glass that provides protection from hurricanes rated up to category 5 and a full electrical generator capacity for use during a tropical cyclone and/or long-term power outage. We also provide optional electrical generators to most large facilities, with additional generators for data protection in select locations. We strategically relocated our data centers in the United States several years ago, so they are in regions less vulnerable to catastrophic events. We also use technology platforms that allow for virtual workstyles and data transfer to other facilities in the case of severe weather events.
Investment in R&D	Impacted for some suppliers, facilities, or product lines	Low Risk Impact. Investment in R&D helps us drive innovation throughout our lines of business and mitigate climate-related risks. Our membership with the Insurance Institute for Business and Home Safety (IBHS) provides financial support for research aimed at fortifying homes and improving flood resiliency. Our Executive Vice President, Chief Strategy Officer oversees a team that works to foster innovative products and services throughout the enterprise. Through the strategic hiring of innovation and growth leaders in our business segments, we are able to better identify trends, develop ideas and commercialize new products and services to support our customers globally. Our teams collaborate to proactively identify both innovative and disruptive technologies, trends and opportunities to further long-term profitable growth across Assurant's businesses and to develop new products. Individuals and teams can pitch ideas to our Growth Forum and Research Development teams, and if accepted, resources are provided to develop the new products.
		We also drive innovation through mergers and acquisitions, research and development funding, investments and partnerships with early stage companies. For example, we created Assurant Growth Investing (AGI), our corporate venture capital group, in 2015. AGI invests in venture and growth stage technology companies that may be complementary or disruptive to Assurant's core businesses.
Operations	Impacted for some suppliers, facilities, or product lines	Low Risk Impact: By decreasing our energy and emissions throughout our value chain, Assurant can reduce our operating costs, enhance stakeholder relationships, and reduce our impact on climate change. Maintaining efficient operations also reduces the financial and operational risks posed by governments transitioning to low carbon economies, like a carbon tax or stricter



	environmental regulation. At an operational level, we set a goal to reduce energy consumption at our facilities by a minimum of 2 percent annually for the past eight years. To achieve this goal, we invest steadily in energy-efficient lighting and HVAC systems and share best practices from successful facilities with other facility managers on a regular basis. From 2007 to 2018, we've cut our energy consumption by approximately 48.3 million kilowatt hours (kWh) and in doing so saved more than \$1.7 million dollars. When we expand our operations we choose to do so in places that are less prone to physical climate risks. All new business deals go through a risk assessment process conducted by our Risk Management team. If a potential deal is impacted by climate-related issues, we evaluate it through climate models, conducting stress test scenarios. Our Risk Management team will also evaluate the deal ensuring that reinsurance covers it commensurate with our risk appetite parameters.
Other, please specify	

C2.6

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

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	Low Risk Impact: We incorporate the FEMA program to discount customer flood insurance rates in communities that are taking action to mitigate long-term risks into our financial planning process. This incorporation helps us mitigate potential revenue risks associated with the NFIP's increasing debt. Unless FEMA adopts higher premiums that reflect increased climate-related risk and incentivizes risk reducing behaviours, like relocation or flood resilient construction, the NFIP's debt may restrict future claim reimbursements to insurers. At present, Assurant services the second largest number of policies in the WYO Program. Thus, any late, reduced, or denied repayment poses a risk to future profits.
Operating costs	Impacted for some suppliers, facilities, or product lines	We measure total energy consumption of most of our facility footprint and take steps to reduce our consumption. From 2007 to 2018, we've cut our energy consumption by approximately 48.3 million kilowatt hours (kWh) and in doing so saved more than \$1.7 million dollars.



Capital expenditures / capital allocation	Impacted for some suppliers, facilities, or product lines	Medium Risk Impact: Assurant initiated a leased site assessment (LSA) as the first step prior to signing or renewing any lease. As part of the LSA we assess site vulnerability to climate-related risks and extreme weather events to limit financial risk exposure associated with capital expenditures.
Acquisitions and divestments	Impacted for some suppliers, facilities, or product lines	Low Risk Impact: The diversified composition of Assurant's business portfolio helps to mitigate the impacts from risks associated with a single physical location or business line. As we continue to grow our businesses into new regions and markets, we further spread our physical and business risks. For example, on May 31, 2018, Assurant completed the acquisition of TWG.
Access to capital	Impacted for some suppliers, facilities, or product lines	As of December 31, 2018, we had approximately \$473.0 million in holding company liquidity. We use the term "holding company liquidity" to represent the portion of cash and other liquid marketable securities held at Assurant, Inc., which we are not otherwise holding for a specific purpose as of the balance sheet date. We can use such liquidity for stock repurchases, stockholder dividends, acquisitions, and other corporate purposes. As part of Assurant's financial planning process and our ongoing efforts to incorporate climate-related risks into this process, in 2018 \$250.0 million of the \$473.0 million of holding company liquidity was intended to serve as a buffer against remote risks (such as large-scale catastrophe losses). In first quarter 2019, Assurant changed its minimum holding company liquidity to \$225M calibrated based on approximately one year of corporate operating and interest expenses and Mandatory Convertible Preferred Stock dividends. This new minimum liquidity is still intended to protect against unforeseen capital needs at our subsidiaries or liquidity needs at the holding company including from items such as large-scale hurricanes.
Assets	Impacted for some suppliers, facilities, or product lines	Low Risk Impact: Our Assurant Asset Management team consistently looks to improve risk thinking and relative value analysis to enhance our portfolio performance. Improved understanding of ESG risk is no exception. As we move forward, we will continue to look for opportunities to incorporate enhanced ESG risk analysis, using both qualitative and quantitative approaches, into our overall credit process. Similarly, real estate investing, underwriting and decision making includes ESG risk consideration, and we will continue to look for metrics and approaches to enhance our analysis.
Liabilities	Impacted for some suppliers,	Low Risk Impact: We have obligations and commitments to third parties as a result of our operations. Our liquidity and capital resources, as of December 31, 2018, are detailed in our 2018



	facilities, or	Annual Report on pages 61 to 68. Liabilities for future policy
	product lines	benefits and expenses have been included in the commitments
		and contingencies table. Significant uncertainties relating to
		these liabilities include mortality, morbidity, expenses,
		persistency, investment returns, inflation, contract terms and the
		timing of payments. Climate Change may exacerbate many of
		these uncertainties, thus, it is critical that we stay abreast of any
		climate-related risk that may impact our liabilities .
Other		
5		

C3. Business Strategy

C3.1

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

C3.1a

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

Yes, qualitative

C3.1c

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

Our Integrated Approach to Climate-related Issues:

We believe considering and incorporating climate risks and opportunities into our business strategy drives long-term profitability and provides educational opportunities for our management and employees. Assurant faces the greatest risk exposure to climate change through our lender-placed, voluntary homeowners, renters and flood property insurance offerings, particularly in coastal regions prone to hurricanes. We integrate several strategies into our business approach to mitigate these risks and seize opportunities, including:

Risk Sharing and Diversification:

Responsible risk sharing, largely from reinsurance, forms the foundation of Assurant's risk mitigation strategy. Assurant considers reinsurers as strategic partners and credits transparency to our strong relationships with more than 40 global firms. In addition, the diversified composition of Assurant's business portfolio helps to mitigate the impacts from risks associated with a single physical location or business line. As we continue to grow our businesses into new regions and markets, we further spread our physical and business risks.

Catastrophe Modeling:



Assurant purchases forward-looking catastrophe and storm models from several modeling agencies. Our in-house meteorologist, hydrologist and catastrophe modelers also work with modeling agencies to help improve Assurant's models. Assurant employs a proprietary view of risk, which combines and adjusts results from several models to arrive at a comprehensive annual assessment of our climate-related risk, policy rates and reinsurance costs.

Government Engagement:

Assurant works with state and national regulators, focusing especially on our relationships in areas facing elevated risk from climate change, such as those along the coasts, or national programs exposed to this risk, like FEMA. Our approach to regulator engagement advocates for policies that help to mitigate climate-related risk. For example, insurance policies that incentivize lower-risk behaviours, like adopting climate-resilient construction practices. We also work closely with state and local insurance departments to promote fair assessments of building construction that actively mitigate their properties' climate change risks. Where local regulations allow, we also offer insurance policies that incentivize lower-risk behaviours, such as lower insurance rates for structures that are built inland or adopt climate-resilient improvements.

We continue to bolster our understanding of climate change issues impacting our business. We review thought leadership, such as the UNEP Insurance 2030 Report and CERES Insurer Climate Risk Disclosure Survey Report and Scorecard, to provide suggestions and actions to improve our climate change risk mitigation. Several Assurant employees also serve on committees of the Insurance Institute for Business and Home Safety (IBHS), and we provide financial support through our company's membership to further research methods aimed at fortifying homes and improving flood resiliency.

Climate Resilience of Assurant Facilities:

We assess all Assurant facilities for exposure to severe climate-related events and recommend improved climate resiliency where appropriate. For example, we fortified our Miami, Florida office with hurricane resistant glass that provides protection from hurricanes rated up to category 5 and a full electrical generator capacity for use during a tropical cyclone and/or long-term power outage. We also provide optional electrical generators to most large facilities, with additional generators for data protection in select locations. We strategically relocated our data centers in the United States several years ago, so they are in regions less vulnerable to catastrophic events. We also use technology platforms that allow for virtual workstyles and data transfer to other facilities in the case of severe weather events.

Energy, Emissions, Waste:

By decreasing our energy and emissions throughout our value chain, Assurant can reduce our operating costs and enhance stakeholder relationships. This strategy helps maintain efficient operations and also reduces the financial and operational risks posed by governments transitioning to low carbon economies, like a carbon tax or stricter environmental regulation. At Assurant, we aim to identify, monitor and report our relevant energy consumption and greenhouse gas (GHG) emissions and improve our energy and emissions intensity. At the operational level, we have set a goal to reduce energy consumption at our facilities by a minimum of 2 percent annually for the past eight years. To achieve this goal, we invest steadily



in energy-efficient lighting and HVAC systems and share best practices from successful facilities with other facility managers on a regular basis.

Assessing ESG Risks and Opportunities in Our Investments:

To meet our objective of generating consistent, long-term, risk-adjusted investment income, Assurant Asset Management must perform significant risk analysis as part of any investment decision. Investment outperformance relative to the market over the long-term is supported by more robust risk analysis, including the impacts of ESG topics. As we move forward, our Assurant Asset Management team will continue to look for opportunities to incorporate enhanced ESG risk analysis, using both qualitative and quantitative approaches, into our overall credit process. Similarly, in real estate investing, underwriting and decision making includes ESG risk consideration, and we will continue to look for metrics and approaches to enhance our analysis.

Most Substantial Business Decision:

As part of our strategy. in 2018, we continued to diversify our portfolio toward products and services with lower catastrophe exposure through the acquisition of TWG. Catastrophe-exposed businesses now account for only 36% of Assurant's net operating income, compared to 54% in 2015. The acquisition is part of a multi-year strategy to position ourselves for longer-term profitable growth by growing business where we can maintain or reach market-leading positions and achieve attractive returns. The acquisition of TWG further cements Assurant's leadership position in vehicle protection and supports the company's growth strategy in the broader global lifestyle market with an attractive product and client portfolio and a deepened global footprint. TWG expands Assurant's size and scale within vehicle protection, extended service contracts and financial services—advancing our diversification and shift to capital-light and fee-based offerings that provide greater stability and predictability, and less climate-related risk.

C3.1d

(C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate- related scenarios	Details
	As part of our 2018 CDP Response, we published three scenarios to demonstrate how Assurant's 2018 property catastrophe reinsurance program would hypothetically work for a Florida-only event, Texas-only event and a multi-storm scenario in 2019. Assurant licenses both long- and short-term, forward-looking catastrophe and storm models from several modeling agencies that have additional settings that project a medium-term view (5-year projection). We chose 5-year projections because many of our lender-placed distribution agreements are multi-year with terms generally between three and five years, therefore analysis taking into account our medium-term agreements will allow us to integrate aspects of the results into our agreements. Our in-house meteorologist, hydrologist and catastrophe modelers also work with



modeling agencies to help improve their models. Assurant combines data and modelling from multiple vendors to form a proprietary view of the unique risks represented by Assurant's insurance portfolio. We use this tailored approach to annually assess our climate-related risk, policy rates and reinsurance costs. We selected these scenarios based in part on these catastrophe and storm models to demonstrate how severe storms may impact our Global Home business in the short-term.

Scenario One: A hurricane strikes only Florida and causes gross losses for Assurant of \$1.03 billion. We would expect this to result in a pre-tax net catastrophe loss of \$80 million for Assurant before the impact of reinstatement premiums. This is a 1/3 reduction in losses as compared to 2018.

Scenario Two: A hurricane strikes only Texas and causes gross losses for Assurant of \$265 million. We would expect this to result in a pre-tax net catastrophe loss of \$80 million for Assurant before the impact of reinstatement premiums. This is a 1/3 reduction in losses as compared to 2018.

Scenario Three: Multiple hurricanes strike and cause gross losses for Assurant of \$1.82 billion. We would expect this to result in a pre-tax net catastrophe loss of \$240 million for Assurant before the impact of reinstatement premiums. This is a 1/3 reduction in losses as compared to 2018.

Based on these scenarios, we annually update our Property Catastrophe Reinsurance Program, reducing financial exposure and protecting homeowner and renter policyholders against severe weather and climate-related events. The 2019 U.S. Program provides \$1.16 billion of coverage in excess of a \$80 million retention per-event. When combined with the Florida Hurricane Catastrophe Fund, the program is covered for gross Florida losses of up to \$1.4 billion.

The above scenarios do not include the impact of reinstatement premiums. Actual results may differ materially from these examples.

C4. Targets and performance

C4.1

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

Absolute target



C4.1a

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

Target reference number

Abs 1

Scope

Scope 2 (location-based)

% emissions in Scope

100

Targeted % reduction from base year

2

Base year

2018

Start year

2018

Base year emissions covered by target (metric tons CO2e)

Target year

2019

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

% of target achieved

0

Target status

Please explain

At Assurant, we aim to identify, monitor and report our relevant energy consumption and greenhouse gas (GHG) emissions and improve our energy and emissions intensity. At an operational level, we set a goal to reduce energy consumption at our facilities by a minimum of two percent annually for the past eight years. We are currently in the process of developing a new emissions goal.



C4.2

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

C4.3

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*	1	245
Implementation commenced*	0	0
Implemented*	1	47
Not to be implemented		

C4.3b

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

Initiative type

Energy efficiency: Building services

Description of initiative

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

47

Scope

Scope 2 (location-based)

Voluntary/Mandatory



Voluntary

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

6.103

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

59,490

Payback period

4 - 10 years

Estimated lifetime of the initiative

11-15 years

Comment

C4.3c

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

Method	Comment
Financial optimization calculations	We invest steadily in energy-efficient lighting and HVAC systems and share best practices from successful facilities with other facility managers on a regular basis.
Compliance with regulatory requirements/standards	Maintaining efficient operations reduces the financial and operational risks posed by governments transitioning to low carbon economies, life a carbon tax or stricter environmental regulation.

C4.5

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

Νo

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

January 1, 2018

Base year end



December 31, 2018

Base year emissions (metric tons CO2e)

948

Comment

Scope 2 (location-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

27.424

Comment

Scope 2 (market-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

27,856

Comment

C5.2

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

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

C6. Emissions data

C₆.1

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



Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

948

Start date

January 1, 2018

End date

December 31, 2018

Comment

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based

27,424

Scope 2, market-based (if applicable)

27,856

Start date

January 1, 2018

End date

December 31, 2018

Comment



C6.4

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

Yes

C6.4a

(C6.4a) 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

Natural gas emissions

Relevance of Scope 1 emissions from this source

No emissions excluded

Relevance of location-based Scope 2 emissions from this source

Emissions are relevant but not yet calculated

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are relevant but not yet calculated

Explain why this source is excluded

Natural gas emissions for owned and large leased facilities where data are available are included. For many of the leased facilities, it is unknown if the facility uses natural gas, and therefore emissions were not calculated/excluded due to insufficient data. These data are anticipated to be collected and included in next year's disclosure. These emissions account for a maximum of 4.5% of Scope 2 emissions (assuming every leased facility uses natural gas).

C6.5

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

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Explanation

Assurant has not identified a reasonable means to track or estimate this source of emissions.

Capital goods



Evaluation status

Relevant, not yet calculated

Explanation

Assurant has not identified a reasonable means to track or estimate this source of emissions.

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

Evaluation status

Relevant, not yet calculated

Explanation

Assurant has not identified any fuel-and-energy-related activities that we do not already include in Scope 1 or 2 emissions.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Explanation

Assurant has not identified a reasonable means to track or estimate this source of emissions.

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Explanation

Assurant has not identified a reasonable means to track or estimate this source of emissions.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

11,665

Emissions calculation methodology

Prepared using World Resources Institute (2015). GHG Protocol tool for mobile combustion. Version 2.6, which uses the 2014 IPCC Fifth Assessment Report GWP

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

100

Explanation



The reported business travel emissions cover rental car and air travel booked through our top travel partners in the US, Mexico, Puerto Rico, and Canada and excludes all hotel stays.

Employee commuting

Evaluation status

Relevant, not yet calculated

Explanation

Assurant has not identified a reasonable means to track or estimate this source of emissions.

Upstream leased assets

Evaluation status

Relevant, not yet calculated

Explanation

Assurant has not identified a reasonable means to track or estimate this source of emissions.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Explanation

Products sold by Assurant do not require significant transportation and distribution after the point of sale.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Explanation

Assurant does not sell products that require further processing by the customer.

Use of sold products

Evaluation status

Not relevant, explanation provided

Explanation

Assurant does not sell products that consume significant amounts of energy or release significant direct GHG emissions during use.

End of life treatment of sold products

Evaluation status



Relevant, not yet calculated

Explanation

Assurant has not identified a reasonable means to track or estimate this source of emissions.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Explanation

Assurant does not own assets that we lease to other entities.

Franchises

Evaluation status

Not relevant, explanation provided

Explanation

Assurant does not operate any franchises.

Investments

Evaluation status

Relevant, not yet calculated

Explanation

Assurant has not identified a reasonable means to track or estimate this source of emissions.

Other (upstream)

Evaluation status

Explanation

Other (downstream)

Evaluation status

Explanation

C6.7

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



No

C6.10

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

Intensity figure

0.0000035

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

28,372

Metric denominator

unit total revenue

Metric denominator: Unit total

8,057,600,000

Scope 2 figure used

Location-based

% change from previous year

20

Direction of change

Decreased

Reason for change

We reported \$1.6bn more revenue in 2018 than 2017. Our increased denominator decreased our intensity figure reported in 2018.

Intensity figure

0.0105017

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

28,372

Metric denominator

square foot

Metric denominator: Unit total

2,701,634

Scope 2 figure used

Location-based



% change from previous year

2.6

Direction of change

Decreased

Reason for change

We expanded our boundary to include all our global facilities, which increased our denominator by about 700,000 square feet. These facilities tended to have less emissions than our US facilities, driving the decrease in intensity.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	901	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	1	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	3	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	43	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)		
United States of America	948		

C7.3

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



By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Global Housing	83.9
Global Lifestyle	0
Global Preneed	171.6
Corporate and Other	692.5

C7.5

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

Country/Region	Scope 2, location- based (metric tons CO2e)	Scope 2, market- based (metric tons 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	25,518.8	25,518.8	0	0
United Kingdom of Great Britain and Northern Ireland	757.2	1,162.9	0	0
Canada	196.8	196.8	0	0
Mexico	134.6	134.6	0	0
Puerto Rico	111.8	111.8	0	0
Republic of Korea	110.2	110.2	0	0
Argentina	100.9	100.9	0	0
Australia	123.8	123.7	0	0
China	100.8	100.8	0	0
Brazil	62.7	62.7	0	0
Japan	37.3	37.3	0	0
Italy	32.8	49.1	0	0
France	26.7	22	0	0
Netherlands	31.2	38	0	0
India	28.4	28.4	0	0
Chile	15.1	15.1	0	0



Spain	12.1	18.9	0	0
Singapore	9.5	9.5	0	0
Peru	5.8	5.8	0	0
Colombia	5.3	5.3	0	0
Germany	2.2	3.7	0	0

C7.6

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

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Global Housing	5,214.5	5,214.5
Global Lifestyle	5,976.7	6,409.6
Global Preneed	657.7	657.7
Corporate and Other	15,574.6	15,574.6

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change		



Other emissions reduction activities	47	Decreased	0.2	In 2018, our Scope 2 emissions decreased mainly due to increases in lighting efficiency across our operations.
Divestment	901	Decreased	3.2	In 2018, we sold some of our business and facilities that resulted in a decrease in emissions in comparison to last year.
Acquisitions	1,290	Increased	4.5	In 2018, we acquired The Warranty Group (TWC) resulting in 17 new facilities globally and increasing our Scope 1 and 2 emissions.
Mergers	0	No change		
Change in output	4,732	Decreased	16.6	In 2018, the majority of our facilities reduced their energy usage resulting in a decrease in scope 2 emissions. Our large data center in Kansas City also closed in 2018, causing a large decrease in emissions.
Change in methodology	0	No change		
Change in boundary	4,290	Increased	15.1	In 2018, we changed our reporting boundary from the US and one facility in the UK to include our entire global footprint. This resulted in a large increase in mainly Scope 2 emissions.
Change in physical operating conditions	0	No change		
Unidentified	0	No change		
Other	0	No change		

C7.9b

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

Location-based



C8. Energy

C8.1

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

More than 5% but less than or equal to 10%

C8.2

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

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non- renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	3,983	3,983
Consumption of purchased or acquired electricity		0	56,088	56,088
Consumption of purchased or acquired heat		4,112	4,112	4,112
Consumption of purchased or acquired steam		0	3,159	3,159



Consumption of self-generated non-fuel renewable energy	0		0
Total energy consumption	0	67,342	67,342

C8.2b

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

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Fuels (excluding feedstocks)

Natural Gas

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

1,003

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

1,003

Comment



Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

250

MWh fuel consumed for self-generation of electricity

C

MWh fuel consumed for self-generation of heat

147

Comment

Fuels (excluding feedstocks)

Petrol

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

2.730

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

2,730

Comment

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Diesel

Emission factor

10.16

Unit

kg CO2e per gallon

Emission factor source



EPA Climate Leaders Emission Factors for Greenhouse Gas Inventories, 2018

Comment

Natural Gas

Emission factor

1.92

Unit

kg CO2e per m3

Emission factor source

EPA Climate Leaders Emission Factors for Greenhouse Gas Inventories, 2018

Comment

Petrol

Emission factor

8.87

Unit

kg CO2e per gallon

Emission factor source

GHG Protocol & IPCC Emissions Factor Database

Comment

C8.2e

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	103	103	0	0
Heat	3,879	3,879	0	0
Steam	0	0	0	0
Cooling	0	0	0	0



C8.2f

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

Basis for applying a low-carbon emission factor

No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

Low-carbon technology type

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

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

Emission factor (in units of metric tons CO2e per MWh)

Comment

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance



C10.1a

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

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Assurant 2018 CDP Verification Statement.pdf

Page/ section reference

Page 1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

⊕ Assurant 2018 CDP Verification Statement.pdf



Page/ section reference

Page 1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Assurant 2018 CDP Verification Statement.pdf

Page/ section reference

Page 1

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C_{10.2}

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

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

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



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

C11.2

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

No

C11.3

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

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

C12. Engagement

C12.1

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

Yes, our customers

Yes, other partners in the value chain

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

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

% of customers by number

12.5

% Scope 3 emissions as reported in C6.5

10

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

We educate consumers and regulators about the benefits of adopting climate-resilient improvements when constructing or repairing homes. To incentivize these behaviors, we offer discounts to those who have fortified their homes to mitigate the impacts of floods, hurricanes or other severe weather. Most of our international homeowners policies offer



discounts to customers who build with more resilient materials and install wind mitigation features. For example, through FEMA's Community Ratings System, we can discount flood insurance rates if the customer lives in a community that is taking action to mitigate long-term risks. We also offer index-based insurance in certain geographies susceptible to climate change to protect consumers who are indirectly affected by extreme weather events. Index-based insurance provides coverage to businesses that are indirectly impacted by climate change, such as a business owner whose surrounding neighborhood damaged a natural disaster.

Impact of engagement, including measures of success

We monitor and measure success by the adoption rate and overall percentage of home insurance policies that take advantage of climate-resilience discounts or credits. Another related measure of success is our yearly premiums for the property catastrophe reinsurance program. Adopting climate resilience improvements may reduce catastrophe claims, which may reduce business travel emissions related to servicing those claims. We estimate 5 to 15 percent of Scope 3 emissions reported in C6.5 are attributed to business travel related to catastrophe claims based on the severity weather in the year.

C12.1c

(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.

Assurant works with state and national regulators, focusing especially on our relationships in areas facing elevated risk from climate change, such as those along the coasts, or national programs exposed to this risk, like FEMA. We believe engagement with regulators provides the best path to address climate-related risks while ensuring access to fair-priced insurance. We also offer lower insurance rates for structures that are built inland or adopt climate-resilient improvements in regions where local regulations allow it.

Our approach to regulator engagement advocates for policies that help to mitigate climate-related risk. For example, we work with regulators to incentivize lower-risk behaviours, such as adopting climate-resilient construction practices. For example, we have a meteorologist on our claims and operations team who visits communities after catastrophes, such as hurricanes and flooding, to learn about the disaster's impact on local communities. These learnings are communicated to regulators and other decision-makers, as well as the Institute for Business and Home Safety (IBHS), to influence future building codes, laws and regulations to support climate-resilient communities and avoid future losses. We also work closely with state and local insurance departments to promote fair assessments of building construction that actively mitigate their properties' climate change risks.

In addition, we offer policies that have an impact on whether people build in high risk areas, such as a flood-plain or other catastrophe-prone areas. We believe that by pricing insurance policies to include the cost of climate-related impacts, we can reduce risk behaviour, influencing the market and reducing our and our partners' risk. For example, we offer insurance policies that incentivize lower-risk behaviours, like adopting climate resilient construction practices.



In December 2018, we published our Supplier Code of Conduct, which requires that our suppliers adhere to all environmental laws and regulations, including those related to air emissions. The Supplier Code of Conduct also outlines our expectations for suppliers to go beyond compliance in environmental management.

We also work with non-profits (trade and professional organizations) to bolster understanding of the climate change issues impacting our business. Several of our employees serve on committees of the IBHS and our company's membership provides financial support to advance research methods aimed at fortifying homes and improving flood resiliency.

Assurant views its reinsurers as strategic partners and credits transparency to our good standing with over 40 global firms. Assurant limits the amount of risk placed with any given reinsurance firm based on the firm's financial health and insurer rating to spread risk across many well capitalized companies. Our diversified portfolio helps us mitigate impacts from climate-related risks associated with a single physical location or business line. As we continue to grow our business in new regions and global markets, we are further spreading our physical and business risks.

Assurant combines after-market data on lender-placed properties with projections from catastrophe models to manage internal risk exposure and to share with reinsurers. In 2019, we finalized our property catastrophe reinsurance program with more than 48 reinsurers that are all rated A- or better by A.M. Best.

C12.3

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

Direct engagement with policy makers
Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Adaptation	Support	Assurant works with state and	Our approach to regulator
or	with minor	national regulators, focusing	engagement advocates for policies
resilience	exceptions	especially on our relationships in	that help to mitigate climate-related
		areas facing elevated risk from	risk. For example, insurance
		climate change, such as those along	policies that incentivize lower-risk
		the coasts, or national programs	behaviours, like adopting climate
		exposed to this risk, like FEMA. We	resilient construction practices. We
		believe engagement with regulators	also work closely with state and
		provides the best path to address	local insurance departments to



climate-related risks while ensuring promote fair assessments of access to fair-priced insurance. We building construction that actively mitigate their properties' climate also offer lower insurance rates for structures that are built inland or change risks. adopt climate-resilient improvements in regions where local regulations allow it. Several Assurant employees also serve on committees of the IBHS and we provide financial support through our company's membership to further research methods aimed at fortifying homes and improving flood resiliency.

C12.3b

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

No

C12.3f

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

Our government relations group work closely with Assurant's Management Committee to ensure our direct and indirect activities that influence policy stay consistent with our climate strategy.

C12.4

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

Publication

In voluntary sustainability report

Status

Complete

Attach the document

@ assurant_csrreport_r6_2 (1).pdf



Page/Section reference

10, 12-12, 23, and 26

Content elements

Governance Strategy Risks & opportunities Other metrics

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

@ aiz-news-2019-07-08-financial.pdf

Page/Section reference

ΑII

Content elements

Governance Strategy Risks & opportunities Other metrics

Comment

Publication

In mainstream reports

Status

Complete

Attach the document

Assurant 10K.pdf

Page/Section reference

p. 18



Content elements

Governance Strategy Risks & opportunities

Comment

C14. Signoff

C-FI

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

C14.1

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

	Job title	Corresponding job category
Row 1	President and Chief Executive Officer	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

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

SC0.1

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

	Annual Revenue
Row 1	8,057,600,000

SC0.2

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

Yes



SC_{0.2}a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	04621X1081

SC1.1

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

SC1.2

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

SC1.3

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

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting	In our Lifestyle business, Assurant operates two repair locations in the United States that track Scope 1 and 2 emissions, but do not yet track
for each product/product line cost ineffective	Scope 3 emissions or allocate emissions for each unit repaired.
	We cannot allocate Scope 1 and 2 emissions to specific device types because electricity and natural gas are metered as a facility, not a repair station. Instead, we allocate Scope 1 and 2 emissions by aggregating the total emissions from each repair facility by the percent of customer units serviced at that location.
	Assurant is exploring methods to track and allocate the Scope 3 emissions associated with our mobile repair facilities, but the diversity of product lines and customers complicates accurately accounting emissions for each product line and customer.
	By refurbishing mobile devices instead of simply providing replacements or selling components, we create a win-win-win for our business, clients, and environment. We measure the percentage of units received from customers, which go back to customers in good working condition. We use that information to look for opportunities to



	increase device repair rates, such as through battery replacements, to support our goals to increase device reuse rates and recycle more waste by the end of 2018. We also recycled 930,000 mobile devices in 2018 through certified partners, reusing valuable materials and reducing the amount of e-waste dumped in landfills. We do not yet track avoided emissions from repairing and recycling phones, but these activities offer significant environmental benefits by extending the usable life of mobile devices and reducing the raw materials, chemicals and electricity used to manufacture mobile devices. In our Housing and Preneed business, Assurant tracks Scope 1 and 2 emissions within our operational control. We breakdown Scope 1 and 2 emissions by business division and country in Module C7, Emissions Breakdown, but we have not identified a reasonable method to accurately allocate emissions to specific Housing or Preneed customers.
	, ,
Customer base is too large and diverse to accurately track emissions to the customer level	Assurant can work with customers to estimate emissions estimates based on volume or revenue.

SC1.4

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

No

SC1.4b

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

Although we welcome opportunities to collaborate with our customers to reduce GHG emissions or promote products and services that mitigate climate-related risks, our customer base is too large and range of services too diverse to reasonably track and allocate emissions to individual customers. Assurant will continue to track and disclose our relevant Scope 1, 2, and 3 emissions. Our mobile operational goals also include increasing device reuse rate to 88 percent and recycling 55 percent of total waste by the end of 2018. Where feasible, we will estimate emissions to individual customers, but we do not plan to develop new capabilities to allocate emissions to our customers.



SC2.1

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

SC2.2

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

SC3.1

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

SC3.2

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

SC4.1

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

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission		Are you ready to submit the additional Supply Chain Questions?
I am submitting my	Public	Investors	Yes, submit Supply Chain Questions
response		Customers	now

Assurant, Inc. CDP Climate Change Questionnaire 2019 Thursday, August 15, 2019



I have read and accept the applicable Terms