2018 CDP Response: The Hartford Financial Services Group, Inc.

C0. Introduction

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

With more than 200 years of expertise, The Hartford (NYSE: HIG), headquartered in Hartford, Conn. is a leader in property and casualty insurance, group benefits and mutual funds. The Hartford sells its products primarily through a network of independent agents and brokers, and for more than 30 years has been the only nationally endorsed direct auto and home insurance program for AARP’s 38 million plus members. The Hartford helps its customers prepare for the unexpected, protect what’s most important to them and prevail when the unforeseen happens.

The Hartford's business divisions include Business Insurance (Workers' compensation, property, general liability, professional liability, auto), Personal Lines (Home, Auto, Renters, Umbrella), Employee Benefits (Group disability, life, AD&D, absences management, voluntary benefits including critical illness and accident, group retiree health), and Mutual Funds (Equity, fixed income and asset allocation mutual funds sub-advised by Wellington Management and Schroders, as well as a broad range of exchange-traded funds: both strategic beta and active ETFs).

The Hartford's business strategy is rooted in a deep understanding of the complex and dynamic world around us, as well as a promise to do business sustainably and ethically. As a supporter of commerce, in particular, we actively champion programs that address risk awareness and mitigation, financial literacy and inclusion, entrepreneurship, and social enterprise. We are particularly proud of the progress we have made in these areas through the sponsorship of financial educational programs, providing access to capital and training to micro-businesses, and making insurance products and services more accessible to those who need them.

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

<table>
<thead>
<tr>
<th>Start date</th>
<th>End date</th>
<th>Indicate if you are providing emissions data for past reporting years</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1 2017</td>
<td>December 31 2017</td>
<td>No</td>
</tr>
</tbody>
</table>
(C0.3) Select the countries/regions for which you will be supplying data.
- Canada
- United States of America

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

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

C1. Governance

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

(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.

<table>
<thead>
<tr>
<th>Position of individual(s)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board/Executive board</td>
<td>At The Hartford, the full Board of Directors (the “Board”) has oversight of sustainability matters, including climate-related issues. The Nominating and Corporate Governance Committee of the Board (the “Nominating Committee”) has oversight of the company’s sustainability governance framework. In addition, the Board’s Finance, Investment and Risk Management Committee,</td>
</tr>
</tbody>
</table>
Position of individual(s) | Please explain
--- | ---
 | which is comprised of the full Board, routinely receives updates on risk management activities related to severe weather and climate change.

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

<table>
<thead>
<tr>
<th>Frequency with which climate-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| Scheduled – some meetings | Reviewing and guiding strategy Reviewing and guiding risk management policies Monitoring and overseeing progress against goals and targets for addressing climate-related issues | The governance framework described above is the result of work done in 2017 to further elevate our sustainability practices and enable the full Board to oversee environmental, social and governance (“ESG”) risks and opportunities that contribute to the long-term sustainability of the company:  
• First, we better defined the scope of ESG priorities at the company based, in part, on a materiality assessment we conducted in May 2017, in which stakeholders (investors, employees, customers, community members and suppliers) were asked to identify and prioritize the ESG factors most important to them.  
• Second, we formed a Sustainability Governance Committee (described below), comprised of senior leaders to set and help drive execution of the company’s sustainability strategy, which reports up to the full Board at least annually. The first such report of the Sustainability Governance Committee included a deep dive on climate change and severe weather in February 2018, which, among other things, looked at (1) how the company is reducing its environmental impact; (2) how the company helps its customers reduce their environmental impact through its products, services and investments; and (3) how the company’s Enterprise Risk Management function monitors and manages the risks associated with climate change and severe weather.  
We believe this new governance framework builds on our early successes, will help drive the coordination of the company’s sustainability efforts and will enable the full Board to oversee ESG risks and opportunities that contribute to the long-term sustainability of the company. In the end, the Board understands that long-term sustainability requires the delivery of value to shareholders, employees, customers, and society at large. |
(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.

<table>
<thead>
<tr>
<th>Name of the position(s) and/or committee(s)</th>
<th>Responsibility</th>
<th>Frequency of reporting to the board on climate-related issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability committee</td>
<td>Assessing climate-related risks and opportunities</td>
<td>Annually</td>
</tr>
</tbody>
</table>

(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.

Sustainability Governance Committee
At the management level, The Hartford has a Sustainability Governance Committee, which sets and helps drive execution of The Hartford’s sustainability strategy. The Sustainability Governance Committee comprises senior representatives across the enterprise who are responsible for key sustainability activities, including Marketing and Communications, Law, Strategic Sourcing and Real Estate, Human Resources, Enterprise Risk Management, Hartford Investment Management Company, Strategy and Underwriting. The committee meets at least quarterly and serves as the senior management forum within the company for the oversight of sustainability activities. In addition, the committee serves as the mechanism that facilitates the Board and management’s comprehensive understanding of The Hartford’s collective sustainability efforts that address material environmental, social and governance (ESG) factors, risks and opportunities.

Among the Sustainability Governance Committee’s specific responsibilities and authority are the following:
1. Determining strategic focus for sustainability efforts by identifying and prioritizing areas that The Hartford will consciously address, including:
   a. Defining scope of sustainability initiatives
   b. Establishing goals or defining measures of success
   c. Reviewing materials to be shared with the Board and a selection of those to be published externally
2. Overseeing the work of any sub-committees and work efforts addressing ESG issues.
3. Reporting to the enterprise leadership team and Board periodically on progress towards key goals and initiatives.
4. Contributing to and reviewing the company’s annual sustainability report.
5. Sponsoring company sustainability initiatives, including those that engage employees of The Hartford.

Environment Committee
In addition to - and represented on - the Sustainability Governance Committee, The Hartford has an Environment Committee, which was created in 2007 as part of The Hartford’s public commitments on climate change. The Environment Committee is made up of 18 company leaders across the enterprise, including risk management, operations, representatives of the company’s Personal Lines and Commercial Markets businesses, Hartford Investment Management Company, as well as Actuarial, Sales, Human Resources, Strategic Sourcing and Real Estate, Marketing and Communications and Government Affairs. Since its founding in 2011, The Hartford Environmental Action Team ("HEAT") has grown to over 500 members. HEAT leadership meets at least monthly and maintains an internal website to inform employees about the company’s environmental stewardship and employee volunteer opportunities. HEAT has a representative on the Environmental Committee and its leaders set an annual operating plan and meet with the General Counsel to report on and seek guidance on its activities. HEAT also encourages members of the early career professional program to get involved by helping to engage employees on environmental topics at least once quarterly.

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

Yes

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.

Who is entitled to benefit from these incentives?

Executive officer

Types of incentives

- Monetary reward

Activity incentivized

- Emissions reduction target

Comment

For certain lines of business at The Hartford such as homeowners and commercial property insurance, proper assessment and underwriting of weather-related risks is key to successful business performance. The Hartford employs performance-based compensation; the stronger the performance, the more substantial the compensation. Also, employees who successfully bring to market
new products, including those that address climate change, may be rewarded for their performance. In addition, prudent, successful management of company resources, including efficient use of energy, is rewarded. The Hartford Executive Leadership Team ("C-Suite") has joint accountability and a commitment to promote environmental sustainability. The Hartford's Code of Ethics requires employees to comply with all relevant environmental laws and to do their part to reduce waste, conserve energy and recycle paper, glass, aluminum and plastic.

### Who is entitled to benefit from these incentives?
- **Business unit manager**

### Types of incentives
- **Monetary reward**

### Activity incentivized
- **Energy reduction target**

### Comment
The C-Suite has clearly conveyed the importance that the company attaches to strong management of climate change issues through Town Hall meetings, messages on our intranet sites, statements on our external website, and by activities such as the CEO participation in the White House meeting on business resiliency and insurance in the face of climate change. We also joined other companies in a full page Wall Street Journal ad to voice our support for the Paris climate negotiations in 2015 and, subsequent to the agreement being reached in 2016, The Hartford added our signature to the letter urging the new US Administration to make the agreement a priority. In 2017, we publicly supported other open letters urging the President to keep the US in the agreement. Managers associated with The Hartford's renewable energy practice receive compensation based on the performance of this practice, which offers insurance coverage for the wind, solar, biomass and fuel cell industries. Communications and Marketing managers' performance may also be tied to the success of their efforts to communicate The Hartford's environmental commitments to our stakeholders. For example, in 2016 we established a "Sustainability Index" to track employee awareness of, and engagement in, The Hartford's commitment to Environmental Stewardship (and other material aspects) and we measure and reward progress toward established target levels.

### Who is entitled to benefit from these incentives?
- **Facilities manager**

### Types of incentives
- **Monetary reward**

### Activity incentivized
- **Emissions reduction target**
Comment
Facilities managers under the SVP for Procurement are primarily responsible for reducing The Hartford's carbon footprint, and they may be rewarded for meeting GHG reduction goals (pay for performance). The Hartford successfully applied for two Climate Leadership Awards in 2017 for Excellence in Greenhouse Gas Management, Goal Setting and Goal Achievement. It was announced that The Hartford won both awards in early 2018 and a facilities manager contributed to earning these recognitions. In 2015 and 2016, facilities managers also received strong recognition internally and externally (including being named as a finalist for a State of Connecticut environment award) for major energy efficiency upgrades on our Hartford (main) campus. This refurbishment included major environmentally friendly energy-efficient upgrades such as a new HVAC system, LED lighting, efficient elevators, office improvements, and repurposed / recycled building materials and furniture. Facilities managers also played a key role in setting our prior GHG emissions reduction goals and were actively involved in setting new goals in 2016 (the company’s fourth GHG reduction goal). Additional results facilities managers have contributed to include: - In 2017, The Hartford earned the Lighting Energy Efficiency in Parking (LEEP) Award from the U.S. Green Building Council and was selected as an “Exemplary Performance Recognized Participant” for Highest Absolute Annual Savings for Troffer Lighting New Construction in the U.S. Department of Energy Better Buildings Challenge – Interior Lighting Campaign, 2017. - In May 2015 The Hartford joined the U.S. Department of Energy Better Buildings Challenge with Datacenter program that calls on private and public sector leaders to improve energy efficiency in buildings across the United States. The Hartford has committed to reducing its energy usage in the real estate facilities we own by 20% before 2023. The Hartford achieved the goal within months and was praised by the White House as an "Early Achiever" in its May 2016 news release. - In Dec. 2016, The Hartford was recognized as a top three most carbon efficient company in the financial sector and named a Global Sector Leader by ET Index Research.

Who is entitled to benefit from these incentives?
Risk manager

Types of incentives
Recognition (non-monetary)

Activity incentivized
Other, please specify (Management of weather-related risks)

Comment
For certain lines of business, such as homeowners and commercial insurance, proper assessment and underwriting of weather related risks are key to successful business performance. Risk managers took the lead in updating The Hartford's Climate Change Statement, which highlights The Hartford's approach to the evolving science, based on the IPCC's 5th assessment and remains in force. Risk managers will continue to contribute to updating this statement as appropriate in the future.
Who is entitled to benefit from these incentives?

Business unit manager

Types of incentives

Recognition (non-monetary)

Activity incentivized

Emissions reduction target

Comment

In addition to the programs listed for "all employees" below, business managers may be recognized for their work that contributes to managing climate change. This recognition can be through membership on a team that receives the company's most prestigious award, a Chairman's Award, or through alternative recognition from management during staff meetings or town halls. Results include:

- The Hartford successfully applied for two Climate Leadership Awards in 2017 for Excellence in Greenhouse Gas Management, Goal Setting and Goal Achievement. It was announced that The Hartford won both awards in early 2018. - In 2017, The Hartford earned the Lighting Energy Efficiency in Parking (LEEP) Award from the U.S. Green Building Council and was selected as an "Exemplary Performance Recognized Participant" for Highest Absolute Annual Savings for Troffer Lighting New Construction in the U.S. Department of Energy Better Buildings Challenge – Interior Lighting Campaign, 2017. - In May 2015 The Hartford joined the U.S. Department of Energy Better Buildings Challenge with Datacenter program that calls on private and public sector leaders to improve energy efficiency in buildings across the United States. The Hartford has committed to reducing its energy usage in the real estate facilities we own by 20% before 2023. The Hartford achieved the goal within months and was praised by the White House as an "Early Achiever" in its May 2016 news release. - In Dec. 2016, The Hartford was recognized as a top three most carbon efficient company in the financial sector and named a Global Sector Leader by ET Index Research.

Who is entitled to benefit from these incentives?

Facilities manager

Types of incentives

Recognition (non-monetary)

Activity incentivized

Emissions reduction target

Comment

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<table>
<thead>
<tr>
<th>Who is entitled to benefit from these incentives?</th>
<th>All employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of incentives</td>
<td>Recognition (non-monetary)</td>
</tr>
<tr>
<td>Activity incentivized</td>
<td>Emissions reduction target</td>
</tr>
<tr>
<td>Comment</td>
<td>Employees who participate in company-sponsored environmental events are rewarded in various ways. Since 2011, the HEAT Team has staged an &quot;Alternative Commuter Challenge&quot;, encouraging employees to find a less carbon-intensive way to commute to work. The HEAT Team chooses winners. Recognition has included personal messages from the General Counsel through the company's &quot;Rewards and Recognition&quot; program. Employees who carpool into Hartford are rewarded by being able to park in a specially designated parking lot that is particularly convenient in an otherwise tight parking environment. Employees who are owners of EVs may charge their vehicles for free at the EV charging stations the company provides in our two Connecticut locations. In 2016, HEAT coordinated a Zero Emission Vehicle (ZEV) ride-and-drive event to raise awareness of the benefits of these vehicles and offer employees the chance to experience them firsthand. Employees also may use gym and shower facilities for free, thereby removing disincentives for those who commute by bike or running. We leverage a continuous improvement process called Harvest to promote and sponsor employee ideas for green initiatives. Results include efforts to reduce print/paper consumption, single-stream recycling and incentives for employees that utilize environmentally-friendly methods for work commuting (ex. public transportation).</td>
</tr>
</tbody>
</table>

| Who is entitled to benefit from these incentives? | All employees |
Types of incentives
Monetary reward
Activity incentivized
Emissions reduction target
Comment
Since 2011, the HEAT Team has staged an "Alternative Commuter Challenge", encouraging employees to find a less carbon-intensive way to commute to work. Employees who win in each category of the challenge receive $25.

C2. Risks and Opportunities

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

<table>
<thead>
<tr>
<th></th>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>0</td>
<td>1</td>
<td>Examples of items falling within The Hartford's short-term time horizon include: - Operating plan cycle - Market outlooks and industry trends - Seasonal weather patterns (ex. hurricane and wildfire seasons) - Catastrophe plan cycles / losses</td>
</tr>
<tr>
<td>Medium-term</td>
<td>2</td>
<td>10</td>
<td>Examples of items falling within The Hartford's medium-term time horizon include: - Market outlooks, demographic shifts and industry trends (2025 outlook as outlined in Trevor Fetter’s Lead Director Letter in the 2018 Annual Report) - Greenhouse Gas Emissions (GHGe) Reduction Goal (Reduce our total scope 1, 2 and 3 GHGe, achieving a reduction of at least 2.1% of GHGe each year, resulting in a minimum decrease of 25.7% by 2027 - Sustained changes to weather patterns - Regulatory / Legal Changes (including those that result from U.S. administration changes (4-8 yrs) - New 2022 Sustainability / Environmental goals announced Aug. 2018 by Chris Swift (see CEO Letter in 2017 Sustainability Highlight Report) minimum decrease of 46.2% by 2037 - Investment Performance</td>
</tr>
<tr>
<td>Long-term</td>
<td>11</td>
<td>20</td>
<td>Examples of items falling within The Hartford's long-term time horizon include: - Sustained changes to weather patterns - Greenhouse Gas Emissions (GHGe) Reduction Goal (Reduce our total scope 1, 2 and 3 GHGe, achieving a reduction of at least 2.1% of GHGe each year, resulting in a minimum decrease of 46.2% by 2037 - Investment Performance</td>
</tr>
</tbody>
</table>
(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) Select the options that best describe your organization’s frequency and time horizon for identifying and assessing climate-related risks.

<table>
<thead>
<tr>
<th>Frequency of monitoring</th>
<th>How far into the future are risks considered?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six-monthly or more frequently</td>
<td>&gt;6 years</td>
<td>Significant risks to the company, or emerging risks that could be significant in the future, are monitored to evaluate how they could affect the properties and people we insure. For natural catastrophes, exposures are generally limited to ensure that estimated loss from a single 250-year event prior to reinsurance is less than 30% of the statutory surplus of the P+C operations and less than 15% of the surplus after consideration of reinsurance. The Company identifies opportunities in the investment management company and the business segments through committees such as, Environment Committee, Sustainability Governance Committee, Emerging Risk Steering Committee, Emerging Insurance Risk Council, Emerging Financial Markets Risk Council, and Operational Risk Committee. The Company continually examines industry publications and analysis for guidance on best practices such as the Task Force for Climate Related Financial Disclosures and scientific consensus on climate change.</td>
</tr>
</tbody>
</table>

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

The Company's policies and procedures for managing natural catastrophe risks include disciplined underwriting protocols, exposure controls, sophisticated risk-based pricing, risk modeling, risk transfer, and capital management strategies. The Company has established underwriting guidelines for both individual risks, including individual policy limits, and risks in the aggregate, including aggregate exposure limits by geographic zone and peril for natural catastrophe perils. Additionally, the businesses also have exposure to global or
nationally occurring pandemics caused by highly infectious and potentially fatal diseases spread through human, animal or plant populations. Risk limits are set for pandemic risk.

The Company uses both internal and third-party models to estimate the potential loss to insured exposure resulting from various catastrophe events and the potential financial impact those events would have on the Company's financial position and results of operations across its businesses. The Company calibrates its analytical tools to recognize both historical experience and expectation regarding the impact of climate change over the short, medium, and long term including climatic conditions and catastrophe modeling firms’ proprietary research. In recent years, the Company has reflected the increased frequency and severity in catastrophe risk modeling resulting in higher expected losses and increased volatility for hurricane, tornado, and hail. The Company is currently working with catastrophe modeling firms to develop and refine wildfire and flood models during 2018.

The dynamics of climate change and severe weather impact various underwriting and pricing activities across the enterprise. Catastrophe modeling and other analytical tools incorporating climatic assumptions are significant inputs into pricing and underwriting the insurance policies issued by the enterprise, as well as capital requirements.

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

<table>
<thead>
<tr>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current regulation</td>
<td>Relevant, always included</td>
</tr>
<tr>
<td>Emerging</td>
<td>Relevant,</td>
</tr>
<tr>
<td>Relevance &amp; inclusion</td>
<td>Please explain</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>regulation</td>
<td>U.S., regulatory initiatives and legislative developments may significantly affect our operations and prospects in ways that we cannot predict. For example, the impact of the elimination of the individual mandate of the Affordable Care Act and potential modification of the Dodd-Frank Act could have unanticipated consequences for the Company and its businesses. In addition, future regulatory initiatives could be adopted at the federal or state level that could impact the profitability of our businesses. For example, the NAIC and state insurance regulators are continually reexamining existing laws and regulations, specifically focusing on modifications to statutory accounting principles, interpretations of existing laws and the development of new laws and regulations. Any proposed or future legislation or NAIC initiatives, if adopted, may be more restrictive on our ability to conduct business than current regulatory requirements or may result in higher costs or increased statutory capital and reserve requirements. Further, a particular regulator or enforcement authority may interpret a legal, accounting, or reserving issue differently than we have, exposing us to different or additional regulatory risks. The application of these regulations and guidelines by insurers involves interpretations and judgments that may be challenged by state insurance departments. The result of those potential challenges could require us to increase levels of statutory capital and reserves or incur higher operating and/or tax costs. Changes in federal or state tax laws and tax rates or regulations could have a material adverse effect on our profitability and financial condition. For example, the recent reduction in tax rates due to the Tax Cuts and Jobs Act reduced our deferred tax assets resulting in a charge against earnings. A reduction in tax rates or change in laws could adversely affect the Company’s ability to realize the benefits of its net operating loss carryovers and alternative minimum tax credits.</td>
</tr>
</tbody>
</table>

| Technology           | Technology risks are analyzed for impact to insurers and materiality. Our business could also be affected by technological changes, including further advancements in automotive safety features, the development of autonomous or “self-driving” vehicles, and platforms that facilitate ride sharing. These technologies could impact the frequency or severity of losses, disrupt the demand for certain of our products, or reduce the size of the automobile insurance market as a whole. In addition, the risks we insure are affected by the increased use of technology in homes and businesses, including technology used in heating, ventilation, air conditioning and security systems and the introduction of more automated loss control measures. While there is substantial uncertainty about the timing, penetration and reliability of such technologies, and the legal frameworks that may apply, such as for example to autonomous vehicles, any such impacts could have a material adverse effect on our business and results of operations. |

<p>| Legal                | Legal risks are analyzed for impact to insurers and materiality. Changes in industry practices and in legal, judicial, social and other environmental conditions, technological advances or fraudulent activities, may require us to pay claims we did not intend to cover when we wrote the policies. These issues may either extend coverage beyond our |</p>
<table>
<thead>
<tr>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Underwriting Intent</strong></td>
<td>Please explain underwriting intent or increase the frequency or severity of claims. In some instances, these changes, advances or activities may not become apparent until some time after we have issued insurance contracts that are affected by the changes, advances or activities. As a result, the full extent of liability under our insurance contracts may not be known for many years after a contract is issued, and this liability may have a material adverse effect on our business, financial condition, results of operations and liquidity at the time it becomes known.</td>
</tr>
<tr>
<td><strong>Market</strong></td>
<td>Relevant, always included</td>
</tr>
<tr>
<td><strong>Market Risks</strong></td>
<td>Market Risks are analyzed for impact on customer insurance needs, insurance product relevance, and distribution of products. The geographic distribution of our business subjects us to catastrophe exposure for events occurring in a number of areas, including, but not limited to: hurricanes in Florida, the Gulf Coast, the Northeast and the Atlantic coast regions of the United States; tornados and hail in the Midwest and Southeast; earthquakes in geographical regions exposed to seismic activity; wildfires in the West and the spread of disease. Any increases in the values and concentrations of insured employees and property in these areas would increase the severity of catastrophic events in the future.</td>
</tr>
<tr>
<td><strong>Reputation</strong></td>
<td>Relevant, always included</td>
</tr>
<tr>
<td><strong>Reputation Risks</strong></td>
<td>Reputation risks are analyzed for materiality of event including costs associated with event response and change in market capitalization. Our businesses must comply with regulations to control the privacy of customer, employee and third party data, and state and federal regulations regarding data privacy are becoming increasingly more onerous. A misuse or mishandling of confidential or proprietary information could result in legal liability, regulatory action and reputational harm.</td>
</tr>
<tr>
<td><strong>Acute physical</strong></td>
<td>Relevant, always included</td>
</tr>
<tr>
<td><strong>Event Driven</strong></td>
<td>Event driven, vendor models employ event sets including increased severity of extreme weather events. Our insurance operations expose us to claims arising out of catastrophes. Catastrophes can be caused by various unpredictable natural events, including, among others, earthquakes, hurricanes, hailstorms, severe winter weather, wind storms, fires, tornadoses, and pandemics. Catastrophes can also be man-made, such as terrorist attacks, cyber-attacks, explosions or infrastructure failures. Climate change may increase the severity of certain natural catastrophe events. Potential examples include, but are not limited to: • an increase in the frequency or severity of wind and thunderstorm and tornado/hailstorm events due to increased convection in the atmosphere, • more frequent wildfires in certain geographies, • higher incidence of deluge flooding, and • the potential for an increase in severity of the largest hurricane events due to higher sea surface temperatures.</td>
</tr>
<tr>
<td><strong>Chronic physical</strong></td>
<td>Relevant, sometimes included</td>
</tr>
<tr>
<td><strong>Longer term shifts</strong></td>
<td>Longer term shifts in climate patterns are modeled when supported by scientific consensus; These shifts have the potential to increase the severity of the catastrophic events (described in &quot;acute physical&quot; above) in the future.</td>
</tr>
<tr>
<td><strong>Upstream</strong></td>
<td>Relevant,</td>
</tr>
<tr>
<td><strong>Upstream Risk Impact</strong></td>
<td>Upstream risk impact to insurers and materiality is analyzed. As described in the &quot;reputation&quot; example above, our</td>
</tr>
</tbody>
</table>
sometimes included

businesses must comply with regulations to control the privacy of customer, employee and third party data, and state and federal regulations regarding data privacy are becoming increasingly more onerous. A misuse or mishandling of confidential or proprietary information could result in legal liability, regulatory action and reputational harm. Third parties, including third party administrators, are also subject to cyber-breaches of confidential information, along with the other risks outlined above, any one of which may result in our incurring substantial costs and other negative consequences, including a material adverse effect on our business, reputation, financial condition, results of operations and liquidity.

Downstream

Relevant, sometimes included

Downstream risk impact to insurers and materiality is analyzed. We use technology to process, store, retrieve, evaluate and utilize customer and company data and information. Our information technology and telecommunications systems, in turn, interface with and rely upon third-party systems. We and our third party vendors must be able to access our systems to provide insurance quotes, process premium payments, make changes to existing policies, file and pay claims, administer mutual funds, provide customer support, manage our investment portfolios and hedge programs, report on financial results and perform other necessary business functions. Systems failures or outages could compromise our ability to perform these business functions in a timely manner, which could harm our ability to conduct business and hurt our relationships with our business partners and customers. In the event of a disaster such as a natural catastrophe, a pandemic, an industrial accident, a cyber-attack, a blackout, a terrorist attack (including conventional, nuclear, biological, chemical or radiological) or war, systems upon which we rely may be inaccessible to our employees, customers or business partners for an extended period of time.

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

The Board has ultimate responsibility for risk oversight, exercised through standing committees. The company’s formal risk appetite framework is reviewed by the Board at least annually and includes an enterprise risk appetite statement, tolerances, and limits by risk type. Risk is managed at multiple levels, including the company and asset level. The Finance, Investment and Risk Management Committee (FIRMCo), comprised of all Board members, oversees investment, financial and risk management activities of the Company and oversees risks falling outside the responsibility of any other committee. FIRMCo meets at regular Board meetings and is updated on risk management activities by the Enterprise Chief Risk Officer (ECRO) and the Chief Executive Officer (CEO). The Enterprise Risk and Capital Committee (ERCC), chaired by the CEO and comprised of senior leaders oversees the risk profile, capital structure and risk management practices. The ERCC has oversight of significant company-wide risk exposures. ERM is independent of business units and
provides risk analysis on an individual and aggregated basis to ensure the Company’s risks remain within its risk appetite and tolerances. ERM is led by the ECRO who reports to the CEO and is responsible for maintaining and enforcing ERM’s program and policies. With assistance from ERM, business units share risk-related information with senior management and Board committees.

Business risk self-assessments are conducted periodically by each business unit and functional area to identify and disclose their most material risks to senior management and the Board Audit Committee. Emerging risk councils identify, assess, measure and monitor emerging risks and the Emerging Risk Steering Committee reviews and reports significant emerging risks to the ERCC and the FIRMCo. The Company's SVP of facilities management and procurement is responsible for identifying and prioritizing activities that reduce our carbon footprint.

The Company monitors its major risks at the enterprise level through a number of enterprise reports, including but not limited to, a monthly risk dashboard, tracking the return on risk-capital across products, and regular stress testing. ERM communicates the Company's risk exposures to senior and executive management and the Board, and reviews key business performance metrics, risk indicators, audit reports, risk/control self-assessments and risk event data. The CRO also conducts a process of identifying Emerged and Emerging risks. The Company quantifies its risk exposures using multiple lenses including statutory, economic and, where appropriate, U.S. GAAP. ERM leverages various modeling techniques and metrics to provide a view of the Company's risk exposure in both normal and stressed environments at the company and asset level. ERM regularly monitors the Company's risk exposure and provides regular reporting to the ERCC. The Company defines insurance risk as its exposure to loss due to a range of perils and risks covered under its policies including loss due to catastrophes.

The Company has rolled out a company-wide program called Harvest, which conforms with Six Sigma principles, that helps identify opportunities. It formally solicits new ideas from employees and presents to company leaders who vet and prioritize them. This process occurs at both the company and asset level.

The Company also relies on its internal work on climate change to help guide the prioritization process. The Hartford's Environment Committee, which was created in 2007 as part of our public commitment to climate change, is made up of company leaders from across the enterprise, including risk management, operations, representatives of the company’s Personal Lines and Commercial Markets businesses, and our investment company, as well as Actuarial, Sales, HR, Strategic Sourcing and Real Estate, Marketing and Communications, Government Affairs, as well as representation from our employee environmental action team (HEAT). This Committee worked to update the Company's 2007 climate change statement in based on the 5th assessment of the IPCC. In addition, for all of our investment decisions, The Company employs the HIMCO Environmental Investment Policy Statement that the company established in 2010.

In 2017, The Hartford also formed an ESG Sustainability Governance Committee comprised of senior management to set and help drive execution of the Company’s sustainability strategy, including environmental stewardship. This committee prioritizes opportunities aligned to the Company’s sustainability strategy and reports progress to The Hartford’s Board of Directors at least annually.
(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) 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
Transition risk

Primary climate-related risk driver
Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact driver
Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company-specific description
Risk 1 = Uncertainty surrounding new regulation In the U.S., the business of insurance is principally regulated by insurance departments in each state. Individual state legislatures may approach laws differently and that can be very consequential for insurers with significant variances possible. One major source of uncertainty arises when a state regulator or a state legislative body takes action that has the effect of changing the understanding of the terms of an insurance contract after the insurer has priced the contract based on another insurer's original intent. As stated in The Company's 10-K, because these laws and regulations are complex, there is also a risk that any particular regulator's interpretation of a legal, accounting of reserving issue may change over time to our detriment, or expose us to different or additional regulatory risks. The application of these regulations by insurers involves interpretations and judgments that may be inconsistent with the ultimate opinion of state insurance departments. We cannot provide assurance that such differences of opinion will result in regulatory, tax, or other challenges to the actions we have taken to date. The result of those potential challenges could require us to increase levels of statuary capital and reserves or incur higher operating and/or tax costs.

Time horizon
Short-term
**Likelihood**
More likely than not

**Magnitude of impact**
Medium

**Potential financial impact**
--

**Explanation of financial impact**
Financial implications vary. In the aftermath of an extreme weather event, a regulatory may require the Company to cover losses that it did not reflect in the policyholders' premium. Costs can range from thousands to millions of dollars for an event. Another common cost in the aftermath of a severe weather event is responding to requests on the status of insurance claims. Since regulators do not use a single template, the Company may create multiple templates to present the data for the same event.

**Management method**
The Company manages this risk primarily through its Government Affairs Group (GA), and through its participation in industry trade associations such as the American Insurance Association (AIA). GA actively engages with legislators and regulators in each state when the states are considering new legislation or regulations or are reinterpreting regulations already in place. The Company engages federally on insurance related regulatory and legislative issues. If the issue spans across the industry, The Company seeks AIA engagement to achieve satisfactory regulatory solutions.

**Cost of management**
1620000

**Comment**
To manage the regulatory uncertainty effectively, The Company must fund the Government Affairs Group and provide necessary funding for its professionals to travel to the states where these problems arise, or to be able to advise the company on how best to proceed in an individual jurisdiction. In addition to our professional staff, we also belong to a variety of industry trade associations and we may also retain consultants to assist in advocacy. The Company is active at the federal level as well. In 2017, the cost of lobbying activities at the federal level was approximately $1.62 million (as filed in the quarterly Lobbying Disclosure Reports)

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**Identifier**
Risk 2

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

**Risk type**
Physical risk
Primary climate-related risk driver
Please select

Type of financial impact driver
Please select

Company-specific description
Risk 2: Snow and Ice The Hartford's 10-K notes that severe winter weather is among the unpredictable events that can expose our insurance operations to claims arising out of catastrophes. Losses could occur for both our personal lines and commercial lines customers.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium-low

Potential financial impact

Explanation of financial impact
The cost of actual losses from snow and ice varies greatly from year to year. For example, Dec 1, 2017 to March 31, 2018 winter storm events recorded by PCS (Property Claims Services) was 4 catastrophe defined events, versus a historical average 2.4 to 3.2 over the historical average of 5, 10, 20, 30 years. The insurance industry experienced elevated winter storm losses during 1st quarter 2018 relative to historical averages.

Management method
The Company addresses this potential cost through its underwriting practices, which take into account such factors as the building materials and age of roofs and loss history of snow-related auto accidents in each geographic area. We assess risk individually as well as by concentration of risks in geographic zones. We work with major modeling firms in modeling catastrophes and analyze historical claims for trends. The Company buys reinsurance as a means to manage the risk to an acceptable level.

Cost of management
0

Comment
The cost of managing winter storm risk is zero incremental cost of running the business for other catastrophe perils. Our actuaries, underwriters, and ERM are responsible for assessing and pricing this risk to geographic area, changing the pricing and risk appetite as the loss history evolves.
**Identifier**
Risk 3

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

**Risk type**
Physical risk

**Primary climate-related risk driver**
Please select

**Type of financial impact driver**
--

**Company-specific description**
Risk 3: Tropical Cyclones (hurricanes and typhoons): As the Company states in the 10-K, changing climate conditions across longer time scales, including the potential risk of broader climate change, may be increasing or may in the future increase the frequency and severity of natural catastrophes such as hurricanes. Losses could occur for both our personal insurance and commercial lines customers. The Company also states a potential risk factor in the 10-K as the potential for an increase in severity of the largest hurricane events due to sea surface temperatures.

**Time horizon**
Medium-term

**Likelihood**
About as likely as not

**Magnitude of impact**
Medium-high

**Potential financial impact**
332000000

**Explanation of financial impact**
The cost of actual losses from tropical cyclones varies greatly from year to year. 2017 was a record hurricane year for the insurance industry. As stated in the Company's 10-K, catastrophe losses from Hurricane Harvey and Hurricane Irma totaled $175M and $157M respectively. Reinsurance is available to insurers to partially mitigate the losses.

**Management method**
The Company addresses this potential cost through its underwriting practices, which take into account such factors as building materials, construction methodologies and building code requirements and loss history from hurricanes in each geographic area. We assess risk individually as well as by concentration of risks in geographic zones. We establish risk limits and monitor exposure as a percentage of
statutory surplus. We work with catastrophe modeling firms in modeling catastrophes. The Company buys reinsurance as a means to manage the risk to an acceptable level.

**Cost of management**
0

**Comment**
Management of risk to tropical cyclones (hurricanes) is part of the operating costs associated with writing Property insurance and managing and pricing exposure and concentration to any natural catastrophe (e.g. hurricane, tornado, hail, earthquake, winter storm, flood)

---

**Identifier**
Risk 4

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

**Risk type**
Physical risk

**Primary climate-related risk driver**
-

**Type of financial impact driver**
-

**Company-specific description**
Risk 4: Change in precipitation extremes and droughts The Company’s 10-K cites more frequent brush fires in certain geographies due to prolonged periods of drought. Droughts can lead to wildfires, which may lead to insured losses. As our 10-K further indicates, precipitation extremes such as deluge flooding may also lead to increased insured losses.

**Time horizon**
Short-term

**Likelihood**
Virtually certain

**Magnitude of impact**
Medium-high

**Potential financial impact**
304000000

**Explanation of financial impact**
Record insured losses due to the California wildfires during 2017 for the insurance industry. The Company recorded $304M of wildfire losses in 2017 as indicated in the Company's 10-K.

Management method
The Company addresses this potential cost through its underwriting practices, which take into account such factors as the fire resistant characteristics of building materials and roofs and loss history of from fire in similar geographies. We assess risk individually as well as by concentration of risks in geographic zones. We work with major modeling firms in modeling catastrophes and analyze industry and firm specific losses to historical wildfires. The Company buys reinsurance as a means to manage risk to an acceptable level.

Cost of management
0

Comment
The cost of managing wildfire risk is minimal incremental cost of running the business for other catastrophe perils. Overall catastrophe risk management for each natural catastrophe peril focuses on analyzing concentration in a risk hazard zone. Our actuaries, underwriters, and risk management team are responsible for assessing and pricing this risk to geographic area, changing the pricing and risk appetite as the loss history evolves.

Identifier
Risk 5

Where in the value chain does the risk driver occur?
Direct operations

Risk type
Physical risk

Primary climate-related risk driver
--

Type of financial impact driver
--

Company-specific description
Risk 5: Other physical Climate drivers; Rising sea level, floods As noted in 10-K regarding the Company's risk factors, potential of higher incidence of deluge flood with rising sea levels

Time horizon
Long-term

**Likelihood**
About as likely as not

**Magnitude of impact**
Medium-high

**Potential financial impact**
175000000

**Explanation of financial impact**
Flooding losses can be sized proportionally to losses experienced during Hurricane Sandy and Hurricane Harvey. The Company experienced losses from Harvey in 2017 of $175M.

**Management method**
The Company addresses this potential cost through its underwriting practices, which take into account such factors as building materials, construction methodologies and building code requirements and loss history from floods in flood prone areas. We assess risk individually as well as by concentration of risks in geographic zones. We work with catastrophe modeling firms and analyze scientific consensus on climatic factors to refine flood modeling capabilities. The Company buys reinsurance as a means to manage the risk to an acceptable level.

**Cost of management**
0

**Comment**
Minimal marginal cost for a peril, as overall catastrophe risk management for each natural catastrophe peril focuses on analyzing concentration in a risk hazard zone. Our actuaries, underwriters, and ERM are responsible for assessing and pricing this risk to geographic area, changing the pricing and risk appetite as the loss history evolves.

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**Identifier**
Risk 6

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

**Risk type**
Transition risk

**Primary climate-related risk driver**
Reputation: Increased stakeholder concern or negative stakeholder feedback

Type of financial impact driver
Reputation: Reduced revenue from decreased demand for goods/services

Company-specific description
Risk 6: Reputation As the science matures and the public focuses on the advantages of careful environmental stewardship, we are experiencing greater interest in The Company's efforts to manage our carbon footprint, paper consumption, and related activities. The Company is intensely focused on its reputation and has systems and processes in place to protect it. The Company is consistently recognized as one of the world’s most ethical companies by the Ethisphere Institute, receiving this designation 10 out of the past 11 years. The Company also received sustained recognition of its environmental stewardship efforts. The Company has been a member of the Dow Jones Sustainability North American Index since 2012 (through 2017). The Hartford successfully applied for two Climate Leadership Awards in 2017 for Excellence in Greenhouse Gas Management, Goal Setting and Goal Achievement; The Hartford was announced as a winner of both awards in early 2018. In 2017, The Hartford earned the Lighting Energy Efficiency in Parking (LEEP) Award from the U.S. Green Building Council and was selected as an “Exemplary Performance Recognized Participant” for Highest Absolute Annual Savings for Troffer Lighting New Construction in the U.S. Department of Energy Better Buildings Challenge – Interior Lighting Campaign, 2017.

Time horizon
Unknown

Likelihood
Very unlikely

Magnitude of impact
Low

Potential financial impact
--

Explanation of financial impact
The Company's reputation could suffer by not maintaining operations, and therefore delay claim payment to our insureds, or quotes to prospective customers, during a severe weather event. Ultimately, this damage to our reputation would probably have a minor negative impact on our business. The financial impact would likely be limited to partial parts of our operations and duration would also likely be limited to one year or less.

Management method
The Company's training for business resiliency includes drills that encourage employees to work from home in order to test our ability to maintain operations during severe weather events. With 83% of Hartford employees able to work remotely, The Hartford’s business operations now have the capability of withstanding severe weather impacts similar to hurricanes Harvey and Irma that impacted employees in Texas and Florida. This capability enables business operations to be conducted seamlessly, and underscores The Hartford’s attention to business resiliency preparations.

**Cost of management**

0

**Comment**

The cost of managing the process that ensures that we have the ability to operate during severe weather events is embedded in the company's overall operational costs. Therefore, the added incremental costs we incur to protect our reputation is zero.

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**Identifier**

Risk 7

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

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

--

**Type of financial impact driver**

--

**Company-specific description**

Risk 7: Vector borne infectious diseases increasing pandemic risk as a result of changes in the ecosystem caused by increased precipitation and extreme weather As stated in The Hartford's 10-K, the businesses also have exposure to global or nationally occurring pandemics caused by highly infectious and potentially fatal diseases spread through human, animal or plant populations. The exposure to loss arising from widespread influenza or other pathogens or bacterial infections that create an aggregation of loss across the Company's insurance or asset portfolios.

**Time horizon**

Long-term
Likelihood
  Exceptionally unlikely

Magnitude of impact
  Medium-high

Potential financial impact

Explanation of financial impact
  A wide spread pandemic event could potentially create losses on group life policies, short-term and long-term disability, and P+C claims, in addition to losses in the investment portfolio associated with market declines, as well as operational risk of the Company.

Management method
  The Company generally limits its estimated pre-tax loss from a single 250 year pandemic event to less than ~20% of statutory surplus of the property and casualty and group benefits insurance subsidiaries. In evaluating these scenarios, the Company assesses the impact on group life policies, short-term and long-term disability, P+C claims, in the event of a widespread pandemic. The loss distribution of pandemic risk is modeled catastrophe modeling firms' capabilities specific to pandemic risk.

Cost of management
  0

Comment
  The cost of managing pandemic risk has minimal marginal impact as it is already part of the risk management and business operations of the Group Benefits divisions and Property and Casualty business segments.

(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) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.
Identifier
   Opp1

Where in the value chain does the opportunity occur?
   Direct operations

Opportunity type
   Resilience

Primary climate-related opportunity driver
   Participation in renewable energy programs and adoption of energy-efficiency measures

Type of financial impact driver
   Other, please specify (Regulatory; Increased capital avail.)

Company-specific description
   Opp 1: Increased Capital Availability as a result of regulations The Hartford may experience increased capital availability as regulations continue to drive greater investment in Renewable Energy. The Hartford's investment group continues to seek and make long-term debt investments in RE and energy-saving situations.

Time horizon
   Medium-term

Likelihood
   About as likely as not

Magnitude of impact
   Medium-low

Potential financial impact
   150000000

Explanation of financial impact
   Financial impact estimate is based on the increase in RE investments in 2017. In its investment portfolio, The Hartford has approximately $700 million invested directly in utility-grade solar, wind and hydroelectric power generation facilities in the U.S. During 2017, we added $150 million of new direct renewable energy investments. Also in 2017, The Hartford added a new U.S. Government energy savings contract financing of approximately $40 MM. This was added to existing U.S. Government energy savings transaction of $210 MM. We continue to have a portfolio of Federal and State renewable energy tax credit transactions in our portfolio.

Strategy to realize opportunity
The investment group continues to seek and make long-term debt investments in RE and energy-saving situations. Opportunities include: • Investments in development and acquisition of wind power, solar power and hydro-electric power generation projects. • Further investment in U.S. Government energy-savings projects undertaken by private enterprise under long-term Government contracts. • The investment group continues to support power generation utilities that work to make a transition away from use of fossil fuels with capital being invested in renewable power sources. Such support is predominantly in the form of fixed income investments. • In 2017, the investment group made an investment in a natural gas-fired power project need in S. CA to balance the intermittent nature of wind and solar power production. The rapid proliferation of renewable power generation in CA has introduced a degree of instability to the power grid and the CA utilities have identified a need for additional base-load plants to restore stability. Approximately 10% of the proceeds of the debt financing was directed toward utility-scale battery technology, which is a burgeoning area of the power generation industry. • Made investment to re-capitalize a portfolio of solar power projects originally constructed using tax equity in the capital structure. This was considered an attractive investment in RE and we took steps to encourage more debt investments of this type in 2018 and beyond.

Cost to realize opportunity

0

Comment

We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The staff expertise to take advantage of increased regulatory drivers that increase financial incentives to invest in, or get tax advantages from, renewable energy is already well developed inside the company. The company would incur these costs under any circumstance. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Please select
Type of financial impact driver
Please select

Company-specific description
Opp 2: Regulations shift consumer preferences to environmentally-friendly products. To the extent that new regulations drive insureds to more environmentally friendly products, The Hartford could experience an increased uptake in its offerings of insurance products that service this area. For example, the company’s renewable energy practice offers end-to-end coverage for the wind, solar and biomass industries, from R+D through construction, to production. If future regulation encourages renewable energy use, The Hartford could benefit. Likewise, if regulation encourages commercial vehicle owners and individuals to drive hybrid or electric vehicles, The Hartford could benefit through its current product offerings in these areas. As the first insurer to offer coverage of garage EV charging stations in its homeowners policies, this is also an area where regulation may assist. Also, to the extent that commercial entities are required or encouraged to build green buildings or replace equipment with more energy efficient equipment, Hartford products that offer these coverages could benefit. Likewise, any regulations that encourage individuals to build greener houses or use hybrids or EVs could drive further uptake for the products that The Hartford offers.

Time horizon
Short-term

Likelihood
About as likely as not

Magnitude of impact
Medium-low

Potential financial impact
1000000

Explanation of financial impact
Potential Financial Impact includes an estimated $1M increase in earned premiums from our RE practice based on an average annual increase from 2012 to 2017. The Hartford earned over $7 million in earned premiums from our renewable energy practice in 2017, consistent with 2016 following a steady increase from $3 million in 2012. With renewable energy investment in the U.S. of $44 billion, the upside in future years could be considerable. We continue to play a major role in the solar industry, providing coverages for commercial and residential installation. We continue also to play a major role in the fuel cell industry. In the area of energy storage, we also continue to provide coverage for special technology such as flywheel energy storage.

Strategy to realize opportunity
We are positioned to benefit to the degree hybrid or electric vehicles become more sought after by our customers. The Hartford is managing the opportunity by seeking business for the products we already have in the insurance market and by working to stay in front of developments that will precipitate changes in our products. Our product development team can react quickly to adjust products to address emerging perils and our emerging risks team tracks such developments.

**Cost to realize opportunity**
0

**Comment**
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The products are already developed, have already received approval of regulators where needed, and are already in the market. The company would incur the cost of developing and selling insurance products under any event. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

---

**Identifier**
Opp3

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

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
--

**Type of financial impact driver**
--

**Company- specific description**
Opp 3: Air pollution Reduction To the extent that air pollution limits result in growth for the wind, solar, biomass or other renewable energy sectors, The Hartford's Renewable Energy Insurance Practice could experience considerable growth.

**Time horizon**
Short-term

**Likelihood**
Unlikely

**Magnitude of impact**
Low

**Potential financial impact**
1000000

**Explanation of financial impact**
Potential Financial Impact includes an estimated $1M increase in earned premiums from our RE practice based on an average annual increase from 2012 to 2017. The Hartford earned over $7 million in earned premiums from our renewable energy practice in 2017, consistent with 2016 following a steady increase from $3 million in 2012. With renewable energy investment in the U.S. of $44 billion, the upside in future years could be considerable. We continue to play a major role in the solar industry, providing coverages for commercial and residential installation. We continue also to play a major role in the fuel cell industry. In the area of energy storage, we also continue to provide coverage for special technology such as flywheel energy storage.

**Strategy to realize opportunity**
Air pollution reduction initiatives may drive insureds to more environmentally friendly products. We are positioned to benefit to the degree hybrid or electric vehicles become more sought after by our customers. The Hartford is managing the opportunity by seeking business for the products we already have in the insurance market and by working to stay in front of developments that will precipitate changes in our products. Our product development team can react quickly to adjust products to address emerging perils. Our emerging risks team tracks such developments.

**Cost to realize opportunity**
0

**Comment**
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The Renewable Energy practice is already operating. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

**Identifier**
Opp4

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

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Please select
Type of financial impact driver
Please select
Company- specific description
Opp 4: Carbon Taxes To the extent that carbon taxes result in growth for the wind, solar, fuel cell or other renewable energy sectors, The Hartford's Renewable Energy Insurance Practice could experience considerable growth. Also, to the extent that such taxes affect the behavior of small and medium-sized businesses and individuals regarding their purchasing decisions on hybrid or electric vehicles, The Hartford's current product line in these areas could experience increased growth. As The Hartford leverages its electric vehicle charging station infrastructure, we could benefit to the degree that carbon taxes lead to growth of the electric vehicle industry.

Time horizon
Short-term
Likelihood
Unlikely
Magnitude of impact
Low
Potential financial impact
1000000
Explanation of financial impact
Potential Financial Impact includes an estimated $1M increase in earned premiums from our RE practice based on an average annual increase from 2012 to 2017. The Hartford earned over $7 million in earned premiums from our renewable energy practice in 2017, consistent with 2016 following a steady increase from $3 million in 2012. With renewable energy investment in the U.S. of $44 billion, the upside in future years could be considerable. We continue to play a major role in the solar industry, providing coverages for commercial and residential installation. We continue also to play a major role in the fuel cell industry. In the area of energy storage, we also continue to provide coverage for special technology such as flywheel energy storage.

Strategy to realize opportunity
We are positioned to benefit to the degree hybrid or electric vehicles become more sought after by our customers. The Hartford is managing the opportunity by seeking business for the products we already have in the insurance market and by working to stay in front of developments that will precipitate changes in our products. Our product development team can react quickly to adjust products to address emerging perils. Our emerging risks team tracks such developments.
Cost to realize opportunity
0

Comment
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The Renewable Energy practice is already operating. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

Identifier
Opp5

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
--

Type of financial impact driver
--

Company- specific description
Opp 5: Cap and Trade Schemes To the extent that cap and trade schemes result in growth for the wind, solar, fuel cell or other renewable energy sectors, The Hartford's Renewable Energy Insurance Practice could experience considerable growth.

Time horizon
Short-term

Likelihood
Unlikely

Magnitude of impact
Low

Potential financial impact
1000000

Explanation of financial impact
Potential Financial Impact includes an estimated $1M increase in earned premiums from our RE practice based on an average annual increase from 2012 to 2017. The Hartford earned over $7 million in earned premiums from our renewable energy practice in 2017, consistent with 2016 following a steady increase from $3 million in 2012. With renewable energy investment in the U.S. of $44 billion, the upside in future years could be considerable. We continue to play a major role in the solar industry, providing coverages for commercial and residential installation. We continue also to play a major role in the fuel cell industry. In the area of energy storage, we also continue to provide coverage for special technology such as flywheel energy storage.

**Strategy to realize opportunity**
We are positioned to benefit to the degree hybrid or electric vehicles become more sought after by our customers. The Hartford is managing the opportunity by seeking business for the products we already have in the insurance market and by working to stay in front of developments that will precipitate changes in our products. Our product development team can react quickly to adjust products to address emerging perils. Our emerging risks team tracks such developments.

**Cost to realize opportunity**
0

**Comment**
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The Renewable Energy practice is already operating. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

**Identifier**
Opp6

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

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Other

**Type of financial impact driver**
Other, please specify (Investment Opportunities)

**Company- specific description**
Opp 6: Investment Opportunities We continue to have a Program investing in energy in "ESPCs" ("Energy Savings and Performance Contracts") that are aimed at reducing energy usage that results in savings to the U.S. Government. They entail investing in modifications to U.S. Government buildings that will result in energy savings.

**Time horizon**
Medium-term

**Likelihood**
Virtually certain

**Magnitude of impact**
Medium-low

**Potential financial impact**
0

**Explanation of financial impact**
For The Hartford, these investments represent incremental value of between 80 and 100 basis points over U.S. Government bonds. In addition, the U.S. Government benefits from the savings associated with lower energy use once the projects are completed.

**Strategy to realize opportunity**
The Hartford Investment Management Company (HIMCO) is working with a provider of energy savings products and services to the U.S. Government in order to implement this program.

**Cost to realize opportunity**
0

**Comment**
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The products are already developed, have already received approval of regulators where needed, and are already in the market. The company would incur the cost of researching and implementing these types of investment products in any event. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

**Identifier**
Opp7

**Where in the value chain does the opportunity occur?**
Direct operations
Opportunity type
   Products and services
Primary climate-related opportunity driver
   Other
Type of financial impact driver
   Other, please specify (Opportunities)
Company-specific description
   Opp 7: Production and investment tax credits. Production and investment tax credits on wind and solar energy have increased opportunities for The Hartford. Tax treatment of alternative energies have resulted in increased investment and development in this space, particularly for Engineering, Procurement, and Construction (EPC) firms. These opportunities are generating a change in our business approach, as The Hartford is tasked with developing policy language which addresses the often unique organizational structure and project delivery methods of these EPC’s. In addition to EPC challenges, brownfields are often utilized as economical locations for alternative energy facilities. Creating underwriting guidelines and policy language which profitably address the risks for alternative energy projects at brownfields can generate a change in our business. As more companies look to invest and develop within the alternative energy space, The Hartford will inherently change to create products which adapt to the risks these projects create.
Time horizon
   Medium-term
Likelihood
   Virtually certain
Magnitude of impact
   Medium-low
Potential financial impact
   --
Explanation of financial impact
   For The Hartford, these investments represent incremental value of between 80 and 100 basis points over U.S. Government bonds. In addition, the U.S. Government benefits from the savings associated with lower energy use once the projects are completed.
Strategy to realize opportunity
   The Hartford Investment Management Company (HIMCO) is working with a provider of energy savings products and services to the U.S. Government in order to implement this program.
Cost to realize opportunity
0

Comment
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The products are already developed, have already received approval of regulators where needed, and are already in the market. The company would incur the cost of researching and implementing these types of investment products in any event. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

Identifier
Opp8

Where in the value chain does the opportunity occur?
Customer

Opportunity type
Products and services

Primary climate-related opportunity driver
--

Type of financial impact driver
--

Company-specific description
Opp 8: Weather pattern changes - product changes As changes in weather patterns emerge, The Hartford has the opportunity to better position our products in order to offer further protection to our customers. The Hartford already offers a full range of insurance products that help customers who want protection from weather events and their consequences, including protection from damage that could occur from fires brought on by drought, snow and ice, severe heat, changing weather patterns, wind and numerous other perils. Offering such protection, and then managing that risk, is at the heart of what insurers do. The further changes in the physical climate as currently outlined in the IPCC Report -- in particular, "change in precipitation extremes and droughts" and "changes in tropical cyclones", have the potential for us to adjust our product offerings in order to manage the risks embedded in these changing weather patterns.

Time horizon
Short-term

Likelihood
About as likely as not

**Magnitude of impact**
Medium-low

**Potential financial impact**
2000000000

**Explanation of financial impact**
The Hartford maintains the flexibility to adjust our products to adapt to changes in the physical climate. To the degree that customers seek greater protection from weather related consequences of climate change, The Hartford could experience a meaningful increase in sales of our insurance products. If, over ten years, it represents a 10% increase in current revenues, revenues would rise by over $2 billion.

**Strategy to realize opportunity**
The Hartford offers a range of products to help our customers protect themselves from the risks associated with climate change and help them reduce their impact on the environment. For example, we are positioned to benefit to the degree hybrid or electric vehicles become more sought after by our customers. The Hartford is managing the opportunity by seeking business for the products we already have in the insurance market and by working to stay in front of developments that will precipitate changes in our products. Our product development team can react quickly to adjust products to address emerging perils. Our emerging risks team tracks such developments.

**Cost to realize opportunity**
0

**Comment**
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The products are already developed, have already received approval of regulators where needed, and are already in the market. The company would incur the cost of developing and selling insurance products under any event. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

---

**Identifier**
Opp9

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

**Opportunity type**
Primary climate-related opportunity driver

Type of financial impact driver

Company-specific description

Opp 9: Increased construction projects to meet needs of changing climate Opportunities exist for The Hartford as public and private entities enter into construction projects to address changes in physical climate. Projects addressing these changes include, but are not limited to: infrastructure adaptability and improvements, flood control, shoring and erosion control, waterproofing, and green building. Insurance buyers looking to adequately transfer risks associated with these projects create business opportunities for The Hartford. Opportunities also exist for The Hartford as more construction projects implement Green Performance Contracting (GPC) standards. GPC changes the traditional construction approach with respect to materials, equipment, design, methodology, and energy efficiency. Underwriting GPC and developing insurance products to address its use is an inherent opportunity for The Hartford which has resulted from changes in physical climate.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Potential financial impact

2000000000

Explanation of financial impact

The Hartford maintains the flexibility to adjust our products to adapt to changes in the physical climate. To the degree that customers seek greater protection from weather related consequences of climate change, The Hartford could experience a meaningful increase in sales of our insurance products. If, over ten years, it represents a 10% increase in current revenues, revenues would rise by over $2 billion.

Strategy to realize opportunity

The Hartford offers a range of products to help our customers protect themselves from the risks associated with climate change and help them reduce their impact on the environment. For example, we are positioned to benefit to the degree hybrid or electric vehicles become more sought after by our customers. The Hartford is managing the opportunity by seeking
business for the products we already have in the insurance market and by working to stay in front of developments that will precipitate changes in our products. Our product development team can react quickly to adjust products to address emerging perils. Our emerging risks team tracks such developments.

**Cost to realize opportunity**

0

**Comment**

We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. The products are already developed, have already received approval of regulators where needed, and are already in the market. The company would incur the cost of developing and selling insurance products under any event. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

---

**Identifier**

Opp10

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

Direct operations

**Opportunity type**

Resource efficiency

**Primary climate-related opportunity driver**

--

**Type of financial impact driver**

--

**Company-specific description**

Opp 10: Reputation The Hartford seeks to improve its reputation as a careful environmental steward via our use of resources, particularly paper and e-waste. We have ceased printing most new, renewal and endorsement policies. The Hartford’s internal paper consumption has declined significantly over the past 10 years, going from the highest quartile of print per-employee for financial services companies to the lowest/best quartile. In 2017, the company recycled 735 tons of paper, including recycling 100% of the paper deposited in recycling bins located throughout our offices, resulting in a 2.4% reduction over 2016 and an 84% reduction since our managed print program began in 2009. In addition to paper suppression programs, we also work with an electronic recycling partner who recycles / reuses electronics using a zero-landfill process. In 2017, The
Hartford recycled/reused 16,155 electronic devices through this program, avoiding 3,928,992 lbs of waste. In addition, The Hartford recycled 584 ink cartridges in 2017, avoiding 5,066 lbs of CO2, equal to 257 gallons of gasoline.

**Time horizon**
- Short-term

**Likelihood**
- Likely

**Magnitude of impact**
- Medium-low

**Potential financial impact**
- 121968

**Explanation of financial impact**
The Hartford’s internal paper consumption has declined significantly over the past 10 years, going from the highest quartile of print per-employee for financial services companies to the lowest/best quartile. In 2017, the company recycled 735 tons of paper, including recycling 100% of the paper deposited in recycling bins located throughout our offices, resulting in a 2.4% reduction over 2016 and an 84% reduction since our managed print program began in 2009. In 2017, we avoided printing 19.8M sheets of paper. At a per ream cost of $3.08, the company saved $121,968 through our responsible printing program.

**Strategy to realize opportunity**
The Hartford is also currently engaged in a multi-year, comprehensive, enterprise-wide multifaceted paper suppression initiative. This initiative examines the documents The Hartford sends to its agents and customers, and determines whether the mailing is necessary, whether it can be done with less paper or less often, and whether it can be done electronically. This is a comprehensive, state-by-state analysis that is continually refined by the digital team along with our lines of business - commercial, personal lines, group benefits, mutual funds, and now claims.

**Cost to realize opportunity**
- 0

**Comment**
This cost is embedded in our overall operational and investment budget. Since the company already incurs the cost of employing the staff that work on this program, the net additional annual cost associated with it is $0.

**Identifier**
- Opp11
Where in the value chain does the opportunity occur?
  Direct operations

Opportunity type
  Products and services

Primary climate-related opportunity driver
  --

Type of financial impact driver
  --

Company-specific description
  Opp 11: Increased consumer engagement around reducing their carbon footprint The Hartford is gaining experience by having brought insurance products to market that help our insureds reduce their carbon footprint, and by serving the growing renewable energy sector. The Hartford has also issued a statement stating that climate change can play a role in how The Hartford evaluates the creditworthiness of specific issuers and industries. We have also publically committed to develop products and make investment decisions that promote environmentally responsible activity while enhancing The Hartford's competitive position, and to reduce our own energy consumption and encourage others to do likewise. If consumers begin to prefer one insurer over another based on commitment to environmental stewardship, The Hartford is strongly positioned for the future. Also, to the extent that weather variability induces commercial and individual customers to increase the amount of insurance they buy, The Hartford could benefit from industry growth generally.

Time horizon
  Short-term

Likelihood
  About as likely as not

Magnitude of impact
  Medium-low

Potential financial impact
  --

Explanation of financial impact
  The Hartford insures thousands of hybrid vehicles and as the demand for these vehicles grows, we expect to see future growth in line with our market share, which is in the low single digits.

Strategy to realize opportunity
We are positioned to benefit to the degree hybrid or electric vehicles become more sought after by our customers. The Hartford is managing the opportunity by seeking business for the products we already have in the insurance market and by working to stay in front of developments that will precipitate changes in our products. Our product development team can react quickly to adjust products to address emerging perils. Our emerging risks team tracks such developments. We train our underwriters at the local level to appropriately price and manage these products.

**Cost to realize opportunity**

0

**Comment**

We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. We already have some products in the marketplace, and the cost of creating new ones is already embedded in our cost structure. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

---

**Identifier**

Opp12

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

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

--

**Type of financial impact driver**

--

**Company-specific description**

Opp 12: Increased consumer demand for RE To the extent that changes increase the consumer demand for renewable energy, we stand to benefit with our understanding of the insurance needs of these industries.

**Time horizon**

Short-term

**Likelihood**

About as likely as not

**Magnitude of impact**
Medium-low

Potential financial impact

Explanation of financial impact
If consumer demand for renewable energy grows, we are well positioned to capture some economic benefit through insuring more renewable energy projects. With renewable energy investment in the U.S. of $44 billion, the upside in future years could be considerable. In 2014 we wrote one of the largest hydroelectric plants in the U.S., with 62 separate U.S. locations and we continue to insure this plant. We have also increased our capacity to take on larger exposures. With 61 wind farms proposed or under construction and more than 1,200 already operational in the U.S., we are continuing to see sizeable opportunities in this space.

Strategy to realize opportunity
The Hartford is managing the opportunity by seeking business for the products we already have in the insurance market and by working to stay in front of developments that will precipitate changes in our products. Our product development team can react quickly to adjust products to address emerging perils. Our emerging risks team tracks such developments. We train our underwriters at the local level to appropriately price and manage these products.

Cost to realize opportunity
0

Comment
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. We already have a renewable energy practice, and the costs of ramping it up are negligible. Therefore, the net additional annual cost associated with this action from the company baseline is $0.

Identifier
Opp13

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Other
Type of financial impact driver
Other, please specify (Regulatory Driver)

Company-specific description
Opp 13: Regulations requiring stronger building codes and other climate change reduction measures. To the extent that climate change drives state, local and federal regulators to implement stronger building codes and other mitigation and adaptation measures, The Hartford may see loss costs for certain weather-related events decrease, thereby allowing the company to offer more coverage at lower rates.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
Medium-low

Potential financial impact
166000000

Explanation of financial impact
The financial impact above is an estimate calculated using 50% of the loss costs resulting from the two largest Hurricanes in 2017 (Hurricane Harvey and Erma loss costs = $332MM). If regulators implement stronger building codes and other mitigation actions that result in a decrease in loss costs, The Hartford's revenues would increase due to fewer claims and the ability to offer more coverage at lower rates.

Strategy to realize opportunity
The Hartford monitors for environmental trends including changes in weather event frequency and pricing models take these environmental changes into consideration.

Cost to realize opportunity
0

Comment
We do not consider the costs of managing this opportunity, or ramping it up significantly, to be meaningful. We already monitor these trends and adjust pricing models as appropriate. Therefore, the net additional annual cost associated with this action from the company baseline is $0.
(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

<table>
<thead>
<tr>
<th>Impact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and services</td>
<td>Impacted for some suppliers, facilities, or product lines</td>
</tr>
<tr>
<td></td>
<td>Product pricing is actively monitored and modified as appropriate when exposures arising from climate change (sustained weather pattern changes) impact specific geographic or risk concentrations. Expanded portfolio due to addition of RE and environmentally-friendly products.</td>
</tr>
<tr>
<td>Supply chain and/or value chain</td>
<td>Not evaluated</td>
</tr>
<tr>
<td>Adaptation and mitigation activities</td>
<td>Impacted</td>
</tr>
<tr>
<td></td>
<td>The Hartford participates in governmentally administered reinsurance facilities such as the Florida Hurricane Catastrophe Fund (&quot;FHCF&quot;) to manage policy-specific risk exposures based on established underwriting guidelines. This Fund helps to reduce the potential financial impact caused by a major catastrophe (hurricane).</td>
</tr>
<tr>
<td>Investment in R&amp;D</td>
<td>Not evaluated</td>
</tr>
<tr>
<td>Operations</td>
<td>Impacted for some suppliers, facilities, or product lines</td>
</tr>
<tr>
<td></td>
<td>• Product line mix will impact operations (e.g. distribution, systems) • Catastrophe events will impact operations for Claims functions; Catastrophe insurance risks can have significant effects on the Company’s earnings and may result in losses that constrain its liquidity.</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>Not evaluated</td>
</tr>
</tbody>
</table>
(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Description</th>
</tr>
</thead>
</table>
| Revenues        | Impacted  
As consumer preferences continue to shift and demand for environmentally-friendly products increases, we will continue to offer Renewable Energy products and "green" discounts to encourage Electric /Hybrid cars. We anticipate the demand for these products will remain level or continue to increase. |
| Operating costs | Impacted  
We do not consider the operating costs of managing these risks and opportunities or ramping them up significantly, to have meaningful impact. As the products are already developed, already approved by regulators where needed, and are already in the market. We factor climate change impacts and severe weather events into our operating cost models as part of our financial planning process. |
| Capital expenditures / capital allocation | Not evaluated                                                                                                                                                                                                                                                                                                                               |
| Acquisitions and divestments | Impacted  
As of 12/31/17, The Hartford had $700MM invested in RE. We will continue to expand our investments directly in utility-grade solar, wind and hydroelectric power generation facilities. |
| Access to capital | Not evaluated                                                                                                                                                                                                                                                                                                                               |
| Assets          | Not evaluated                                                                                                                                                                                                                                                                                                                               |
| Liabilities     | Not evaluated                                                                                                                                                                                                                                                                                                                               |
| Other           | Not evaluated                                                                                                                                                                                                                                                                                                                               |

C3. Business Strategy

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

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

Yes, qualitative and quantitative

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

The Hartford has led the way in recognizing the risks that climate change poses to our customers, businesses, and the overall economy. As part of our business strategy we endeavor to predict, quantify and mitigate climate-related insurance risk factors to protect and serve our customers, improve financial performance, ensure the long-term stability of our portfolio, and support our brand by contributing positively to society at large.

Staying ahead of emerging climate trends is fundamental to achieving profit and growth in the insurance industry. The adverse effects of inadequate long-term portfolio management (i.e., reacting too late to emerging trends) could include large scale price increases, cancellations of customers’ policies, and insolvency. The Hartford’s Enterprise Risk Management team has implemented several long-range forecasting models to manage aggregate climate and weather-related risk across our portfolio as climate and weather patterns change (e.g., sea-level rise, frequency and duration of storms, flood patterns), and our Chief Risk Officer is constantly evaluating the newest models available. The Hartford also actively seeks and evaluates innovative, new approaches to assess, quantify and mitigate risk such as new predictive modeling techniques, and more localized risk tools.

In addition to helping identify appropriate product and pricing actions, these tools allow our Catastrophe (CAT) Claims team to respond to customer needs more quickly and efficiently. The Hartford’s CAT Information Center provides 24/7 assistance to prepare customers for an impending weather event with frequent updates and adjustments based on the storm’s anticipated path. Our CAT Mobile Response Unit can also be sent to an area with the highest customer need, helping our customers recover more quickly following climate-related disasters, as demonstrated through our ability to support customers affected by the California wildfires and the hurricanes in Texas and Florida in 2017.

In addition to severe weather, climate change presents other risks to the people and businesses we insure. The Hartford takes our responsibility to prepare our customers for this changing world seriously and we demonstrate our commitment through:
- Responsible product offerings including insurance products that help customers avoid GHG emissions and discounts to encourage customers to purchase hybrid or electric vehicles and use energy-efficient equipment.
- Renewable Energy products providing end-to-end coverage for the solar, wind, fuel cell and biomass industries. As of 12/31/17, The Hartford had $700MM invested directed in utility-grade solar, wind and hydroelectric power generation facilities.
- Promoting environmental sustainability through our mutual fund business, launching The Hartford Global Impact Fund and the Environmental Opportunities Fund after joining the UN Principles for Responsible Investment (UNPRI) in 2016.

People want to work for, invest in, and do business with organizations that operate with integrity and support their values. The Hartford has a proud history of doing the right thing and our reputation for making a positive impact on society helps to strengthen our brand. We understand the importance of reducing our own impact on the environment, conserving natural resources and reducing our operating costs in the process. The actions we continue to take highlight our ongoing commitment to environmental stewardship, including:
- Reducing our Greenhouse Gas Emissions (GHGe) – The Hartford set two new greenhouse gas reduction targets in 2017 to reduce our total scope 1, 2 and 3 GHGe, achieving a reduction of at least 2.1% of GHGe each year, resulting in a minimum decrease of 25.7% by 2027 and 46.2% by 2037 (using 2015 as the base year). We reduced our GHGe by 7% in 2017, putting us on track to meet these goals.
- Reducing our Commuter Footprint by continuing to convert fleet vehicles to hybrids, offering free electric vehicle charging stations to employees on our Connecticut campuses, and offering incentives to encourage alternative commuting options.
- Continuing to reduce paper consumption through recycling efforts and responsible printing. We have already achieved an 84% reduction in paper usage since the program began in 2009.
- Renewable Energy Use – In 2017, 49% of The Hartford’s total energy consumption came from renewable energy sources.

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

<table>
<thead>
<tr>
<th>Climate-related scenarios</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, please specify (Catastrophe Risk Models - Underwriting)</td>
<td>Climate-related scenarios are incorporated in our catastrophe risk models, which are significant input into pricing and underwriting. Examples of scenarios include perils such as hurricane, tornado and hail, and analysis of such perils have led us to calibrate our expected losses from model output. How the scenario was identified, (inputs, assumptions or analytical methods used): We review and take into account scientific research on climate-related issues, including</td>
</tr>
</tbody>
</table>
Climate-related scenarios | Details
--- | ---
 | correlation studies of Pacific climate variability to tornado and hail activities, and sea surface temperatures and other climate conditions to hurricane activities. We utilize vendor catastrophe models which incorporate climatic assumptions and probabilistic events sets into the loss modeling to produce loss distributions by peril, region, and product coverage. Furthermore, we monitor our historical loss experience, such as frequencies of hurricane, tornado and hail catastrophe events. We apply the results of our research to calibrate the output from hurricane, tornado and hail models. Time horizon considered and why it’s relevant to the org: - Using hurricane as an example, we consider the average annual loss for pricing purpose, but we use multiple return periods (50-year, 100-year, and 250-year) to assess loss distribution for capital allocation. Pricing is a key factor in our financial performance, while capital allocation is important for meeting rating agency and regulatory requirements for capital and required return on capital hurdles. – Actual exposure and concentration by natural catastrophe peril and region are monitored relative to a defined hazard zone for each specified region and peril to ensure the company manages exposure within a defined risk appetite. Description of the areas of the organization that have been considered as part of the scenario analysis: The analysis is performed by our Insurance Risk Management unit, in consultation and collaboration with product and underwriting leaders and experts across the company in defining the company’s risk appetite specific to both catastrophe perils and geographic areas. Summary of conducted scenario analysis results: Analysis results indicate a distribution of loss results (expected average loss, multiple return periods) by peril (hurricane, earthquake, tornado, hail, winter storm) by geographic region and product line. The modeled catastrophe losses and volatility impact pricing and capital requirements. How results of analysis have informed business strategy: The results are important factors and considerations for our strategies in pricing (in terms of pricing and capital allocation), underwriting management (in terms of concentration, building code, and terms and conditions), and risk management (in terms of reinsurance). Case study / example of how results of scenario analysis has directly influenced business objectives / strategy: -- An example for how we use the analysis to ensure we manage our book of business responsibly is our continuous monitoring of our exposure to hurricane, earthquake, tornado, hail, and wildfire in various zones across the country. This helps limit our exposure to catastrophe events and assures our ability to handle and pay claims as well as to ensure exposure is within the company’s risk appetite. -- The potential loss is used in setting pricing and capital targets for each geographic area and line of business.

Other, please specify (Catastrophe Risk Models - Claims) | Climate-related scenarios are incorporated into claim event response modeling. Examples of scenarios include perils such as hurricane, tornado, wildfire and hail. How the scenario was identified (inputs, assumptions or analytical methods used): We utilize historical and forecasted weather data, coupled with property policies in force for our homeowner and commercial property business, to determine our response plans for catastrophic events. Using historical loss experience (such as hail size or wind speeds), we build event specific models to evaluate the resources needed to appropriately respond to our customers impacted by the catastrophic event. Time horizon considered and why it’s relevant to the organization: – We attempt to use “real-time” weather data for our claims analysis. Hurricane data is refreshed every six hours up to 5 days pre-landfall. Other weather data we use is c-wide prior day reports. – In addition, we use
Climate-related scenarios | Details
---|---

historical data regarding claim reporting to model our reporting patterns based upon the type of event. Description of the areas of the org that have been considered as part of the scenario analysis – The analysis is performed by our Catastrophe Claims Department, in consultation and collaboration with our Enterprise Risk Management and Actuarial organization. Summary of conducted scenario analysis results: – Analysis provides us with project claim counts at the zip code level. We are able to further sort these counts based upon projected severity of the loss to assist us in triaging the claim to the best qualified resource to resolve. Description of how results of analysis have informed business strategy. – The results are a significant component of our Catastrophe response modeling. Using the information provided from this analysis, we determine how many of our own resources to deploy to the event and how many independent adjuster resources we need to respond to the demand surge. Proper resource allocation ensures our customer’s claims are handled in a timely fashion and they are able to return their home or business to its pre-loss state as soon as possible. Case study/example of how results of scenario analysis has directly influenced business objectives/strategy: – A recent example involves our Catastrophe organization’s response to Hurricane Irma. We began tracking the event and analyzing the data roughly a week in advance of landfall. Projected wind swath data combined with PIF by zip code enabled us to build out response models as the storm developed. The data was refreshed every six hours, which enabled us to update our staffing needs regularly, deploy our adjusters to the appropriate areas and secure independent adjuster resources to complement our own team. – Benefits of the modeling include more accurate staffing assessments, reduced cycle times for handling claims, and an improved customer experience for our policyholders.

**C4. Targets and performance**

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

Absolute target

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

**Target reference number**

Abs 1

**Scope**

Scope 1+2 (location-based) +3 (upstream)

**% emissions in Scope**

100
% reduction from base year
25.7

Base year
2015

Start year
2017

Base year emissions covered by target (metric tons CO2e)
100959

Target year
2027

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

% achieved (emissions)
86

Target status
Underway

Please explain
The Hartford has developed medium and long-term, science-based target-aligned goals to reduce our total scope 1, 2 and 3 Greenhouse Gas Emissions (GHGe), achieving a reduction of at least 2.1% of GHGe each year, resulting in a minimum decrease of 25.7% by 2027 and 46.2% by 2037 (using 2015 as the base year). The Company has met the previous three voluntary GHG reduction targets set. The Scope 3 emissions of business travel and employee commuting are covered in the current target, as well as the previous three targets. The Hartford is not eligible for setting a science based target based on the fact that it qualifies as a financial institution, but our targets are intended to satisfy the science-based target criteria. Through year 2 of our new medium and long-term targets, emissions have been reduced by 22 percent compared with the 2015 target base year. Therefore, the percent complete for the long-term target is (22.0/46.2)*100 = 47.6 percent. The Hartford shared the new GHGe goals when successfully applying for two Climate Leadership Awards in 2017 for Excellence in Greenhouse Gas Management, Goal Setting and Goal Achievement; The Hartford was announced as a winner of both awards in early 2018.
Target reference number
  Abs 2
Scope
  Scope 1+2 (location-based) +3 (upstream)
% emissions in Scope
  100
% reduction from base year
  46.2
Base year
  2015
Start year
  2017
Base year emissions covered by target (metric tons CO2e)
  100959
Target year
  2037
Is this a science-based target?
  Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative
% achieved (emissions)
  48
Target status
  Underway
Please explain
  The Hartford has developed medium and long-term, science-based target-aligned goals to reduce our total scope 1, 2 and 3 Greenhouse Gas Emissions (GHGe), achieving a reduction of at least 2.1% of GHGe each year, resulting in a minimum decrease of 25.7% by 2027 and 46.2% by 2037 (using 2015 as the base year). The Company has met the previous three voluntary GHG reduction targets set. The Scope 3 emissions of business travel and employee commuting are covered in the current target, as well as the previous three targets. The Hartford is not eligible for setting a science based target based on the fact that it qualifies as a financial institution, but our targets are intended to satisfy the science-based target criteria. Through year 2 of our new medium and long-term targets, emissions have been reduced by 22 percent compared with the
2015 target base year. Therefore, the percent complete for the long-term target is \((22.0/46.2)\times100 = 47.6\) percent. The Hartford shared the new GHGe goals when successfully applying for two Climate Leadership Awards in 2017 for Excellence in Greenhouse Gas Management, Goal Setting and Goal Achievement; The Hartford was announced as a winner of both awards in early 2018.

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

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>Number of projects</th>
<th>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under investigation</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>To be implemented*</td>
<td>6</td>
<td>1800</td>
</tr>
<tr>
<td>Implementation commenced*</td>
<td>1</td>
<td>102</td>
</tr>
<tr>
<td>Implemented*</td>
<td>4</td>
<td>1174.6</td>
</tr>
<tr>
<td>Not to be implemented</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

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

Activity type
- Energy efficiency: Building fabric

Description of activity
Insulation

Estimated annual CO2e savings (metric tonnes CO2e)
365

Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
90000

Investment required (unit currency – as specified in CC0.4)
247266

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
Pipe Insulation: Replaced missing or damaged steam pipe insulation, install removable insulation jackets on steam valves (Hartford, CT campus); Investment is net utility rebate

Activity type
Energy efficiency: Building services

Description of activity

Estimated annual CO2e savings (metric tonnes CO2e)
262

Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
Investment required (unit currency – as specified in CC0.4)  
179919

Payback period  
1-3 years

Estimated lifetime of the initiative  
16-20 years

Comment  
LED Exterior Lighting - LED Retrofit of exterior parking lot lighting in Hartford and Windsor Connecticut; Electrical and maintenance savings. Investment is net utility rebate

Activity type  
Energy efficiency: Building services

Description of activity  
--

Estimated annual CO2e savings (metric tonnes CO2e)  
515

Scope  
Scope 2 (location-based)

Voluntary/Mandatory  
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)  
141570

Investment required (unit currency – as specified in CC0.4)  
333319

Payback period  
1-3 years

Estimated lifetime of the initiative  
16-20 years

Comment  
LED Retrofit of interior lighting in Windsor Connecticut; Electrical and maintenance savings. Investment is net utility rebate
Activity type
  Energy efficiency: Building fabric

Description of activity
  Maintenance program

Estimated annual CO2e savings (metric tonnes CO2e)
  32.6

Scope
  Scope 2 (location-based)

Voluntary/Mandatory
  Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
  20200

Investment required (unit currency – as specified in CC0.4)
  7636

Payback period
  <1 year

Estimated lifetime of the initiative
  6-10 years

Comment
  Steam trap inspections and repairs - Conduct steam trap survey, adjust and replace traps for improved system efficiency (Hartford, CT); Investment is net utility rebate

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>Since 2011 The Hartford has reached out to 100% of employees to survey them on their commuting habits during the prior year. The information obtained provides data for our Scope 3 emissions reporting. It also provides the company the opportunity to share what the company is doing on environmental stewardship with all our employees, including providing them with links to</td>
</tr>
</tbody>
</table>
Method | Comment
--- | ---
The Hartford's CDP response and sustainability report. The survey response rate for our 2017 survey was 10.3%. We also conduct an annual “Alternative Commuter Challenge” to encourage employees to find less carbon-intensive ways to commute to work and recognizing their action through our reward and recognition site. Employees who carpool into Hartford are rewarded by ability to park in a specially designated parking lot that is particularly convenient in an otherwise tight parking environment. Employees who own EVs may charge their vehicles for free using one of 20 chargers provided at our Connecticut locations. The Hartford’s Commuter Benefit Program allows employees to use pre-tax dollars to pay for qualified parking and transit costs. In 2016, The Hartford’s Environmental Action Team (HEAT) hosted a ride-and-drive EV event enabling employees to try out electric and hybrid cars and bikes attracting 400+ employees. Following its success, two additional ride-and-drive events were held in 2017 in partnership with CT GreenBank and Nissan, resulting in at least nine Nissan Leaf purchases by employees. Employees also may use gym and shower facilities for free, removing disincentives for those who commute by bike or running. The HEAT team also partners with local non-profit organizations like KNOX each year to plant trees on Arbor Day and helping to revitalize local parks and neighborhoods. To support sustained recycling efforts among its employees, The Hartford publishes the locations of local recycling centers on its intranet site. We also work with an electronics recycling partner, who recycles or reuses electronic devices using a zero-landfill process. The Hartford also developed a process excellence program (HARVEST) that encourages employees to develop innovative solutions and increased efficiencies at all levels across the enterprise. An internal website provides employees information about our environmental sustainability efforts as well as opportunities to volunteer.

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal finance mechanisms</td>
<td>Numerous Hartford carbon reduction initiatives (work from home, real estate consolidation, fleet vehicle efficiency, acquisition of hybrid vehicles to comprise more than 10% of the vehicle fleet, office building efficiency upgrades, computer desktop power management and IT Data Center equipment efficiency upgrades) have all undergone internal financing metrics before receiving approval.</td>
</tr>
</tbody>
</table>

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

Yes
(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

**Level of aggregation**
- Group of products

**Description of product/Group of products**
The Hartford offers a number of insurance products that help customers avoid GHG emissions by encouraging customers to purchase a hybrid or Electric Vehicle (EV) with premium discounts and encouraging / facilitating installation of energy efficient equipment and use of environmentally friendly materials. Products for hybrids or EVs include: Hybrid Vehicle Credits, Hybrid vehicle Upgrade Coverage and EV credits Products to reduce GHG emissions include: Green Homeowners Coverage, Green Equipment Breakdown Coverage, EV chargers, Green Choice Additional Coverage Renewable Energy Equipment Choice, Green Builders Risk Endorsement, and Equipment Breakdown Coverage Extension. The Hartford’s contractors pollution and professional insurance products encourage third parties to avoid or lower their greenhouse gas (GHG) emissions. Our insureds, typically construction companies or construction project owners, are afforded coverage terms which lower GHG emissions and encourage environmentally friendly practices. The Hartford’s pollution insurance policies lower GHG emissions by providing “green building material” upgrades or improvements when assessing costs for restoration of damaged properties. These “green building materials” are materials recognized by the Leadership in Energy and Environmental Design (LEED) or Energy Star as being environmentally preferable to those of the previously damaged property. The Hartford’s pollution insurance policies also extend coverage to insureds for their disposal of waste materials to qualified treatment, storage, or recycling facilities. A qualified location is one that is adequately permitted and within environmental regulatory compliance. Insurance coverage is not provided for unqualified locations, therefore promoting responsible business practices by the insured and subsequently lowering GHG emissions. The Hartford’s construction professional insurance often extends affirmative language for an insured’s errors and omissions with respect LEED design and related accreditation, fostering qualified individuals to practice in this space. These products, along with underwriting practices which scrutinize an insured’s environmental impact, provide and encourage lower GHG emissions.

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

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**
- Other, please specify (LEED or Energy Star)

**% revenue from low carbon product(s) in the reporting year**
5
Comment

The Hartford's revenue generated from the environmentally-friendly property and auto products outlined above equals <5% of The Hartford's total revenue in 2017.

<table>
<thead>
<tr>
<th>Level of aggregation</th>
<th>Group of products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of product/Group of products</td>
<td>Hartford Funds launched the Global Impact Fund in 2017, investing in companies that seek to address major social and environmental challenges like health, clean water and alternative energy In 2016, Hartford Funds launched the Environmental Opportunities Fund, investing in companies that promote environmental sustainability.</td>
</tr>
<tr>
<td>Are these low-carbon product(s) or do they enable avoided emissions?</td>
<td>Low-carbon product</td>
</tr>
<tr>
<td>Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions</td>
<td>Low-Carbon Investment (LCI) Registry Taxonomy</td>
</tr>
<tr>
<td>% revenue from low carbon product(s) in the reporting year</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of aggregation</th>
<th>Group of products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of product/Group of products</td>
<td>Renewable Energy products: The Hartford offers uniquely designed products that provide end-to-end coverage for the solar, wind, fuel cell and biomass industries working to protect the environment using or generating clean, renewable energy.</td>
</tr>
<tr>
<td>Are these low-carbon product(s) or do they enable avoided emissions?</td>
<td>Low-carbon product and avoided emissions</td>
</tr>
<tr>
<td>Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions</td>
<td>Other, please specify (N/A)</td>
</tr>
<tr>
<td>% revenue from low carbon product(s) in the reporting year</td>
<td>4.1</td>
</tr>
</tbody>
</table>
Comment
As of 12/31/17, The Hartford has $700MM invested directly in utility-grade solar, wind and hydroelectric power generation facilities. $7MM+ earned in premiums from our renewable energy practice in 2017.

C5. Emissions methodology

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

Scope 1
Base year start
January 1 2015
Base year end
December 31 2015
Base year emissions (metric tons CO2e)
19071

Scope 2 (location-based)
Base year start
January 1 2015
Base year end
December 31 2015
Base year emissions (metric tons CO2e)
31561

Scope 2 (market-based)
Base year start
January 1 2015
Base year end
December 31 2015
Base year emissions (metric tons CO2e)
24560
(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.

US EPA Climate Leaders: Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment
US EPA Climate Leaders: Direct Emissions from Stationary Combustion
US EPA Climate Leaders: Direct Emissions from Mobile Combustion Sources
US EPA Mandatory Greenhouse Gas Reporting Rule

C6. Emissions data

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

Gross global Scope 1 emissions (metric tons CO2e)
   14769
End-year of reporting period
   12/31/2017
Comment
   Scope 1 emissions consist of stationary combustion, mobile sources and refrigerant usage. Reporting Year 2017

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

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

Scope 2, location-based
  21206
Scope 2, market-based (if applicable)
  20
End-year of reporting period
  12/31/2017

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

  No

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

Purchased goods and services
  Evaluation status
    Relevant, not yet calculated
  Metric tonnes CO2e
    0
  Emissions calculation methodology
    NA
  Percentage of emissions calculated using data obtained from suppliers or value chain partners
    0
  Explanation
    We are in the process of evaluating the scope of our purchases and a methodology for reporting. We have engaged with suppliers on their approach with other business consumers of their goods and services.
Capital goods
Evaluation status
Relevant, not yet calculated
Metric tonnes CO2e
0
Emissions calculation methodology
NA
Percentage of emissions calculated using data obtained from suppliers or value chain partners
0
Explanation
We are in the process of evaluating the scope of our capital goods and a methodology for reporting.

Fuel-and-energy-related activities (not included in Scope 1 or 2)
Evaluation status
Not relevant, explanation provided
Metric tonnes CO2e
0
Emissions calculation methodology
NA
Percentage of emissions calculated using data obtained from suppliers or value chain partners
0
Explanation
The Hartford does not engage in any of the fuel and energy-related Scope 3 activities that are described on Page 34 of the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (September 2011).

Upstream transportation and distribution
Evaluation status
Not relevant, explanation provided
Metric tonnes CO2e
0
Emissions calculation methodology
As an insurance company, we do not distribute any goods upstream. Hence, there is no relevant methodology.
Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation
We do not distribute any goods upstream.

Waste generated in operations
Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
0

Emissions calculation methodology
NA

Business travel
Evaluation status
Relevant, calculated

Metric tonnes CO2e
8841

Emissions calculation methodology
Miles traveled for air, rail, and rental cars are provided by travel providers. Air and rail travel miles are multiplied by the emission factors provided in the EPA Emission Factors for Greenhouse Gas Inventories. For air travel, these factors vary based on flight time. For rental car travel, the fuel usage is tracked based on fuel purchases by employees. The consumption data is multiplied by EPA emission factors resulting in the quantity of emissions.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Explanation
All business travel captured.

**Employee commuting**

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

33875

**Emissions calculation methodology**

To estimate employee commuting emissions, The Hartford annually surveys our entire employee base on their commuting habits. For the calendar year 2017, survey data (consisting of approximately 1,695 responses or 10% of the employees) was collected in early 2018 on commuting modes, frequency, and distance as well as gas mileage of vehicles used during 2017. For both non-company owned personal transportation and carpool vehicles, the quantity of gallons of gasoline consumed is multiplied by emissions factors provided in the EPA Emission Factors for Greenhouse Gas Inventories resulting in the quantity of emissions from these vehicles. Bus and rail travel miles are multiplied by the emission factors provided in the EPA Emission Factors for Greenhouse Gas Inventories to determine the quantity of emissions from mass transit commuting. Total employee commuting emissions for all employees is estimated by multiplying the total emissions from the survey by the ratio of total employees to survey participants.

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

10

**Explanation**

Based on commuter survey response rate.

**Upstream leased assets**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

0

**Emissions calculation methodology**

We include all upstream leased assets within our operational boundary so their emissions are captured in our Scope 1 and 2 emissions.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
Explanation
We include all upstream leased assets within our operational boundary so their emissions are captured in our Scope 1 and 2 emissions.

Downstream transportation and distribution
Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
0

Emissions calculation methodology
Aside from the distribution to our customers of their insurance policies and information regarding their policies, we do not engage in downstream distribution. Customers receive this information either electronically or through the U.S. post office. Hence, there is no relevant methodology.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation
Aside from the distribution to our customers of their insurance policies and information regarding their policies, we do not engage in downstream distribution. Customers receive this information either electronically or through the U.S. post office. Hence, there is no relevant methodology.

Processing of sold products
Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
0

Emissions calculation methodology
Insurance is a risk transfer system, not a physical product. Hence, there is no relevant methodology.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation
Insurance is not a physical product. It is a transfer system in which the insured transfers the chance of financial loss to the insurer. The insurance contract (the policy) is the only physical manifestation of this transfer system.

Use of sold products
Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
0

Emissions calculation methodology
Insurance is a risk transfer system, not a physical product. Hence, there is no relevant methodology.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation
Insurance is not a physical product. It is a transfer system in which the insured transfers the chance of financial loss to the insurer. The insurance contract (the policy) is the only physical manifestation of this transfer system.

End of life treatment of sold products
Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
0

Emissions calculation methodology
Insurance is a risk transfer system, not a physical product. Hence, there is no relevant methodology.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation
Insurance is not a physical product. It is a transfer system in which the insured transfers the chance of financial loss to the insurer. The insurance contract (the policy) is the only physical manifestation of this transfer system.

Downstream leased assets
Evaluation status
Metric tonnes CO2e
0
Emissions calculation methodology
We did not engage in leasing out owned property in 2017, so there is no relevant methodology.
Percentage of emissions calculated using data obtained from suppliers or value chain partners
0
Explanation
We did not engage in leasing out owned property in 2017.

Franchises
Evaluation status
Not relevant, explanation provided
Metric tonnes CO2e
0
Emissions calculation methodology
We do not have franchises, so there is no relevant methodology.
Percentage of emissions calculated using data obtained from suppliers or value chain partners
0
Explanation
The Hartford does not have franchises.

Investments
Evaluation status
Not evaluated
Metric tonnes CO2e
0
Emissions calculation methodology
NA
Percentage of emissions calculated using data obtained from suppliers or value chain partners
0
Explanation
We have not yet investigated this as a Scope 3 source, and therefore do not know its relevance to our business. We are aware of an emerging effort to decide the carbon content of various financial instruments. We stay on top of the latest developments by engaging with leaders in this field, such as HIP Investors and Ecofys. To date, there is no accepted methodology to determine the carbon footprint of common financial instruments held by insurers such as U.S. Treasury bills, specific municipal bonds, CMBS (Commercial Backed Mortgage Securities) or RMBS (Residential Backed Mortgage Securities.) We are not aware of any effort currently to begin the work to build a credible methodology to capture the carbon content of most of the above-named financial instruments.

Other (upstream)
Evaluation status
Not evaluated
Metric tonnes CO2e
0
Emissions calculation methodology
NA
Percentage of emissions calculated using data obtained from suppliers or value chain partners
0
Explanation
NA

Other (downstream)
Evaluation status
Not evaluated
Metric tonnes CO2e
0
Emissions calculation methodology
NA
Percentage of emissions calculated using data obtained from suppliers or value chain partners
0
Explanation
(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

(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
0.000002119

Metric numerator (Gross global combined Scope 1 and 2 emissions)
35975

Metric denominator
unit total revenue

Metric denominator: Unit total
16974000000

Scope 2 figure used
Location-based

% change from previous year
8.05

Direction of change
Decreased

Reason for change
The decrease can be attributed to emission reduction activities implemented in our facilities in 2016 and 2017 including elevator upgrades, building automation, steam traps tested/repaired, roof replacement, insulation upgrades, LED lighting upgrades in Windsor, CT office, and utilization of electric utility provider's Building Retro Commissioning program. Note: Correct value is not able to be entered into the reporting program. Intensity = 0.000002119
Intensity figure
2.19

Metric numerator (Gross global combined Scope 1 and 2 emissions)
35975

Metric denominator
full time equivalent (FTE) employee

Metric denominator: Unit total
16400

Scope 2 figure used
Location-based

% change from previous year
12.12

Direction of change
Decreased

Reason for change
The rate of the Company's GHG emissions reduction exceeded the reduction in FTE employees for 2017. The primary reason for this decrease is the company's emission reduction activities.

C7. Emissions breakdowns

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?

Yes
(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).

<table>
<thead>
<tr>
<th>Greenhouse gas</th>
<th>Scope 1 emissions (metric tons of CO2e)</th>
<th>GWP Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH4</td>
<td>0.59</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>N2O</td>
<td>0.14</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>HFCs</td>
<td>46</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>CO2</td>
<td>14665</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States of America</td>
<td>14766</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationary Combustion</td>
<td>5654</td>
</tr>
<tr>
<td>Mobile sources</td>
<td>9069</td>
</tr>
<tr>
<td>Refrigerant Usage (HFC/PFC)</td>
<td>46</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
<th>Purchased and consumed electricity, heat, steam or cooling (MWh)</th>
<th>Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States of America</td>
<td>21186</td>
<td>0</td>
<td>67210</td>
<td>67210</td>
</tr>
<tr>
<td>Canada</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td>0</td>
</tr>
</tbody>
</table>

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

By facility
(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Scope 2 location-based emissions (metric tons CO2e)</th>
<th>Scope 2, market-based emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hartford, CT</td>
<td>8420</td>
<td>0</td>
</tr>
<tr>
<td>Windsor, CT</td>
<td>1570</td>
<td>0</td>
</tr>
<tr>
<td>Aurora, IL</td>
<td>587</td>
<td>0</td>
</tr>
<tr>
<td>Charlotte, NC</td>
<td>930</td>
<td>0</td>
</tr>
<tr>
<td>New Hartford, NY</td>
<td>311</td>
<td>0</td>
</tr>
<tr>
<td>San Antonio, TX</td>
<td>1202</td>
<td>0</td>
</tr>
<tr>
<td>Other Leased/Multi Tenant Facilities</td>
<td>8186</td>
<td>20</td>
</tr>
</tbody>
</table>

(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) 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.

<table>
<thead>
<tr>
<th>Change in emissions (metric tons CO2e)</th>
<th>Direction of change</th>
<th>Emissions value (percentage)</th>
<th>Please explain calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in renewable energy consumption</td>
<td>0</td>
<td>No change</td>
<td>49</td>
</tr>
<tr>
<td>Other emissions reduction activities</td>
<td>6208</td>
<td>Decreased</td>
<td>14.72</td>
</tr>
<tr>
<td>Divestment</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Acquisitions</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Mergers</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in output</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in methodology</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in emissions (metric tons CO2e)</td>
<td>Direction of change</td>
<td>Emissions value (percentage)</td>
<td>Please explain calculation</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------------------</td>
<td>-----------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Change in boundary</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in physical operating conditions</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Unidentified</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
</tbody>
</table>

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

More than 0% but less than or equal to 5%
(C8.2) Select which energy-related activities your organization has undertaken.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstocks)</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of purchased or acquired cooling</td>
<td>No</td>
</tr>
<tr>
<td>Generation of electricity, heat, steam, or cooling</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Consumption of fuel (excluding feedstock)</th>
<th>Heating value</th>
<th>MWh from renewable sources</th>
<th>MWh from non-renewable sources</th>
<th>Total MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHV (higher heating value)</td>
<td>0</td>
<td>70685</td>
<td></td>
<td>70685</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>&lt;Field Hidden&gt;</td>
<td>65518</td>
<td>30</td>
<td>65548</td>
</tr>
<tr>
<td>Consumption of self-generated non-fuel renewable energy</td>
<td>&lt;Field Hidden&gt;</td>
<td>1692</td>
<td></td>
<td>1692</td>
</tr>
<tr>
<td>Total energy consumption</td>
<td>&lt;Field Hidden&gt;</td>
<td>67210</td>
<td>70715</td>
<td>137925</td>
</tr>
</tbody>
</table>
(C8.2b) Select the applications of your organization's consumption of fuel.

<table>
<thead>
<tr>
<th>Fuel Application</th>
<th>Indicate whether your organization undertakes this fuel application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel for the generation of electricity</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of steam</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of cooling</td>
<td>No</td>
</tr>
<tr>
<td>Consumption of fuel for co-generation or tri-generation</td>
<td>No</td>
</tr>
</tbody>
</table>

(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: 30855 MWh

**Fuel Oil Number 2**
- Heating value: HHV (higher heating value)
- Total fuel MWh consumed by the organization: 255 MWh

**Jet Gasoline**
Heating value
HHV (higher heating value)
Total fuel MWh consumed by the organization
4028

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
HHV (higher heating value)
Total fuel MWh consumed by the organization
35547

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

Fuel Oil Number 2
Emission factor
73.96

Unit
kg CO2 per million Btu

Emission factor source
US EPA Emission Factors for Greenhouse Gas Inventories - Stationary Combustion

Comment
Also use Fuel Oil Number 2 emission factor of 10.21 kg CO2 per gallon from source: US EPA Emission Factors for Greenhouse Gas Inventories - Direct Emissions for Mobile Sources

Jet Gasoline
Emission factor
9.75
**Unit**
kg CO2 per gallon

**Emission factor source**
US EPA Emission Factors for Greenhouse Gas Inventories - Direct Emissions for Mobile Sources

**Natural Gas**
**Emission factor**
53.06

**Unit**
kg CO2 per million Btu

**Emission factor source**
US EPA Emission Factors for Greenhouse Gas Inventories - Stationary Combustion

---

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

<table>
<thead>
<tr>
<th></th>
<th>Total Gross generation (MWh)</th>
<th>Generation that is consumed by the organization (MWh)</th>
<th>Gross generation from renewable sources (MWh)</th>
<th>Generation from renewable sources that is consumed by the organization (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>1692</td>
<td>1692</td>
<td>1692</td>
<td>1692</td>
</tr>
<tr>
<td>Heat</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Steam</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cooling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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

**Basis for applying a low-carbon emission factor**
- Energy attribute certificates, Renewable Energy Certificates (RECs)

**Low-carbon technology type**
- Wind

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**
- 65518

**Emission factor (in units of metric tons CO2e per MWh)**
- 0

**Comment**
- Generator Names and IDs: Grandview Wind Farm, LLC (TX) ID No. 68987, Mesquite Wind Power LLC (Horizon Wind) (TX) ID No. 68985, 68986, Stanton Wind Energy LLC (TX) ID No. 68984, Stephens Ranch Wind Energy LLC I (TX) ID No. 68988. These RECs are Green e-certified. Total RECs purchased = 67,210 MWh

---

**C9. Additional metrics**

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

N/A
C10. Verification

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

<table>
<thead>
<tr>
<th>Scope</th>
<th>Verification/assurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 3</td>
<td>Third-party verification or assurance process in place</td>
</tr>
</tbody>
</table>

(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


Page/section reference

Details of the Scope 1 assurance undertaken can be found in Table 1 on Page 1 of the attached assurance review letter.

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
2017 The Hartford GHG Assurance Review Letter_5-9-18 Final.pdf

Page/ section reference
Details of the Scope 2 assurance undertaken can be found in Table 1 on Page 1 of the attached assurance review letter.

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
2017 The Hartford GHG Assurance Review Letter_5-9-18 Final.pdf

Page/ section reference
Details of the Scope 2 assurance undertaken can be found in Table 1 on Page 1 of the attached assurance review letter.

**Relevant standard**  
ISO14064-3

**Proportion of reported emissions verified (%)**  
100

---

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

**Scope**  
Scope 3 - all relevant categories

**Verification or assurance cycle in place**  
Annual process

**Status in the current reporting year**  
Complete

**Attach the statement**  

**Page/section reference**  
Details of the Scope 3 assurance undertaken can be found in Table 1 on Page 1 of the attached assurance review letter.

**Relevant standard**  
ISO14064-3

---

(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, we are waiting for more mature verification standards and/or processes
**C11. Carbon pricing**

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

No

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

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

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

Type of engagement
Compliance & onboarding
Comment
In 2017, our team continued to engage with suppliers in sustainability efforts and social responsibility activities. We worked to identify additional opportunities to enhance our sustainability practices within the supply chain and will implement action in 2018. These actions will include enhancing our supplier request for proposal process to include sustainability practices as a specific criteria. The supplier’s response will influence the supplier’s score and therefore The Hartford’s selection of a supplier.

Type of engagement
Information collection (understanding supplier behavior)

Comment
In 2017, our team continued to engage with suppliers in sustainability efforts and social responsibility activities. We worked to identify additional opportunities to enhance our sustainability practices within the supply chain and will implement action in 2018. We will continue to gain insight into the key sustainability practices of our top suppliers. This helps provide our company assurance that our supplier partners have solid sustainability practices and aligned with The Hartford’s principles. In 2018, we will formalize a process to collect and catalog supplier sustainability data and govern practices of our top suppliers. We will work with our suppliers with high ranking sustainability practices to learn from our partners and leverage to strengthen our own practices.

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

Type of engagement
Education/information sharing

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

Please explain the rationale for selecting this group of customers and scope of engagement
The Hartford’s underwriting team guidelines evaluate the management of our insureds and require compliance with laws and regulations including those pertaining to environmental issues. Environmental exposures and risks are evaluated for all customers and potential customers prior to pricing a plan.

Impact of engagement, including measures of success
The Hartford's underwriting guidelines evaluate the management of our insureds and require compliance with laws and regulations including those pertaining to environmental issues. The Hartford's underwriting guidelines evaluate the exposures of our customers to loss arising out of all kinds of exposures that have environmental impacts including business practices and policies, workplace safety, hazardous material handling, proper vehicle and machinery maintenance.

**Type of engagement**
Other, please specify (Int. Sustainability Teams Info Share)

**Size of engagement**
5

**Please explain the rationale for selecting this group of customers and scope of engagement**
The need for greater transparency around responsible environmental stewardship continues to increase and has grown to include not just a Company’s behaviors but also holding the supply chain accountable as well. The Hartford has conducted informational sessions with the Sustainability teams of several of our largest Group Benefits customers to share best practices and learn more about their unique environmental approach. These meetings include sharing employee engagement around environmental issues, sustainability reporting, corporate emission reduction initiatives, etc.

**Impact of engagement, including measures of success**
As a result of these meetings, The Hartford has shared new ways for these customers to evaluate the environmental commitments of their supply chains (through assessments such as CDP Supply Chain module, EcoVadis, etc). Additionally, The Hartford has learned best practices to incorporate into our enhanced supply chain evaluation process currently in development. We have found these sessions to be mutually beneficial and believe they both encourage greater accountability in responsible environmental stewardship, and strengthen our relationship with these customers as we discuss details of our shared commitment.

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

In 2017, our team continued to engage with supplies in sustainability efforts and social responsibility activities. We worked to identify additional opportunities to enhance our sustainability practices within the supply chain and will implement action in 2018. These actions will include enhancing our supplier request for proposal process to include sustainability practices as a specific criteria, The supplier’s response will influence the supplier’s score and therefore The Hartford’s selection of a
supplier. We will continue to gain insight into the key sustainability practices of our top suppliers. This helps provide our company assurance that our supplier partners have solid sustainability practices and aligned with The Hartford’s principles. In 2018, we will formalize a process to collect and catalog supplier sustainability data and govern practices of our top suppliers. We will work with our suppliers with high ranking sustainability practices to learn from our partners and leverage to strengthen our own practices.

The Hartford poses 13 questions in all information technology requests for proposal. The questions include responsible product life cycle management, proposed product design, manufacturing, operation and disposal. The Hartford contracts only top tier vendors for e-waste handling. We collaborate with our IT equipment recovery vendor, which takes control of the electronic equipment at end of life for reuse or recycling. We recently engaged directly with 34 of our top IT and Corporate suppliers regarding their environmental practices, diversity and inclusion activities, and ethics programs and we continue to broaden the scope of our inquires both in terms of the types of suppliers as well as the breadth of questions asked.

(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
- Funding research organizations
- Other

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

<table>
<thead>
<tr>
<th>Focus of legislation</th>
<th>Corporate position</th>
<th>Details of engagement</th>
<th>Proposed legislative solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, please specify (National</td>
<td>Support</td>
<td>Engagement includes lobbying and education in support of the 2017 National Flood insurance Program (NFIP) reauthorization</td>
<td>Congressional leaders and committee staff on NFIP oversight will continue in 2018 and we will continue</td>
</tr>
<tr>
<td>Focus of legislation</td>
<td>Corporate position</td>
<td>Details of engagement</td>
<td>Proposed legislative solution</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Flood Insurance</td>
<td></td>
<td>lobbying in support of the &quot;Flood Insurance Parity and Modernization Act&quot; (H.R. 1422) which seeks to clarify that private insurance is to be treated the same as federal flood insurance in cases where homeowners with federally-backed mortgages are required to buy the coverage. The legislation, introduced by Senators Heller (R-NV) and Tester (D-MT) and Representatives Ross (R-FL) and Castor (D-FL), is intended to encourage more private insurers to write flood insurance. We work with the joint insurance trades and other interested stakeholders to encourage timely and long-term NFIP reauthorization. Continued efforts to ensure that NFIP will move to more market based pricing, which is key to give the proper economic signals to insureds in flood-prone areas.</td>
<td>to support new flood insurance legislation and regulation to promote the development of a private market with market based pricing. Over time, ensure actuarially sound rates.</td>
</tr>
<tr>
<td>Adaptation or</td>
<td>Support</td>
<td>The Hartford advocates directly and through its trade association in states for price adequacy in the property and casualty products it sells, and also for price adequacy in the states that maintain residual markets for property insurance for homeowners. This effort covers many states, in particular coastal states that are most prone to severe weather events. For example, in the past The Hartford participated in industry efforts in Florida to advocate for provisions in proposed legislation that would have accelerated the glide path to rate adequacy for residual market property rates and would also lower limits of liability, thereby moving higher value properties to the private market. The legislation passed, though without the provision that would have accelerated price adequacy.</td>
<td>Ensure that purchasers of insurance pay an actuarially sound rate for the risks that the property faces. Minimize the incidence of insureds in less risky areas of a state subsidizing insurance costs for insureds who own property in riskier areas.</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>Oppose</td>
<td>In 2014, The Hartford worked directly with legislators in Connecticut to oppose legislation which would limit carriers’ ability to underwrite and get the appropriate rate for coastal property risks.</td>
<td>Sought the removal of problematic legislative language. Despite our efforts, this legislation passed.</td>
</tr>
</tbody>
</table>
(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

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

**Trade association**
- American Insurance Association

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

**Please explain the trade association’s position**
- Many weather changes envisioned by climate change models such as increased rainfall, more intense thunderstorms, hail and periodic drought can be addressed through ongoing changes in rating, underwriting, building codes, improved construction and land use that encourage loss mitigation and less building in areas most exposed to severe weather events. Hurricanes and wildfire remain areas of significant concern for the property-casualty insurance industry. Insurers favor continued research into hurricane development, frequency, intensification and tracking as well as wildfire exposure

**How have you, or are you attempting to, influence the position?**
- The Hartford is consulting with AIA to create a series of principles on climate change. AIA has referred to The Hartford's climate change statement and its past CDP responses to explain the AIA position on climate change. AIA has also been active
in commenting on draft Issues Paper on Climate Change Risks to the Insurance Sector from the International Association of Insurance Supervisors (IAIS) and the Sustainable Insurance Forum (SIF).

Trade association
The Geneva Association

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association’s position
The socioeconomic risks associated with weather-related events and other natural catastrophes are on the rise, exacerbated by climate change and urban development patterns. The adoption of the Sendai Framework for Disaster Risk Reduction, the Agenda for Sustainable Development and the COP21 Paris Agreement promotes the need for a comprehensive approach to managing extreme events and climate risk. The (re)insurance industry can play a key role in public-private partnerships that take these commitments forward as integral components of national to local development planning. The Geneva Association conducts research focused on two key pillars: (i) building resilience to extreme events and climate risk; and (ii) the transition to a low-carbon economy. It also facilitates high-level dialogue engaging C-level executives of the insurance industry and authorities from policymakers, standard-setting and regulatory bodies, governments, the United Nations and development organizations.

How have you, or are you attempting to, influence the position?
While new to the organization, The Hartford is aware of certain topic areas which may be studied by The Geneva Association and we will consider participating in these endeavors. For example, in 2018, The Geneva Association will conduct ‘A comparative analysis of flood risk management in seven countries: Australia, Canada, Germany, Japan, Spain, the U.K. and U.S.’. The study will focus on the interconnectivity of risk reduction and risk transfer measures, with close attention to the regulatory regimes and policies of the respective countries.

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?
Yes
(C12.3e) Provide details of the other engagement activities that you undertake.

In 2017, The Hartford joined The Geneva Association. Founded in 1973 by the CEOs of global insurers, The Geneva Association is an international insurance think tank that produces and distributes high-quality research and analysis on global strategic insurance and risk management issues. The objective of the Geneva Association is to develop and promote a wider understanding on the unique role and importance of insurance in economies and for societies through publications, conferences and active discourse with policymakers, regulators, supervisors, academics and other key constituents. This is in addition to The Hartford’s initiatives and actions achieved in prior years, many of which still continue today: The Hartford successfully applied for two Climate Leadership Awards in 2017 for Excellence in Greenhouse Gas Management, Goal Setting and Goal Achievement; Announced as a winner of both awards in early 2018. In 2017, The Hartford also earned the Lighting Energy Efficiency in Parking (LEEP) Award from the U.S. Green Building Council and was selected as an “Exemplary Performance Recognized Participant” for Highest Absolute Annual Savings for Troffer Lighting New Construction in the U.S. Department of Energy Better Buildings Challenge – Interior Lighting Campaign, 2017. In May 2016, The Hartford's CEO Chris Swift, joined the Insurance Development Forum's Steering Committee. The IDF is a public/private partnership led by the insurance industry and supported by international organizations whose overall objective is to optimize and extend the use of insurance-related facilities to protect vulnerable populations, companies and public institutions against risks and shocks. It will implement and coordinate insurance-related activities and programming in line with the UN Agenda 2030. Other steering committee members include the UNDP Administrator, the World Bank Group's Chief Financial Officer and the Governor of the Bank of England. In November 2016, The Hartford was one of the first companies to publicly and loudly add its name to the organizations urging the incoming U.S. administration to remain committed to the Paris Agreement, something we did again in May 2017. The Hartford's approach to environmental sustainability was also featured as a case study in the book "Adapting to Change: The Business of Climate Resilience" by Dr. Ann Goodman (Business Expert Press/BEP, 2016). The Hartford has also been a member of U.S. Department of Energy's "Workplace Charging Station Partnership", which promotes the installation of EV charging stations at company facilities to encourage employee commuter use of electric vehicles. The Hartford's workplace charging stations and its other environmental activities have been highlighted on the U.S. DOE website. The Hartford joined the U.S. DOE "Better Buildings Challenge" to drive greater efficiency in our buildings and data center. In 2016, The White House recognized The Hartford as one of 17 participants in a press release as an "Early Achiever", achieving our 21% energy use reduction for our Hartford campus 4 years early. https://obamawhitehouse.archives.gov/the-press-office/2016/05/11/fact-sheet-administration-announces-new-actions-and-progress-made-make) A Hartford representative also participated with a U.S. DOE official on a panel to describe workplace charging stations and the private sector approach
to installing and administering them. Hartford Funds joined the UN Principles for Responsible Investment (UNPRI) in 2016, In 2015, at the invitation of the Connecticut Governor, The Hartford joined the Governor's Climate Change Council as one of only two private sector representatives. The General Counsel continues to represent the company on the Council. In addition, The Hartford accepted the invitation to join the new city of Hartford Climate Stewardship Council in 2016.

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

The areas of the company that oversee the direct and indirect activities that influence policy are also represented on The Hartford Environment Committee, which helps develop this policy and acts as a clearinghouse for ensuring consistency in the company's climate change strategy. The Hartford's representatives who have presented publicly are also members of the Environment Committee. The General Counsel, who oversees all Government Affairs activities, chairs the Environment Committee.

The Environmental Committee has a representative on the ESG Sustainability Governance Committee which reports to The Hartford's Board of Directors.

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

Publication
In mainstream reports in accordance with the CDSB Framework
10-K cites risk factors as well as an overview of The Hartford's strategy and an overview of governance (including letter from Lead Director, p.3)

Status
Complete

Attach the document
q4-2017-form-10k.pdf

Content elements
Governance
Strategy
Risks & opportunities

Publication
In voluntary communications
2016 GRI-G4 Matrix (2017 GRI matrix will be available in Q3)

Status
Underway – previous year attached

Attach the document
2016_gri-g4-matrix.pdf

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify (Case study in book by Dr. Ann Goodman)

Publication
In voluntary sustainability report
2016 Sustainability Highlight Report (ADD 2017 REPORT WHEN AVAILABLE)

Status
Complete

Attach the document
2017_HIG_Sustainability_Highlight_Report_FINAL.pdf

Content elements
Strategy
Publication
In voluntary communications
Sustainability / Environment page on thehartford.com

Status
Complete

Attach the document
Sustainability_EnvironmentPage_HIGcom.pdf

Content elements
Emissions figures
Emission targets
Other metrics

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Publication
In voluntary communications
Statement on Climate Change

Status
Complete

Attach the document
statement-on-climate-change.pdf

Content elements
Risks & opportunities
Emissions figures
Emission targets
Publication
In voluntary communications
2018 Climate Leadership Awards - see attachment of press release

Status
Complete

Attach the document
TheHartfordMediaRelationsTeam-TheHartfordRecognizedForClimateLeadershipEfforts-2018-03-01 (1).pdf

Content elements
Emissions figures
Emission targets

Publication
In voluntary communications
Press release announcing CDP and DJSI recognitions (Nov. 2017)

Status
Complete

Attach the document
TheHartfordMediaRelationsTeam-TheHartfordRecognizedForSustainabilityEfforts,EnvironmentalStewardship-2017-12-20.pdf

Content elements
Strategy
Emissions figures

C14. Sign-off