



Travelers Task Force on Climate-related Financial Disclosures Report 2020



Severe weather events over the last two decades have underscored the unpredictability of future climate trends, and changing climate conditions could add to the frequency and severity of natural disasters and create additional uncertainty as to future trends and exposures. As an insurance company with property and casualty operations, The Travelers Companies, Inc. (together with its consolidated subsidiaries, Travelers or the Company) incorporates modeling and analytical techniques to better understand the impact of climate-related issues on its business, customers and communities.

As a core part of our business, we continually monitor, assess and respond to the risks and opportunities posed by changing climate conditions to provide products and services that both help our customers mitigate associated risks and are priced to meet our long-term financial objectives. We also regularly consider new insurance products and services that could be useful to our customers for addressing climate-related risks.

Travelers is committed to a long-term sustainable approach to protecting the environment, recognizing that being responsible stewards of our shareholders' capital necessarily requires a commitment to take care of all our stakeholders, including our planet. We continually look for cost-effective ways to minimize our operational impact on the environment, which can also reduce our operating expenses, without compromising on our promise to customers and employees. Through our broad range of services, programs and public policies, we take a thoughtful approach to both being an environmentally responsible company and meeting our overall business objectives.

This report discusses our approach to managing changing climate conditions consistent with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).^[1]

^[1]The inclusion of information in this report should not be construed as a characterization regarding the materiality or financial impact (or potential impact) of that information. For additional information regarding Travelers, please see our current and periodic reports with the Securities and Exchange Commission, including our [Annual Report on Form 10-K](#) and Quarterly Reports on Form 10-Q.

Governance

Board Oversight

Travelers Board of Directors and its Risk Committee consider changing climate conditions as part of, and integral to, overseeing the Company's business and operations. The Board of Directors plays an important role in overseeing our Enterprise Risk Management (ERM) practices and strategies, including our company's evaluation of potential risks relating to changing climate conditions. The Risk Committee of the Board, composed of independent directors, is responsible for oversight of the strategies, processes and controls relating to risks in our business operations, including insurance underwriting and claims, reinsurance, catastrophe exposure and the impact of changing climate conditions. The Committee assists the Board in overseeing the operational activities of the Company and the identification and review of risks that could have a material impact on Travelers, including risks related to changing climate conditions. The Risk Committee meets on a quarterly basis with the Chief Risk Officer, Chief Underwriting Officer, members of the Enterprise Risk Committee and, as appropriate, other members of senior management to discuss risks that could have a material impact on Travelers, including risks related to changing climate conditions. These discussions include,

for example, information regarding historical loss experience, loss trend projections, lessons learned from recent catastrophe events, underwriting practices and market share analyses. These discussions inform, among other things, the Company’s financial plan, risk appetite and underwriting approach. The Risk Committee, in turn, reports to the full Board with regard to its discussions.

While the Board Risk Committee oversees the implementation, execution and performance of Travelers’ ERM program and reviews the strategies, processes and controls pertaining to Travelers’ insurance operations, the Board has allocated and delegated risk oversight responsibility to various committees of the Board. Accordingly, all committees of the Board share responsibility for the oversight of strategic objectives, risk management and the sustainability of our business.

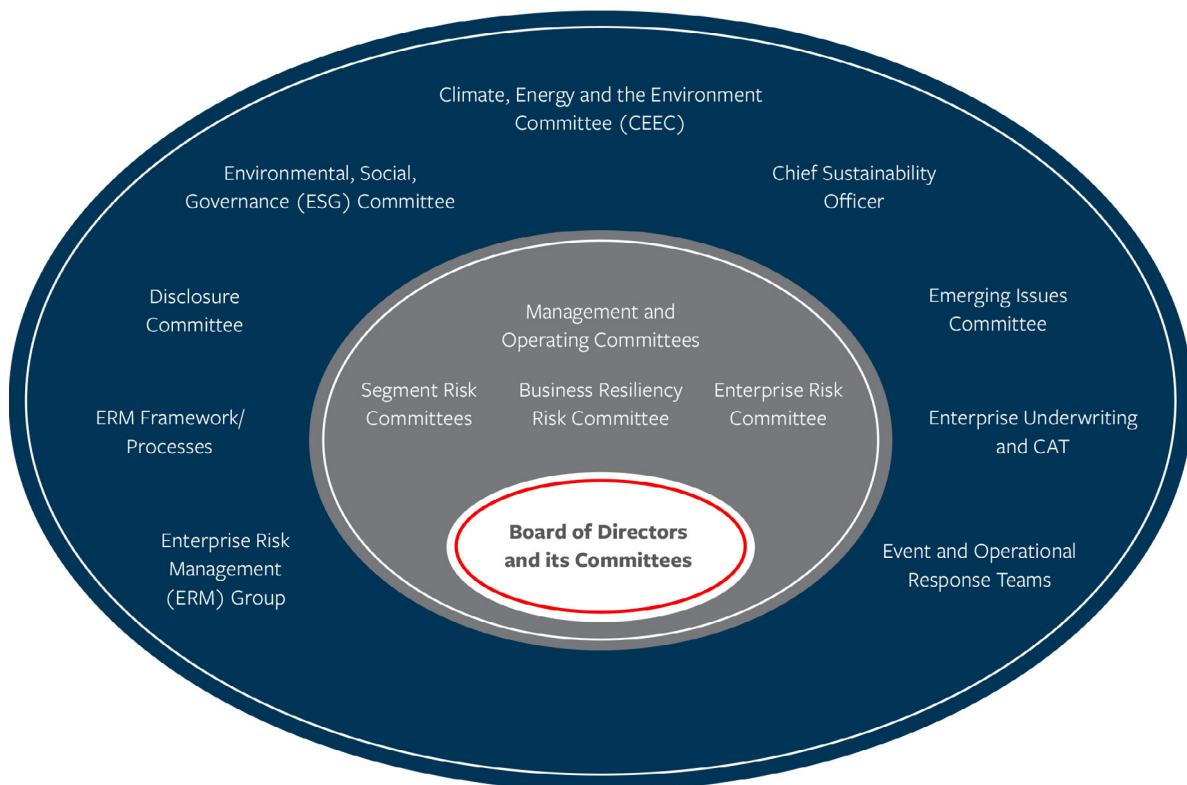
Senior Management

In addition to the Risk Committee, our management-level enterprise risk and underwriting risk committees are key elements of our ERM structure and help establish and reinforce our strong culture of risk management, including with respect to changing climate conditions. A senior executive team, which includes the Chief Risk Officer and the Chief Underwriting Officer, oversees the ERM process.

We also have other business-level risk committees that meet multiple times a year with senior management to discuss potential risks to Travelers related to the environment and changing climate conditions. These committees include the Enterprise Risk Committee, the Enterprise Catastrophe Committee, the Emerging Issues Committee, and the Climate, Energy and the Environment Committee (CEEC). As described in further detail under [Risk Management](#), the CEEC coordinates and supports climate-related initiatives and strategies across Travelers and is a venue to share information and leverage expertise.

In 2019, Travelers appointed a Chief Sustainability Officer, who leads Travelers’ environmental, social and governance (ESG) efforts across the organization, chairs the Company’s multidisciplinary ESG Committee and is a member of the Company’s Disclosure Committee. Our Chief Sustainability Officer also works with our ERM department to ensure that identification and assessment of ESG risks are appropriately integrated into our ERM program.

The diagram below illustrates the comprehensive approach we take to overseeing and managing risk, including climate-related risk.



Strategy

Identified Climate-related Risks and Opportunities

Travelers considers climate risks and opportunities across a range of time horizons:

TIME HORIZON	CONSIDERATIONS	CLIMATE RISKS (TRANSITION OR PHYSICAL)	CLIMATE OPPORTUNITIES
Short-term: 1–3 years	Aligns with the average length of a Travelers policy and the timeframe for which we perform detailed business plans.	<ul style="list-style-type: none"> • Mandates on, and regulation of, existing products and services (transition) 	<ul style="list-style-type: none"> • Increased revenue through demand for “green” building/LEED certification designations • Increased revenue through demand for energy efficient, renewable and/or clean technology
Medium-term: 3–5 years	Aligns with our development and execution of business strategies that impact directional planning and market-related adjustments based on ongoing or changing conditions.	<ul style="list-style-type: none"> • Changing emissions-reporting obligations (transition) 	<ul style="list-style-type: none"> • Development of new products or services for renewable energy businesses through R&D and innovation • Increased sales of Travelers automobile and property insurance products with new technologies
Long-term: 5–50 years	Aligns with longer-term changes (e.g., climate-related risk, energy consumption / energy sources) that present risks and opportunities that extend beyond the short- and medium-term.	<ul style="list-style-type: none"> • Changes in frequency and severity of catastrophe losses and uncertainty surrounding weather volatility and climate-related risk (physical) 	<ul style="list-style-type: none"> • Mitigation of risks over time for customers who utilize our Risk Control services

Climate Risks

The following are examples of specific climate-related risks Travelers has identified for each time horizon. The inclusion of these examples should not be construed as a characterization regarding the probability, materiality or financial impact (or potential impact) of these risks. For a discussion of risks that Travelers has determined could be material, please see our “Risk Factors” disclosure in [Annual Report on Form 10-K](#).

1. Mandates on, and regulation of, existing products and services (short-term transition)

Increased regulation adopted in response to potential changes in climate conditions may impact the Company and its customers. For example, from time to time, states pass legislation and regulators take action that could have the effect of limiting the ability of insurers to manage catastrophe risk, such as legislation prohibiting insurers from reducing exposures or withdrawing from catastrophe-prone areas or mandating that insurers participate in residual markets. Participation in residual market mechanisms has, at times, resulted in and could, in the future, result in significant losses or assessments to insurers, including Travelers.

Increased insurance regulation in response to disasters or catastrophes may also include imposing moratoriums on policy cancellation or nonrenewal for nonpayment of premium; establishing further claim handling requirements or procedures; imposing additional claim data reporting requirements; establishing mediation programs for resolution of disputed claims; and modifying adjuster licensing procedures for independent and public adjusters. Travelers’ exposure to catastrophes both by peril and by geographic region is monitored on a regular basis. When appropriate, this exposure analysis can lead to changes in the underwriting strategy for a given peril/location.

Travelers also may establish new or additional procedures and processes and may need to adjust staffing levels or its use of contracted services to help ensure that it remains compliant with additional regulatory standards imposed on insurers in the event of a future disaster or catastrophe. The cost of managing compliance with additional regulatory standards could vary and would be impacted by the number and types of additional standards imposed on insurers, including following a future disaster or catastrophe. Additionally, following catastrophes, there are sometimes legislative and administrative initiatives and court decisions that seek to (i) expand insurance coverage for catastrophe claims beyond the original intent of the policies, (ii) retroactively mandate coverage for losses that our insurance policies were neither intended nor priced to cover or (iii) prevent the enforcement of the policy terms, including the application of deductibles. Costs associated with these risks vary depending on the specific action taken and are often hard to predict, but they could be significant.

In addition, climate change regulation could increase the Company's customers' costs of doing business. For example, insureds faced with carbon management regulatory requirements may have less available capital for investment in loss prevention and safety features, which may, over time, increase loss exposures. Increased regulation may also result in reduced economic activity, which would decrease the amount of insurable assets and businesses.

2. Changing emissions-reporting obligations (medium-term transition)

Continued uncertainty amid legal challenges over the future of the Environmental Protection Agency (EPA) regulations regarding air and water (including coal-related standards) may give rise to more environmental regulation at the state level. This, in turn, may result in differing sets of standards in each state, which could make insurance risk more difficult to underwrite and price, particularly as air and water travel beyond state boundaries. For example, in June 2019, the EPA repealed the August 2015 Clean Power Plan (CPP) because the CPP exceeded the EPA's statutory authority under the Clean Air Act. In conjunction with its repeal of the CPP, the EPA issued a final Affordable Clean Energy (ACE) rule to regulate greenhouse gas (GHG) emissions, specifically CO₂ emissions, from existing coal-fired electric steam generating units (EGUs) as defined by the EPA. Legal challenges were filed against the EPA's actions in the U.S.

Court of Appeals for the District of Columbia Circuit, and although the court struck down the ACE rule, the CPP has not been reinstated, leaving no current federal regulations in place for carbon dioxide emissions from existing power plants. The court did affirm the EPA's authority to set emission-reduction targets in its quantitative guidelines while acknowledging that states retain the choice of how to meet those guidelines through standards of performance tailored to their various energy sources. Depending on the final outcome of the legal proceedings and any related impact on the EPA's scope of authority to establish federal emissions guidelines (or on states' ability to choose how to meet such guidelines), new rules proposed by the EPA to regulate power plant emissions could potentially (i) facilitate more environmental regulation at the state level to regulate existing power plant GHG emissions, (ii) impact the demand for renewable energy at the state level or (iii) disrupt the current balance between federal and state regulatory authority to regulate GHG emissions in ways not yet understood. Over time, this may result in lower demand for Travelers insurance products and services related to renewable energy in the United States.

3. Changes in frequency and severity of catastrophe losses and uncertainty surrounding weather volatility and climate-related risk (long-term physical)

Travelers is subject to catastrophe exposures in each of the geographies where it writes business and to varying peak catastrophe perils in different countries and regions.

The incidence and severity of catastrophes are inherently unpredictable, and it is possible that both the frequency and severity of natural and man-made catastrophic events could increase. Severe weather events over the last two decades have underscored the unpredictability of future climate trends, and changing climate conditions could add to the frequency and severity of natural disasters and create additional uncertainty as to future trends and exposures. The insurance industry has experienced increased catastrophe losses due to a number of potential factors, including, in addition to weather/climate variability, more people living in high-risk areas, population growth in areas with weaker enforcement of building codes, urban expansion and an increase in the average size of a house. For example, hurricane activity has impacted areas further inland than previously experienced by us, and demographic changes

have resulted in larger populations located in coastal areas that historically have been subject to severe storms and related storm surge, thus expanding our potential for losses from hurricanes.

Additionally, both the frequency and severity of tornado and hail storms in the United States have been more volatile during the last decade. The frequency and severity of wildfire losses have also been elevated in recent years, due in part to record droughts in western states that some climate studies suggest are likely to increase over time, as well as demographic changes in areas more prone to wildfires.

Moreover, the Company's catastrophe models may be less reliable due to the increased unpredictability in frequency and severity of severe weather events, emerging trends in climate conditions, inadequate reflection of regulatory changes and other factors. Also, as discussed in our [Annual Report on Form 10-K](#), we could experience more than one severe catastrophic event in any given period.

Climate Opportunities

The following are examples of specific climate-related opportunities Travelers has identified for each time horizon. The inclusion of these examples should not be construed as a characterization regarding materiality or financial impact (or potential impact) of these opportunities.

1. Increased revenue through demand for “green” building/LEED certification designations (short-term)

State and local regulatory requirements such as OneNYC (GBEE – Greener, Greater Buildings Plan) drive renovation work that could lead to increased construction activity, potentially creating opportunities to grow our book of business in impacted states such as the Top 10 States for LEED: Massachusetts, Washington, Illinois, Colorado, New York, Maryland, California, Virginia, Texas and Nevada, as well as the District of Columbia. Travelers consults with industry advocates for better building standards that are designed to increase the survivability of commercial and residential structures.

Travelers' specialized Construction casualty and surety teams, which also have expertise in “green” construction, provide highly skilled underwriting; customized INDUSTRYEdge® products for specific industries (such as our [INDUSTRYEdge® for Electrical Contractors](#) and [INDUSTRYEdge® for General Contractors](#)); and tailored programs and services to help reduce contractors' cost of risk, including risk associated with “green” construction products. INDUSTRYEdge® is our fully integrated business risk solution that combines underwriting, risk control and claim services tailored to a range of different industries and businesses, helping customers to mitigate their risks and reduce costs arising out of losses. A complete list of our INDUSTRYEdge® product solutions for the construction industry is available on our [website](#).

2. Increased revenue through demand for energy efficient, renewable and/or clean technology (short-term)

Environmental legislation and regulation on the state and local levels, such as those pertaining to solar energy, could lead to an increase in demand for Travelers products that respond to customer needs resulting from such regulation. For example, the San Francisco Green Building Code (SFGBC) has requirements for new building construction that initially facilitated the development of renewable energy facilities and living roofs. Effective January 1, 2020, updated requirements under SFGBC 2019 apply to all new construction in San Francisco, as well as most alterations and additions under completed building permit (or Site Permit) applications submitted on or after January 1, 2020. SFGBC 2019 expands green building requirements and combines all mandatory elements of the 2019 California Green Building Standards Code (CALGreen) and stricter local requirements. Growth in the renewable energy and clean technology industry segments, as a result of regulatory mandates or incentives or otherwise, could result in increased sales of specialized insurance and surety products that address renewable energy-associated risks (e.g., Travelers SolarPak®) and a potential increase in Business Insurance and Bond & Specialty Insurance net written premiums.

3. Development of new products or services for renewable energy businesses through R&D and innovation (medium-term)

The Renewable Portfolio Standard (RPS) has been enacted in 29 states and the District of Columbia, and Clean Energy Standards have been adopted by three states. These standards are part of the renewable energy and alternative energy frameworks established by the U.S. Department of Energy and individual states. In addition, eight states have renewable portfolio goals and two states have clean energy goals that are expected to increase the need for renewable energy products and services. These standards and goals and the related increased demand for renewable energy products and services provide the opportunity to develop new insurance products tailored to changes in related markets. Our dedicated Global Renewable Energy Practice, which provides solutions for renewable energy businesses, enables Travelers to evaluate and pursue the opportunities presented by the expanding renewable energy industry, as discussed in further detail under [Capturing Climate Opportunities](#).

4. Increased sales of Travelers automobile insurance products with new technologies (medium-term)

Auto emissions regulations throughout the United States may lead to an increase in demand, production and availability of hybrid and electric vehicles (EVs), which could lead to increased sales of Travelers automobile insurance products for hybrid and electric autos. The projected substantial increase in the number of EVs and charging stations could lead to an increase in demand for Travelers products over time.

5. Mitigation of risks over time for customers who utilize our Risk Control services (long-term)

Travelers Risk Control employs a network of safety and loss prevention professionals who provide assessment and consulting services to our customers and our Business Insurance domestic and international operations.

Our network of more than 500 Risk Control consultants and our self-service website for Business Insurance customers provide a comprehensive framework and numerous

planning resources, including individualized planning, to help businesses of all types plan for natural disasters, with a focus on safety and preserving business operations.

Climate trends, which manifest over long periods of time, provide a long-term opportunity for the Travelers Risk Control department to offer and develop services to help current and potential customers mitigate the risks associated with changing climate conditions. For example, to help mitigate and minimize property losses caused by weather-related events, Travelers Risk Control has developed a comprehensive framework of technical planning resources to assist customers with conducting business impact analyses to prioritize and implement risk management action plans and physical improvements. Risk Control monitors events and claim trends and partners with associations such as the Insurance Institute for Business & Home Safety (IBHS) to assess innovative building products and new technologies to minimize wind, hail, flood and wildfire exposures. This deep domain expertise allows us to help customers improve their resiliency over time.

In addition, our Risk Control professionals provide guidance about associated risks to our customers who have incorporated “green” products or systems to help reduce carbon emissions and/or increase environmental sustainability. These products and systems include, for example, solar panels on residential and commercial rooftops, lithium ion batteries used to store solar energy and vegetative roofs on commercial buildings.

Travelers Risk Control maintains technical committee memberships on the National Fire Protection Association (NFPA), the Underwriters Laboratories (UL) Standards Technical Panels, the Fire Protection Research Foundation’s Property Insurance Research Group, the Organization of Scientific Area Committees for Forensic Science (OSAC) and other associations to help us research and evaluate the reliability and fire safety of “green” products and systems to determine how these products and systems impact fire, structural and safety exposures. This knowledge is used to continually update our views and empowers our Risk Control professionals to help our customers mitigate the risks associated with changing climate conditions and “green” trends, with a goal of improving outcomes while strengthening customer relationships.

Process Used to Determine Climate-related Risks

Travelers uses various analyses and methods, including proprietary and third-party computer modeling processes, to evaluate our climate-related risks and make underwriting, pricing and reinsurance decisions designed to manage the Company's exposure to catastrophic events. In addition to catastrophe modeling and analysis, Travelers also models and analyzes the Company's exposure to other extreme events. We also utilize proprietary and third-party computer modeling processes to evaluate capital adequacy. These analytical techniques are an integral component of our ERM process and further support our long-term financial strategies and objectives.

As discussed in both the [Governance](#) and [Risk Management](#) sections of this report, business-level risk committees play an active role in developing and executing our Enterprise Risk Management (ERM) strategy. The Climate, Energy and the Environment Committee (CEEC) includes two subcommittees that are directly involved with determining climate-related risks and opportunities, respectively: the Risk Identification & Management subcommittee, discussed immediately below, and the Products, Market Development & Customer Services subcommittee, discussed under [Process Used to Determine Climate-related Opportunities](#).

The Risk Identification & Management subcommittee includes representatives from our ERM function in the United States and the United Kingdom, including the Enterprise Catastrophe Strategy and Enterprise Underwriting groups; our business underwriting groups across the Company; our Risk Control function; and the Investment, Legal and Regulatory functional areas. The subcommittee meets regularly to discuss and assess climate-related issues, risks and trends.

The subcommittee stays current on climate-related and environmental risks, including through industry publications and external conferences, and actively monitors various relevant risk factors, such as:

- Climate-related litigation and novel theories of liability.
- Legal and regulatory requirements impacting climate, energy and the environment.
- Market-based policies that put a price on greenhouse gases, such as carbon pricing or cap-and-trade programs.

- Efforts by states, nations and nongovernmental organizations to adopt policies or implement programs designed to reduce emissions impacting global temperatures.
- Emerging regulatory requirements and “best practice guides” for international businesses with respect to risk management, disclosure and scenario analysis practices relating to changing climate conditions.
- Impacts related to emerging “clean” or “green” energy and technology trends and products.

The subcommittee also receives regular updates from internal subject matter experts regarding emerging scientific analyses and published reports relating to weather trends and the effects of changing climate conditions. The majority of these publications focus on forward-looking impacts. These publications include:

- Materials issued by the U.N. Intergovernmental Panel on Climate Change (IPCC).
- The National Climate Assessment Reports issued in the United States by the National Oceanic and Atmospheric Administration (NOAA) as part of the U.S. Global Change Research Program (USGCRP).
- Articles published in scientific journals.

When a potential risk is identified, the subcommittee engages in a comprehensive review to evaluate the risk. This process involves the relevant internal stakeholder groups and, as appropriate, may be elevated under our ERM framework for discussion with senior management and the Board of Directors.

Separately, the Enterprise Catastrophe Strategy and Analysis group assesses catastrophe (CAT) risk and manages the development of our strategic CAT efforts, including the use of proprietary and third-party models and geospatial analysis to analyze CAT events and related risks.

This group actively monitors and evaluates changes in third-party models and, when necessary, calibrates the CAT risk model estimates delivered via our proprietary modeling processes. We consider historical loss experience, recent events, underwriting practices, market share analyses, external scientific analysis and various other factors, including non-modeled losses, to refine our proprietary view of catastrophe risk. Our proprietary models,

which are an integral part of our ERM process and support our long-term financial strategies and objectives, are updated on a regular basis as new information and techniques emerge. Importantly, in addition, our underwriting appetite evolves as the environment evolves, and we modify our underwriting if we believe that the risks exceed our risk appetite. Finally, as discussed under Underwriting, Pricing and Mitigation of Climate Risks, in addition to factoring in catastrophe models and historical experience, we are able to respond quickly to changing conditions since most of our policies renew annually. This gives us the flexibility to adjust our underwriting strategy and related policy terms and conditions, as appropriate.

For more information regarding how our process to determine climate-related risks is integrated within our ERM framework, please see [Risk Management](#).

Process Used to Determine Climate-related Opportunities

The business lead for the Global Renewable Energy Practice is the chair of one of the subcommittees of the CEEC, the Products, Market Development & Customer Services subcommittee. The subcommittee consists of Travelers specialized industry experts, who collaborate, among other things, on:

- Identifying potential new products and assessing their feasibility.
- Exploring potential new markets.
- Monitoring the impact of climate and “green” trends on current product offerings.
- Sharing ideas and exploring possibilities to avail ourselves of additional climate-related opportunities.

When we identify a potential opportunity, we conduct a comprehensive evaluation of the viability of the opportunity, as well as the risks associated with the opportunity. This process involves experts from the relevant disciplines across the organization, including industry experts and our Risk Control professionals. After a determination is made that a product is viable and within our risk appetite, further vetting is conducted through our ERM process prior to product development and/or launch.

Impact of Climate-related Risks and Opportunities on Travelers’ Business and Strategy

Our approach to climate-related risks and opportunities is multifaceted, and we believe it allows us to mitigate our exposure to climate-related risk and provide products and services that both help our customers mitigate those risks and meet our long-term financial objectives. Our approach includes underwriting and pricing to manage transition and physical risks, as well as monitoring “green” trends and offering products and tailoring pricing to respond to climate-related opportunities. Other aspects of our comprehensive climate strategy include advocating for and supporting community resiliency efforts and improving our eco-efficient operations.

Underwriting, Pricing and Mitigation of Climate Risks

Our risk appetite is dependent on our ability to understand the property and casualty risks that we underwrite. We try to avoid exposures that cannot be evaluated or have unacceptable levels of uncertainty. For both property and casualty lines of business, we consider environmental factors, including weather trends and patterns, alongside other relevant risk variables in our underwriting evaluation process and in our underwriting strategies. Understanding climate-related effects on weather perils is part of this fundamental evaluation process, which includes the underwriting and pricing of risks related to many of our products.

Pricing of Travelers property and casualty insurance products is generally developed based upon a number of factors, including an estimation of expected losses; the expenses associated with producing, issuing and servicing business and managing claims; the time value of money related to the expected loss and expense cash flows; and a reasonable profit margin that considers, among other factors, the capital needed to support the Company’s business. Travelers has a disciplined approach to underwriting and risk management that emphasizes product returns and profitable growth over the long term rather than premium volume or market share.

Catastrophe Modeling

Core to our strategy is the incorporation of weather and climate variability into our underwriting and pricing decisions. Our catastrophe modeling, as described in the [Process Used to Determine Climate-related Risks](#) section above, is critical to this effort.

It is important to note that there are no industry-standard methodologies or assumptions for projecting catastrophe exposure. Accordingly, catastrophe estimates provided by different insurers may not be comparable.

Based on the proprietary and third-party computer models utilized by the Company, the table below sets forth, as of December 31, 2020, the probabilities that estimated losses, comprising claims and allocated claim adjustment expenses (but excluding unallocated claim adjustment expenses), from a single event occurring in a one-year timeframe will equal or exceed the indicated loss amounts (expressed in dollars, net of tax, and as a percentage of the Company's common equity). For example, on the basis described in the table below, the Company estimates that there is a one percent chance that the Company's loss from a single U.S. and Canadian hurricane in a one-year timeframe would equal or exceed \$1.7 billion, or 7% of the Company's common equity at December 31, 2020.

LIKELIHOOD OF EXCEEDANCE ^[2]	DOLLARS (IN BILLIONS)		PERCENTAGE OF COMMON EQUITY ^[1]	
	SINGLE U.S. AND CANADIAN HURRICANE	SINGLE U.S. AND CANADIAN EARTHQUAKE	SINGLE U.S. AND CANADIAN HURRICANE	SINGLE U.S. AND CANADIAN EARTHQUAKE
2.0% (1-in-50)	\$1.3	\$0.5	5%	2%
1.0% (1-in-100)	\$1.7	\$0.8	7%	3%
0.4% (1-in-250)	\$2.3	\$1.2	9%	5%
0.1% (1-in-1,000)	\$5.2	\$1.8	21%	7%

^[1]An event that has, for example, a 2% likelihood of exceedance is sometimes described as a "1-in-50 year event." As noted above, however, the probabilities in the table represent the likelihood of losses from a single event equaling or exceeding the indicated threshold loss amount in a one-year timeframe, not over a multi-year timeframe. Also, because the probabilities relate to a single event, the probabilities do not address the likelihood of more than one event occurring in a particular period, and, therefore, the amounts do not address potential aggregate catastrophe losses occurring in a one-year timeframe.

^[2]The percentage of common equity is calculated by dividing (a) indicated loss amounts in dollars by (b) total common equity excluding net unrealized investment gains and losses, net of taxes, included in shareholders' equity. Net unrealized gains and losses on investments can be significantly impacted by both interest rate movements and other economic factors. Accordingly, the Company's management uses the percentage of common equity calculated on this basis as a metric to evaluate the potential impact of a single hurricane or single earthquake on the Company's financial position for purposes of making underwriting and reinsurance decisions.

The threshold loss amounts in the table above, which are based on the Company's in-force portfolio at December 31, 2020, and catastrophe reinsurance program at January 1, 2021, are net of reinsurance, after-tax and exclude unallocated claim adjustment expenses, which historically have been less than 10% of loss estimates. For further information regarding the Company's reinsurance, see "Item 1 – Business – Reinsurance" in our [Annual Report on Form 10-K](#) for the fiscal year ended December 31, 2020. The amounts for hurricanes reflect U.S. and Canadian exposures and include property exposures, property residual market exposures and an adjustment for certain non-property exposures. The hurricane loss amounts are based on the Company's catastrophe risk model estimates and include losses from the hurricane hazards of wind and storm surge. The amounts for earthquakes reflect U.S. and Canadian property and workers compensation exposures. The Company does not believe that the inclusion of hurricane or earthquake losses arising from other geographical areas or other exposures would materially change the estimated threshold loss amounts.

Catastrophe modeling relies upon inputs based on experience, science, engineering and history. These inputs reflect a significant amount of judgment and are subject to changes which may result in volatility in the modeled output. Catastrophe modeling output may also fail to account for risks that are outside the range of normal probability or are otherwise unforeseeable. Catastrophe modeling assumptions include, among others, the portion of purchased reinsurance that is collectible after a catastrophic event, which may prove to be materially incorrect. Consequently, catastrophe modeling estimates are subject to significant uncertainty. In the table above, the uncertainty associated with the estimated threshold loss amounts increases significantly as the likelihood of exceedance decreases. In other words, in the case of a relatively more remote event (e.g., 1-in-1,000), the estimated threshold loss amount is relatively less reliable. Actual losses from an event could materially exceed the indicated threshold loss amount. In addition, more than one such event could occur in any period.

Moreover, Travelers is exposed to the risk of material losses other than property and workers compensation coverages arising out of hurricanes and earthquakes, and it is exposed to catastrophe losses from perils other than hurricanes and earthquakes, such as tornadoes and other windstorms, hail, wildfires, severe winter weather, floods, tsunamis, volcanic eruptions, solar flares and other naturally occurring events.

In addition, compared to models for hurricanes, models for earthquakes are less reliable due to there being a more limited number of significant historical events to analyze, while models for tornadoes, hail storms, wildfires and winter storms are newer and may be less reliable due to the highly random geographic nature and size of these events. Accordingly, these models may be less accurate in predicting risks and estimating losses. Further, changes in climate conditions could cause our underlying modeling data to be less predictive, thus limiting our ability to effectively evaluate and manage catastrophe risk. In addition, models for some events are either in early stages of development and, therefore, not widely adopted, or are not yet available.

For more information about the Company's exposure to catastrophe losses, see our [Annual Report on Form 10-K](#) for the fiscal year ended December 31, 2020, under "Item 1A – Risk Factors – High levels of catastrophe losses, including as a result of factors such as increased concentrations of insured exposures in catastrophe-prone areas, could materially and adversely affect our results of operations, our financial position and/or liquidity,

and could adversely impact our ratings, our ability to raise capital and the availability and cost of reinsurance" and "Item 1A – Risk Factors – We may be adversely affected if our pricing and capital models provide materially different indications than actual results."

External Studies

In addition to catastrophe modeling, we evaluate the findings contained in governmental reports, such as the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5; 2014) and the U.S. Fourth National Climate Assessment Reports (NCA4 volumes 1 and 2; 2017–2018), as well as other external scientific studies related to climate to assess potential impacts on our underwriting and pricing decisions. For example, we have evaluated the extent to which phases of the Atlantic Multidecadal Oscillation, the El Niño–Southern Oscillation, the North Atlantic Oscillation and Saharan dust conditions may influence changes in basin frequency, severity or U.S. landfall risk of hurricanes.

Catastrophe Experience

Our catastrophe underwriting also incorporates lessons learned from recent events, including the 2017 Tubbs Fire (California), the 2018 Camp Fire (California) and the 2019 Kincade Fire (California), as well as past events, such as Hurricanes Harvey and Katrina and Superstorm Sandy. Those lessons are reflected in our:

- Disciplined approach to terms and conditions that are designed to make outcomes more predictable.
- [Risk control initiatives](#), which help us with risk mitigation, selection and pricing.
- Proprietary flood underwriting, which factors in building footprints compared to segmented flood zones.
- Proprietary wildfire underwriting, which factors in terrain slope, vegetation density and propensity to burn, and road access, including proximity to fire stations, as well as historical footprints.

As it relates to the California wildfires in particular, we now view events such as those of the past few years as being less remote than we thought previously. As a consequence of that, as well as the longer-term trend in catastrophe losses, for certain perils we have weighted our more recent experience somewhat more heavily than we otherwise would have in modeling catastrophe losses going forward.

Additional Factors Limiting Our Exposure to Climate-related Risks

In addition to factoring in catastrophe models, external studies and historical experience, we are able to mitigate our exposure to climate-related risks including through the following:

- **Annual Policies.** We are able to respond quickly to changing conditions since most of our policies renew annually. This gives us the flexibility to adjust our pricing, underwriting strategy and related policy terms and conditions, as appropriate. In addition to making short-term tactical adjustments to our underwriting strategy and product pricing based on the climate-related risks we identify, we monitor climate-related risks on a medium- and long-term horizon to arrive at a holistic view of climate-related impacts on our business, further allowing us to adjust and refine our strategy, products and pricing.
- **Reinsurance.** Informed by our risk selection, claim experience and risk appetite, we reinsure a portion of the risks we underwrite to further manage our exposure to losses and to protect our capital. We cede to reinsurers a portion of these risks and pay premiums based upon the risk and exposure of the policies subject to such reinsurance. We conduct an ongoing review of our risk and catastrophe coverages and, from time to time, make changes to our reinsurance program as we deem appropriate. For example, Travelers utilizes a corporate catastrophe excess-of-loss reinsurance treaty with unaffiliated reinsurers to manage its exposure to losses resulting from catastrophes and to protect its capital. In addition to the coverage provided under this treaty, Travelers also utilizes catastrophe bonds to protect against certain weather-related losses in the Northeastern United States and a Northeast catastrophe reinsurance treaty to protect against losses resulting from weather-related catastrophes in the Northeastern United States. To address some ongoing degree of uncertainty surrounding weather volatility, we added a new catastrophe reinsurance treaty to our overall reinsurance program in 2019. For further discussion of our reinsurance program, see our [Annual Report on Form 10-K](#).

- **Product Diversity.** Our broad product diversity also mitigates our exposure to climate-related risks. We engage broadly across nine major lines of insurance through our three business segments – Business Insurance, Bond & Specialty Insurance and Personal Insurance. Our portfolio is balanced across these lines of business and further diversified by geography and customer size and type. Travelers is the second largest U.S. commercial insurer with a top-five position in five major product lines, including a No. 1 position in workers compensation and commercial multi-peril.^[1] Our Business Insurance segment accounts for more than half of our net written premiums and includes product lines that are less susceptible to climate-related risks, such as workers compensation and general liability. Likewise, our Bond & Specialty Insurance segment offers primarily fidelity, surety, cyber, management liability and professional liability products. In 2020, 60% of domestic premiums were from liability lines (e.g., workers compensation, management liability, general liability, auto insurance), whereas 40% of domestic premiums came from property lines (e.g., homeowners and commercial property). See the [Business Strategy & Competitive Advantages](#) section of our sustainability website to learn more about our product breadth and specialization.

Capturing Climate Opportunities

Travelers is positioned to benefit from the increased economic activity in the renewable energy and clean technology industries by insuring more renewable energy projects globally. Our dedicated Global Renewable Energy Practice provides solutions for the life span of a renewable energy business, from research and development and manufacturing to permanent operations, as well as onshore and offshore wind, solar and biopower operations. This practice is designed to facilitate innovation and the growth of renewable energy businesses and support the transition over time to a lower-carbon economy. Our Global Renewable Energy Practice also helps Travelers capture a greater share of the expanding renewable energy industry domestically and internationally, as trends toward renewable and clean energy sources continue to accelerate. For example, our WindPak[®] and SolarPak[®] products respond to unique coverage issues

^[1]S&P Global Market Intelligence, 2020 U.S. Statutory DWP: Commercial Multi-Peril (Commercial Multi-Peril (Non-Liability), Farmowners Multiple Peril); Commercial Auto (Commercial Auto No-Fault (Personal Injury Protection), Commercial Auto Physical Damage, Other Commercial Auto Liability); General Liability (Other Liability: Occurrence, Product Liability); Workers Compensation; and Surety.

for the wind and solar industries based in the United States. We have also expanded our international footprint for onshore and offshore wind and solar operations throughout Asia, Europe, the United Kingdom, Mexico and Canada with our unique coverages written through Travelers Lloyd's Syndicate 5000.

We continue to aggressively pursue the renewable energy sector, such as by providing coverages globally for commercial and residential solar installations and onshore and offshore wind farms, including the first U.S. offshore wind farm project, Block Island Wind Farm. In 2020, our Global Renewable Energy Practice grew its gross written premiums by nearly 40% year over year.

We also offer specialized coverage, as well as discounts where permissible, to incentivize environmentally responsible behavior – specifically, to encourage adoption of FORTIFIED Home™ construction, green buildings and hybrid/electric vehicles. Examples of our current product offerings include the following:

- **Green Building Coverages.** A suite of green building coverages that respond to the unique coverage issues of “green” buildings and provide for the additional costs to help policyholders repair, replace or rebuild with “green” materials after a loss.
- **Green Home Discount.** A discount of up to 5% for homes that are LEED (Leadership in Energy and Environmental Design) certified.
- **Wind Mitigation Discount.** In many states, our newest homeowners program offers a discount of up to 18% on hurricane premium for homes built to the IBHS FORTIFIED Gold™ standard. In Alabama, depending on the location, the discount can be up to 55% on hurricane premium for this designation. Additional discounts for wind mitigation may be available by state.
- **Hybrid/Electric Vehicle Discount.** A discount for hybrid or electric vehicles.
- **Hybrid Boat Discount.** A discount of up to 10% for hull and liability coverages on hybrid boats and yachts – available in certain states and subject to individual eligibility.

- **Electric Boat Discount.** A discount of up to 10% for electric boats run by motors instead of engines – available in certain states and subject to individual eligibility.

Other Aspects of Travelers’ Climate Strategy

In addition to accounting for climate risk in our underwriting and pricing decisions and providing products and product features that capture climate-related opportunities, our climate strategy includes the following components:

- **Advocating for Community Resiliency.** As part of an ongoing effort to enhance public awareness about the need for effective adaptation strategies to reduce losses related to natural disasters, Travelers supports and participates in research, advocacy and education. Travelers sponsors IBHS, the BuildStrong Coalition, Habitat for Humanity®, SBP and the Wharton Risk Center to promote stronger building codes and more resilient communities and to influence industry standards and best practices. We participate on the board of IBHS, an independent, nonprofit, scientific research organization supported by the insurance industry. IBHS translates top-tier research into action to strengthen homes and businesses, inform the insurance industry and increase community resiliency. Over the last decade, IBHS has identified gaps through full-scale laboratory testing at its state-of-the-art facility and influenced changes to existing building code standards and best practices to mitigate potential losses. Through our research partnership with IBHS, we have gained a better understanding of severe wind, hail and fire impacts on building engineering standards. Travelers has incorporated these insights into our approaches for rating and underwriting.

We also participate on the board of the BuildStrong Coalition, a group composed of national business and consumer organizations, companies and emergency management officials. BuildStrong is dedicated to advocating for federal government legislation and incentivizing state adoption and enforcement of building codes to protect property, save lives from the devastation of natural disasters and reduce loss costs.

In 2018, national mitigation and resiliency efforts benefited from the enactment of the Disaster Recovery Reform Act. Long a priority for Travelers and the BuildStrong Coalition, this legislation provides states and localities with dedicated pre- and post-disaster funding opportunities that will save lives and help communities reduce the future costs of natural disasters by helping homeowners fortify their homes using IBHS proven technologies. State and federal funding for resiliency efforts is essential. According to a National Institute of Building Sciences study, for every \$1 spent on hazard mitigation, the United States can save \$6 in future disaster costs. In these ways, we are advocating for our communities, which we believe is good for our customers, for the communities in which we live and work and for creating shareholder value over time.

- **Improving Our Eco-Efficient Operations.** We continually analyze our impacts on the environment and look for cost-effective ways to minimize those impacts. We utilize an environmental management system that regularly reviews our operations to measure our impacts and to identify opportunities that increase efficiency and reduce costs.

Some of the key elements of our environmental management system include periodic recommissionings of facilities; evaluating emerging technologies, such as alternative energy, and their potential use in our facilities; partnering with power and other utility providers to review our operations and, when available, leveraging their incentive programs to help fund our improvements; evaluating potential changes to energy regulations that may impact our costs and operations; using technology to fine-tune operational parameters; minimizing and recycling as much waste as possible; and evaluating how to be more efficient in space utilization, which has led to the introduction of an [open workspace environment](#) that is designed to increase operational efficiency and decrease our need for office space, further minimizing our impact on the environment. Results from these initiatives have been very favorable. For example, from an owned-facility perspective, as a result of these actions, we have reduced our electricity usage by 42% over the last decade. In addition, our open workspace environment, which we began to implement in 2017, increases operational efficiency and decreases our need for office space. We expect that upon completion of

our office renovation project, we will reduce our real estate portfolio in Hartford (our largest location) by approximately 30% and the balance of our U.S. portfolio by approximately 20%.

- **Thought Leadership on Disaster Preparedness.** Travelers is helping to proactively address risks such as hurricanes, wildfires and other disasters through the Travelers Institute, the public policy division of Travelers. The Travelers Institute gathers community members and professionals, including independent insurance agents and brokers, to explore the science of these issues and the latest research on prevention and mitigation. Given the dual challenges during 2020 of preparing for a disaster while facing the pandemic, the Travelers Institute teamed up with IBHS and the American Property Casualty Insurance Association (APCIA) during National Hurricane Preparedness Week on a media campaign to provide information and tips to prepare a home or business for a disaster. In addition, the Travelers Institute convened these organizations for a [webinar](#) to celebrate the 10th anniversary of the IBHS Research Center, highlighting successes and lessons learned on preparedness for wildfires, hail and wind events.

Additional details on these aspects of our strategy can be found in the [Climate Strategy](#), [Eco-Efficient Operations](#) and [Public Policy](#) sections of our sustainability website.

Risk Management

Travelers employs a long-term financial strategy to manage risk/reward over time. We continually measure results to understand the performance of our products and businesses and apply our collaborative understanding of risk to adjust our current view of risk/reward, as appropriate. Through our ERM framework, we actively evaluate the risk/reward relationships on both an individual and a portfolio basis. This evaluation impacts the risks we decide to insure and the appropriate rates to charge. The Enterprise Underwriting department is one of the key internal risk management functions at Travelers. Enterprise Underwriting defines and manages Travelers' corporate underwriting risk appetite and controls to ensure consistency across the enterprise. Enterprise Underwriting also defines and manages the related underwriting authority standards and thresholds, and each business operates within the defined authority standards.

Risk management for changing climate conditions is addressed within our business model and ERM framework. As part of our ERM process, business and corporate groups work to identify and assess climate-related risks, both physical and transitional. We regularly review emerging issues, including changing climate conditions, to consider potential changes to our risk models and their use, as well as to help assess the need to adjust underwriting, pricing or reinsurance strategies, coverage terms and conditions or to develop new products or otherwise explore climate-related opportunities. We evaluate event exposures using CAT models, as discussed under [Strategy](#) above, and report aggregate exposure and strategies regularly to management and the Risk Committee of the Board. For more details on how we incorporate climate-related risk into our reinsurance portfolios, see [Underwriting, Pricing and Mitigation of Climate Risks](#).

Our integrated, iterative and collaborative ERM process includes evaluating risk and reward, setting underwriting and operational strategies, and monitoring the results of our efforts. As part of our process, we consider various external environments and influences, including the economy, insurance marketplace, and views of regulators, the investment community and rating agencies.

For climate-related risks – both physical and transitional – several management groups and business-level risk committees, including the Enterprise Catastrophe Strategy and Analysis group, the Enterprise Risk Committee, the Emerging Issues Committee and the Committee on Climate, Energy and the Environment (CEEC), advise the Board and its Risk Committee. The CEEC coordinates and supports climate-related initiatives and strategies across Travelers and is a venue to share information and leverage expertise. The CEEC has four subgroups, each led by senior staff and aligned with a key area of focus:

1. **Risk Identification & Management.** (Discussed in further detail under [Process Used to Determine Climate-related Risks](#).) Supports business activities to identify, monitor and assess climate-related risks. Participants include

representatives from our Enterprise Risk Management function (which includes the Enterprise Risk Management group, Enterprise Catastrophe Strategy and Analysis, and Enterprise Underwriting), Investments, Government Relations, Legal, Risk Control, Claim, Global Renewable Energy Practice and business underwriting groups across the Company.

2. **Products, Market Development & Customer Services.** (Discussed in further detail under [Process Used to Determine Climate-related Opportunities](#).) Supports activities to identify and develop product opportunities, explore potential new markets and expand services to help customers prepare for and respond to potential risks related to changing climate and “green” trends. Participants include Business Insurance Underwriting and Product, Enterprise Underwriting, Risk Control, Claim, the Global Renewable Energy Practice and employees from across our business units.
3. **External Relations, Communications & Industry Leadership.** Supports Travelers’ external-facing corporate groups on matters pertaining to climate, energy and the environment. Participants include the Travelers Institute, Government Relations, Corporate Communications, Enterprise Catastrophe Strategy and Analysis, Enterprise Underwriting, Risk Control, Community Relations and Investor Relations.
4. **Facilities & Operations Management.** Coordinates the Company’s initiatives and activities to develop and implement environmentally responsible corporate practices, including establishing emission reduction goals and monitoring progress in achieving those goals. Participants include members of the Travelers Corporate Real Estate team, along with key members of the facility management teams of our outsourced service provider.

For a more complete discussion of our ERM framework, please see our [Annual Report on Form 10-K](#) for the fiscal year ended December 31, 2020.

Metrics and Targets

We measure a variety of climate-related metrics that inform our climate and overall business strategies. We also set GHG targets to monitor our operational eco-efficiencies.

Catastrophe Losses

On an annual basis, we monitor changes in catastrophe model output on our book of business, changes in the state-of-the-science, and weather and non-weather loss trends as part of the natural catastrophe planning process by business unit and by peril.

(DOLLARS IN MILLIONS)	2020	2019	2018
Catastrophe Losses (pre-tax)	\$1,613	\$886	\$1,716
Catastrophe Losses (after-tax)	\$1,274	\$699	\$1,355
Earned Premiums Ceded (Reinsurance Premiums) ^[1]	\$1,944	\$1,798	\$1,501
Reinsurance Recoverable ^[1]	\$8,350 ^[2]	\$8,235	\$8,370

^[1]For total company, including related to catastrophes.

^[2](net allowance for estimated uncollectible reinsurance at \$146 at December 31, 2020)

The Company defines a “catastrophe” as an event:

- That is designated a catastrophe by internationally recognized organizations that track and report on insured losses resulting from catastrophic events, such as Property Claim Services (PCS) for events in the United States and Canada; and
- For which the Company’s estimates of its ultimate losses before reinsurance and taxes exceed a pre-established dollar threshold.

The Company’s threshold for disclosing catastrophes is primarily determined at the reportable segment level. If a threshold for one segment or a combination thereof is exceeded and the other segments have losses from the same event, losses from the event are identified as catastrophe losses in the segment results and for the consolidated results of the Company. Additionally, an aggregate threshold is applied for International business across all reportable segments. The threshold for 2020 ranged from approximately \$20 million to \$30 million of losses before reinsurance and taxes.

The table on the following page presents the amount of losses recorded by the Company for significant catastrophes that occurred in 2020, 2019 and 2018, the amount of net unfavorable (favorable) prior year reserve development recognized in 2020 and 2019 for catastrophes that occurred in 2019 and 2018, and the estimate of ultimate losses for those catastrophes at December 31, 2020, 2019 and 2018. For purposes of the table, a significant catastrophe is an event for which the Company estimates its ultimate losses will be \$100 million or more after reinsurance and before taxes.

(IN MILLIONS, PRE-TAX AND NET OF REINSURANCE) ^[1]	LOSSES INCURRED / UNFAVORABLE (FAVORABLE) PRIOR YEAR RESERVE DEVELOPMENT FOR THE YEAR ENDED DECEMBER 31,			ESTIMATED ULTIMATE LOSSES AT DECEMBER 31,		
	2020	2019	2018	2020	2019	2018
2018 PCS Serial Number:						
15 – Winter storm	\$1	\$(4)	\$144	\$141	\$140	\$144
17 – Severe wind and hail storms	(1)	(6)	111	104	105	111
33 – Severe wind and hail storms	–	2	117	119	119	117
52 – Hurricane Florence	(1)	(18)	106	87	88	106
57 – Hurricane Michael	(12)	2	158	148	160	158
59 – California wildfire – Camp fire ^[2]	(192)	2	334	144	336	334
60 – California wildfire – Woolsey fire	–	10	119	129	129	119
2019 PCS Serial Number:						
33 – Severe wind storms	8	250	n/a	258	250	n/a
61 – Severe wind storms and tornadoes	8	109	n/a	117	109	n/a
2020 PCS Serial Number:						
16 – Tennessee tornado activity	151	n/a	n/a	151	n/a	n/a
19 – Severe storms	134	n/a	n/a	134	n/a	n/a
20 – Severe storms	165	n/a	n/a	165	n/a	n/a
33 – Civil unrest	100	n/a	n/a	100	n/a	n/a
44 – Tropical Storm Isaias	140	n/a	n/a	140	n/a	n/a
46 – Midwest derecho	212	n/a	n/a	212	n/a	n/a
68 – California wildfire – Glass fire ^[3]	145	n/a	n/a	145	n/a	n/a

^[1]Amounts are reported pre-tax and net of recoveries under all applicable reinsurance treaties, except for the Company's 2020 and 2019 Underlying Property Aggregate Catastrophe Excess-of-Loss Treaties. Those treaties covered the accumulation of certain property losses arising from one or multiple occurrences (both catastrophe and non-catastrophe events) for the period January 1, 2020, through and including December 31, 2020, and the period January 1, 2019, through and including December 31, 2019, respectively. As a result, the benefits from those treaties are not included in the table as the allocation of the treaties' benefits to each identified catastrophe changes each time there are additional events or changes in estimated losses from any covered event.

^[2]Favorable prior year reserve development in 2020 included the benefit of PG&E subrogation recoveries applicable to this event, which are discussed in more detail in note 8 of notes to the consolidated financial statements in our [Annual Report on Form 10-K](#).

^[3]In addition to the Glass fire, there were 16 other PCS-designated wildfires in 2020. While none of the 16 wildfires were individually large enough to meet the Company's threshold for disclosure as a significant catastrophe in this table, total losses from those wildfires were \$169 million, of which two wildfires totaling \$73 million met the Company's threshold for disclosure as catastrophes.

n/a: not applicable

Eco-Efficient Operations

Greenhouse Gas Emissions

As an insurer, most of our GHG emissions result from office activity, mobile combustion (e.g., claim vehicles, commuting) and business travel. While we strive to reduce our emissions, our primary climate-related risks and opportunities relate to our property insurance business and claim service.

Our Chief Administrative Officer, a member of the Company's Management and Operating Committees, oversees office activity, mobile combustion and business travel enterprisewide with the help of the Corporate Real Estate and Procurement teams. These teams regularly monitor and analyze our operations and facilities to identify ways for us to operate more efficiently, reduce our environmental impact and lower our operating expenses. We prioritize projects based on their expected financial impact, so our efforts to reduce our energy consumption and waste not only reduce our environmental impact but also lower our operating expenses.

Reducing our carbon footprint is one important aspect of our climate strategy. Travelers set a goal to reduce the Company's absolute Scope 1 and 2 emissions by 40% by 2020, based on a 2011 base year. By year-end 2020, we have exceeded this goal, cutting absolute Scope 1 and 2 emissions by 54%. In April 2021, we announced our commitment to become carbon neutral across our owned operations by 2030. By achieving carbon neutrality over the next decade, Travelers will be doing its part to align with the target set forth in the Paris Climate Agreement to limit the global temperature increase in the 21st century to 1.5 degrees Celsius.

In recent years, we have implemented various emissions reduction initiatives, including:

- **Lighting.** We have spent millions of dollars on interior renovations at our Travelers-owned Hartford campus to upgrade our lights to LED and continue to work with the local utility companies to understand the incentives for which Travelers could qualify.

- **Information Technology (IT) Equipment Upgrades.** We implement ongoing upgrades to more energy efficient IT equipment in our data centers. We typically upgrade this equipment every three years.
- **Building Fabric Maintenance Program.** Targeting windows and roofs, we have a comprehensive preventive maintenance and repair program to ensure building integrity and reduce energy loss. This program for building fabric will be ongoing for the life of each building.
- **Cloud Migration.** We are working toward using more cloud storage solutions to reduce our dependence on data centers, and thereby reduce our carbon footprint, over time.
- **Efficient Fleet Vehicles.** We partner with car manufacturing companies to continue transitioning our fleet to more environmentally efficient vehicles/engines.

Additionally, many of our efforts in recent years to improve our claim service also create opportunities to reduce our emissions intensity. For instance:

- Implementing virtual claim tools allows customers to share photos and videos when filing a claim. In 2020, we handled 40% more auto appraisals and wind/hail claims and 70% more water claims virtually without the need for a live inspection, as compared to pre-pandemic levels. Leveraging our state-of-the-art digital capabilities can speed claim payments and also reduce miles driven by our claim fleet.
- Deploying drones to inspect roof damage improves the customer experience and eliminates safety hazards, while reducing emissions associated with roof inspections, as drone use obviates the need for ladder assist vendors to travel to the affected property.

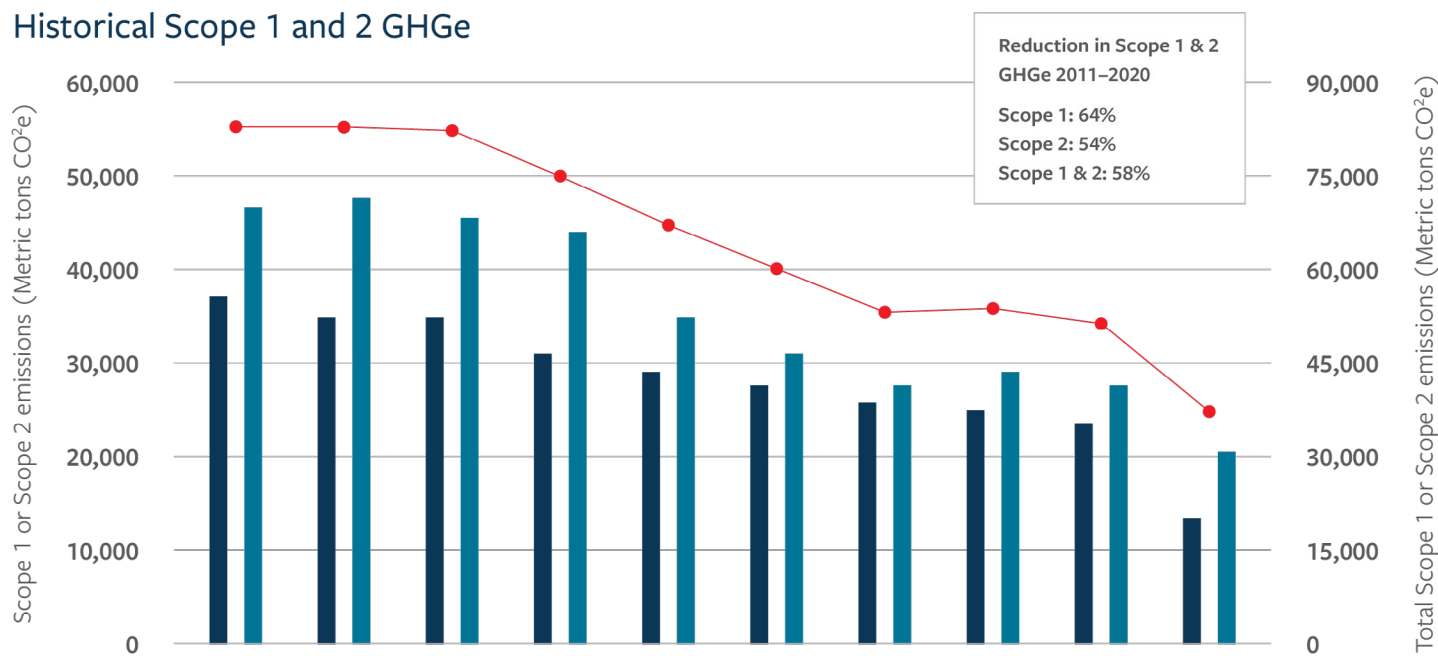
The table below outlines our Scope 1, 2 and 3 emissions data, which has been [verified by an independent third party](#). We use The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) to calculate our Scope 1 and 2 greenhouse gas emissions.

TOPIC	2020	2019	2018	2011
Scope 1 GHG Emissions (metric tons CO ₂ e)	13,500	23,746	25,591	37,436
Emissions from Mobile Combustion (metric tons CO ₂ e)	12,414	22,525	24,329	36,574
Emissions from Office Activity (metric tons CO ₂ e)	1,086	1,221	1,262	862
Scope 2 GHG Emissions ^[1] (metric tons CO ₂ e)	21,908	27,970	29,881	47,167
Total Scope 1 and Scope 2 GHG Emissions (metric tons CO ₂ e)	35,408	51,716	55,472	84,603
GHG Emissions per Revenue (metric tons CO ₂ e per \$)	0.00000111	0.00000163	0.00000183	0.0000033248
GHG Emissions per FTE (metric tons CO ₂ e per person)	1.18	1.72	1.85	2.76
Scope 3 Emissions from Travel	5,666	17,819	18,584	Not Tracked
Percentage of Electricity from Renewable Sources	21%	21%	17%	Not Tracked
Percentage of Total Energy from Renewable Sources	7%	6%	5%	Not Tracked

^[1]Location-based method.

As illustrated in the chart below, from 2011 through 2020, we reduced our Scope 1 and Scope 2 emissions by 64% and 54%, respectively.

Historical Scope 1 and 2 GHGe



TOPIC	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
■ Scope 1	37,436	35,633	35,804	31,184	29,605	28,352	26,640	25,591	23,746	13,500
■ Scope 2	47,167	48,151	46,278	44,576	36,352	31,979	28,250	29,881	27,970	21,908
● Total	84,603	83,784	82,082	75,760	65,957	60,331	54,890	55,472	51,716	35,408

Water and Waste

As with energy and GHG emissions, we see many opportunities to align our long-term financial interests with responsible water use and waste disposal, creating shared value for our shareholders and the environment. Travelers monitors waste and water across the Company's operations and has implemented certain practices to help ensure proper waste handling and water use. Specifically, we:

- Employ a third-party vendor to properly recycle and dispose of obsolete IT equipment.
- Shred and recycle paper at all locations.
- Installed auto-shutoffs on most faucets.
- Are installing water bottle filling stations in all [new workspaces](#) to reduce the use and disposal of single-use water bottles.
- Have a bottle and can recycling program at all owned locations.

In 2018, we began tracking waste and water usage in our owned facilities. We now measure and track all waste at our owned facilities, including single stream recycling, municipal solid waste and construction/demolition waste. Furthermore, we now track all water and sewer use, including general water use for restrooms, kitchens and landscape-related irrigation.

With these tracking capabilities, we are able to trend waste/water consumption over time and quantify impacts of building improvements as they relate to creating more environmentally sustainable workplaces.

Paper Usage

For almost two decades, Travelers has implemented a variety of business initiatives to reduce our paper usage. In 2019, Travelers partnered with [American Forests](#) to fund the planting of a tree for every Personal Insurance customer who chooses paperless billing.

As of April 2020, we have reached our goal of funding the planting of one million trees. In addition to restoring natural landscapes, providing habitat for wildlife and naturally capturing carbon emissions, this effort has helped us minimize our environmental impact and carbon footprint and has lowered our paper consumption by 22 million pages from April 2019 through April 2020. In 2020, we committed to fund the planting of an additional 500,000 trees by Earth Day 2021 and joined the U.S. chapter of 1t.org to help conserve, restore and grow one trillion trees by 2030. Beyond the environmental impacts of planting trees for this campaign, paperless billing provides an added level of convenience for customers by allowing for easy access and retrieval of policy documents, while helping us save millions of dollars in paper and postage costs.

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Important Legal Information

This report contains information about Travelers. Travelers disclaims any duty or obligation to update such information. Any “forward-looking statement” is made only as of the date such information was originally prepared by Travelers and is intended to fall within the safe harbor for forward-looking information provided in the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, may be forward-looking statements. Words such as “may,” “will,” “should,” “likely,” “anticipates,” “expects,” “intends,” “plans,” “projects,” “believes,” “estimates” and similar expressions are used to identify these forward-looking statements. These statements include, among other things, statements about our investment portfolio, our new product offerings, our market risk, our risk management, including climate-related risks and opportunities, as well as catastrophe losses and modeling. Results may differ materially from those expressed or implied by forward-looking statements. Factors that can cause results to differ materially include those described under “Forward Looking Statements” in the Corporation’s most recent Form 10-K and Form 10-Qs filed with the SEC and available on our website.

This report may contain links to other Internet sites, and may frame material from other Internet sites. Such links or frames are not endorsements of any products or services in such sites, and no information in such sites has been endorsed or approved by Travelers.

Except where noted, the information covered in this report highlights our performance and initiatives in fiscal year 2020.

The inclusion of information in this report should not be construed as a characterization regarding the materiality or financial impact (or potential impact) of that information. For additional information regarding Travelers, please see our current and periodic reports with the Securities and Exchange Commission, including our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q.

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