

# SELECTIVE INSURANCE TCFD REPORT

## INTRODUCTION

As a property and casualty (“P&C”) insurance company, Selective provides coverage for thousands of individuals and businesses against the financial impact of insured losses, including those caused by catastrophic events.

We acknowledge the scientific consensus that climate change is a significant risk for our planet and that human activities are increasing greenhouse gas (“GHG”) concentrations in the Earth's atmosphere. We believe climate change contributes to the increasing unpredictability of natural catastrophes, such as hurricanes, floods, and wildfires. We view natural disasters as among the most serious and severe risks facing our policyholders, communities, and business. As an insurance company, we believe it is our corporate responsibility to help mitigate climate change impacts for all of our stakeholders.

Climate change also provides an opportunity for Selective and our industry to take a leadership role in developing products and services that increase customer resiliency, and respond to evolving customer needs. Over the medium- to long-term, we believe that economic transition to a low carbon future creates new business opportunities in emerging industries, such as those associated with renewable energy and related construction projects.

Selective has embraced the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) that focus on four core elements of an organization’s climate approach: (i) Governance, (ii) Strategy, (iii) Risk Management, and (iv) Metrics & Targets. This report outlines our initiatives and progress in each of these four areas.

## Company Background

Selective Insurance Group, Inc. (“the Company”) is a New Jersey insurance holding company incorporated in 1977 that owns ten property and casualty insurance subsidiaries (“Insurance Subsidiaries”). The Insurance Subsidiaries sell products and services only in the United States (“U.S.”) exclusively through independent insurance agents and wholesale brokers. We have four reportable segments.

**Standard Commercial Lines:** This segment’s underwriting risk appetite is focused on small-to-medium sized accounts, with risks generally characterized as low-to medium hazard. Standard Commercial Lines provides insurance products and services to commercial enterprises, typically businesses, non-profit organizations, and local government agencies. This business represented 73% of consolidated revenues in 2021.

**Standard Personal Lines:** This segment provides insurance products and services to individuals (primarily auto and homeowners insurance) acquiring coverage in the standard marketplace. This business represented 9% of consolidated revenues in 2021. Our Personal Lines segment also includes flood insurance coverage sold through the Write Your Own ("WYO") program of the National Flood Insurance Program ("NFIP"). Based on 2021 direct premiums written, we are the fourth-largest writer of this coverage through the NFIP.

**Excess and Surplus Lines ("E&S"):** This segment comprises commercial property and casualty insurance products and services provided to customers unable to obtain coverage in the standard marketplace, generally because of unusual or higher-risk exposures. This business represented 8% of consolidated revenues in 2021.

**Investments:** The segment represents 10% (including net realized and unrealized gains and losses) of consolidated revenues and invests the (i) premiums collected by our insurance operations and (ii) amounts generated through our capital management strategies, which include the issuance of debt and equity securities. We maintain a conservative investment portfolio that is principally invested in high quality and liquid fixed income and short-term investments, with a modest allocation to risk assets.

## GOVERNANCE

**Board Oversight:** Our board's oversight of climate-related risks and opportunities.

Our Board of Directors oversees our Enterprise Risk Management ("ERM") process, which includes identifying, assessing, and managing risks related to climate change. The Board has overall risk oversight and responsibility for individual risks monitored by dedicated Board-level committees, including risks posed by climate change. The Boards of Directors of our insurance subsidiaries have been designated as responsible for oversight of climate change risk assessment and mitigation efforts.

Our Board's Audit Committee, which meets at least quarterly, is responsible for assisting the Board in overseeing our ERM function. The Audit Committee receives reports on all major risks, including those presented by climate change. The Audit Committee also serves as the Audit Committee of our Insurance Subsidiaries.

All Board committees oversee risks specific to their areas of supervision and report their activities and findings to the entire Board. For example, the Finance Committee currently oversees our reinsurance program, a key element of our climate risk management strategy, and the Corporate Governance and Nominating Committee ("CGNC") has responsibility to oversee management's activities to address Environmental, Social, Governance ("ESG") issues and trends.

The Board also oversees our overall strategy setting, which includes monitoring of risks and opportunities related to climate.

**Management:** Management’s role in assessing and managing climate-related risks and opportunities.

Our senior leadership team is responsible for implementation of our strategy, including assessing and pursuing business opportunities tied to the impacts of climate change. The Executive Risk Committee (“ERC”), chaired by our Chief Risk Officer (“CRO”), is responsible for operational oversight of climate-related risks. The ERM unit is responsible for assessing and managing the financial risks from climate change. The roles of the ERC and ERM unit are described further below.

**Executive Risk Committee:**

Our ERC, which includes our Chief Executive Officer (“CEO”) and his direct reports, CRO, as well as other key functional leaders, provides management oversight of the ERM function. The ERC is responsible for the holistic evaluation and supervision of our risk profile and determines future risk management actions supporting our overall risk appetite. Several other management committees are responsible for detailed analysis and management of various individual risks, many of which are climate change-related. At least quarterly, the ERC reviews all major risks, including the risks presented by climate change.

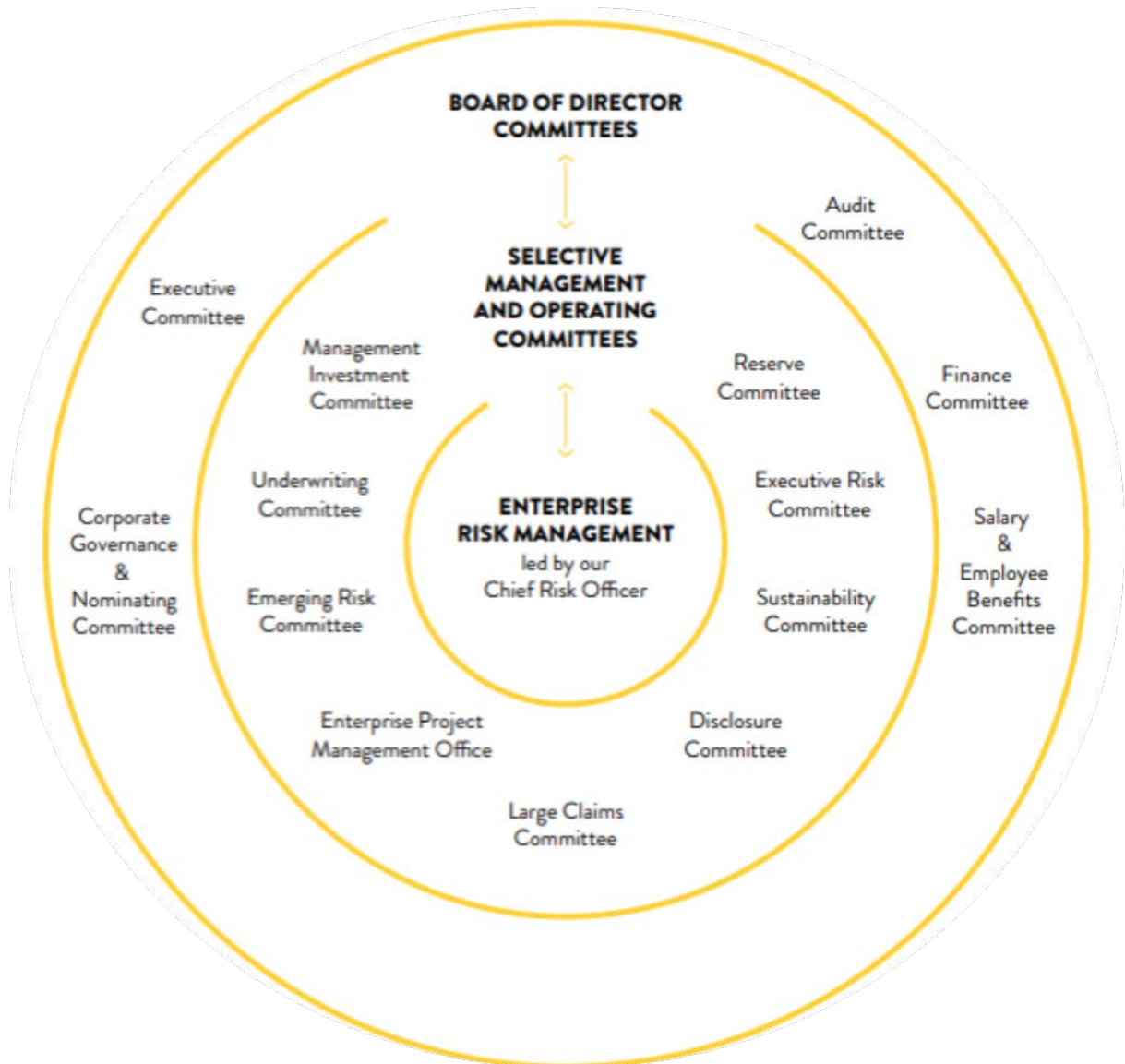
For example, the ERM unit reports our modeled results for hurricane losses (our peak catastrophe risk peril at the tail of the probability loss distribution), gross and net of reinsurance in our Reinsurance Risk Scorecard, on a quarterly basis to the ERC and Board of Directors.

**ERM Unit:**

The ERM unit, led by the CRO, is responsible for identifying, measuring, monitoring, and reporting of the key and aggregated enterprise-wide risks to the ERC and the Boards of Directors. The ERM unit also works with other functional areas to develop appropriate responses to identified risks and support the successful execution of our business strategy. The CRO chairs the Emerging Risk Committee and Market Security Committee (“MSC”) and is a member of the Management Investment Committee (“MIC”), Sustainability Committee, Underwriting Committee, and the Large Claims Committee. These committees are responsible for various major risk types, including risks related to climate change, described further in this report’s Risk Management section.

The ERM unit is actively involved in climate-related issues, such as catastrophe exposure coverages and pricing. The ERM unit also manages our economic capital model and integrates catastrophe exposure into our holistic view of enterprise risk and capital management.

*Graph illustrates three levels of corporate governance and lists designated Board of Directors and Selective Management and Operating Committees, including: Executive committee, Audit committee, Finance committee, Salary & Employee Benefits Committee, Corporate Governance & Nominating Committee, Management Investment Committee, Underwriting Committee, Emerging Risk Committee, Enterprise Project Management Office Committee, Large Claims Committee, Disclosures Committee, Sustainability Committee, Executive Risk Committee, and Reserve Committee.*



## STRATEGY

**Identified Climate-related Risks and Opportunities:** The climate-related risks and opportunities the organization has identified over the short, medium, and long term.

*The following table includes examples of climate-related risks and opportunities Selective has identified for each time horizon.*

Time Horizon	Climate Risks	Climate Opportunities
<b>Short-term:</b> 1 – 5 years	<ul style="list-style-type: none"> <li>Increased model uncertainty around severe weather events resulting from potentially higher catastrophe loss activity</li> </ul>	<ul style="list-style-type: none"> <li>Developing renewable energy production</li> <li>Enhancing customer resiliency</li> <li>Providing product incentives to lower carbon footprint for customers</li> </ul>
<b>Medium-term:</b> 5 – 10 years	<ul style="list-style-type: none"> <li>Potential investment losses from climate-risk-related impacts</li> <li>Insurance market transition risk</li> <li>Regulatory risk</li> </ul>	<ul style="list-style-type: none"> <li>Developing new insurance products tailored to emerging industries</li> </ul>
<b>Long-term:</b> 10 – 30 years	<ul style="list-style-type: none"> <li>Climate change impact on frequency and severity of weather events</li> </ul>	<ul style="list-style-type: none"> <li>New investment opportunities</li> </ul>

### Climate Risks

#### 1. Increased model uncertainty around severe weather events resulting from potentially higher catastrophe loss activity (short-term)

For decades, the insurance industry has used traditional catastrophe risk models to inform underwriting strategy. A significant component of climate change risk is that the frequency and severity of extreme-weather events may evolve differently relative to historical levels – leading to greater model uncertainty. For example, there has been an increase in the frequency of land-falling hurricanes and tropical storms in the United States over the past five years, which could in part be a result of climate change. Our third-party modeling providers are starting to develop models that incorporate forward-looking climate variables in their outputs. A later section of this report discusses how we mitigate this uncertainty in the short-term.

## 2. Potential investment losses from climate-related impacts (medium-term)

Our investment portfolio is exposed to climate change risk through (i) direct physical loss to assets and infrastructure from catastrophic loss activity and (ii) transition risk related to technology and energy production advances that could lead to stranded assets in certain carbon-intensive sectors.

**Physical investment risks:** Climate-related catastrophic losses can cause business disruption, destroy capital, increase costs to recover from disasters, reduce revenue, and cause population displacement and migration. These, in turn, can lead to lower residential and commercial property values, household wealth, and corporate profitability, all of which can create financial and credit market losses impacting insurer asset values.

**Transition investment risks:** These arise from society's transition towards a low-carbon economy, driven by policy and regulations, low-carbon technology advancement, and shifting sentiment and societal preferences. This transition towards renewable energy sources may lead to stranded assets in areas such as the fossil fuel and automotive industries. It can also result in costs to reinvest in and replace infrastructure, and increased litigation against carbon intensive industries. Transition risks may lead to corporate asset devaluation and lower corporate profitability, property values, and household wealth, all of which can create financial and credit market losses impacting insurer asset values.

## 3. Insurance market transition risk (medium-term)

Increased climate change-related regulations and evolving consumer preferences could change manufacturing and construction methods. As an insurer of small- and mid-sized businesses in the construction, mercantile, and manufacturing sectors, we could experience reduced demand for certain products. While we have very limited direct underwriting exposure to environmentally hazardous classes of business, some of our customers may be impacted by changing societal preferences and regulation related to climate change.

## 4. Regulatory risk (medium-term)

Insurance regulations could limit our flexibility in reducing exposure to certain lines of business most vulnerable to climate change. While our Personal Lines segment represented 9% of consolidated revenues in 2021, it is subject to significant state regulation, which limits our flexibility to exit lines quickly if results meaningfully deteriorate. Risks also include potential challenges in receiving regulatory approval for adequate rate levels reflecting the true catastrophic exposure within our products.

## **5. Climate change impact on frequency and severity of weather events (long-term)**

The United Nation’s Intergovernmental Panel on Climate Change (“IPCC”) is an international body responsible for assessing climate change science. In 2021, the IPCC estimated in its “Sixth Assessment Report: Physical Science Basis” that human activities (i) have caused approximately 1.1°C of global warming to date above pre-industrial levels and (ii) this could rise to an increase between 1.2°C and 3.0°C above pre-industrial levels between 2041 and 2060. Climate change models also project significant differences in global regional warming above pre-industrial levels, depending on future levels of climate mitigation and geographic location. These global regional differences, whether attributable to nature or human activities, include increases in (i) mean temperature in most land and ocean regions, (ii) hot extremes in most inhabited regions, (iii) heavy precipitation in several regions, and (iv) the probability of drought and precipitation deficits in some regions. These temperature changes can impact weather patterns and the frequency and/or severity of catastrophes, including hurricanes, wildfires, and flooding — all of which could cause our catastrophe losses to increase relative to historical levels.

## **Climate Opportunities**

### **1. Developing renewable energy production (short-term)**

Selective is a strong believer in a clean energy future. We built a ground-mounted solar photovoltaic facility at our corporate headquarters in Branchville, New Jersey (“Headquarters”) in 2019. The facility consists of 7,470 LG 400-Watt solar panels. It generates approximately four million kWh of electricity annually that we sell to others through the electrical grid and New Jersey’s Solar Renewable Energy Credit (“SREC”) Program. We are in the process of installing a second, smaller solar facility at our Headquarters’ existing parking garage, which is expected to produce an average of one million kWh of electricity that we intend to sell to others through the electrical grid and New Jersey’s SREC Program.

### **2. Enhancing customer resiliency (short-term)**

Helping our customers prepare for severe weather events mitigates loss activity. Examples include proactive messaging and outreach prior to catastrophic weather events, and safety management services, which help strengthen our customer relationships. We are also evaluating value-added services and technologies within our Personal Lines segment to enhance customer resiliency.



### **3. Customer incentives to reduce carbon footprint (short-term)**

We recognize that customer demand for climate-friendly products and services may increase, and we see opportunities to provide these services to our customers. We describe programs we have implemented to date in the next section.

### **4. New product development in emerging industries (medium-term)**

As part of an economic transition to a low-carbon future, we expect the introduction of new technologies, infrastructure, and processes – all of which will require insurance coverage. We believe that, over time, this will present a sizeable business opportunity. We describe how new product development is a component of our business strategy in greater detail in the following sections.

### **5. New investment opportunities (long-term)**

We believe that the transition to a low-carbon economy will provide new investment opportunities, such as green bonds or investments in energy-transition-related infrastructure instruments. These investment opportunities could increase our diversification of financial assets. As the clean energy sector grows and matures, we expect to have opportunities to invest in new assets that support the transition to a low-carbon economy.

## **Impact of Risks and Opportunities on Businesses, Strategy, and Financial Planning:** The impact of climate-related risks and opportunities on our businesses, strategy, and financial planning.

Below we discuss the impact of climate-related risks and opportunities on our underwriting and investment segments.

### **Underwriting**

Our Underwriting operations have three segments: Standard Commercial Lines, Standard Personal Lines, and E&S. The principal impact of climate change on our business is the potential for greater frequency and/or severity of insured property catastrophic loss activity.

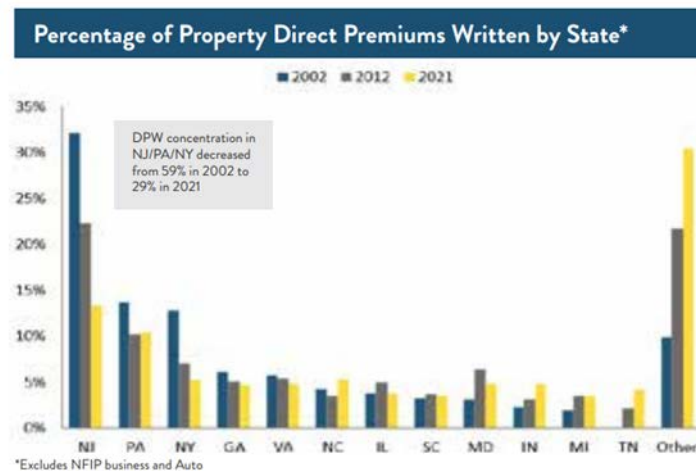


## Catastrophe Risk Management

The ERM function models and monitors catastrophe risk, including the ongoing assessment of catastrophe risks within our pre-determined limits. Our underwriting and risk management frameworks employ risk mitigation tools, including:

1. Comprehensive underwriting standards;
2. Limits on coastal property exposure;
3. Risk-sharing through prudent reinsurance purchases;
4. Modeling and managing our catastrophe risk aggregations; and
5. Active oversight from senior management and the Board of Directors.

Due to our business risk profile and geographic concentration in the Northeast and Mid-Atlantic states, hurricane risk is our portfolio's most significant natural catastrophe peril exposure. This has influenced our decision to geographically diversify our underwriting portfolio and set rigorous coastal property exposure guidelines. The following depiction of our property writings in 2002, 2012, and 2021, shows how we have geographically diversified our book as we grew the business.



*Table illustrates results of our efforts to geographically diversify our premium. DPW concentration in NJ/PA/NY decreased from 59% in 2002 to 29% in 2021*

We review our exposure to hurricane risk by using third-party vendor models and conducting our own proprietary analysis. The third-party vendor models provide a long-term view that closely relates modeled event frequency to historical hurricane activity. However, climate change may cause the frequency and/or severity of hurricanes to differ from historical levels. In the short- to medium-term, we mitigate this risk by purchasing significant reinsurance protection and setting our retained loss thresholds at levels well below amounts we believe would cause us significant financial stress. In the medium- to longer-term, we expect to continually evolve our own risk modeling and stress thresholds based on scientific and modeling advances.

We incorporate these modeled catastrophe loss expectations within our pricing plans, and we have underwriting guidelines that reflect our catastrophe exposure appetite. Modeled results are reported to the MSC and impact our reinsurance purchasing and strategic growth decisions.

In addition to managing our peak hurricane exposure risk, we also seek to manage our exposures to other perils, such as severe convective storms, flooding, and wildfires. By building a geographically diverse book of business, implementing strong underwriting guidelines, conducting risk modeling, and purchasing reinsurance, we seek to manage our exposure to these types of losses.

### **Opportunities**

In the short term, we have a number of initiatives aimed at helping customers lower their carbon footprint as well as increase their resiliency to catastrophic losses.

- We electronically disseminate proactive messages to our customers, helping them prepare for severe weather events.
- Our field-based Safety Management Specialists visit the business locations of certain current and potential commercial lines customers to conduct safety evaluations. Safety Management staff provide risk mitigation recommendations to limit potential property losses, such as from flood, wind, or fire, and improve worker safety. During 2021, they offered customers a free toolkit to help them create a Business Continuity Plan to help their business prepare for an unexpected shutdown due to hurricane, power failure, or loss of critical equipment.
- Our GreenPAC® endorsement allows commercial lines policyholders (within the coverage limits) to repair or replace covered loss property damage using building materials, components, products, equipment, construction and design methods, and technologies that reduce environmental impact by conserving energy, water, and other natural resources.
- We are currently working on enhancing our commercial Automobile ElitePAC coverage form to include a green automobile replacement coverage. This coverage, similar to our GreenPAC® endorsement for commercial property, would help policyholders that choose to replace their covered auto loss with a hybrid or electric vehicle within the coverage limits.
- We are assessing the incorporation of value-added services within our Personal Lines and Flood operations that will better prepare our customers for potentially heightened environmental and climate risks. Our Flood insurance product is sold through the WYO program of the NFIP. Based on direct premiums written, we are the fourth-largest WYO writer, wherein we service policies but do not assume Flood operation underwriting risk.

In the medium-term, we are actively evaluating modifications to our existing coverages and increasing our product suite to match what we believe will be new areas of insurance coverage demand. As a significant writer of contractors and small manufacturing risks, we believe Selective is well-positioned to support growing market share opportunities from new low-carbon construction processes. Providing insurance capacity to renewable energy production facilities and related construction projects would be a longer-term growth opportunity.

## Investments

Our investment portfolio is exposed to climate change risk through (i) direct physical loss to assets and infrastructure from catastrophic loss activity and (ii) transition risk related to technology and energy production advances that could lead to stranded assets in certain carbon intensive sectors.

**Physical risks:** Our investment managers take a conservative approach when investing in commercial and residential real estate products that are potentially vulnerable to risks related to climate change. As of December 31, 2021, over 80% of our residential mortgage-backed securities were backed by government agencies. We generally invest in the top tranches of commercial mortgage-backed securities, with ample support to protect against losses from property value declines.

**Transition risk:** We also monitor our exposure to certain carbon-intensive sectors defined by the Paris Agreement Capital Transition Assessment (PACTA) that are vulnerable to longer-term transition risks related to climate change. As of December 31, 2021, sectors we identified in our corporate fixed income portfolio as carbon-intensive represented less than 5% of our total invested assets. The identified sectors and their associated percentage of invested assets are Automotive (0.5%), Aviation (0.9%), Cement (0.0%), Coal Mining (0.0%), Oil and Gas (1.6%), Power Generation (1.6%), Shipping (0.0%), and Steel (0.1%).

Percent Investment Exposure to Carbon Intensive Sectors		
Sector	YE 2020	YE 2021
Automotive	0.9%	0.5%
Aviation	1.1%	0.9%
Oil & Gas	1.6%	1.6%
Power Generation	1.0%	1.6%
Steel	0.1%	0.1%
<b>TOTAL</b>	<b>4.7%</b>	<b>4.6%</b>

*Table compares portfolio Carbon Intensive Sector exposure for years 2020 and 2021.*

**Integrating ESG into our Investment Process:**

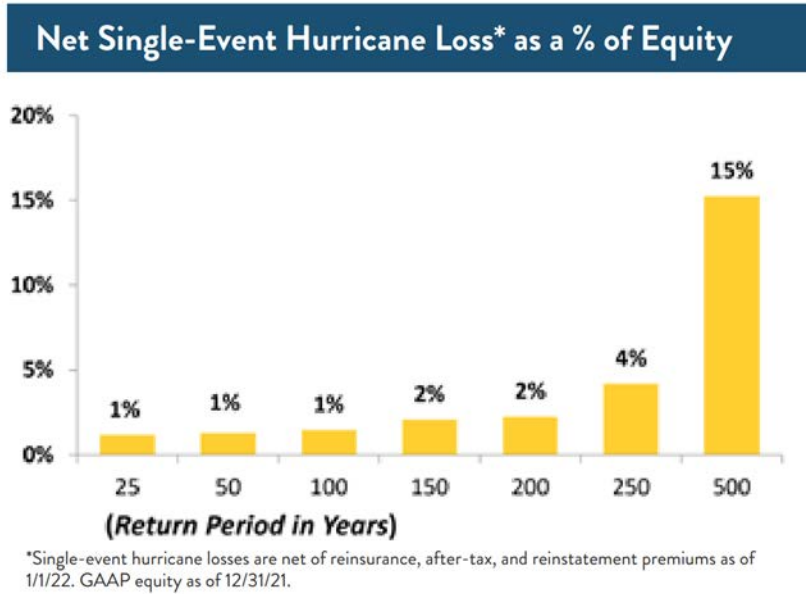
We are beginning to incorporate ESG considerations into our investment process. To establish appropriate ESG investment governance, we are working with our third-party investment managers to ensure they incorporate ESG guidelines and protocols into their investment process while managing our mandates.

In addition, we are not making any new direct debt or equity investments in thermal coal enterprises, including companies that generate 30% or more of (i) their revenue from the ownership, exploration, mining, or refining of thermal coal or (ii) their electricity generation from thermal coal.

**Resilience of Strategy Considering Climate-Related Scenarios:** The resilience of our strategy taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Evaluating perils with different return periods plays a crucial role in identifying, assessing, and managing climate-related risks that influence our business strategy. Modeled estimates provide a range of potential outcomes. We review multiple models from various vendors over several time periods to understand our catastrophic risk, including physical risks that may materialize more frequently because of climate change. We manage our catastrophe risk conservatively, and adjust third-party vendor models to reflect assumptions for certain un-modeled costs, such as the impact of loss expenses, residual market assessments, and automobile-related losses.

Our current catastrophe reinsurance program exhausts at approximately a 1-in-216-year return period. As of December 31, 2021, we had estimated net exposure to a 1-in-250-year (0.4% probability of exceedance) hurricane event, equal to 4% of our equity capital. Such a loss would be well within our established risk tolerance and unlikely to have a material adverse effect on our financial condition.

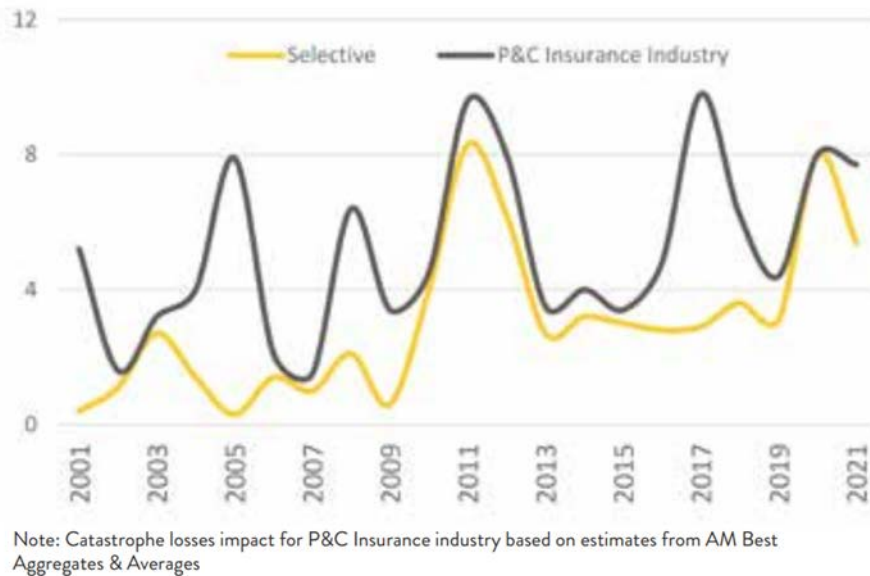


*Table lists net single-event hurricane loss as a % of Equity by return period*

We assess the resilience of our strategy to mitigate climate-related risks both quantitatively, through natural catastrophe modeling, and qualitatively. From a qualitative perspective, we are more vulnerable to physical climate risks than transitional risks. Therefore, the more severe warming scenarios will likely lead to greater catastrophe risk. Our main exposure to transitional risk is through our investment portfolio, where the percentage of fixed income assets invested in carbon-intensive sectors was less than 5% of total assets as of December 31, 2021.

Our mix of business and underwriting approach has historically resulted in less of an impact from catastrophe losses relative to the P&C insurance industry average (shown in the graph below). We will continue to evaluate climate scenario analysis as a tool to complement our catastrophe risk scenario analysis as industry guidance and models evolve.

## Annual Impact of Net Catastrophe Losses on Reported Combined Ratio



*Graph compares annual impact of net catastrophe losses on reported combined ratio for Selective to the P&C insurance industry. Selective has consistently outperformed the industry since the year 2000.*

## RISK MANAGEMENT

Processes for Identifying and Assessing Climate-related Risks: Our processes for identifying and assessing climate-related risks.

Selective has a robust ERM framework that includes identifying and assessing our most significant risks through a combination of quantitative analysis and metrics and qualitative assessment. Our ERM unit is responsible for identifying and assessing physical and transition risks due to climate change.

Our ERM framework includes an emerging risk management component led by a designated Emerging Risk Committee. This committee is responsible for identifying and monitoring new and evolving risk issues that may have a significant impact on our financial strength, reputation, or long-term strategy. The Emerging Risk Committee has identified climate change as a “high” level emerging risk, and reviews it at least quarterly with the ERC and our Boards of Directors. The ERM unit, the ERC, and other employees stay informed on key climate change risk developments through industry publications, webinars, conferences, and regular engagement with outside sources, such as our reinsurance brokers, investment managers, and trade associations.

The ERM unit evaluates our catastrophe risk exposure relative to our established tolerances. This evaluation incorporates the results of third-party vendor models and proprietary analysis in its review of exposure to hurricane and other perils on both a gross and net basis.

The table below shows the gross and net losses modeled results by peril of our underwriting property portfolio as of July 1, 2021. The table highlights hurricane peril as our most significant natural catastrophe exposure, driving the “tail” of our modeled catastrophe loss distribution.

Occurrence Exceedance Probability (Return Period)						
(\$ in millions)	Hurricane		Other Wind		Earthquake	
	Gross Loss*	Net Loss**	Gross Loss*	Net Loss**	Gross Loss*	Net Loss**
10 yr	66.4	30.9	61.5	23.2	0.9	0.7
20 yr	157.2	36.3	89.7	23.1	4.4	3.3
25 yr	196.9	35.3	99.8	21.8	6.7	4.9
50 yr	325.9	38.6	134.0	19.3	20.8	13.7
100 yr	529.9	44.0	174.6	22.1	60.4	26.7
200 yr	831.3	67.5	221.8	25.8	121.1	27.6
250 yr	966.0	125.3	239.3	27.4	137.3	31.5
500 yr	1,385.0	454.9	295.3	30.6	242.6	28.2

*\*Gross modeled loss before reinsurance and tax; includes assumptions for certain un-modeled costs, such as the impact of loss expenses, residual market assessments, and automobile - related losses, which collectively increase our gross losses by an estimated 13%.*

*\*\* Net losses are after-tax losses net of catastrophe reinsurance treaty, effective January 1, 2022, including reinstatement premiums.*

As we currently do not write crop insurance, have minimal exposure to private flood, and have a small geographic footprint in the Western U.S., our exposures to perils, such as droughts, wildfires, and flooding, tend to be relatively modest.

On the investment side, we monitor our exposure to carbon-intensive industries as a measure of our vulnerability to climate-related risks from the transition to a low-carbon economy.



Processes for Managing Climate-related Risks: Our processes for managing climate-related risks.

### **Underwriting**

In managing physical climate-related risks to our insurance business, we model our property portfolio for hurricanes and other wind events twice a year, as of July and January. Wildfire risk, which presents significantly lower exposure for our portfolio, is modeled annually each July.

During late summer and fall of each year, our Reinsurance team works closely with our reinsurance broker's modeling team to produce an in-depth analysis of the modeled results, which the MSC reviews. The process leading to this presentation includes the following:

- Accumulating and testing of appropriate property exposure reports. These reports are produced from our automated systems, and the Reinsurance team tests them for completeness and accuracy using analytical and policy sample reviews;
- Balancing data provided to the broker modeling team with the data ultimately incorporated into the model;
- Reviewing and agreeing between the Reinsurance team and the broker modeling team on modeling assumptions;
- Analyzing changes in modeled results. The Reinsurance team works with the broker modeling team to understand the drivers of the modeled result changes and confirm they are consistent with our understanding of the model updates and any exposure changes; and
- Presenting a modeling presentation to the MSC. Once the Reinsurance team approves the modeling results, the broker modeling team prepares a presentation for the MSC reviews it with the CRO, and finally presents to the MSC.

As part of our underwriting controls, we use various authority levels for writing large individual property risks and large property accounts that may create or exacerbate a property aggregation issue. If any individual location exceeds the Chief Underwriting Officer's property limit authority, it must be approved by the Underwriting Committee, which currently consists of the Commercial Lines Chief Operating Officer, CFO, Commercial Lines Chief Underwriting Officer, President of our E&S operations, and CRO. When considering large property accounts, the Underwriting Committee typically reviews an evaluation of property aggregations in the particular county and state, and projections of marginal impact on our aggregate modeled losses if we wrote the particular risk. The discussion includes our appetite for catastrophe risk aggregation and the appropriate pricing for assuming the increased risk aggregation.

We believe that our (i) overall portfolio growth expectations, (ii) monitoring of actual results and property aggregations, (iii) appropriate underwriting authority controls around our largest accounts, and (iv) consistent focus on appropriate pricing of catastrophe risk, provide an effective control environment for managing natural catastrophe risk from a gross exposure perspective.

### **Investments**

Our internal investment team and external investment managers execute our investment strategy and objectives. The MIC is responsible for (i) setting and implementing the investment objectives and asset allocation, (ii) administering investment policies, (iii) selecting qualified external investment managers and advisors, and (iv) monitoring performance, transactions, and certain risk metrics, including those related to climate change. The parent Board's Finance Committee reviews and makes recommendations on our policies and other financial matters, including, without limitation, investments, investment policies and guidelines, financial planning, capital structure and management, dividend policy and dividends, share repurchases, and capital commitments for strategic plans and transactions.

### **Operational Continuity**

In addition to mitigating underwriting and investment risk, we have robust plans to ensure operational continuity in the event of unforeseen or catastrophic events. We have Business Continuity Plans for our key data processing facility (Disaster Recovery Plan), the leadership team (Executive Crisis Management Plan), and key operational areas. These plans are reviewed and updated at least annually, and our ERC meets quarterly to review key actions and continuity status across all departments. Testing, including “tabletop” exercises and planned hands-on tests, is performed annually.

**Integration into Overall Risk Management:** Our processes for identifying, assessing, and managing climate-related risks are integrated into our overall risk management.

Because we are in the business of assuming risk, our management of climate-related risks naturally integrates into our existing ERM framework.

We categorize our major risks into six broad categories:

1. Asset risk, which stems primarily from our investment portfolio and reinsurance recoverables and includes credit and market risk;
2. Underwriting risk, which is the risk that our insured losses exceed our expectations, including:
  - a. Losses from inadequate loss reserves;
  - b. Larger than expected non-catastrophe current accident year losses; and

- c. Catastrophe losses that exceed our expectations or our reinsurance treaty limits.
3. Liquidity risk, which is the risk that we will be unable to meet our contractual obligations as they become due because we cannot liquidate assets or obtain adequate funding without incurring unacceptable investment losses or borrowing expense;
4. Pension risk, which is the risk that our obligations under the Retirement Income Plan for Selective Insurance Company of America exceed our expectations because its invested assets supporting those obligations underperform or there are adverse changes in the assumptions we used to calculate the pension liabilities;
5. Other risks, which include a broad range of operational risks, many difficult to quantify, such as talent/human capital, market conditions, economic, legal, regulatory, reputational, and strategic risks – as well as the risks of fraud, human failure, modeling risks, inadequate business continuity plans, or failure of controls or systems, including cybersecurity risk; and
6. Emerging risks, which include risks in all categories that are new, rapidly evolving, or increasing substantially compared to historical levels.

The table below maps our management committees to their associated responsibilities for our six major risks.

	Risk Responsibility by Major Risk Management Committees								
	Emerging Risk	Investment (MIC)	Market Security	Disclosure	Reserve	Large Claims	ERC	Underwriting	Executive Team
Asset Risk		R	R						
Underwriting Risk			R		R			R	
Liquidity Risk		R							
Pension Risk		R							
Other Risks				R		R	R		R
Emerging Risks	R								

\*“R” means responsible.

Climate-related risks can impact these risk categories in a variety of ways. For example, asset risk includes climate-related risks in our investment portfolio overseen by the MIC, and underwriting risk includes catastrophe risk overseen by the MSC.

## METRICS & TARGETS

**Metrics:** Our metrics assess climate-related risks and opportunities in line with our strategy and risk management process.

Selective measures and reports on climate risks and opportunities in several different ways. Our chief metrics and targets are the following:

### 1. Probability of hurricane losses and capital exposed

Our established catastrophic risk tolerance requires that no more than 10% of stockholders' equity is exposed to a loss from a hurricane event at a 99.6% confidence level (1-in-250 year event or 0.4% probability) on a net of reinsurance and after-tax basis. For context, the largest catastrophic event in Selective's history was Superstorm Sandy in 2012. On a net of reinsurance and after-tax basis, the loss from Superstorm Sandy was approximately 3% of our prior year GAAP equity.

In addition to the 1-in-250 year modeled event, we evaluate the impact of a number of other scenarios on stockholders' equity. The table below projects gross and net of reinsurance hurricane losses from the following scenarios:

- Stochastic catastrophe modeling of our portfolio (1-in-100, 1-in-200, etc.);
- Recasts of two large hurricanes that impacted our geographic footprint:
  - 1938 New England Hurricane, one of the largest hurricanes to impact the Northeast United States; and
  - Hurricane Hazel, a Category 4 storm that made landfall near the border between North Carolina and South Carolina in 1954; and

- Realistic disaster scenarios (“RDS”) for significant potential storms in the Northeast and the Carolinas based on Lloyds of London methodology:

Catastrophe Loss Scenario and Estimated Impact on Capital Position					
Scenario (\$ in 000's)		Gross Loss*	% of Equity***	Net Loss**	% of Equity***
1-in-100 year hurricane	1% probability	529,858	18%	43,956	1%
1-in-200 year hurricane	0.5% probability	831,257	28%	67,544	2%
1-in-250 year hurricane	0.4% probability	965,971	32%	125,306	4%
1-in-500 year hurricane	0.2% probability	1,384,970	46%	454,888	15%
1938 New England Hurricane	Historical Recast	405,676	14%	67,957	2%
Lloyd's RDS North-East (AIR Cat 4)	Lloyd's RDS	752,348	25%	92,403	3%
1954 Hurricane Hazel	Historical Recast	264,353	9%	60,276	2%
Lloyd's RDS Carolinas (AIR Cat 5)	Lloyd's RDS	431,662	14%	69,369	2%

\*Gross modeled loss before reinsurance and tax; includes assumptions for certain un-modeled costs, such as the impact of loss expenses, residual market assessments, and automobile- related losses, which collectively increase our gross losses by an estimated 13%.

\*\* Net losses are after-tax losses net of catastrophe reinsurance including reinstatement premiums.

\*\*\*As of December 31, 2021

As reflected in the table above, we are well within our established tolerance for catastrophic risk.

## 2. Capital allocation away from specifically environmentally hazardous classes of business

Included below are targets and objectives that we have established for our Underwriting and Investments segments:

- We do not underwrite specific environmentally hazardous risks related to production from coal mines, thermal coal plants, or oil sands extraction.
- We do not invest in any new direct debt or equity of companies that generate more than 30% of their revenues from thermal coal mining or electricity generated from coal.

**Greenhouse Gas Emissions and Related Risks:** Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and related risks.

As an insurance holding company, Selective is not a meaningful greenhouse gas emitter relative to entities in many other industries. We acknowledge the value of entities measuring and reporting their GHG emissions, and we track our Scope 1 and Scope 2 carbon ("CO<sub>2</sub>") emissions. Scope 1 includes consumption of natural gas, diesel, refrigerant, and fuel usage under our Fleet program, and Scope 2 comprises our electricity usage.

The table below summarizes our Scope 1 and Scope 2 CO<sub>2</sub>e emissions across our operations and do not include investment limited partnership holding emissions.

Type (mtons CO <sub>2</sub> e)	2019	2020	2021
Scope 1	2,690	1,906	1,784
Scope 2*	3,527	3,317	3,270
<b>Total Scope 1 + 2</b>	<b>6,217</b>	<b>5,223</b>	<b>5,054</b>

\*Location-based method.

*The table lists our Scope 1 and Scope 2 CO<sub>2</sub>e emissions as measured in metric tons over the past three years: 2019 Scope 1 = 2,690, Scope 2 = 3,527 and total = 6,217; 2020 Scope 1 = 1,906, Scope 2 = 3,317 and total = 5,223; 2021 Scope 1=1,784, Scope 2 = 3,270 and total = 5,054. All metrics show a decline year over year indicating an improvement in lowering our Scope 1 and 2 CO<sub>2</sub>e emissions.*

To help calculate our GHG emissions, we engaged with a third-party multinational engineering firm that specializes in energy management. Our 2019-2021 GHG inventory is consistent with the principles and guidance of the World Resources Institute (WRI) and the World Business Council for Sustainable Development's (WBCSD) Greenhouse Gas Protocol Initiative (GHG Protocol).

Our headquarters in Branchville, New Jersey is our only owned operation, and we lease the other 19 locations (estimated on square foot occupancy) included in our GHG emissions. Our interests in renewable energy production do not reduce our GHG emissions. We built a 2.9-megawatt DC ground-mount solar photovoltaic facility at our Headquarters. The facility generates approximately four million kWh of electricity annually that we sell under the New Jersey's Solar Renewable Energy Credit Program. We are in the process of building a second solar facility that will increase the annual kWh capacity by approximately one million kWh of electricity, to approximately five million kWh.

**Targets:** The targets we use to manage climate-related risks and opportunities and performance against targets.

We recognize that the pandemic and remote work impacted our 2020-2021 reported figures. We anticipate our overall Scope 1 and 2 emissions will increase in 2022. Our long-term objective is to continue to reduce our carbon emissions relative to the 2019 baseline year. We have many initiatives that we expect will reduce GHG emissions over time. Some include:

- (i) Upgrades to our Headquarters building management system, which should reduce heating and cooling natural gas consumption;
- (ii) Transitioning our Fleet from gas to hybrid vehicles over the next three to five years;
- (iii) Conversion of all Headquarters light bulbs to LED;
- (iv) Flexible in-office work schedule going forward;
- (v) Migration of our Headquarters information technology data center to the Cloud; and
- (vi) We may consider purchasing carbon credits to offset all or part of our CO<sub>2</sub>e emissions from electricity consumption at our Branchville Headquarters.

We have also implemented several initiatives at our Headquarters to lower our environmental impact, including:

- Enhanced waste management and recycling;
- Repurposing commingled recyclables;
- Elimination of Styrofoam products in our cafeteria;
- Recycling and more efficient energy use of electronic equipment; and
- Reducing our water usage through automatic plumbing features.

**Important Legal Information**

Certain statements in this report, including information incorporated by reference, are “forward-looking statements” as defined by the Private Securities Litigation Reform Act of 1995 (“PSLRA”). The PSLRA provides a safe harbor under the Securities Act of 1933 and the Securities Exchange Act of 1934 for forward-looking statements. These statements relate to our intentions, beliefs, projections, estimations, or forecasts of future events and financial performance. They involve known and unknown risks, uncertainties, and other factors that may cause our or industry actual results, activity levels, or performance to materially differ from those expressed or implied by the



forward-looking statements. In some cases, you can identify forward-looking statements by words such as “may,” “will,” “could,” “would,” “should,” “expect,” “plan,” “anticipate,” “target,” “project,” “intend,” “believe,” “estimate,” “predict,” “potential,” “pro forma,” “seek,” “likely,” “continue,” or comparable terms. Our forward-looking statements are only predictions, and we can give no assurance that such expectations will prove correct. We undertake no obligation, other than as federal securities laws may require, to publicly update or revise any forward-looking statements for any reason.

As with any projections or estimates, actual results or numbers may vary. Factors that could cause our actual results to differ materially from what we project, forecast, or estimate in forward-looking statements are discussed in further detail in Item 1A. “Risk Factors.” in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the Securities and Exchange Commission. These risk factors may not be exhaustive. We operate in a constantly changing business environment, and new risk factors may emerge at any time. We can neither predict these new risk factors nor assess their impact, if any, on our businesses or the extent any new factor or combination of factors may cause actual results to differ materially from any forward-looking statements. Given these risks, uncertainties, and assumptions, the forward-looking events we discuss in this report might not occur.

The actual conduct of our activities, including the development, implementation, or continuation of any program, policy, or initiative discussed or forecasted in this report, may differ materially in the future. This report covers our owned and operated businesses and does not address the performance or operations of our suppliers, contractors, and partners unless otherwise noted.

Many of the standards and metrics used in this report continue to evolve and are based on management assumptions believed to be reasonable at the time of preparation but should not be considered guarantees. The statements of intention in this report speak only as of the date of this report. We undertake no obligation to update publicly any statements in this report.

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