



# HISCOX ELEMENTS



HISCOX  
LONDON MARKET

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### **About Hiscox**

Hiscox is a global, specialty insurer, listed on the London Stock Exchange and headquartered in Bermuda. We have grown from our roots as a niche Lloyd's of London underwriter into a diversified international insurance group operating across direct-to-consumer, broker and partner-distributed retail insurance; large and complex commercial insurance; reinsurance and insurance-linked strategies. We currently employ over 3,000 people worldwide across 13 countries and 32 offices. We serve almost 1.7 million retail customers across the UK, Europe and the USA, and we remain one of the largest and longest-standing Lloyd's of London syndicates.

## Introduction



**Kate Markham**  
Chief Executive Officer  
Hiscox London Market

Nearly 2,500 years ago, the Greek philosopher Empedocles proposed that the world was composed of four ‘roots’ or elements: earth, water, air and fire. These four classical elements offer a useful framework for considering human interaction with the world around us. They help us understand how we, as a species, live and thrive against a backdrop of natural and manmade threats and risks related to the elements, from earthquakes to floods, hurricanes and wildfires.

Looking back at the nearly 350-year history of Lloyd’s of London, the insurance market has been helping individuals and businesses manage risks related to the four elements since its earliest days, insuring maritime trade across the world’s oceans and seas (water). By the late nineteenth century, the market’s appetite for risk had evolved into non-marine areas such as hurricanes (air), earthquakes (earth) and fire.

Today, the range and scope of risks underwritten in London have expanded dramatically, and so have those related to the classical elements. Take air for example. Despite the ongoing threat of tropical cyclones, including hurricanes and typhoons, wind is also driving growth in clean, renewable energy through the expansion of wind farms. These installations, which cannot operate without insurance, are a growing part of this transformation.

Given the importance of these four classical elements in shaping our world, Hiscox Elements sets out to explore and examine some of the many threats and opportunities related to earth, water, air and fire. As an insurer with a 124-year history, this matters greatly to us and is reflected in our purpose: we embrace the unique risks of many to unlock progress for more. We hope you find Hiscox Elements a useful and insightful read.



# EARTH

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The Greek philosophers saw earth as the element of 'heaviness, matter and the terrestrial world,' with Aristotle defining it as 'cold and dry.' Taken literally, it presents risks to society such as earthquakes and landslides. However, there are also related manmade risks to consider, including mining for fossil fuels and rare earths, as well as geopolitical instability.

## Earthquakes



# \$332bn

Economic loss for the Tohoku earthquake and tsunami.

### The risk

The Chilean Valdivia earthquake<sup>1</sup> of 1960 is regarded as the largest earthquake in modern history, leading to the deaths of over 1,600 people and leaving more than two million homeless. It is believed to have caused economic damage of \$550 million (adjusted to \$4.8 billion in 2020 prices<sup>2</sup>).

Despite major earthquakes like the one in Chile, over 200,000<sup>3</sup> earthquakes occur each year, with most causing little damage; often the tremors cannot be felt by the local population. However, that should not downplay the potential for a catastrophic quake at any given time, in numerous locations around the world. San Francisco, for example, the scene of one of the most significant earthquakes in 1906, has a 2%<sup>4</sup> chance of experiencing a similarly sized earthquake in the next 30 years<sup>5</sup>.

While there is no evidence yet that the scale and frequency of earthquakes has increased, some researchers believe that climate change could lead to a rise in seismic activity due to rising sea levels and the resulting small but notable increase in pressure on tectonic faults in the subsurface caused by hydrostatic load<sup>6</sup>.

### The opportunity

#### Building earthquake resilience

What does earthquake risk mean for the insurance industry? Property cover is vital for buildings located in areas prone to earthquakes, which presents the challenge of insuring in high risk zones. The largest insurance loss to date was the Tohoku earthquake and tsunami in Japan in 2011, resulting in economic losses of \$332 billion<sup>7</sup> (insured loss: \$35 billion<sup>8</sup>).

Understanding the potential levels of risk concentration requires the use of more advanced catastrophe modelling by insurers to enable a better grasp of the potential exposure.

Artificial intelligence and machine learning can now play an important role in that process.

The insurance industry can also help to drive new building standards which could, for example, require better anchoring and flexible utility connections to increase building resilience and limit potential losses.

Other construction developments, such as seismic base isolation, which involves separating or decoupling the structure from its foundation<sup>9</sup>, and the use of materials like cross laminated timber (CLT), which reduces the risk of collapse, can all help to limit the potential for loss or damage. The use of new technology in real time monitoring systems can also provide insurers with an immediate understanding of damage to buildings, its implications, and what customers may need.

The development of new insurance products, such as parametric insurance, which pays out a pre agreed sum based on the size of an event rather than waiting to assess damage to each building, will lead to faster payments, broader coverage and, critically, greater certainty for customers.

This will give commercial and residential developers the confidence to build in areas prone to earthquakes that might otherwise have been avoided, as well as the ability to recover quickly from an earthquake and return people and businesses to their previous position.



Whilst advancements continue to be made in building codes and standards, the growth of cities in active seismic regions may result in increased exposure and vulnerability. This creates greater demand for insurance capacity and risk transfer mechanisms. Pricing models for earthquake risk are becoming more sophisticated and are able to capture a wider range of data points, helping to quantify potential earthquake risk more effectively.

#### James Tanner

Major Property Line Underwriter  
Hiscox London Market



## Geopolitical



### Geopolitical risk<sup>10</sup>

Threat, realisation and escalation of adverse events associated with wars, terrorism and any tensions among states and political actors that affect the peaceful course of international relations.

#### The risk

S&P Global<sup>11</sup> reports that the leading geopolitical risks for 2025 include US-China relations, energy security, cyber attacks, climate change, Russia-NATO tensions, and anti-globalisation. Add to this the ongoing conflicts in Ukraine and Israel, and potential issues in the South China Sea, and these multiplying geopolitical risks are creating new tensions and challenges for businesses more accustomed to decades of globalisation and closer international ties.

The authority of international bodies such as the United Nations, NATO, the European Convention on Human Rights, and the European Union has played a central role in creating a rules-based order since the end of the Second World War. However, these institutions are now being challenged by countries and governments responding to populist movements on issues such as immigration and inequality, creating further instability and uncertainty.

How can organisations trade safely when investment and operations in foreign countries, as well as in their own regions, could be subject to political violence or terrorism, putting not only their assets but also the safety of employees at risk?

#### The opportunity

##### Facilitating safe international operations

Helping businesses operate safely in this changing environment is a critical challenge for the insurance industry.

Whether offering geopolitical, war and political violence cover, protection against terrorism, or kidnap and ransom insurance, the industry plays a vital role in enabling activity in areas subject to heightened geopolitical risk.

Businesses have a duty of care towards their employees, which means that if they are sent to areas where their personal security could be at risk, steps must be taken to prevent them from falling victim to kidnap. If they are kidnapped, having the necessary resources to bring the incident to a safe conclusion is essential.

It is also vital to protect against property damage and related business interruption resulting from events such as terrorism, riots, strikes, civil unrest and war.

This means providing insurance that supports organisations through the crisis management phases of readiness (before an incident), response (during an incident), and recovery. Hiscox's exclusive 30-year partnership with global specialist risk consultancy Control Risks, for example, provides clients with access to threat intelligence, on-the-ground support during an incident, and services such as employee counselling for post-incident recovery.



The post Second World War international order is being challenged as greater levels of nationalism and populism take root in more regions. But this geopolitical risk and uncertainty is exactly what we, as an industry, are here for: helping businesses run their operations in areas where threat levels are high or developing in ways that are difficult to predict.

#### Richard Halstead

War, Terrorism and Political Violence Line Underwriter  
Hiscox London Market



## Upstream energy



# 1859

Edwin Drake drills the first commercial oil well in Pennsylvania, USA.

### The risk

Oil and gas derived from fossil fuels have been used for millennia, with the earliest oil wells believed to have been drilled in China in 347 CE<sup>12</sup>. However, the use of oil goes even further back, for example, in construction by the Romans and in embalming by the Egyptians using oil based bitumen<sup>13</sup>. The birth of modern day oil drilling can be traced back to the 1850s, when oil was used for heating and lighting. By the invention of the motor car in the 1880s<sup>14</sup>, demand for oil began to increase significantly, with usage expanding over the following decades into areas such as the production of fertilisers, medicines, textiles and more.

Despite the historical reliance on fossil fuels for the global economy, the operation and development of upstream energy activities, which focus on the exploration and production phases for oil and gas, are now under growing scrutiny as the world commits to an energy transition focused on a carbon neutral future.

### The opportunity

#### Smoothing the energy transition

It will take time to move away from fossil fuels to renewables and carbon neutral energy technologies. That means upstream energy operations will continue to require insurance for their property, operations and liability risks. These risks could become more challenging due to the increasing difficulty of extracting fossil fuels from more remote and demanding locations, pressures related to climate change such as the growing prevalence of wildfires, and an evolving regulatory environment.



By supporting our clients in new areas such as the development of carbon capture and storage, which helps to limit greenhouse gas emissions, insurance is firmly positioned at the forefront of the evolution of the upstream energy sector towards a carbon neutral future.

#### Lorraine Mackey

Upstream Energy Line Underwriter  
Hiscox London Market



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Described by the Greeks as 'cold and wet,' water is the second classical element and represents both abundance and volatility. From flooding to drought, and through its use in transport and power generation, water continues to shape how societies live and sustain their economies.

# WATER

## Flood



# 4%

Percentage of homeowners in the US with flood insurance.

### The risk

The average annual loss due to flooding is \$388 billion<sup>15</sup>, with flood related disasters increasing by 134%<sup>16</sup> over the last twenty years compared to the previous two decades. Ongoing climate change is expected to push this figure higher, with increased river flooding, rising sea levels due to ice melt, and more frequent storm surges and flooding at high tide. It is estimated that by the turn of this century, sea levels will have risen by one to two metres<sup>17</sup>, potentially devastating many coastal regions.

In the UK, for example, by the middle of the century, one in four properties<sup>18</sup> could be at risk of flooding from rivers, the sea or surface water. Areas where flooding has historically been unheard of are also suffering. Dubai, for instance, experienced record rainfall in April 2024, which led to widespread flooding.

For some countries, flooding is an existential threat. Rising sea levels are expected to completely submerge nations such as Tuvalu, Kiribati and the Maldives<sup>19</sup> by 2100. Even where the threat is not existential, flood trends are prompting other countries<sup>20</sup> to begin relocating parts of their populations to safer areas. Indonesia, for example, is in the process of moving its capital city approximately 1,000 kilometres from Jakarta due to flooding concerns and the expectation that a quarter of the city will be underwater by 2050<sup>21</sup>.

### The opportunity

#### Developing flood resilience

Building natural defences should be the starting point for flood resilience; relying solely on ever-higher barriers won't work.

Concepts such as the sponge city<sup>22</sup> introduce innovative approaches to urban development. These include green roofs planted with vegetation, urban wetlands, and permeable pavements that reduce runoff from heavy rainfall and lower the risk of damaging, localised flooding.

Insurance plays a vital role in strengthening society's resilience to flooding across both commercial and residential sectors. It is estimated that insurers in the UK paid out a record £585 million<sup>23</sup> in claims arising from residential flooding in 2024. However, one of the challenges in many countries is the low uptake of flood insurance.

Even in a developed economy like the United States, uptake remains low, with only 4% of homeowners nationally<sup>24</sup> having flood cover. Many people tend to associate flooding solely with rainfall events or coastal surges from hurricanes and large storms. Yet flooding can also result from other causes, such as extensive snowmelt due to fluctuating temperatures – events that are becoming more frequent in a changing climate.

This is why there is a growing need to improve education around the importance of flood insurance, even for property owners in areas that have not historically been prone to flooding, while also making flood insurance more affordable and accessible. Insurance cover can be tailored to reward good risk management practices, and better use of data will help insurers to map flood risk more accurately.



Hiscox's FloodPlus product sets prices based on each risk's unique exposure and characteristics. Homes with flood mitigation measures and those located in areas with enhanced flood management and defences benefit from more competitive pricing, as well as increased eligibility for higher limits.

#### Tom King

Flood Line Underwriter  
Hiscox London Market



## Drought



# 40%

Percentage of global population affected by water scarcity.

### The risk

Just as too much water causes major disruption and even loss of life, so too does the absence of water. According to the World Health Organization<sup>25</sup>, 40% of the global population is affected by water scarcity, while 700 million<sup>26</sup> people are at risk of being displaced due to drought by 2030.

Drought can impact food production, cause famine, spread disease due to the lack of clean drinking water and effective sanitation, lead to wildfires, and trigger conflict as competition for finite water resources intensifies. Terrorist groups seek to exploit these tensions in countries such as Somalia, where drought has displaced millions of people and contributed to ongoing political instability.

### The opportunity

#### Protecting livelihoods

Insurance can and does play a role in protecting livelihoods in the face of drought. Crop insurance, for example, provides compensation for lower yields or loss of crops. This is particularly important for developing economies, where crop failure can have a devastating impact on local communities. Organisations such as Humanity Insured<sup>27</sup>, of which Hiscox is a founding partner, support individuals and communities by providing grants that enable those most at risk from climate volatility such as drought to purchase parametric insurance cover. This type of cover pays out when a specific trigger is met, such as a defined period without rainfall.

## Hydropower



### The risk

Installed hydropower capacity reached 1,443 GW<sup>28</sup>, via a combination of four main technologies: 'run-of-river', pumped storage, storage, and offshore. Globally, China leads the way in capacity, followed by Brazil, the United States, Canada, and Russia.

Although hydropower is a renewable technology, it comes with several associated risks. Despite its use in power generation for many decades, the technology is developing rapidly, particularly in areas such as tidal power, which introduces a degree of uncertainty.

### The opportunity

#### Helping hydropower contribute to the renewables mix

Insurance cover is needed for the construction, operation and ultimately any decommissioning of hydropower plants. As technologies evolve, insurers are working to understand the changing complexities of the cover required and the risk profile of each project. An interesting development is the use of pumped storage. Louis Cozon, Power and Renewables Line Underwriter at Hiscox London Market, explains: "This is where water is pumped upstream when the grid is producing lots of clean, cheap energy – the sun is out and the wind is blowing. But when it is a still or cloudy day, the water can run back through the hydro plant to produce electricity. Effectively, the stored gravitational energy in the water works as a battery."

Another possible technology is tidal power, which has not kept pace with offshore wind as a form of clean energy. Martin Joseph, Power Generation Engineer at Hiscox London Market, says: "Tidal power is promising, but it is currently not cost competitive when compared to other forms of renewable energy. However, as it is still in a relatively early stage of development, there is potential for cost reductions, which could lead it to being more of an option in the future energy mix."

## Oceans and seas



# 90%

Percentage of world trade moved by shipping.

### The risk

Shipping moves 90% of the world's trade<sup>29</sup>, with over 50,000 merchant ships trading internationally and manned by more than one million seafarers<sup>30</sup>. But going to sea has always been a risky business. Lloyd's of London has its roots in the coffee houses of the seventeenth and eighteenth centuries, where merchants met to pool the risk of shipping goods around the world.

The impact of climate change, however, could present even greater challenges to shipping and its cargo, through related factors such as drought, rising sea levels, and severe weather events. Cargo travelling through the Panama Canal, for example, has already been affected by lower rainfall impacting the freshwater feeder lakes used to operate the extensive lock system. In August 2023, the water shortage led to a 40% increase in waiting times for vessels<sup>31</sup>.

### The opportunity

#### Maintaining trade flows

There are significant opportunities ahead as pressure grows on shipping companies to reduce their carbon emissions and introduce new technologies, such as the use of alternative fuels and propulsion methods<sup>32</sup>. The International Maritime Organization is committed to phasing out greenhouse gases as soon as possible<sup>33</sup>, and a combination of fuels like hydrogen, ammonia and biofuels could all play a part. While London is an international leader in the insurance of cargo, hull and liability risks, it continues to support the shipping industry with the insurance products it needs as its risk profile evolves with the adoption of new carbon neutral technologies.



When it comes to the use of new fuels, we are still in a test and learn phase. However, supporting these technological changes as shipping works towards a net zero future is part and parcel of what we do as insurers. Our cover is broad enough to allow shipowners and operators to make these changes to their vessels while providing the protection they need.

#### Brendan Flood

Hull Line Underwriter  
Hiscox London Market





In contrast to the cold elements of earth and water, the third classical element, air, was described as 'hot and wet' by Aristotle. Metaphorically, the spouting of 'hot air' by executives can pose a very real risk for organisations. More literally, the risks from air focus around wind damage, but there is also a renewed drive to harness wind to generate power.

# AIR

## Wind



# 10%

Increase in category four or five storms even if global warming is limited to 1.5°C.

### The risk

Although evidence shows that the overall frequency of tropical cyclones (also known as typhoons or hurricanes) has not increased over the past century<sup>34</sup>, a higher proportion now reach category three or above. Warmer oceans, driven by climate change, are producing storms with greater energy, stronger winds, and heavier rainfall. Reports suggest the number of category four or five storms could rise by around 10% if global warming stays within 1.5°C and by up to 20% if it reaches 4°C<sup>35</sup>.

In the US, the five costliest hurricanes have all occurred within the past 20 years. According to the National Centers for Environmental Information<sup>36</sup>, Hurricane Katrina (2005) remains the most damaging, with total losses of \$201.3 billion, followed by Harvey (2017, \$160 billion), Ian (2022, \$119.6 billion), Maria (2017, \$115.2 billion), and Sandy (2012, \$88.5 billion). The Gulf Coast states of Florida, Louisiana, and Texas<sup>37</sup> remain the most exposed to stronger hurricanes.

### The opportunity

#### Building wind resilience

In the USA, some regions are actively offering financial incentives to homeowners to make their properties more resilient to wind damage. For example, the Louisiana Fortify Homes Program<sup>38</sup> offers grants of up to \$10,000 to help homeowners upgrade their roofs to make them as hurricane proof as possible. But as the power of storms increases, insurance becomes ever more critical for the protection of the built environment. The use of advanced predictive analytics, for instance, is helping insurers to better understand the likely destruction from a storm and to model the risk more effectively.

The insurance industry can also incentivise and encourage actions by homeowners to promote improved resilience, particularly through adjustments to premiums. Joseph Pennyfather, Binding Authorities Line Underwriter at Hiscox London Market, says: “Our role goes beyond underwriting; we are here to support our clients in building long-term resilience. As wind-related risks intensify, with both frequency and severity rising, we remain committed to helping them navigate uncertainty with confidence, offering tailored solutions and standing by them for the long haul.”

### Clean power generation

Together with solar, wind is the fastest growing source<sup>39</sup> of renewable energy. In 2024, a record 117 GW<sup>40</sup> of new wind capacity was installed, bringing global cumulative capacity to 1,136 GW<sup>41</sup>. The Global Wind Energy Council forecasts an additional 1 TW of new installations by 2030<sup>42</sup>. China leads the sector, followed by the USA, Germany, India and Brazil, though far greater expansion is needed to meet net-zero targets. In the UK, which already hosts major projects such as Hornsea 2 (offshore) and Whitelee Wind Farm (onshore), an estimated 5,500 onshore 4 MW and 917 offshore 12 MW turbines will be required by 2030<sup>43</sup>.

To meet rising demand, wind turbines are becoming larger and are increasingly installed in more challenging locations, such as deeper waters, to capture stronger, more consistent winds. This also heightens risk and underscores the need to expand grid capacity to harness growing renewable generation – an area where battery energy storage solution systems (BESS) offer one solution<sup>44</sup>.



By providing insurance solutions for these ambitious investments in wind power, we help promote capital flow into the wind power generation industry. As with any new technologies, it is our role to understand them from an engineering perspective so that we can underwrite the risk sustainably, while also supporting manufacturers and operators in optimising their risk management and reducing potential losses.

#### Louis Cozon

Power and Renewables Line Underwriter  
Hiscox London Market



## Talking 'hot air'



# \$74bn

Estimated shareholder losses<sup>45</sup>  
from the Enron scandal.

### The risk

Dishonesty costs billions. Over the years, many companies and their directors and officers have faced fines and even prison sentences for failing to tell the truth – talking 'hot air'. For example, they may have inadvertently published inaccurate information about their annual earnings.

Huge accounting frauds at companies such as Enron and WorldCom were precursors to the 2002 US Sarbanes Oxley Act, which aimed to hold top executives personally responsible for reporting inaccurate financial information. However, the risk of misreporting by corporates continues, whether deliberate or accidental.

### The opportunity

#### Clear the air

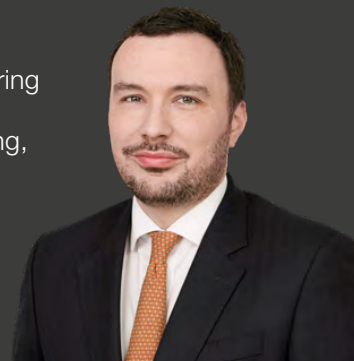
Insurance is not designed to cover businesses and their directors and officers for deliberately dishonest or fraudulent acts. However, directors and officers' (D&O) insurance is an important protection for executives who are wrongfully accused of such acts or have been negligent. Without this cover, many individuals would be reluctant to take the necessary risks for their business to grow and succeed.



Emerging risks such as decarbonisation, electrification and artificial intelligence will test the D&O market, requiring businesses to manage these exposures as they grow. However, the London insurance market's broad licensing, appetite for complex risks, and substantial capacity will ensure it remains relevant for years to come.

#### David Mulvaney

Senior D&O Underwriter  
Hiscox London Market





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The fourth classical element, defined by the Greeks as 'hot and dry', is fire. Occurring naturally through wildfires or caused by human activity, fire remains a persistent threat to lives, buildings and livelihoods. Its effects are intensified by rising global temperatures and increasingly extreme environmental conditions.

# FIRE

## Wildfire



### Bellwether

Bellwether's wildfire prediction tool analyses large volumes of data to help estimate wildfire risk at any location.

### The risk

Wildfires are now a constant theme as temperatures rise and a lack of water dries out vegetation, creating ideal conditions for fire. 2025 is already Europe's worst year on record for wildfires. Significant fires in Spain, Portugal and Greece have led to the burning of more than one million hectares<sup>46</sup> of land across the EU. In California, emergency services reported over 6,928 wildfires by mid September 2025, with more than 520,000 acres burned, 31 fatalities, and over 16,000 structures destroyed<sup>47</sup>.

The recent Los Angeles fires alone are predicted to have caused property damage of between \$28 billion<sup>48</sup> and \$53.8 billion<sup>49</sup>, with the Palisades and Eaton fires being the most economically destructive. In turn, the economic damage could result in tens of thousands of job losses and a reduction in tax revenue of up to \$1.4 billion, as business activity and employment decline.

In addition to the widespread damage to property and loss of life, wildfire also poses a financial risk to the management of businesses held responsible for causing fires. Executives at the United States utilities provider Pacific Gas and Electric, for instance, were sued in 2022 over claims that their equipment had started wildfires, with the litigants securing a \$117 million dollar settlement<sup>50</sup>.

### The opportunity

#### Wildfire mitigation

Insurance for wildfire damage has long been available. The major challenge is helping businesses and homeowners build greater resilience to wildfires within the built environment, while also improving the ability to map and analyse the risk so that insurance and reinsurance support can remain sustainable.

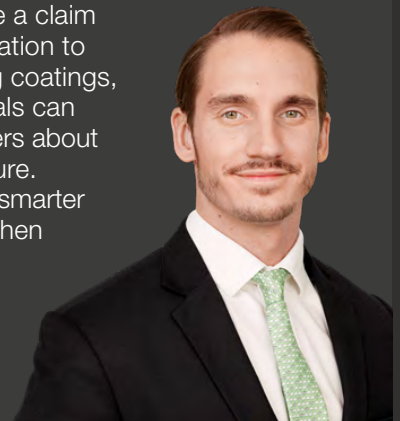
More advanced modelling is a crucial part of that effort. As James Brady, Property Divisional Director at Hiscox London Market, explains: "using historical information about the environment, in combination with thousands of other risk drivers such as tree species, wind characteristics and types of infrastructure, the Bellwether model is the only system that can forecast wildfires up to five years in advance."



Effective wildfire risk management begins well before a claim is made. Proactive measures such as clearing vegetation to create defensible space, applying protective building coatings, and using resilient, non-combustible building materials can make a real difference. We are speaking to our partners about the various ways customers can reduce their exposure. It's about working together to enable and encourage smarter decisions, as these can have a meaningful impact when it matters most.

### Joseph Pennyfather

Binding Authorities Line Underwriter  
Hiscox London Market



## Manmade fire



# 200

Number of injuries caused by lithium-ion battery related fires since 2020.

### The risk

For accidental causes of fire, one area increasingly under focus is the risk from charging lithium-ion batteries – used in everything from electric vehicles to cordless vacuum cleaners and mobile phones. Fire and rescue services in New South Wales, Australia, reported attending nearly 300 battery-related fires in 2023<sup>51</sup>. Meanwhile, the UK's Fire Industry Association<sup>52</sup> reports that since 2020, nearly 200 people have been injured in lithium-ion battery-related fires, with 10 fatalities.

### The opportunity

#### Dousing the flames

As well as insuring the risk for fire events, insurers have the opportunity to help individuals and businesses reduce the likelihood of fire impacting them, whether it is through better fire safety advice or incentivising the use of measures like sprinklers and other fire retardant measures. Take the fire risk from lithium-ion batteries: simple steps could include minimising the installation or use of charging stations in integral garages or integrated outbuildings, and not leaving household items to charge unattended overnight.



While we should be proud of how the insurance industry has risen to the challenge of covering this emerging risk and continued to provide protection where lithium-ion batteries are involved, there is still more to be done. Helping more individuals and businesses take simple steps to reduce the risk in how they charge and use lithium-ion battery-powered cars and devices can save lives and reduce costs.

#### Lara Frankovic

US General Liability Line Underwriter  
Hiscox London Market



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## Conclusion

### Preparing for the future

As the risk profile of the classical elements shifts, particularly as a consequence of climate change and technological advancements, so does the insurance response. Insurance was once a profession focused on understanding past losses to set present premiums.

With today's rapidly evolving risks, insurers are increasingly using data and analytics to offer the cover individuals and businesses need to better understand and manage the challenges posed by the elements.

That shift from a rear view mirror perspective of risk to a more accurate and quantified assessment of the future is changing the role of an insurer from simply a payer of claims to that of a true partner in risk mitigation.

## References

|            |                                                                             |
|------------|-----------------------------------------------------------------------------|
| 1          | USGS – Largest earthquakes ever recorded                                    |
| 2          | Geographical Magazine – The great Chilean earthquake                        |
| 3          | Geological Society – Earthquake briefing                                    |
| 4,5        | USGS – San Francisco earthquake probability                                 |
| 6          | GFZ German Research Centre for Geosciences – Climate change and earthquakes |
| 7          | Statista – Natural disaster damage totals                                   |
| 8          | Moody's – A look back at the 2011 Great East Japan (Tohoku) Earthquake      |
| 9          | Manchester University – Base isolation concept                              |
| 10         | ECB – Geopolitical risk definition                                          |
| 11         | S&P Global – Geopolitical risk                                              |
| 12         | Offshore technology                                                         |
| 13         | The Business Standard – The ancient use of oil                              |
| 14         | BBC – How did oil come to rule our world?                                   |
| 15, 16     | UNDRR – Flood hazard exploration                                            |
| 17         | NASA – Sea level rise FAQ                                                   |
| 18         | UK Government – Flood and coastal erosion risk                              |
| 19         | BBC – Countries at risk from sea level rise                                 |
| 20         | WorldCrunch – Relocate to escape climate change                             |
| 21         | Al Jazeera – Indonesia moving capital                                       |
| 22         | Arup – Sponge cities snapshot                                               |
| 23         | ABI – Flood claims news                                                     |
| 24         | US Government Accountability Office                                         |
| 25, 26     | WHO – Drought                                                               |
| 27         | Humanity Insured                                                            |
| 28         | Hydropower.org – Hydropower facts                                           |
| 29, 30     | ICS Shipping – Shipping and world trade                                     |
| 31         | Reuters – Panama Canal vessel wait times                                    |
| 32         | ICS Shipping – Fuelling the fourth propulsion revolution                    |
| 33         | IMO – GHG emissions from ships                                              |
| 34         | BBC – Hurricane frequency                                                   |
| 35         | IPCC – AR6 WG1 Chapter 11                                                   |
| 36         | NCEI – Billion-dollar disasters                                             |
| 37         | Rainbow Restores – Hurricane damage                                         |
| 38         | Louisiana Department of Insurance – Fortify homes programme                 |
| 39         | Carbon Brief – Wind and solar growth                                        |
| 40, 41, 42 | GWEC – Wind industry installs record capacity                               |
| 43         | Carbon Free Europe – Net zero unveiled                                      |
| 44         | Hiscox London Market Blog – Battery energy storage systems                  |
| 45         | CFI – Top accounting scandals                                               |
| 46         | Reuters – EU wildfires                                                      |
| 47         | CAL FIRE – California wildfires                                             |
| 48, 49     | LAEDC – LA wildfires study                                                  |
| 50         | D&O Diary – Wildfire settlement with PG&E executives                        |
| 51         | The Guardian – Lithium-ion battery explosions                               |
| 52         | Fire Industry Association – Lithium-ion battery fires                       |

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