

Insurance products to support a low carbon, sustainable economy

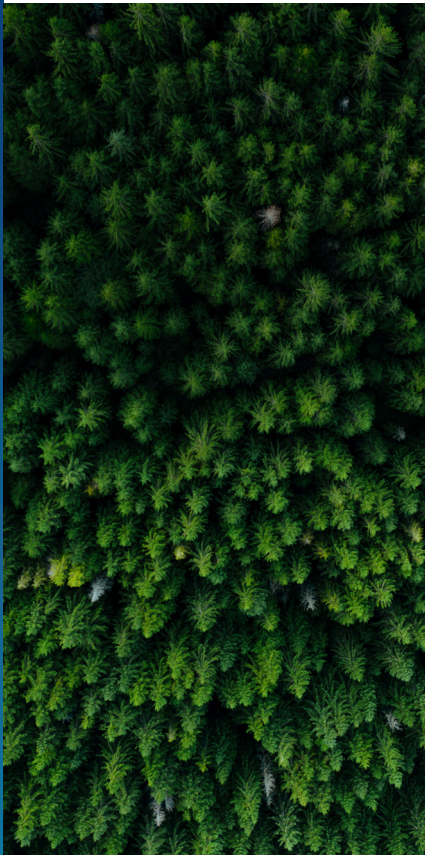


Overview

The transition to a low carbon, sustainable economy brings with it a growing number of risks related to environmental, social, and governance (ESG) factors; from project risk to reputational risk, market risk to technology risk.

The financial sector, and specifically the insurance community, has a key role to play in enabling businesses to fulfill their climate and sustainability commitments. The approach is twofold: Existing products need to evolve, and we must develop new products to respond to new risks.

This document catalogs Marsh-led products and services that respond to environmental, social, and governance (ESG) issues, and showcases some of the insurance products currently accessible across multiple industries. Many of these are provided by insurers that participate in the Sustainable Markets Initiative (SMI) Insurance Task Force, of which Marsh McLennan is a member. You will also find a list of Marsh representatives that can assist in tailoring these offerings to your needs.



01	04	Property
	04	Sustainable reinstatement
02	05	Biodiversity
	05	Biodiversity risk mitigation
03	06	Extreme weather and disaster recovery
	06	Small-scale farmers parametric products
04	07	Environmental, social, and governance (ESG)
	07	Insurance differentiation based on attainment of sustainability milestone
	08	Directors and officers liability ESG initiative
05	09	Carbon offset credits
	09	Carbon offset insurance
06	10	Decarbonization of carbon intensive companies
	10	Late-life asset decommissioning insurance
	11	Carbon capture, utilization, and storage insurance
07	12	Insurer product catalog
	18	Marsh contacts

Contents



Property

SUSTAINABLE REINSTATEMENT

About the product/service

Every year, the insurance industry spends billions of dollars paying for businesses to recover from losses. Conventionally, the repair or replacement is on a like-for-like basis (including new for old).

However, there may be more sustainable replacement scenarios that a conventional policy will not cover. This coverage enhancement helps a business to build back better, in a more sustainable way, if it suffers a loss to its property, even if the replacement is quite different from the item lost, or takes longer than a conventional policy would typically allow.

Supporting greener outcomes

This coverage enhancement supports businesses in making sustainable choices, even after they have suffered losses. It can help accelerate the transition to net-zero.

Enabling customers today

Companies across a range of industries have benefited from enhanced coverage, achieved through a revised basis of recovery clause, in their policy wording. For example, if an energy company suffers a loss, it might be able to choose not to replace the damaged asset and to instead use the claim proceeds to build renewable capacity at an entirely different location. This is typically not allowed under a conventional policy.

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Biodiversity

BIODIVERSITY RISK MITIGATION

About the product/service

Biodiversity is key for healthy ecosystems, and biodiversity loss can lead to significant environmental and societal challenges. In collaboration with AXA XL, Marsh's environmental team in France supports clients in assessing and mitigating biodiversity-related risks.

Supporting greener outcomes

Marsh clients are invited to complete environmental risk prevention audits with measurable criteria, and those with industrial sites are encouraged to carry out initial biodiversity diagnostics. The assessment allows the client to gain a full view of the biodiversity around its site from the beginning, so it is conscious of what is in the surrounding area.

Enabling customers today

After completing the assessment, an external consultant can discuss how to include this knowledge in the client's risk management plan. AXA XL France offers a reduction on clients' deductibles for environmental risk policies to support their efforts to be responsible.

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Extreme weather and disaster recovery

SMALL-SCALE FARMERS PARAMETRIC PRODUCTS

About the product/service

Currently, many small-scale farmers manage the risk of a poor harvest due to weather events by not committing too much capital to any one harvest. In many cases, these farmers would commit more resources to a harvest and increase yields if they knew some protection from bad weather events was available.

Marsh has developed a digital crop insurance program delivered through an easy-to-use app. The policy pays out if a farmer experiences too much heat/not enough heat or if it is too wet/not wet enough in the run-up to harvest. The farmer can choose the perils of concern.

The app uses meteorological data as the policy trigger. If the designated meteorological station measures the weather outcome stated in the policy, the insurer pays; as there is a pre-agreed payout amount there is no claim adjustment process.

Supporting greener outcomes

Farmers are at the mercy of the weather and this exposure is becoming more extreme as weather patterns change. This product supports farmers as they adapt to these changes.

Enabling customers today

Farmers in Australia are using this product to insure against crop failure due to extreme weather in the last few weeks of the growing season. If it is significantly drier than expected, the policy will pay out in accordance with its terms. Farmers receiving such payouts can, for example, apply those insurance recoveries toward the purchase of grain and fertilizer for the next harvest.

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Environmental, social, and governance (ESG)

INSURANCE DIFFERENTIATION BASED ON ATTAINMENT OF SUSTAINABILITY MILESTONE

About the product/service

The underwriting portfolios of insurers are receiving increasing attention, and recently focus has been expanding from the asset side of insurers' portfolios to also cover liabilities. Much of the underwriting attention to date has been on disincentivizing certain activities, with less focus on incentivizing positive transitions.

Marsh has created a product whereby insurers would recognize and reward insureds with particularly aspirational sustainability commitments which are aligned with the United Nations' sustainable development goals (SDGs).

Supporting greener outcomes

The approach actively rewards SDG-aligned behavior, and as a result provides insureds with additional financial support/incentives to deliver on their commitments.

Enabling customers today

A Marsh client issued a green bond aligned with objectives aligned with SDG 7, promoting access to affordable, reliable, sustainable energy for all, with a target that was to be externally certified. Marsh negotiated with insurers for a reduced premium in anticipation of the client achieving the target. In the event that the target is not met, additional premium will be due to insurers.

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DIRECTORS AND OFFICERS LIABILITY ESG INITIATIVE

About the product/service

There has been a clear uptick in ESG-related stakeholder activism and litigation, as well as an evolving global regulatory environment. This Marsh initiative recognizes US-based clients with superior ESG frameworks.

Under the initiative, Marsh clients engage with approved international law firms — including Norton Rose Fulbright and Orrick, Herrington & Sutcliffe LLP — to independently review, evaluate, and, in some cases, bolster their ESG frameworks. Subject to underwriting, clients will be considered for preferred directors and officers liability policy terms and conditions on ESG-related exposures from four participating D&O carriers: AIG; Berkshire Hathaway Specialty Insurance; Sompo International; and Zurich North America.

Supporting greener outcomes

By working with these select law firms, Marsh clients have access to leading independent ESG expertise that can help validate and elevate their ESG efforts. This encourages and promotes investment in ESG practices as clients with superior ESG frameworks are recognized as better risks by underwriters, thus creating a positive feedback loop.

Enabling customers today

Under this initiative, it's possible for clients to obtain preferred terms and conditions on the basis of their ESG strategy. Additionally, it demonstrates how investing in robust ESG initiatives can positively impact an organization's bottom line.

We expect to replicate this initiative in the UK and other global hubs around the world in 2022.

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Carbon offset credits

CARBON OFFSET INSURANCE

About the product/service

Many companies are targeting carbon neutrality as a step in their journey to net-zero. To do this, many are buying carbon offsets in the unregulated voluntary carbon market.

Purchasing carbon offsets in these markets can present several risks, such as the scheme not delivering the anticipated amount of sequestered carbon (for example, the trees don't grow as expected), the captured carbon being lost (for example, as a result of a forest fire), or the purchaser being defrauded, with the same carbon credits being sold to multiple owners. Marsh has developed an insurance program designed to address these risks.

Supporting greener outcomes

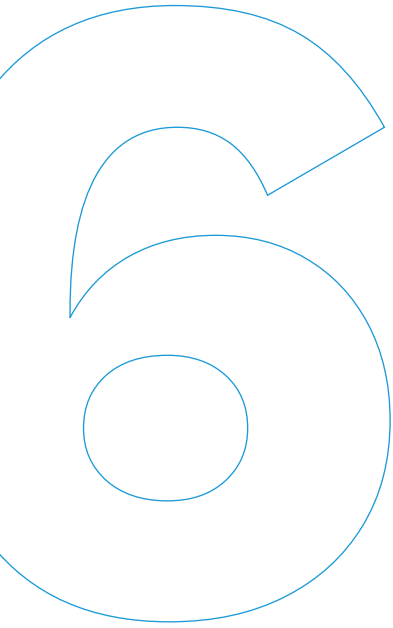
Improving confidence in the carbon offset market can help the sector grow, resulting in more carbon being sequestered in environmental schemes.

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Decarbonization of carbon intensive companies

LATE-LIFE ASSET DECOMMISSIONING INSURANCE

About the product/service

The mining and energy industries in particular have a large number of assets that are at, or close to, their end of lives. Alternatively, an asset may be in a value chain that is dependent on a late-life asset — if that asset is shut down, the dependent asset becomes stranded.

Marsh has developed a range of insurance products to reduce the uncertainty associated with managing and decommissioning late-life assets. These insurance programs provide for a range of outcomes, from allowing an alternative replacement scheme if a late-life asset is damaged to providing for liabilities that may arise from the decommissioning process itself.

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Supporting greener outcomes

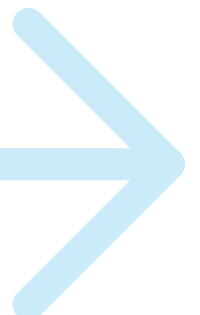
As the world transitions to a net-zero economy, many assets in oil and gas or hard-to-abate sectors will be decommissioned. Insurance programs developed by Marsh can provide coverage to address harm caused during late-life operations or in the course of decommissioning.

Enabling customers today

A Marsh client in the energy sector operated a large late-life oil platform that was due for decommissioning. The operator planned to decommission the wells and surrounding infrastructure from the platform itself.

If the platform suffered damage, the planned decommissioning scheme could not have been completed as planned and would have increased both the cost and the time for the work to be completed.

Conventional insurance policies will often not respond to the act of decommissioning. Marsh worked with the energy client to design bespoke insurance products to support it, helping protect the company from alternative replacements, the act of decommissioning, and post-closure liabilities.



CARBON CAPTURE, UTILIZATION, AND STORAGE INSURANCE

About the product/service

In order to achieve Paris-aligned climate goals, it is expected that we will need to use carbon capture and storage (CCS) technology, through which carbon dioxide produced by large industrial or power plants is captured, compressed for transportation, and injected deep into a rock formation for permanent storage.

Stored carbon has value, and some operators are concerned about the economic (and environmental) impact of a loss of containment, as well as the cost to reinstate containment.

In this relatively new risk area, Marsh has developed an insurance product for these activities and for the loss of value of captured carbon if there is a failure of containment. Insurance can respond to a variety of losses during the construction phase, to damage and/or loss of machinery during the operating phase, and to damage to third parties resulting from a failure of the facility, including the release of carbon dioxide.

Supporting greener outcomes

CCS is widely seen to be key to achieving net-zero. Technical and economic challenges will need to be overcome to enable the widespread adoption of CCS.

Many operators are relying on the availability of insurance to help manage the risk. This insurance product can be part of an operator's risk mitigation strategy, and thus can support accelerated development of the sector.

Enabling customers today

North Sea operators have been exploring the viability of carbon capture and storage, beyond injection wells. Marsh has developed long-term insurance structures for the operation and maintenance of infrastructure and for the economic value of stored carbon following a loss of containment as and when projects are commissioned.

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Insurer product catalog

Insurance product	Sector/Line	Description	Client benefit	Example carrier
Tailored builders risk insurance program	Construction and property	A sustainable solution to support innovative materials and practices. Coverage can be modified to address insureds' mass timber project risks.	Supports businesses in managing their risks and accelerating the use of cross-laminated timber across construction projects.	AXA XL North America, AIG
Energy efficiency insurance	Construction and property	Specifically designed for investors in energy conservation measures, energy service companies, and those financing energy savings projects. Provides cover for the assets installed, revenue generated by projects, and shortfalls in energy savings realized each year.	Building owners have the confidence of knowing that performance shortfall is backed by insurance. Energy service companies have their assets and revenue protected and more easily access funding. And funders see the technical uncertainty removed from a project, making it inherently more investible and reducing the cost of capital.	Munich Re/HSB
Technology performance guarantee	Renewable energy	Transfers the technology performance risk of bioenergy and circular economy projects from investors, developers, and lenders. Coverage provides a revenue guarantee in case of technology performance issues during plant startup and long-term operations. Triggered by incorrect design, engineering, or plant operations that result in lower-than-intended feedstock conversion, product yield, and/or plant uptime, increased maintenance, off-spec product, or reduced product output.	Guarantees investor and lender repayment obligations, operating costs, and fixed costs of the facility and also pays for necessary repairs, modifications, or replacement of process equipment that is underperforming due to design or engineering issues.	Munich Re, AIG
Renewable energy project tax credits	Renewable energy	Seven- to ten-year coverage for tax credits available for investments in eligible renewable energy projects, including, but not limited to, solar farms, wind turbines, fuel cell power plants, and carbon capture practices. Such credits include: <ul style="list-style-type: none"> Investment tax credits (ITC), which are designed to partially compensate taxpayers for the cost of installing renewable energy systems. Production tax credits (PTC), which are per kilowatt-hour (kWh) tax credits for electricity generated by qualified renewable energy resources. Sequestration tax credits (45Q), which are available to taxpayers that capture and store, or use carbon dioxide and carbon oxide. 	Renewable energy tax credits incentivize clean energy in the US, and tax insurance further facilitates investment in renewable energy projects. Generally, project developers cannot use tax benefits generated by renewable energy projects and instead partner with companies with tax appetites to more efficiently monetize the benefits (tax equity investors). Tax insurance in turn helps developers secure investments from tax equity investors who would otherwise require indemnity for certain risks relating to the tax credits.	AIG (North America)

Insurance product	Sector/Line	Description	Client benefit	Example carrier
Solar energy insurance	Renewable energy	Specialized coverage for every stage of a solar energy project from development through operation, on risks ranging from standalone projects to utility scale portfolios.	Enables project owners to invest in these new technologies and techniques, facilitating innovation while managing risk.	Munich Re, Axis Capital, Nardac, Hiscox
Wind project insurance	Renewable energy	Solutions to risks of wind projects along the whole value chain, both on and offshore. This includes specific covers aiming to protect manufacturers and suppliers; engineering, procurement, and construction (EPC) contractors; and the ultimate owners and investors of such wind projects against excessive maintenance or warranty costs. Finally, a lack of wind or wind energy yield cover can provide an additional safeguard for the commercial reliability of projects.	Provides insurance protection to not only protect manufacturers and EPCs, but also to increase the bankability and attractiveness of wind energy investments.	Munich Re, AIG, Axis Capital, Hiscox
Credit risks, project finance risk cover	Renewable energy	Credit lines — including trade credit insurance, trade finance insurance, political risk, and project finance insurance — provide insurance solutions that allow financial institutions to free up limited capital resources to support substantially increased lending to business activity in developing renewable energy.	Helps unlock new investment into renewable energy by providing companies with the security to take the necessary steps to transition. This allows financial institutions to move forward with confidence and at competitive terms to fund new green projects.	AIG, Ascot via Tierra



Insurance product	Sector/Line	Description	Client benefit	Example carrier
Parametric insurance	Extreme weather and disaster recovery	<p>Protects against economic loss caused by certain environmental conditions, weather events, or catastrophic perils that are not typically covered by more traditional insurance products.</p> <p>Coverage is triggered by an event such as excessive rainfall, heat, or cold, within a designated geographic area and reaching specified parameters. Parametric insurance links the amount of the loss payment to occurrence of the triggering event, providing a predetermined dollar payout upon its occurrence.</p>	Boosts the financial and socioeconomic resilience of organizations operating in locations most exposed to changing weather patterns.	AIG, AXA XL, Beazley, Ascot via Stable,
Parametric reputation value insurance and ESG insurance	Directors and officers liability	<p>Protects against loss associated with stakeholder concern memorialized in the media due to an operational failure felt to be the duty of senior management and the board — for example, ethics, innovation, quality, safety, sustainability, and security. Reputational health review with parametric solution based on reputational value index.</p> <p>Insurance cover triggered by both negative media and a 20-week sustained drop in an insured’s reputational value metrics. Indemnification based on weekly expectations for future economic performance. The policy is available only to firms whose reputation risk governance, leadership, and controls have been vetted through outside underwriting.</p>	<p>The ESG insurance product was designed to help manage the preeminent reputational issue facing corporate boards today.</p> <p>Helps forge reputation resilience through parametric reputation insurance and risk management advisory services. The policy offers payments for costs a firm may incur on behalf of the board or individual directors in pursuit of reputation resilience and restoration in the context of ESG issues.</p>	Steel City Re
Battery storage CAR/OAR	Renewable energy	Specialized property and casualty coverage for every stage of a battery energy storage project, from development through operation, on risks ranging from standalone projects to utility scale portfolios.	Applicable to project developers, operators, independent power producers, EPCs, and utility companies. This coverage helps to support the growth and development of renewable projects.	Axis Capital
Nuclear coverage	Nuclear	Cover encompasses all elements of the nuclear fuel cycle, including research and development, operation, enrichment, and decommissioning. Possible structures include excess-of-loss treaty and pro-rata physical damage and liability reinsurance.	Offers insurance protection against physical damage and/or liabilities, supporting the insured’s efforts to meet obligations imposed by international conventions and to operate in a financially responsible and sustainable fashion.	Hiscox

Insurance product	Sector/Line	Description	Client benefit	Example carrier
Hydrogen performance and product warranty insurance	Hydrogen	<p>Cover across the hydrogen value chain, including plants, pipelines, underground storage, and wells, for various product lines such as property, energy, and casualty.</p> <p>Hydrogen performance and product warranty insurance provides coverage for electrolyzer and fuel cell systems. It protects against excessive costs for repair and replacements due to component failure or unexpected performance degradation, and potentially the insolvency of a key component or system supplier.</p>	<p>Insurance acts as a backstop for suppliers and manufacturers providing them with comprehensive, and long-term warranties for their products and helping them, their customers, and investors in hydrogen projects to manage their technology and warranty risks.</p> <p>Assists in ensuring the bankability and efficient financing of hydrogen projects and improves the attractiveness for investors.</p>	Munich Re, AIG
Insurance for electric vehicles	Electric vehicles (EV)	<p>Going beyond traditional auto coverages — such as property and liability — to provide innovative solutions, including:</p> <ul style="list-style-type: none"> • Vehicle subscriptions, which can be “sponsored” by original equipment manufacturers (OEMs), dealerships, or employers as a means of offering employee benefits. • Car-sharing. • Distributed delivery. <p>Coverage for battery storage systems offers protection against excessive costs for repair and replacements due to component failure or unexpected capacity degradation, and potentially the insolvency of a key component or system supplier.</p>	<p>Provides protection for the performance of this rapidly advancing technology. Helps suppliers and manufacturers to provide comprehensive and long-term warranties for their products, and helps customers and investors in battery projects manage their technology and warranty risks.</p>	AIG, Munich Re



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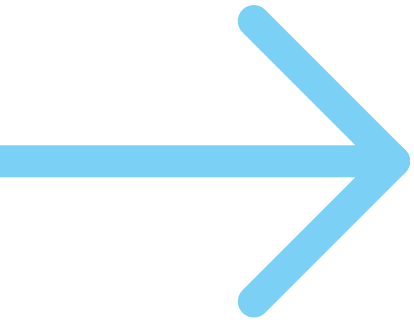
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About Marsh

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