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Marsh Specialty

Energy & Power Quarterly Newsletter

July 2021

Marsh Specialty is pleased to issue the July 2021 Energy & Power Newsletter, reviewing insurance trends for energy and power companies.

Energy insurance market conditions globally, have in general terms, stabilized over the last quarter resulting in a return of capacity in most sub-sectors, and a slow-down in rate increases. These are positive signs that the market cycle seems to be moving towards a dampening of the challenging conditions of the last year. Most energy sectors experienced a deceleration of rate increases in the last quarter, and on a year-by-year basis. However, rates for some sub-sectors such as offshore construction, shallow water Gulf of Mexico named windstorm, and onshore and offshore contractor business, are continuing to trend upwards at a faster or similar pace to last year's increases. Though conditions overall may be improving, insurers continue to be sensitive to major losses. Increased loss activity that negatively impacts insurers' financials in the second half of the year, could result in further hardening of rates, and policy terms.

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State of the market update

UPSTREAM ENERGY

Insurance market capacity remained plentiful over the quarter for large premium accounts with good loss records. Competition between insurers was strong and these types of accounts saw renewal price increases between 2.5% and 5% with some insurers offering flat or meaningful reductions, as they sought to maintain or grow market share on large premium accounts. However, there was a demonstrable change in markets' interest for smaller premium accounts and those with poor loss histories. In this tranche of the portfolio, which includes fracking spreads, saltwater disposal operations and geothermal, price increases ranged from 7.5% to 15% year on year.

Market capacity reduced for operations in the offshore US Gulf of Mexico for named windstorm coverage, and remaining insurers were increasingly selective.

Despite a good 10 year loss record, insurers have been apprehensive about the volatility of windstorm activity, and have shifted capacity towards onshore classes to balance their portfolio for longer-term capital stability. Policy terms from lead markets remained acceptable for insureds with excellent loss records and long-term relationships however, completing placements with consensus from following markets remained challenging.

The sinking of a USD135 million jack-up rig off the coast of Malaysia in May was the most significant loss incident during the quarter, and is an example of the difficulty the offshore drilling contractor sector is causing upstream underwriters. For two consecutive years, losses have completely exhausted premiums for the rig sub sector within the first six months of the year.

DOWNSTREAM ENERGY

Rate increases continued to decelerate over the quarter, and price increases averaged 10%, down from 15% to 20% at the beginning of the period. This represents a significant shift compared to the same time last year, when rates were rising upwards of 30%. Some insurers are now offering two-year term agreements at flat premiums, indicating rates may be topping out.

Consistent rate increases and restrictive terms over the last three years have seen insureds drift towards greater self-insurance and use of captives and OIL, the Bermuda based energy mutual. This drain of premium from the commercial market has impacted insurer revenues. There was a marginal, but significant oversupply of capacity building through the quarter as insurers pursued premium income and looked to fulfil increased budget quotas for 2021. This means that insureds now have greater opportunity on both premium and policy terms, and major placements generally can be completed without involving all lead markets. However, the market remains sensitive, and significant loss activity resulting in negative underwriting results for 2021 could cause capacity to contract and push rates upwards.

As the market dynamics have shifted, insureds and their brokers have looked to push back on insurers who have proven to be expensive, or inconsistent on policy terms compared to other insurers. As the market cycle continues to change over the next six months, insureds may be in a stronger position to negotiate on more restrictive terms and conditions established during the recent challenging market. That said, business interruption volatility clauses will remain a focus for insurers as oil prices recover, production ramps up, and consumer demand increases. While communicable disease clauses have been established in most regions, cyber resultant damage clauses continue to be topical as the risk evolves. A recent cyber-attack on a pipeline operator in the US refocused attention on the potential for damage and disruption from increasing cyber threats. While the attack caused no physical damage, it did create consumer uncertainty and raised questions about the security of energy supplies.

Power

TRADITIONAL

At the start of the quarter, insurance markets showed signs of decelerating rate increases, to below 10% on average, particularly for straightforward renewals with a clean loss record and no natural catastrophe (NatCat) exposures. However, a number of large losses caused affected underwriters to change their approach, and rate increases were around 20%. This could have been an immediate market reaction; more accurate loss reserve calculations during the next quarter should provide a clearer picture about rate trends.

Insurers now are focusing on the tightening of terms and conditions, as rates stabilize due to the increasing capacity from emerging managing general agents (MGA), particularly where over placement and signing issues on sought after accounts may become more prevalent.

As environmental, social and governance (ESG) principles and practices continue to gain traction, accounts that include coal, experienced increases of up to 40%. For clients in this sector, the restructuring of programs, and use of global markets to secure placement, is now commonplace.

RENEWABLE ENERGY

Capacity for renewable energy projects continues to increase as new markets enter the sector to diversify their existing conventional power or offshore energy portfolio, and existing insurers compete to grow their market share. Solar and wind projects dominate the sector, and capacity has contracted for alternative sources such as biomass, biofuels, and hydro plants. This has created both placement and pricing challenges from the general property and conventional power markets that continue to underwrite these classes.

Rates and deductibles continue to increase, following a trend established in 2020. Markets are focused on tightening terms and conditions, particularly for construction and NatCat risks where loss experience has historically been poor. The placement process has been significantly more challenging for construction risks related to wind (both offshore and onshore), as markets continue to be impacted by the long-tail nature of previous losses. As turbine sizes increase, and developers expand into isolated locations, insurers are likely to take a conservative approach to unquantified risks. This will put pressure on pricing and retentions, and necessitate longer lead times for program placement.

Concerns earlier this year about potential defects in cable protection systems for offshore projects, have prompted some markets to introduce additional exclusions. For onshore construction, exclusions remain in relation to specific contractors that have experienced frequent losses in recent years.

Markets are tightening terms and conditions, for construction and NatCat risks where loss experience has historically been poor.

ENERGY CASUALTY

While the unpredictable pricing fluctuations of 2020 appear to have stabilized, rates during the quarter continued to trend upwards, but at a more controlled pace. In 2020, the London and European markets contracted by up to USD200 million as syndicates withdrew and other insurers reduced their offering. There are promising signs that the challenging market conditions may ease as capacity returns during 2021, though mainstream carriers are yet to re-enter the market.

Given the current conditions, markets continue to iterate existing exclusions and introduce restrictive terms. The previously worded corona virus exclusion has been replaced by a wider-reaching communicable diseases exclusion. The markets' handling of malicious and non-malicious cyber risk is inconsistent, with individual insurers introducing variant clauses. These variations are leading to discrepancies across different regions and types of losses. One such variant has prompted the Joint Liability Committee to issue an accompanying data exclusion clause to clarify that claims from data loss (without accompanying physical damage or bodily injury) are not covered, with special exclusionary language for mental anguish caused by loss of personal data.

Markets' attention is now turning to climate change, and the heightened focus on ESG principles. London markets have started to consider climate change exclusions on policies, similar to the exclusions first introduced almost a year ago by OCIL in Bermuda. The OCIL exclusion is wide-reaching and creates a new policy definition for "greenhouse gases", the London markets are seeking to adopt a different definition. The London approach is currently around a climate change litigation exclusion. This orientation may suggest that insurers believe climate change is excluded already, and they are now seeking to exclude legal fees and expenses from defending against climate change related court cases.

BERMUDA CASUALTY

Recent placement experience for renewal accounts suggests that the Bermuda market is starting to stabilize following the downscaling of capacity in 2020. While rates are still rising, a number of new insurers are showing conservative interest in energy accounts. As with the global casualty landscape, the Bermuda markets' are looking to impose more restrictive coverages for cyber and communicable disease exposures. It is not unreasonable to expect that they will look to follow the global market position on climate change and ESG exclusions.

TERRORISM/POLITICAL VIOLENCE

New entrants, and increased capacity from active markets, have corrected the capacity shortfall that existed during 2020. However, the market for political violence perils - in particular strikes, riots and civil commotion (SRCC) - hardened in recent months due to ongoing social unrest in the US, Latin America, and Hong Kong. Unsurprisingly, some "all risks" markets now restrict or remove SRCC cover from their policies, particularly for occupancy types more vulnerable to losses, such as retail outlets.

Analysis of worldwide terrorism events has shown a shift from the use of traditional tactics and weapons towards "lone wolf" attacks and the use of bladed weapons and vehicles. Demand for coverages catering to this type of loss scenario is on the rise, and markets have responded accordingly, evolving terrorism products to incorporate cover for active shooter and malicious act incidents.

> **The hull, cargo, and P&I insurance and reinsurance markets may be significantly impacted by losses resulting from the stranding of the Ever Given.**

MARINE EXPOSURES

The marine insurance market is currently stable in terms of rates and capacity, and markets are underwriting with confidence. Most hull insurers have strong growth plans for 2021-22, buoyed by signs of increased trade and marine activity as world economies recover following the COVID-19 pandemic. Commercially priced capacity remains adequate for all but the largest vessel values and exposures with poor loss records.

Underwriters continue to distinguish based on quality of risk, and placements with excellent loss records typically are securing rate rises of under 10%. Programs with any undesirable elements, such as older vessels, low insured values and poor loss history, are likely to continue experiencing double digit rate increases.

In April the Joint War Committee updated their designated High Risk Areas (HRAs). The consequence for vessels entering a HRA is that their insurance will be cancelled automatically, and will need to be repurchased at an additional premium determined by the leading underwriter, based on the HRA location. The waters around Mozambique and Tanzania are now designated as HRAs due to highly publicized insurgency/terrorist incidents. The committee reduced the size of the HRA in the Indian Ocean following an improvement in the loss record.

The much publicized stranding of the Ever Given in March blocked the Suez Canal for almost a week. Insurance claims from the incident are still under investigation but expected to run into hundreds of millions of US dollars. The size of the loss may significantly impact the hull, cargo and P&I insurance and reinsurance markets.

ONSHORE CONSTRUCTION

The direction and pace of the market has stabilized, and the differential rates between London and global markets appear to be narrowing.

For insureds, the main challenges center on the timeliness of underwriter response, and difficulty in securing a consensus between lead and following markets. Underwriting is stretched due to a retraction of resources over the last few years, particularly in regional hubs. The remaining underwriters in this class are becoming increasingly selective about which programs may offer the best value to markets, making it difficult for insureds to obtain adequate options of lead terms at financial cycle milestones (such as 1 April or 1 July). Smaller projects or minimum premium programs with less favorable risk exposures are unlikely to receive preference, resulting in highly fluctuating renewal rates and terms.

Regional updates

ASIA

The second quarter of 2021 is one of the most active policy renewal periods in Asia. The renewals during this period saw more stabilized results, characterized by a more consistent approach to capacity deployment from markets. Although rate increases still occurred, there was more consistency in the approach by insurers on the scale of increase and the terms needed. The period of insurers attempting to return terms to what they perceived to be acceptable levels is nearing an end, and insurers are now focused on consolidating their positions.

New capital entered the power insurance market, and while not hugely significant in terms of overall size, the extra capacity assisted in levelling costs for clients by removing the need to use opportunistic capital.

The power construction market remained challenging, with many projects requiring extensions due to delays in completion. These delays were largely a result of the COVID-19 pandemic, which interrupted supply chains, both in terms of materials and labor. Insurers, too, have found themselves in a difficult position, having to offer extensions for a line of business that they have either chosen to exit, or where their underwriting or ESG guidelines have materially changed. Many insureds continue to experience significant period extension premiums, driven by the current circumstances and an inability to source alternative capacity.

The renewable energy sector is still running hot, particularly in countries where incentives are being offered to develop new projects. The most active countries include Vietnam, Taiwan and Japan with a significant volume of new projects coming to market, including offshore, nearshore, and onshore wind, as well as solar and battery storage. Interest in gas-to-power and hydrogen projects is increasing as developers look at alternatives fuel sources for their energy transition. Though they are at their initial developmental phase, interest in these technologies indicates the emergence of a key investment sector for the insurance markets in the coming years.

MIDDLE EAST & AFRICA

Following the global trend there are clear signs of a plateau to hard market conditions from both international and regional carriers in the Middle East. Many placements are being completed at significantly lower rate increases and moderate oversubscription.

The market has continued to show resilience in terms of local capacity and is proving to be a key contributor to wholesale placements internationally. While a few lead international markets have withdrawn, the regional insurers have continued to adapt and consolidate, with strong contributions to non-Middle East placements in recent months. Local carriers are keen to maintain their position, with a noticeable shift towards further flexibility of terms and conditions, in order to balance budget expectations in an increasingly competitive market place.

The influence of MGAs is becoming an important factor in the region, with several continuing to grow and thrive on the back of positive results in 2020. This trend is likely to continue as certain MGA now retain large capacities and are becoming relevant drivers of global capacity expansion in the energy and power sector.

There is renewed interest in captive solutions from both national oil companies and privately owned corporations based in Dubai, Abu Dhabi and Saudi Arabia. Traditionally, organizations with capital intensive assets, that require high levels of insurance capacity, are most impacted when the market hardens. Despite the improving conditions, policy terms continued to tighten and rates remained at an all-time high, leading these types of operators to seek alternative means of risk transfer. Most captive buyers hold strong balance sheets, which allows the captive to leverage against the parent capital in the event of a single large loss during the coverage period.

UNITED KINGDOM

The UK hosted the G7 meeting in June and climate change was a key agenda item. The pledge to provide USD100 billion per annum in climate change assistance to poorer countries was reaffirmed, along with a pledge to end the funding of coal-fired generation. These are positive signs of support for energy transition, and there is no doubt that the UK government sees the insurance industry as having an important role. Marsh was invited to participate in a recent discussion with the Financial Conduct Authority (FCA), the financial services regulator, about the changes we are seeing in how our clients and insurance markets are addressing the broad ESG issues. Marsh supports its clients as they progress towards a responsible energy transition.

Against this background it is unsurprising that over the last year, some London insurance markets have signalled their intent to reduce underwriting of carbon intensive industries. Increasingly, capital is being directed towards developing new and diversified ESG friendly products, and additional capacity is being made available to underwrite renewable energy and ESG friendly projects. There is a growing appetite from the upstream energy market looking to diversify into offshore wind, which will add significant capacity, improve competition and may limit the price increases being sought by traditional markets for these risks.

In fact, London continues to be an attractive environment for capital raising in the insurance sector and the establishment of underwriting platforms. Newly established insurers have attracted further underwriting talent as they selectively grow the number of classes in which they want to operate as a leader. At the other end of the spectrum, there is growth in the number of algorithmic-based underwriting vehicles. This enables carriers to have separate lead and follow capacity, which may be a more efficient model in the subscription market.

While capital is flowing towards energy transition initiatives, there is continuing interest in the mature oil and gas sector. Some of the oil majors are divesting of their older North Sea operations as they reposition their asset bases to energy transition. These assets have a strong attraction to new entrants, often backed by private equity vehicles, which are then looking for broader insurance protection for their business. This may include tax protection products and surety solutions that would not have had traction with the former owners.

> **Capital is being directed towards developing new and diversified ESG products. And, upstream energy markets are looking to diversify into offshore wind, which will add significant capacity, and improve competition.**

Focus on: renewable energy risk engineering

THE SCIENCE OF PREDICTING A PERFECT STORM

The growth of renewable energy assets over the last 20 years has been propelled by three main factors – the race to decarbonize, maturing technology, and improved return on investment as the cost differential narrowed between baseload and distributed generation. But prime development sites, with minimal natural hazard exposures, good solar and wind yields and access to existing infrastructure have been snapped up. Today, developers are increasingly forced to consider more remote locations with higher exposure to natural perils. This is affecting the insurability of assets, adding cost and more restrictive terms and conditions, and increasing the complexity for developers to secure finance.

The increased frequency and severity of extreme weather events and the devastation they cause, is leading developers, their financiers and insurers to make overly conservative risk estimates to ensure sufficient protection. This often translates to higher insurance costs at a time when coverage premiums are already increasing substantially. Natural catastrophe insurance costs have increased three-fold over recent years (depending on the geography). For even a small 100 megawatt project, this could double the original premium budget. In some cases it is a deal breaker. If this cost is not factored into the project financials, it could eat away at forecast revenue and profit, making a project unprofitable.

At a time when the social, political, and corporate consciousness is compelling exponential interest and growth in cleaner energy sources, investors need to use data and risk engineering solutions to better mitigate their risks and protect their investments. The unpredictability of climatic conditions in relation to renewable energy investments in particular, has seen the insurance industry struggle to adapt fast enough to be able to use scientific probability data of natural perils, to calibrate the pricing of risk transfer options.

Mother nature can't be controlled - but improving storm data and sophisticated engineering models that take into consideration additional variables, are providing renewable energy investors with more accurate and higher confidence risk estimates. The bottom line is a more realistic budget for all project stakeholders.

Single-location risk models lack accuracy

Risk modeling for wind or solar farms has traditionally taken into consideration the location of the insurable entity, but the models rarely account for the large areas covered by a single operation. Further, traditional models often base their estimates exclusively on location without considering other attributes that could affect a structure's resilience during a storm.

Take the example of a solar farm that spans over 100 acres in an area prone to convective storms. A traditional model will consider the likelihood that the solar farm is hit by a hailstorm, and estimate the potential damage, often in the tens of millions of dollars. But the storm's intensity is unlikely to be uniform across such a large area. While some solar panels may be damaged by hail, others may be completely unscathed.

Similarly, a flood may not lead to the same water elevations across a large insured property, with some areas experiencing water damage and others left completely dry.

Single-location risk models tend to provide an all-or-nothing result that may not reflect a property's real exposure.

Greater clarity and cost management, through data, and improved risk modeling techniques

The use of meteorological data, combined with more granular risk modeling techniques provides deeper analysis for locations with a large footprint. Engineering information for specific assets, such as construction material, occupancy, layout, and elevation, allows for more accurate risk loss estimates based on the main exposures across a larger geography.

The analysis of statistical weather data alongside engineering models, produces greater clarity around risk exposure. Presenting this information to insurers could enable them to reduce their pricing by 25% – 35% for rare weather events that cause the biggest damage and loss. The cumulative savings for investors over the life cycle of an asset, can total three to four years of annual insurance premium.

Early intervention and consultation with risk engineers can also enable a project developer to make the best decision about the right equipment, at the design phase of a project. For example, solar panel A might be 25% more expensive than solar panel B, but be 20% cheaper to insure due to its design and construction. Adding insurability premium to capex cost can help to inform better design and purchasing decisions.

Sophisticated risk engineering solutions can support:

- **Risk mitigation and control:** Applying best practices on loss control measures can reduce the frequency and severity of outages or losses.
- **Cost of risk reduction:** Accurate risk evaluations and loss modeling supports companies' risk mitigation and retention strategies, helping risk managers make the best risk transfer choices.

As renewable technologies evolve, and investors take greater risks, advanced risk engineering strategies can greatly improve and help manage hazard exposures, ultimately protecting their balance sheet.

"Improved storm data, and sophisticated risk engineering models, are providing investors with more accurate and higher confidence risk estimates. The bottom line is a more realistic budget for all project stakeholders.

Cyber-attacks: A question of when, not if, for the energy industry

In May, cyber risk in the energy sector received global attention following a ransomware attack that caused the shutdown of the largest fuel pipeline in the US. The increasing frequency of cyber threats means organizations cannot ignore the implications that even a single event can have on their operations, or the economic and social jeopardy it may pose. In 2019 65% of energy organizations found it difficult to keep pace with the evolving cyber risks. Three years on, the 2021 Global Risks Report issued by the World Economic Forum and Marsh McLennan found that cybersecurity failure remains a top risk in terms of both likelihood and impact.

The scale, sophistication and severity of cyber-attacks continue to evolve, driven by nation states, criminals, terrorists, hacktivists and insiders. Digitalization in the energy sector, and greater reliance on operational technology (OT) data, broadens the interface between IT and OT, creating a dramatically larger attack surface for potential hackers. These operational transformations create opportunities and risks that must balance the benefits of digitalization and the need for cybersecurity. At a whole of system level, the interconnectivity and complexity of energy sector value chains, increases the susceptibility of critical infrastructure to malfunction or sabotage, with a potential ripple effect and cascading impact.

Malicious actors often target energy companies through ransomware motivated by financial goals. However, the emerging risk profile is a shift towards cyber physical risk. The discovery of the Triton malware which specifically aims to breach safety control systems, and attacks leading to physical plant damage such as the Stuxnet attacks, indicate the escalating threat. These types of attacks have the potential to result in large scale property damage and/or loss of life.

Risk transfer is a critical consideration of any cyber risk management program, both for physical and non-physical impacts.

The cyber insurance market is in transition. The global cost associated with ransomware recovery is expected to exceed USD20 billion in 2021. Ransomware related losses have accelerated the deterioration of market conditions and some leading cyber insurers are introducing coverage limitations such as co-insurance on ransomware losses. Silent cyber exclusions are proving challenging due to the increase in residual risk retained on balance sheets. However, risk transfer options remain available for malicious cyber events, while the traditional property insurance markets are better placed to underwrite accidental and physical property damage.

A standard cyber insurance policy can cover the first party costs of non-physical impacts arising out of confidentiality, availability or integrity of data and technology. Cover is provided for loss of income and extra expenses to mitigate an income loss, data restoration to recreate the critical process information, and forensic investigation costs and expenses incurred in remediating and responding to a cyber event. Figure 1, (p13) shows a full list of available coverages.

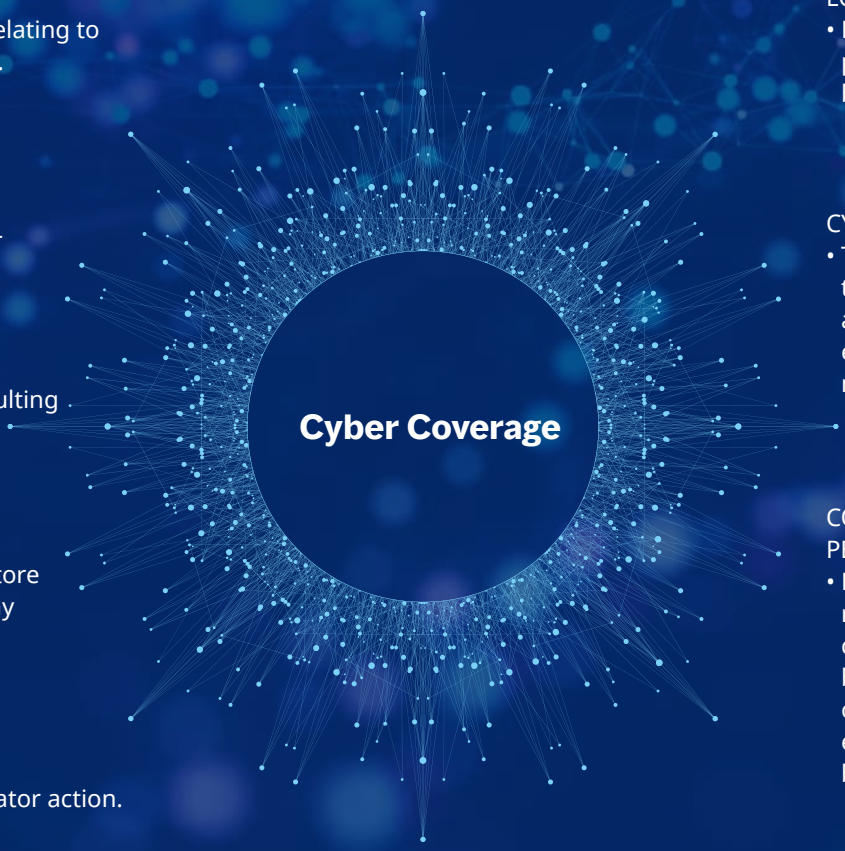
While organizations cannot eliminate cyber risk, they can proactively prepare for an attack. The steps an organization can take include:

- Bring together key stakeholders including: risk management; information security, including both the operational and information technology teams; and treasury, finance and legal teams, to ensure there is alignment in how you would manage an attack.

- Evaluate existing controls and address identified network and security vulnerabilities. The most common ransomware attack vectors in the first quarter of 2021 included remote desktop protocol (RDP) compromise and email phishing. Implementing appropriate controls can help to thwart an attack — or at least identify one before threat actors can move laterally within your network. For example, early identification can allow you to take operational technology offline once corporate networks are known to have been compromised, but before any industrial control systems are compromised.
- Assess and test your cyber incident response plan, or develop a ransomware "playbook" of activities to respond to a threat. The plan should be re-evaluated following an incident with real-life lessons learned.
- Measure your organization's cyber risk exposure in financial terms. This will help you prioritize the cyber risks presenting the greatest exposure to your balance sheet. This also enables you to evaluate the return on investment of cybersecurity products, as well as how much risk to retain or transfer.
- Evaluate your entire insurance portfolio, including cyber insurance coverage, to assess whether the various programs are aligned. Verify that coverage includes various material costs incurred as a result of a ransomware attack, including an attack that leads to physical damage and/or bodily injury.

Effective preparation can help you build a cyber-resilient organization.

Figure 1 | Cyber insurance coverage*



EXTRA EXPENSE
• The increased costs relating to business interruption.

LIABILITY
• Litigation damages or settlements.

PROPERTY DAMAGE
• Property damage resulting from a cyber-attack.

DATA ASSET LOSS
• Costs to recreate, restore or recollect data of any kind, including new software licenses.

DEFENCE COSTS
• For litigation or regulator action.

REGULATORY PENALTIES
• An evolving area. Could include penalties and fines levied under state or federal privacy laws.

CRISIS EXPENSE
• Forensic, consumer and crisis consultants.
• Call Centre.
• Extortion investigation.

LOST INCOME
• Related to non-physically triggered business interruption.

CYBER THEFT
• The value of funds that are stolen by a third party using electronically enabled means.

CONTRACTUAL PENALTIES
• Penalties and fines related to payment card information breach, recovery of fraud, operating expenses from issuing banks.

KEY EXTENSIONS
• Voluntary shutdown.
• Betterment.
• Bricking.
• Reputational harm.
• Manuscript on request.

**The graphic illustrates some of the types of insurance coverages that may be available. It is not a complete list.*

OPERATIONAL TECHNOLOGY RISK VERSUS IT RISK

Target of attacks has shifted towards operational technology (OT) with an intent to cause physical damage and outage.

Information technology		Operational technology
The servers, computers, and mobile devices that enable business operations in the utility industry in offices environments.	**VS**	**The machines, systems, and networks used to generate, transmit, and distribute power**
3-5 years	Component lifetime	10-20 years & legacy systems
Mature stages & advanced cyber knowledge	Cyber market maturity	Early stages & limited awareness
Loss of data	Key concerns	Impact to production, health, safety & environment
Recover by reboot	Recovery ability	Fault tolerance essential
Continuous	Connectivity	Intermittent, high delay causes serious concern
Straightforward upgrades, automated changes	Ability to update	Typically difficult to patch, changes made by vendors

DIGITAL DISRUPTION IN THE ENERGY SECTOR

Rapid adoption of connected power systems has increased exposure/attack surface areas for cyber threats.

Energy sector's expanding digital footprint

Downstream companies use supply-demand matching smart grids and complex algorithms to improve margins and identify necessary predictive maintenance.	Oil and gas companies depend on data networks to track data from wells and pipelines to manage facilities, and interpret operating conditions.	Upstream companies use digital technologies for reservoir modelling, drilling resource dispatching, production optimization, and more.	Electric transmission companies depend on automated controls to run their network.	Utilities rely on data networks to manage complex combinations of centralized grids and decentralized resources to analyze and efficiently meet customers' needs.

30% of cyber attacks are on OT.

18% of energy companies use AI to detect attackers.

Insider threats* represent the majority of attacks in OT.

60% of OT cyber events cause damage to equipment and risks to employees and contractors.

*Source: *Siemens and Ponemon survey 2019 – Operational readiness of global utilities sector, Siemens and MIT study 2021 – Transforming the energy industry with AI.*

News Brief

IEA releases two reports on investments in renewable energy

The *World Energy Investment 2021* report presents the latest data and analysis of how energy investment flows are recovering from the impact of COVID-19, and the outlook for 2021. Read more.

Financing Clean Energy Transitions in Emerging and Developing Economies is a collaboration with the World Bank highlighting that renewable energy investment in these countries needs to increase by more than seven times – over USD1 trillion by 2030 for the world to reach net zero emissions by 2050. Read more.

Chubb releases annual Liability Limit Benchmark & Large Loss Profile report

The report provides data highlighting the frequency and severity of large losses over the past decade, as well as the liability insurance limits for businesses across several industry sectors, including oil and gas, and utilities. The report includes a discussion of the economic impact of socially driven phenomena such as social inflation, so called nuclear verdicts, and the trend towards increasing loss costs. Read more.

Board of directors and ESG

Many boards of directors have grappled with ESG matters to varying degrees over the past year or more, and recent events indicate that a tipping point may have arrived. Pivotal events involving two large energy companies clearly signal how ESG issues generally, and climate change in particular, are gaining momentum. The two events come at the issues from different perspectives, one focusing on society-at-large and the other on the impact on investors when they perceive a company lacks a strategy to address the impact of climate change on its business. A briefing prepared by Marsh, and Skadden, Arps, Slate, Meagher & Flom LLP and Affiliates, provides a synopsis of recent events and guidance for boards and directors. Read more.

Legal Roundup

Dutch court ruling cites emissions targets

In May, a Dutch court ordered Shell to reduce its overall CO2 emissions by at least 45% by 2030 from 2019 levels, well ahead of the company's own planned targets to reduce emissions. The case was brought by MilieuDefensie (a Dutch environmental organisation whose name means Friends of the Earth Netherland) and other non-governmental organisations (NGOs) on behalf of a group of thousands of Dutch citizens who were concerned that the energy giant's posture was not aggressive enough on climate change.

The case, decided under Dutch law, was premised on the claim that Shell's current policy on climate change involved a threat of human rights violations relating to the "right to life" and "undisturbed family life."

This decision, in which for the first time in history a Dutch court ordered a private company to comply with the 2015 Paris climate agreement, may have far-reaching consequences. Although Shell has stated that it will appeal, the ground breaking decision has the potential to influence many of the approximately 1,800 lawsuits related to climate change pending in courts globally, and to inspire additional lawsuits.

US Court of Appeals issues significant opinion concerning the test for seaman status under the Jones Act.

A second US Court of Appeals hearing has affirmed a prior District Court ruling that a land-based welder directed by their employer to complete two discrete, short-term assignments aboard vessels, is not considered a seaman.

The significance of this ruling is that a "seaman" under the Jones Act is granted a cause of action against their employer for negligence. The negligence action is not available to land based workers, whose exclusive remedy are benefits defined in the Workers Compensation Act.

The Court of Appeals concluded that case law defines two types of workers on drilling rigs. A "seaman" is defined as a vessel crew member who conducts the drilling operations, or a worker who supports that activity, and stays with the vessel from one location to another. Whereas, specialized transient workers (usually employed by contractors) engaged to perform discrete short-term jobs while a vessel is in port, only have a "transitory or sporadic" connection to a vessel and are not categorized as "seaman".

UK High Court dismissed P&I club's human rights challenge

An oil tanker that sank off the coasts of Spain and France in 2020 caused an oil spill that resulted in approximately USD1 billion of claims against its P&I insurers. The P&I club (a mutual insurer) appealed to overrule a Spanish court judgement on the basis it would be manifestly contrary to English public policy, to recognise and enforce the Spanish judgment because it would be contrary to fundamental human rights. The P&I club claimed the Spanish court had convicted the ship's master of a crime against the environment for the first time at an appeal, which would not be possible under English law.

The UK High Court dismissed the appeal as the P&I club failed to show that any of its own rights were breached, stating, "what the Club is seeking to rely on is alleged violations of rights conferred on a defendant [the ship's master] to a criminal charge. It is not relying on its own rights, nor does it point to the rights of a party to civil proceedings, or to a contravention of its own rights in the Spanish proceedings. Furthermore, the Club did not assert any rights it had itself, and it took no steps to seek redress for contravention of any such rights in Spain."

This case reinforces that organizations may be subject to foreign court rulings regardless of where they are headquartered.

Demystifying common clauses

In this regular feature, we look at common clauses found in energy insurance that are often not well understood, looking at their intentions, and what they cover or exclude.

In this article we look at the standard loss of production income (LOPI) wording.

Until 2005 upstream insureds seeking to protect their revenue stream had to look to traditional onshore business interruption wordings. These wordings were designed to protect the gross profits (or gross revenue) of a business, but the experience of both insureds and insurers was that the claims adjustment process very often resulted in complex, costly, and time consuming forensic accounting to establish the extent of the insured's loss.

This was often exacerbated by fluctuations in oil and gas prices and could led to time consuming and costly disputes between insureds and insurers, usually ending in compromised settlements that did not satisfy either party.

The situation led to the London Joint Rig Committee issuing a 'loss of production income' (LOPI) specifically designed to protect lost oil and gas production (rather than revenue). This wording pays the insured for each day of lost production caused by an insured peril, being physical damage covered by the "all risks" physical damage section of the package policy. The wording references the maximum recovery period, in excess of the agreed waiting period, where a day's production is fixed by the insured production volume and the insured commodity price.

For example, consider that an insured has a facility producing 10,000 barrels of oil per day. The insured elects to insure for USD50 per barrel for a maximum recovery period of 12 months, and a waiting period of 60 days.

If the insured suffered 100 days interruption of production, they would be entitled to a claim of USD20 million (10,000 barrels x USD50 x 40 days).

The actual wording is slightly more complicated than this, because in order to preserve the concept of indemnity, the insured has to show the volume of production that is lost. Therefore, the actual production insured is adjusted to reflect a number of factors such as any ongoing partial production, planned or unplanned shutdowns, and changes in the insured's ownership interest (that affects volumes, either before, during or after the loss, and which would have affected volume had no loss occurred).

One area that insurers claimed was not clear, is what qualifies for a full day's interruption for the waiting period to be exceeded. The Joint Rig Committee issued an updated version of LOPI wording (JRC 2020/025) where insurers can specify what percentage of production must be lost to qualify as a full day of waiting period. As with the 2005 wording, Marsh Speciality has designed a bespoke amendatory endorsement we look to use with the 2020 LOPI wording to add further clarity and improve outcomes for our clients.

This information is a general overview of some of the coverage often provided by the aforementioned clauses. This is not intended to be an extensive and exhaustive analysis of the insurance coverage provided by such clauses. The comments are the opinion of Marsh Specialty only and should not be relied on as a definitive or legal interpretation. We would encourage you to read the terms and conditions of your particular policy and seek professional advice if in any doubt.

If readers have particular clauses they would like us to consider including in this feature in the future, or have any comments on this article please contact **john.cooper@marsh.com**

Marsh McLennan publications

The following are recent or forthcoming Marsh McLennan publications that will be of interest to energy and power companies.

Global Insurance Market Index 2021

Global commercial insurance prices increased 18% in the first quarter of 2021, according to the Global Insurance Market Index. The index provides a proprietary measure of global commercial insurance premium pricing change at renewal, representing the world's major insurance markets, and comprising nearly 90% of Marsh's premium. Analysis of Q1 2021 shows the first fall, in the average rate of increase since the index reported the first rise, in global rates in Q4 2017. According to the index, increases across geographies moderated due to generally slower rate rises in property insurance, and financial and professional lines. Download the report.

Climate Credit Analytics

In June Oliver Wyman and S&P Global Market Intelligence released Climate Credit Analytics, a new tool for measuring firms' transition risks. The model suite enables counterparty-and portfolio-level analysis of climate-related financial and credit risks for 700,000+ companies, covering the highest-carbon emitting sectors. It combines S&P Global MI's data resources and credit analytics capabilities with Oliver Wyman's climate scenario and stress-testing expertise. Download the product brochure.

The Marsh Risk Resilience Report

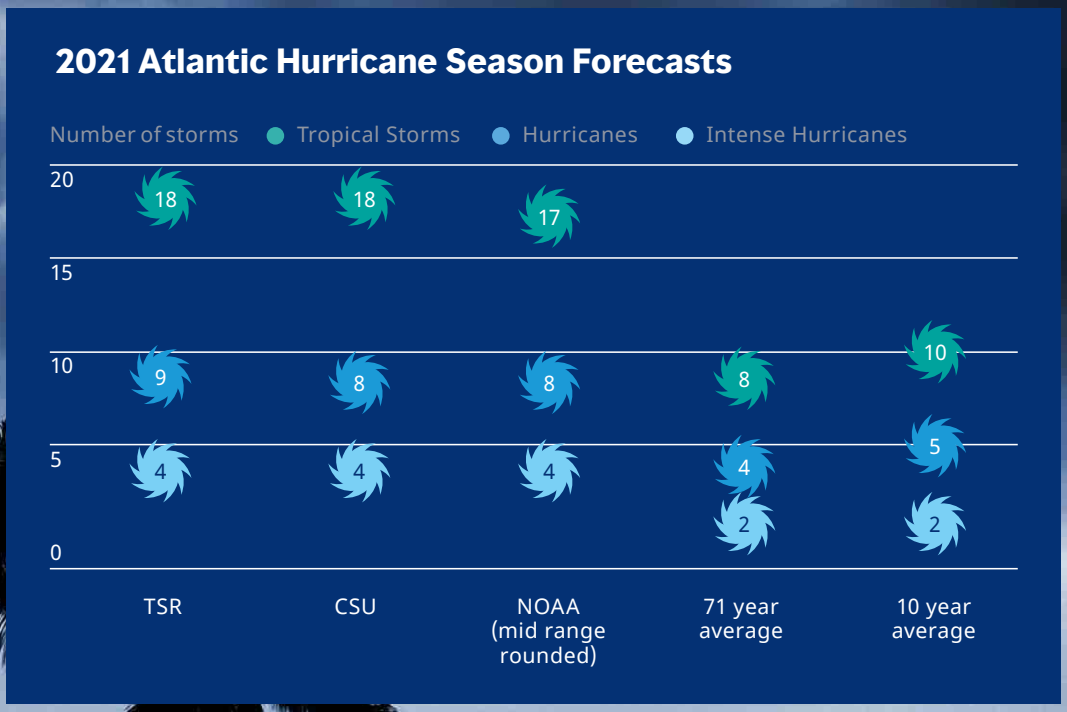
To find out what behaviours, strategies, and risk management practices define a risk resilient organisation, Marsh surveyed nearly 1,000 global clients across 30+ diverse industries. While each organization faced unique challenges, the results remained the same: a risk resilient organization is defined by its ability to both foresee future challenges – and capitalize on opportunities – to successfully balance risk with reward. Download the report.

Atlantic named windstorm season forecasts

The Atlantic hurricane season officially starts on June 1, although this year, Hurricane Ana started the season in May. The first two months of the hurricane season are typically quiet, with 82% of all named storms historically happening in August, September, and October, with the peak around mid-September.

All forecasters are predicting an above-average Atlantic hurricane season in 2021, citing the likely absence of El Niño as a primary factor. Average sea surface temperatures across the tropical Atlantic are near normal, while the subtropical Atlantic is much warmer than average. These conditions are thought to favor increased hurricane activity.

The chart below plots the 2021 forecasts from Tropical Storm Risk (TSR), the National Oceanic and Atmospheric Administration (NOAA), and Colorado State University (CSU). It also shows 10-year, as well as 71 year averages (which is to the beginning of the modern records).



About Marsh

Marsh is the world's leading insurance broker and risk advisor. With around 40,000 colleagues operating in more than 130 countries, Marsh serves commercial and individual clients with data-driven risk solutions and advisory services. Marsh is a business of Marsh McLennan (NYSE: MMC), the world's leading professional services firm in the areas of risk, strategy and people. With annual revenue over $17 billion, Marsh McLennan helps clients navigate an increasingly dynamic and complex environment through four market-leading businesses: Marsh, Guy Carpenter, Mercer and Oliver Wyman. For more information, visit mmc.com, follow us on LinkedIn and Twitter or subscribe to BRINK.