MARSH

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Power Market Update

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EXECUTIVE SUMMARY

Throughout the past 12 months we had commented that softer market conditions were prevailing across the majority, if not all, insurance sectors. The power generation sector is no exception, and property rates in particular have been softening for the past five years. In the fourth quarter of 2016, several market commentators reflected on what they called "the softening of the softening", but in the power generation sector there was little evidence that the softening process was slowing. For power generation customers with good risk profiles, the year-end renewals saw further premium rate reductions, which in some instances were combined with coverage enhancements. These outcomes were driven by general market conditions, combined with the now traditional fourth quarter push for premium income.

Following the year-end renewals there tends to be a hiatus in market activity, with the 1 April renewal season providing the barometer for what we might expect to see throughout the next 12 months. But in reality nothing significant has happened to change the wider economic climate, with interest rates remaining low and few opportunities for investment income. As such, we have seen little capacity, if any, withdraw from an already overcrowded marketplace. And although the losses associated with the power generation sector, both attritional and vertical, continue to happen, 2016 does not look like it will be a disaster for power generation insurers, with some expecting to make a modest profit. More generally, the natural catastrophe events which did happen around the globe in 2016 resulted in modest losses to the insurance market, meaning that those with year-end treaty reinsurance renewals enjoyed favourable outcomes.

It is therefore likely that insurers will be bracing themselves for another tough year, while customers will continue to reap the rewards of a buyer's market. It remains to be seen whether the level of premium rate reductions seen in 2016 is sustainable throughout the next 12 months.

INTERNATIONAL PROPERTY MARKET CONDITIONS

Many insurers set out ambitious growth targets for 2016, and this will certainly be the case for the major underwriting firms in 2017. For many trading underwriters therefore, and particularly those working for the large global insurers, the challenge is to navigate the softer market cycle while maintaining underwriting standards and meeting senior management demands for growth. The global marketplace is comprised of key underwriting hubs, with so-called global property insurers having a presence in each. Broadly speaking, these underwriting hubs will be restricted to writing business indigenous to their region, which forces them to compete for that business. And although there have been no significant new entrants into the market, we continue to estimate that global capacity is stable at around the US$4.25 to US$4.5-billion mark. It is unlikely that we would see this level of capacity deployed on any one risk, and it is this surplus of capacity which ensures that the marketplace remains highly competitive.

THE GLOBAL PROPERTY INSURERS

The list of major insurers who have a presence in each of the aforementioned hubs and, as such, are considered to be global property insurers, continues to comprise **AIG, Allianz, Chubb, LIU, Mapfre Global Risks, Munich Re CIP, Munich Re Fac, SCOR, Swiss RE CORSO, Swiss Re Fac, Zurich,** and **XL Catlin.** It should be noted that in defining these markets as global property insurers we do so based on their ability to deploy capacity and issue paper on a global basis. There are many other insurers in each of the regional underwriting hubs with whom we trade, and with whom we have highly valued trading relationships.

REGIONAL PROPERTY OUTLOOK

We have already discussed those **global property insurers** who have a presence in each of the reginal underwriting hubs. We will now go on to discuss the many other insurers operating in those regions, and with whom we have highly valued trading relationships.

ASIA

As expected, the Asian insurance market remained competitive in 2016, with soft market conditions prevailing. Suggestions of rate increases by certain insurers were not evidenced at all.

Clients benefited from soft market conditions and oversupply of capacity, which enabled them to test the terms and conditions of their expiring coverages at renewal, and in many cases resulted in a change of lead insurer and/or broker. Premium expenditure remained the driver for the majority of clients, although reductions in property damage deductibles and business interruption waiting periods were often requested, and on occasion achieved.

New long-term agreements including built in rate reductions and/or no-claims/low-claims bonus mechanisms were more common, although insurers generally seemed more reluctant to extend existing long-term agreements “mid-term”.

For power business domiciled outside of Asia, the Asian insurance market continually evidenced its competitiveness, both from a leadership position on technically challenging accounts as well as a follow market perspective.

While the Asia market environment is currently quite stable with no significant new entries or exits in terms of capacity, we have recently seen a high level of activity and marketing from Middle East-based insurers. Middle East markets that have visited Asia to present their value propositions include **IGI, ADNIC,** and **Qatar Re.**

Looking forward to the second half of 2017, it is expected that softer market conditions will continue for those customers not already committed to long-term agreements.

BERMUDA

2016 continued to see a competitive capacity environment, which served to add pressure on pricing and terms and conditions. Throughout 2016, Bermuda-based insurers continued to provide strong capacity on power generation risks, offering options to customers and, for the most part, demonstrating flexibility.

Allied World Assurance Company Ltd. (AWAC), a market writing power generation risks on a primary basis, recently announced its pending acquisition by Fairfax Financial Holdings Limited. Post-merger, Allied World will become a subsidiary of Fairfax and will operate as a separate, decentralised company within Fairfax's existing portfolio. It will continue to operate under the Allied World brand.

In early December 2016, **Ironshore** announced that it is being bought by **Liberty Mutual** from **Fosun** for approximately US$3 billion, with the acquisition expected to close in the first half of 2017. We continue to see Ironshore aggressively utilising its US$35-millon energy line on large placements, and Ironshore Bermuda also has the ability to issue licensed paper in Canada if required, as well as Lloyd's paper through its cover-holder agreement with Pembroke Syndicate 4000.

Ariel Re – In the fourth quarter of 2016, **Argo Group International Holdings, Ltd.,** an international underwriter of specialty insurance and reinsurance products, announced it had entered into an agreement to acquire Ariel Re for approximately US$235 million, an acquisition that is expected to close within the first half of 2017. Bob Hansberry continues to manage the Direct and Facultative Property group and remains a provider of meaningful excess capacity. Following the merger with Argo, we fully expect to see Ariel Re become more robust in the retention of its existing portfolio, as well as seeking new business opportunities during 2017. It will continue writing business using Ariel Re Lloyd's paper.

Neon Bermuda – The most recent entrant to the Bermuda market, Neon Underwriting Group, began underwriting property risks in May 2016, acting as an agent for its Lloyd's Syndicate 2468. Chris Fisher, formerly the Head of Property for Ariel Re Bermuda, was appointed CEO of Bermuda for Neon Underwriting and is responsible for property for the group. Dwayne Hunt, previously with **Chubb Bermuda,** has also joined to assist in the underwriting of the property portfolio. For 2016, its available capacity was US$25 million All Risks and US$10 million for critical catastrophe; however, it recently announced increased capacity for 2017 to US$40 million for All Risks and US$15 million for critical catastrophe. This became effective as of 1 January 2017 and can be deployed as either primary, excess, or quota-share capacity for all occupancies other than offshore energy business. Currently, Neon Bermuda remains the access point for property risks, although it is looking to expand its underwriting team in Lloyd's.

Hamilton Re – Towards the end of February 2016, former Montpelier Re underwriter Gavin Davis joined the Bermuda-based re/insurer as head of property insurance for Bermuda. In this role, Davis will be tasked with developing a North American property

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portfolio, with a focus on deploying its US$25 million capacity on an excess of loss basis, albeit this capacity reduces to US$5 million in respect of critical catastrophe exposure. It will also consider primary layers which are excess of a meaningful self-insured retention.

EUROPE

Munich Re continues to drive its worldwide strategy from Munich, with its underwriting team led by Robert Abt. Munich Re's capacity remains stable and is generally deployed up to US$100 million, and its key focus continues to be high-profile global customers and those with a European interest. Its counterpart **Munich Re Fac** continues to be a strong provider of capacity for customers with European interest, particularly Eastern Europe and Turkey. It has also extended its global offering to include territories such as Japan.

Swiss Re Corporate Solutions continues to robustly manage its natural catastrophe exposures, and in several instances this has led it to move away from existing and long-term relationships. Meanwhile, its counterpart **Swiss Re Fac** continues its aggressive growth and expansion strategy, which it combines with significant capacity aimed at large corporate clients. Its geographical spread from Zurich includes Continental Europe, Africa, and the Middle East, and it has proven to be a particularly dominant force when underwriting Turkish business.

Qatar Re has increased its equity backing from US$500 million to US$1.2 billion, while **Helvetia** moved its underwriting team from Basel to Zurich, where it continues to provide lead terms for operational power generation risks and demonstrates a willingness to follow the softer market trend for customers with good risk profiles.

Also, having now secured its Excess and Surplus Lines License, it is keen to expand its footprint in North America.

Ironshore has hired Georg Schlagwein and is now underwriting construction and operational power risks out of Zurich with an available capacity of US$50 million on a PML basis for all territories outside of US.

LATIN AMERICA

The Spanish property insurance market remains competitive for Latin American risks, with customers seeing double-digit rate reductions where good risk profiles and loss records are evident. Insurers are under increasing pressure to balance the need to maintain existing business and grow their portfolios against increasingly poor underwriting results and loss ratios. Where individual risks have performed badly in terms of losses, we have seen some insurers taking a robust stance and walking away from long-term relationships.

Where risk profiles are good, however, the competitive market conditions are reflected in broad coverage and terms and conditions, with little or no reduction in the availability of capacity in critical catastrophe areas.

Mapfre Global, Mapfre Re, Swiss Re, HDI, AGCS, and **XL Catlin** continue to be the key insurers in the region, and **RSA** has also started to look at some Latin American business out of Spain.

Liability renewals are seeing flat or moderate rate reductions, while larger limits are being demanded by clients.

MIDDLE EAST AND NORTH AFRICA (MENA)

In 2016, we saw Middle East insurance market conditions continue to soften. The power generation sector was not immune to this trend, with domestic and international insurers alike making every effort to meet their aggressive growth targets by deploying increased capacity, which brought further pressure to bear in an already price competitive marketplace. Insurers have demonstrated a strong commitment to the sector, and in 2016 we saw the territorial scope of some regional markets continue to expand. As such, we saw territorial expansion into Africa, Bangladesh, India, Pakistan, Sri Lanka, and Turkey. And some regionally based markets are now considering power generation risks on a worldwide basis.

The combination of strong competition and autonomous local decision making, as well as aggressive growth targets set by underwriting firms, means that the MENA insurance marketplace continues to be favourable for customers. Capacity remains abundant, and we have seen several major insurers offering 100% participations in an attempt to meet income targets.

The Lloyd's platform in the Dubai International Finance Centre (DIFC) has brought enhancements to the marketplace, and new entrants include **Partner Re, Qatar RE** [who are now able to deploy up to US$200 million of capacity], **Ironshore,** and **Mena Re.**

We have also seen a trend for managing general agents starting up in the region. The likes of **ADNIC, Oman, AAA, Qatar Re,** and **Trust** now have the ability to lead regional programmes, and as in other regions transmission and distribution cover is available alongside conventional property, casualty, and political risks. We are also seeing pressure on deductibles as well as the broadening of coverages.

UNITED KINGDOM

The global economy is set to grow four-fold between now and 2050, and in China this could be as much as ten-fold. While it is anticipated that such economic growth will bring with it greater opportunity and improved lifestyles for many, it will place unsustainable pressure on the world's natural resources. Change is required in the ways that energy is supplied and used, and there is a paramount requirement for greater energy efficiency. Governments must work together in order to develop a high level of long-term certainty of energy policy.

In the UK, there remains the constant challenge to meet ever increasing demand with cleaner energy, combined with ageing technology and an ageing workforce in the sector. In the coming years it is estimated that 50% of the existing workforce are set to leave the sector, and that by 2023 some 200,000 new recruits will be required. In 2016 alone, three major coal-fired power stations closed down, causing coal-fired electricity generation to plummet to 9.2%, down from 22.6% in 2015. This meant that, for the first time ever in the UK, windfarms generated more electricity than coal-fired plants, meeting 11.5% of total demand, and that coal-fired electricity output was at its lowest for 80 years.

But clearly this is just a small portion of demand, and with long lead times for new-build generating facilities, those existing and ageing plants are increasingly being asked to work harder, which is a concern for insurers. We are also seeing instances where plants are either mothballed but still required to purchase insurance, or are scheduled to close within a designated timeframe. And again this presents significant challenges for plant managers and insurers alike.

CASUALTY MARKETS

Casualty rates for power industry insureds have continued to experience a downward trend through the fourth quarter of 2016 and first quarter of 2017. Merger and acquisition activity among insurers is expected to affect the availability of capacity in the sector, although in most cases it remains too early in the process to assess the magnitude of the impact. But there is no doubt that the combination of market forces and abundant capacity has ensured that the trading environment remains favourable for customers.

Wildfire/bushfire coverage availability and affordability continues to be a challenge for clients who operate power generation facilities and associated transmission and distribution lines. Dam exposures, particularly hydro risks and flood-mitigation dam exposures, are under considerable scrutiny – especially with recent high-profile incidents in North America drawing the attention of insurers. While both of the above particularly affect Australian clients and West Coast US clients (especially California) they have impacted insurers' thinking across the board.

Insureds with pipeline operations – be it natural gas or other liquids – will continue to encounter close scrutiny of asset integrity plans, including investment in existing infrastructure to mitigate risk.

Where the threat of wildfire related losses is minimal or doesn't exist, the sector is otherwise following the general casualty market trend, with new capacity challenging traditional relationships and pricing structures.

Due to ongoing loss activity across its excess liability portfolio, **AEGIS New Jersey** continues to seek premium uplift, and this is causing some difficulty for long-standing clients. However, with its US$35 million per occurrence/ US$70 million aggregate lead capacity – combined with broad coverage tailored to this industry group – AEGIS continues to be the dominant lead insurer for liability placements. In the main, we would expect to see the AEGIS capacity supported by Energy Insurance Mutual (EIM) with its US$100 million follow form capacity. It should also be noted that power generation assets attract competitive pricing from energy industry insurers in general.

As an alternative to the broad policy form offered by AEGIS, a wording has been established for Canadian clients, and several Lloyd's syndicates have competitive pricing on this basis.

Other forms of coverage, such as employer's liability (depending on the territory involved), continue to receive scrutiny from insurers. Higher retentions are being enforced in respect of worker-to-worker recoveries, and almost every policy excludes any form of coverage for occupational disease claims.

Electromagnetic field (EMF) exposures are largely unchanged from previous years and are generally available in the majority of territories. EMF does not attract coverage limitations among US insurers, either. Pollution exposures are largely unchanged from previous years and are generally available in the majority of territories. AEGIS continues to offer its broad pollution coverage grant for power industry insureds (although this does restrict coverage to time-element-styled/ sudden and accidental triggers for energy clients with liquid pipeline, midstream, and exploration and production exposures). Pure power generation risks may actually find some benefit to the blended named peril/time element coverage generally available from other energy industry insurers.

Cyber liability exposures are generally being excluded from a Lloyd's standpoint, with a view to Lloyd's underwriters offering a separate cyber product. However, we have been successful on several occasions in limiting the impact of such exclusions within our proposals. Such restrictions are not as prevalent among non-Lloyd's markets in Bermuda and the US.

Wildfire will continue to be an area of sharp focus for insurers, but despite this the US and Bermuda markets continue to be robust, offering more than adequate limits to meet the needs of most clients. This is evidenced by continued successful efforts to broaden coverage terms and conditions, and to drive competitive responses to new business opportunities.

INSURERS

AEGIS is well known for being a utility insurer – offering coverage tailored to the unique exposures of the power and utility industry. AEGIS continues to be the dominant lead layer market in this arena. AEGIS (US) provides coverages to North American customers, while the AEGIS Lloyd's syndicate is generally competitive for non-US risks. The syndicate's appetite for US-based risks appears to lean towards non-utility programmes.

XL Catlin continues to offer limits of US$50 million or more. Authors of the widely utilised "AEGIS6" follow form; it is a strong and active excess liability capacity provider for power and utility risks in all regions.

Chubb (formerly Ace) has an ongoing ability to offer limits of up to US$50 million in London (depending on the territory or type of risk), US$25 million to US$50 million in the US, including lead umbrella, and up to US$150 million in Bermuda (although its full capacity in Bermuda is rarely deployed). **Chubb Bermuda** is a long-time supporter of the power and utility industry, and its version of "Follow Form AEGIS" policy form is very similar, though not identical, to XL's more widely used AEGIS6 policy form.

AIG Bermuda technically has US$150 million of casualty capacity to offer. However, due to the softening of the market, it typically deploys less than this. AIG also now includes an AEGIS6-style policy form in its arsenal.

Allied World Assurance Company (AWAC) remains consistent in its approach, with limits of up to US$25 million available. AWAC also offers AEGIS6-style coverage on its other policy forms, although there are some limitations on wordings. Fairfax Financial Holdings Limited has announced its intention to acquire AWAC. The transaction is expected to close in the second quarter of 2017.

Liberty Mutual has entered the excess liability market for power industry clients, offering coverage on a follow form of AEGIS basis similar to that which is available in the Bermuda, London, and European marketplaces (that is, the "AEGIS6" policy form.) Liberty's recently announced acquisition of Ironshore will broaden its footprint still further. This, coupled with Ironshore's ownership interest in Iron-Starr, means that this acquisition is a large step forward in the excess liability arena for Liberty Mutual. It should also be noted that Liberty International has indicated an appetite for risks in the power generation sector.

Berkshire Hathaway appears to have varying strategies depending on location. Generally though it can deliver competitive capacity, and is a viable lead umbrella market. To date, Berkshire has not entered the "follow form AEGIS" excess liability market.

Iron-Starr has US$100 million capacity to offer, but more usually deploys US$25 million of capacity, depending on exposure and the customer's risk management processes.

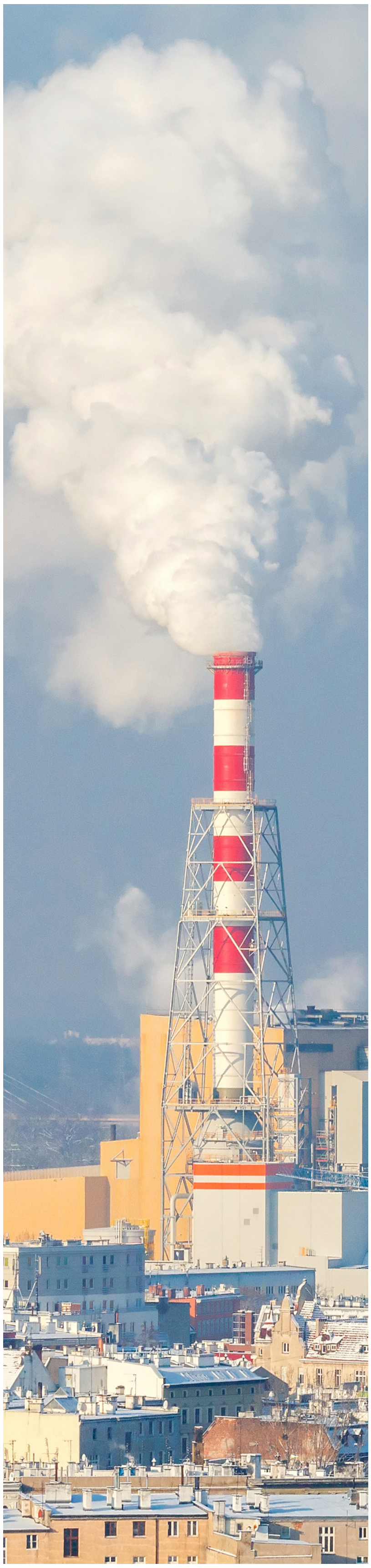
Lloyd's draws its considerable appetite from its many syndicates. However, this can vary, depending on type of utility and location. In excess of US$500 million liability capacity is generally available, with the syndicates having the additional security afforded by the Lloyd's central fund. Insureds may struggle with certain standard Lloyd's coverage restrictions, such as those related to terrorism, "NBCR" exclusions (CL380), and cyber risk (Lloyds Clause CL370). With that in mind, Marsh UK colleagues have had recent success in narrowing the impact of cyber exclusions within Lloyd's offerings.

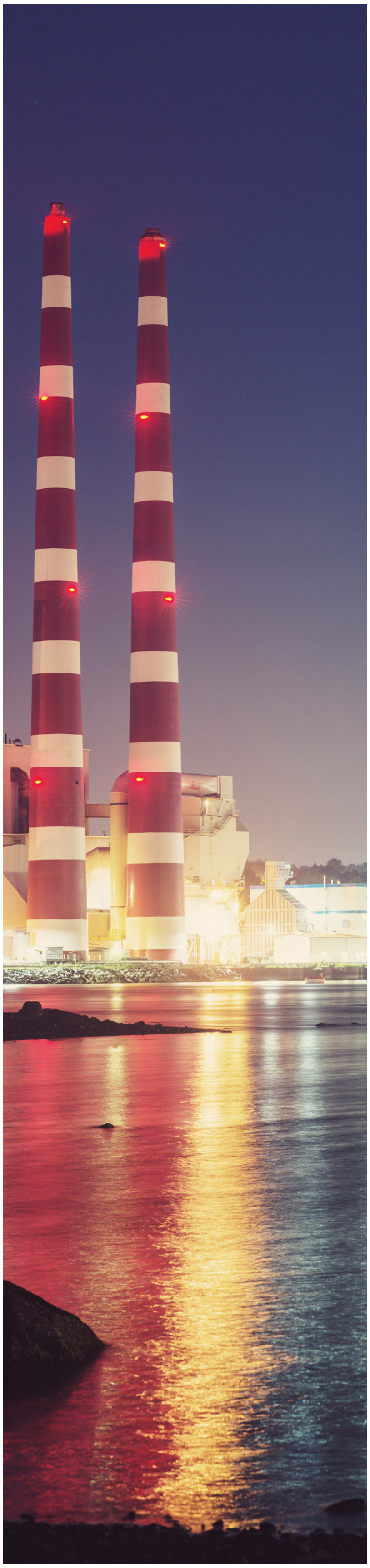
Munich Re selectively offers capacity on excess liability programmes utilising the AEGIS6-style policy form. It can offer up to US$50 million capacity.

At the end of April 2016, **Novae's** senior management made the decision to close its casualty unit in Bermuda, and Novae has since discontinued writing non-US energy business completely.

QBE is the most recognised Australian bushfire insurer and is considered a leader in the utilities sector, providing company capacity in addition to its two Lloyd's syndicates.

Sompo announced its purchase of **Endurance** in order to build a foundation in the US insurance market, and this acquisition is expected to close in 2017.





Sompo has US$15 billion in shareholders' equity and holds A+ financial strength rating from both A.M. Best and Standard and Poor's.

Endurance's current CEO and Chairman, John Charman, has been announced as the future CEO and Chairman of Sompo International (which comprises all business outside of Japan). It remains to be seen how Sompo's ownership of both **Canopius** and Endurance will affect the operations of those companies in Bermuda. Coverage is available on the AEGIS6-style policy form.

Swiss Re Corporate Solutions has a maximum capacity of approximately US$100 million, which it is able to deploy at somewhat lower excess points than some other insurers. It can offer coverage on the AEGIS6-style form.

WR Berkley continues with its aggressive approach, underwriting more difficult aspects of exposure. It is not currently a recognised lead in the sector, but has US$20 million capacity that it will deploy on bushfire-exposed risks, in conjunction with liability coverage.

Zurich is an active insurer in the utilities space and offers global primary layers (with the ability to issue numerous local policies).

Zurich can also write the lead umbrella policy in cases where it writes the primary. Zurich has recently expressed interest in providing excess capacity on power and utility programmes.

SCOR Re offers US$25 million in limits and is active in the sector.

For placements led by AEGIS, it offers the AEGIS6-style form, but capacity is reduced to US$15 million when AEGIS and EIM are on the same placement.

STARR Energy offers as much as US$50 million in limits, although its participation is more typically US$25million. It is active in the power and utilities sector, expressing a strong appetite for the class. STARR can provide coverage on the AEGIS6-style form for AEGIS-led programmes.

Everest's relatively new US energy group has been making inroads in the energy arena, having hired experienced energy underwriters for this class of business. A well-established reinsurance operation, Everest has entered the insurance marketplace with the opening of new US offices. Everest's alliance with AEGIS has gained momentum quickly in this arena. Everest's appetite is not exclusive to AEGIS-related business, and it plans to expand into the excess liability market as its underwriting team and resource grows.

TERRORISM

War, terrorism, and political violence activity in 2016 was relatively benign in respect of the power industry, although there has been some susceptibility to significant security risk factors in the past year. Several incidents have been reported in Libya, Philippines, Ukraine, and Bangladesh, as well as generally more stable regions such as Germany. There is also the potential for increased environmental activism in the US, with possible protests against power projects which are deemed to be environmentally damaging. The US President, Donald Trump, has pledged to remove "roadblocks" to oil, gas, and coal developments and threatened to end all climate and clean energy spending. In particular, he has pledged to revitalise the coal industry and this is likely to face opposition from environmental activist groups.

Other areas of concern for power clients would be with regards to their exposures to transmission and distribution lines and any transit coverage. These assets are more vulnerable and spread over larger areas, and transit could be considered a global exposure. Bowring Marsh can look at not only securing coverage for all war, terrorism, and political violence (WTPV) perils to a requested limit of liability, but also very broad business interruption/delay-in-start-up-type coverages such as transit, named and un-named suppliers, and contingent business interruption.

Such coverage is widely available under the Worldwide Bowring Marsh Facility for limits up to US$500 million. Two-year operational deals are available and, in addition, up to 60 months is available for construction (this can include an operational element in conjunction with a construction project). In some instances, coverage can be placed for up to 120 months.

Under the Marsh Facility, coverage is potentially available for "cyber resultant damage", so, in the event of a terrorist hacking the system and causing property damage (PD), the policy will respond to a PD loss.

XL Catlin has also recently launched a specific cyber-attack product, which then includes crisis management services. More information can be requested from the WTPV Bowring Marsh team.

As a whole, terrorism rates continue to soften in the power generation sector, although there are some exceptions in less stable regions, and Ukraine, Libya, and Yemen have experienced losses. The Dubai and Singapore regions continue to grow, and with an abundance of capacity globally the prognosis is for the softening trend to continue.

One ongoing refrain however is that of loss trends, which remain unchanged over the last decade.

CLAIMS

Looking at claims activity in the power generation sector for Marsh clients can provide an interesting window into overall industry performance. The figures for overall industry-wide losses tend to show a fairly consistent number of around US$2 billion annually. When one narrows the focus to include only Marsh clients however the years show more variation. The last update of this publication contrasted 2014 as Marsh's busiest claims year of the millennium for power generation losses so far with a relatively benign 2015.

Industry-wide, the first quarter of 2016 began with a succession of significant losses that initially seemed to indicate a likely loss scenario pattern similar to that of 2014. Marsh clients however experienced fewer losses than in recent years. This should come as welcome news for both insurers and clients!

In contrast to 2014, in both 2015 and 2016 Marsh clients and their insurers have benefited from losses being lower in both frequency and severity. Total losses exceeding US$2 million net reported for 2015 amount to less than 20% of those in 2014, with current figures showing a total of US$125.2 million as against a total for 2014 of more than US$650 million. Total losses exceeding US$2 million net reported for 2016, which we must note includes losses that are not yet finalised (or possibly even reported) show an amount of US$53.5 million, of which some US$40 million were attributable to only two incidents.

One ongoing refrain however is that of loss trends, which remain unchanged over the last decade. Machinery breakdown remains the dominant cause, responsible for more than 75% of losses. Once again, turbine and turbine-blade failures remain the most common form of machinery breakdown experienced by our clients.

Major losses for 2016 include damage to a facility in Nepal, earthquake activity in Italy, and a fire damage claim in the United States. The effects of Hurricane Matthew are awaiting clarification.

REGIONAL MARKETS

AUSTRALIAN DOMESTIC MARKET

Globally, as well as locally in Australia, insurance capacity remains abundant and shows no sign of reducing any time soon. Although insurers are facing the combined challenges of low economic global growth, sustained low pricing, and pressure from investors to boost profitability, we are now starting to see some slowing of premium rate reductions. That said, insurers remain reluctant to walk away from business. For customers with good risk profiles and loss experiences, single-digit reductions are available, but for greater reductions major changes in programme structure are required.

With respect to the individual appetite of insurers for power generation property risks, **FM Global, Chubb,** and **AIG** continue to be the main lead insurers, with FM Global increasingly more open to sharing the risk with other insurers, and not writing 100% of programmes. AIG and Chubb continue to place significant emphasis on loss control and engineering. As always, FM Global continues to vigorously engineer the risks they underwrite. Other notable participants are **HDI Global, Zurich, Liberty,** and increasingly **XL Catlin, Berkshire Hathaway Specialty Insurance,** and **AXA. Zurich, Swiss Re,** and **AGCS (Allianz)** are also looking to provide support, provided the risk is not too exposed to natural catastrophe.

NEW ZEALAND DOMESTIC MARKET CONDITIONS

In 2017, the property market for power generation clients in New Zealand is expected to encounter some upwards pressure on rating, but overall market conditions are expected to remain relatively stable.

Despite the 2016 North Canterbury earthquakes causing significant damage to buildings and infrastructure assets spreading from Kaikoura through to Wellington, there were no claims lodged by major generators or the national grid operator.

These earthquake events have impacted the general domestic market causing underwriters to review terms and conditions. Many insurers began 2017 operating with embargo zones, essentially prohibiting the increase of risk exposures in the wider Wellington region.

This will have some impact on those power generation customers who did not elect to enter into long-term agreements with underwriters at the bottom of the 2016 market conditions.

Outside of the earthquake exposure, the risk appetite for power generation customers remains very positive, with the likes of **AIG** in New Zealand continuing to lead several programmes and still deploying meaningful capacity positions following their global profitability review. This is testament to the risk quality and proactive risk management approach adopted by New Zealand power generators.

Other markets that have the ability to provide leadership options or coinsurance support are **Chubb, QBE, Vero,** and **Berkshire Hathaway** locally, along with **HDI, Swiss Re, Allianz,** and **AXA CS** in Australia.

In respect of the general liability/casualty market, there is no change to the continued soft market conditions, with several local insurers being able to underwrite power generation business. It is anticipated that these conditions will prevail throughout the remainder of 2017.

UNITED KINGDOM DOMESTIC MARKET CONDITIONS

Capacity and the environment in which we are trading remains largely unchanged from our previous edition, with a few notable exceptions. At the end of 2016,

Chubb Global Markets (CGM), the syndicate side of the Chubb business declared it would be reducing its power generation capacity from its previous circa US$27 million down to US$5 million. Under the management of **Jon Tay,** CGM's property underwriters are clear that they are not withdrawing from the sector, but in an environment in which they are finding it difficult to make money they have made the decision to deploy their capacity in more profitable areas of the business.

Also at the end of 2016, **Ian Green** departed from **Hiscox,** with a destination yet to be determined. And following what can only be described as a turbulent merger of the **Amlin** and **Mitsui** syndicates, **Carl Bennett** and **Vicky Kent** departed the power generation underwriting team within the newly formed **MS Amlin.** Bennett has subsequently been announced as the **Head of Heavy Industry and Power** at **Aspen,** while Kent will be joining Aviva.

In January 2017, it was announced that **Rob Kuchinski,** formerly of **AIG** and more recently and briefly of **Allied World,** was going to **Zurich.** Based in London, Kuchinski's job description is **Head of Global Energy and Property.** Also in January, **Barney Smythe** was promoted to **Deputy Active Underwriter** of **Argenta Syndicate,** and more recently it was announced that the syndicate would be purchased by **Hannover Re.**

US AND CANADA DOMESTIC MARKET CONDITIONS

It is anticipated that 24 gigawatts of new generating capacity was added to the power grid during 2016. It appears that over 50% of the new additions are renewable, notably wind and solar. This will be the third year that renewables lead the installed capacity in the US. It is expected that this trend will continue, as some states are pushing for 50% of each state's total electric generation to be from renewable sources over the period 2013 to 2040 (specifically New York, Oregon, and District of Columbia).

We have consequently seen retirements of the older fossil units and installation of quick start combustion turbine technology to balance load from the vagaries of renewable technology. We are also seeing growing use of battery energy storage systems.

Natural gas storage is another important factor in helping to balance the generation mix – especially in the winter months.

In the last 12 months, we have seen continued softening in the power and utility insurance sector driven by an excess of capacity and generally favourable loss activity – except notably with regard to renewable exposures, which are showing increasing activity, albeit with relatively low severity. However, much of this is covered in the renewable market and has a lesser impact on the traditional utility insurers.

Many renewals have been oversubscribed – a large number with double-digit rate reductions. However, towards the end of 2016 the level of savings reduced, with many insureds seeking broader coverage and increased limits in a trade for rate reductions. This helped insureds maintain relationships in the insurance market while under internal pressure to continue cutting costs. However, it should be noted that there always remains the possibility of driving greater savings but potentially at the risk of sacrificing long-established relationships. It should also be noted that, in the current market climate, and with insurers already challenged in terms of maintaining premium rate, we are not seeing any real benefit for customers when attempting to trade increased deductibles for premium savings.

We have been working hard on developing alternative market solutions, for example, to address coverage solutions for new electricity market regulations such as the **PJM** capacity performance market. While to many the only solution is through the non-traditional outage markets, we have identified and placed solutions in the commercial market that will allow coverage to dovetail closely with a short-term outage product.

US insurers are facing increasing competition from the global market as insurers in London, Europe, the Middle East, and Asia seek to establish additional revenue streams. They are also seeing competition among themselves – especially as the larger capacity providers seek to maximise their participation on programmes. Much of the sector is driven by mutual insurers – primarily **AEGIS** and **FM Global** – but with challenges from the commercial markets.

AEGIS New Jersey has the ability to deploy up to US$375 million in capacity from its consortium partners, thereby providing meaningful capacity on US risks. Its underwriting team has grown, and it has a team of loss control engineers who can provide loss control services to its members. These engineers focus solely on electricity and gas risks. However, it should be noted that these engineering services come at an additional cost, which we see AEGIS and the supporting insurance market contributing to.

FM Global has the ability to provide in excess of US$2 billion of capacity. It has a dedicated power and utility team that supports local offices and what we have been told is its largest industry specialty.

FM Global can provide unique coverage enhancements in its policies in addition to its engineering services – the cost of which is included within its overall insurance premium.

AIG has undertaken a complete review of its power and utility portfolio, and is now seeking new opportunities in the large risk and construction areas.

Allianz maintains a steady and reliable presence in the US market. It has good construction expertise, a strong presence with a renewable facility, and a continued interest in growing its utility portfolio. It also remains connected across geographies.

Aspen has seen several changes in the last 12 months, and under new leadership saw a reduction in its premium income in 2016 with a more cautious approach.

Berkshire Hathaway Specialty Insurance is an active participant in the power and utility sector, primarily underwriting as part of the **AEGIS consortium.** However, it is able to provide dedicated catastrophe-only capacity using its risk modelling expertise.

Liberty International maintains a steady presence in the power and utility sector, and continues to demonstrate loyalty to clients, while seeking growth opportunities in the stand-alone terrorism market.

Scor continues to support the power and utility sector, both through the construction and operational risk phases. It is also provides support capacity to the AEGIS facility.

Starr Technical Risks reward the right customers with meaningful capacity and strong engineering services in this industry sector.

Swiss Re maintains its "four eyes" approach to underwriting.

As a net provider of capacity, its underwriting process can be arduous; however, the results usually reward the efforts. It is worth noting that Swiss Re actively seeks to grow its renewables offering.

Zurich has a new and enthusiastic leadership in its energy practice. It is selective and technical in its underwriting approach, but the results can be rewarding.

CONTINENTAL EUROPEAN DOMESTIC MARKET CONDITIONS

MAPFRE continues its international expansion beyond the Spanish/Latin American border, underwriting large industrial risks and basing its level of involvement on the client's profile rather than coverage and terms and conditions.

AXA CORSO is expanding its power generation portfolio in 2017 via a newly created energy and chemical division. All forms of renewable power generation risk (either construction or operational) continue to be a target area for this insurer.

Generali continues to lead the majority of domestic Italian utilities, and continues to selectively underwrite risks in other areas of Continental European via its regional local offices.

VIG has positioned itself as a market leader in all the countries in Central and Eastern Europe, offering competitive terms in the region.

HDI suffered some significant losses to its German underwriting portfolio during 2015, which has led to a more cautious underwriting philosophy and a slowing down of previous expansion plans within that geography.

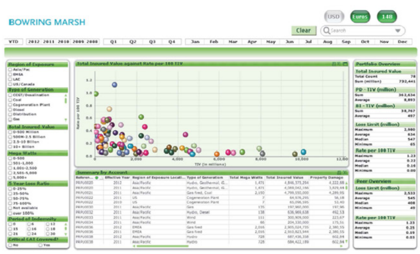
RISK ANALYSIS MODELLING PLATFORM

The size and diversity of our global portfolio has enabled us to develop a market-leading Risk Analysis Modeling Platform. This helps us benchmark property damage and business interruption insurance programmes.

Using data points such as critical catastrophe, deductibles, key sublimits, loss limit, loss ratio, and type of power generation, we can provide important in-depth management information on a confidential basis.

FEATURES AND BENEFITS OF THE RISK ANALYSIS MODELING PLATFORM

FEATURE	BENEFIT
Consolidated global database providing historical rates, limits, deductibles, and programmes structures.	A clear visual representation of how any insurance programmes compares to that of others in the same industry.
Access to terms and conditions offered by both local and international markets.	The ability to compare local programmes (in the same region as the insured) to those available from international markets.
Provision of real-time average and median rate analysis for any given timeframe (i.e. comparing specified quarters and/or years).	The ability to provide quick “ball-park” estimates for either new or renewing business based on historical trends.
Quality printed output.	Aid executive decision making.
Historical record of renewals for customers.	Enables elements of premium increases/decreases for diverstitures/acquisitions.

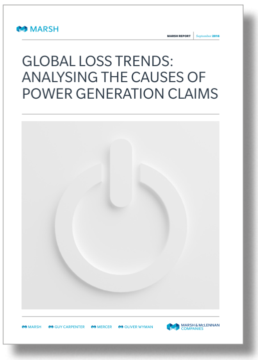


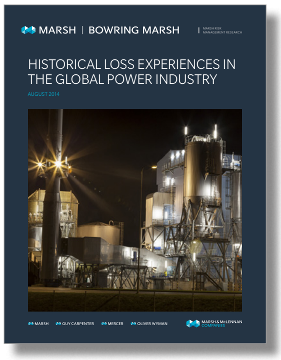
TAILORED REPORTS FOR CLIENTS AND PROSPECTS

Using RAMP, Bowring Marsh develops confidential tailored reports to compare local programs, provide “ball-park” estimates based on historical trends and a clear representation of insurance programs.

THOUGHT LEADERSHIP

Bowring Marsh uses the combined knowledge and experience of our brokers and our proprietary claims data to provide regular, thought provoking, industry-focused research papers.





BOWRING MARSH FACILITIES

Bowring Marsh offers specially negotiated facilities specifically for power clients, which facilitate speedier quotation and placement of client risks.

QBE and ARGO Property Facilities.	Two facilities specifically designed for clients purchasing property insurance, offering up to US$80 million capacity using superior A+ rated security.
Terrorism and Political Violence Facility.	Offers long-term pricing stability and up to 50% of each slip with a discount of 10% off the lead market premium.
UK Terrorism Facility.	Jointly led by Talbot Syndicate 1183 and Brit Syndicate 2987 and backed by other Lloyd's carriers, offers GBP200 million loss limit per insured available, with quick turnaround times and a broader definition of an act of terrorism when compared against Pool Re.

Detailed information on the above facilities is available from your usual Bowring Marsh contact, or from fleur.giraud@marsh.com

THE BOWRING MARSH ADVANTAGE

With the size of our portfolio and our global network of Bowring Marsh offices, we can offer a real advantage to clients who are in need of an international placement solution. Some of our attributes which we live by and share are:

- Our energy.
- Our enthusiasm.
- Our global network.
- Our industry and technical knowledge.
- Our ability to have face-to-face negotiaton with decision makers.
- Our proprietary facilities.
- Our Risk Analysis Modeling Platform.
- Our results from our underwriter survey.

About Marsh

Marsh is a global leader in insurance broking and risk management. In more than 130 countries, our experts help clients to anticipate, quantify, and more fully understand the range of risks they face. In today's increasingly uncertain global business environment, Marsh helps clients to thrive and survive.

We work with clients of all sizes to define, design, and deliver innovative solutions to better quantify and manage risk. To every client interaction we bring a powerful combination of deep intellectual capital, industry-specific expertise, global experience, and collaboration. We offer risk management, risk consulting, insurance broking, alternative risk financing, and insurance programme management services.

Since 1871 clients have relied on Marsh for trusted advice, to represent their interests in the marketplace, make sense of an increasingly complex world, and help turn risks into new opportunities for growth. Our more than 30,000 colleagues work on behalf of our clients, who are enterprises of all sizes in every industry, and include businesses, government entities, multinational organisations, and individuals around the world.

We are a wholly owned subsidiary of Marsh & McLennan Companies (NYSE: MMC), a global professional services firm offering clients advice and solutions in the areas of risk, strategy, and people. With 60,000 colleagues worldwide and annual revenue exceeding $13 billion, Marsh & McLennan Companies also include global leaders Guy Carpenter, Mercer, and Oliver Wyman.

Follow Marsh on LinkedIn, Twitter, Facebook, and YouTube.

About Bowring Marsh

Bowring Marsh is the dedicated, specialist international placement broker for Marsh. Working seamlessly with Marsh, Bowring Marsh provides you with risk transfer solutions, benchmarking, and claims advocacy wherever you are in the world through its global insurance placement network of 11 offices in the United Kingdom, Ireland, Continental Europe, Asia, the Middle East, Latin America, and Bermuda.

With more than 300 insurance brokers located across all the major international insurance hubs, Bowring Marsh provides international placement options that suit your business risk and exposures. We use our comprehensive portfolio experience, our in-depth knowledge of your risks, our ability to have face-to-face negotiations with decision makers, and our industry knowledge to innovate, customise, design, and place your insurance programmes with international insurers.

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