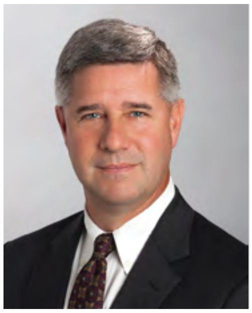
Aon Risk Solutions
U.S. Power Practice

June 2017

U.S. Power Industry Update

In this Issue

A Message from Mark Fishbaugh



On behalf of Aon Global Power, I am happy to provide you with our first newsletter of 2017! In this issue, we provide you with some great insights into how Aon Power is helping drive solutions within the industry that addresses some of the biggest threats to your business including cyber, natural catastrophe coverage gaps in nuclear property policies, business interruption and casualty risks.

Our articles are meant to help you better understand your risk issues. Our specialists are available to assist in providing you with cutting-edge solutions to address all your business exposures.

Please reach out to me or our Aon power colleagues for additional information and discussion. We look forward to seeing everyone in Vancouver in July!

P.S. Don't forget to register for Aon's Power Reception at AEGIS on Monday, July 17th 6:30-10:30 at Studio Records in Vancouver. Click here for event details and to register.

Best,

Mark Fishbaugh

National Power Practice Leader
Aon Global Power Specialty

Empower Results®

Utility Cyber Exposures: Prepare in Advance

By Gary Gresham
Featuring James Trainor & David Dalva

Gary Gresham

James Trainor

David Dalva

Cyber exposures and risks continue to be front page news for all industries, but especially for infrastructure organizations such as utility and energy companies. "Currently, one of the largest exposures for utilities are cyber -attacks," according to James Trainor of Aon Cyber Solutions Group and former Assistant Director of the FBI's Cyber Division. In the 2017 Data Breach Industry Forecast, Experian predicts that "nation state cyber-attacks will move from espionage to war" as one of the top five risks for 2017. The current administration recently signed an executive order declaring that federal agencies protect critical infrastructure, which includes the electric grid, as they must be defended and secured. The order requires immediate implementation of the National Institute of Standards Technology (NIST) risk reduction framework, as well as other cyber security requirements. This is not the first executive order related to cyber as several cyber executive orders were issued during the previous administration.

The utility sector has reported cyber claims related to malware viruses and privacy, but no major claims or nation state attacks to date. In 2016, however, indictments were issued against Iranian hackers related to the cyber-attack of the industrial control systems on the Bowman Avenue Dam in New York. There has also been wide media coverage of the Russian cyber-attack in December 2015 of a Ukrainian power plant. Additionally, malware virus attacks from nation states include the 2012 Iranian attack on Saudi Aramco with the Shamoon virus In 2017 multiple Saudi Arabian organizations were attacked again with the Shamoon 2 virus. These attacks and recent world political events have heightened the discussion around utility cyber vulnerabilities, malware virus attacks, and the potential exposures from nation state actors. In April 2017, there were electrical outages in New York, Los Angeles, and San Francisco on the same day affecting a major international airport, mass-transit commuter systems and over 200,000 customers. The outages were attributed to mechanical failures and transformer fires, yet they provide opportunities to review contingency plans and examine the impacts and damages which could result from a coordinated cyber security attack.

The advent of cyber- attacks has raised concerns at most companies. According to ***Aon's 2017 Global Risk Management Survey,*** cyber is the fifth most concerning risk to global companies and the top risk among American firms. The survey also found that despite their increase in concern, companies' readiness to meet the challenge of managing the cyber risk decreased slightly. Assistance for managing these risks lies with Stroz Friedberg, an Aon company. The company has developed capabilities to assess, test, improve, quantify and transfer enterprise-wide cyber risks to help protect critical technology, balance sheet and corporate reputation of utilities and other industries. "To effectively manage cyber risk, companies need to determine whether they're prepared to efficiently handle an incident", according to Dave Dalva, Vice President of Stroz Friedberg's Cyber Resilience practice. According to Mr. Dalva, "protection of Information Technology and Operations Technology systems is important, but a company's reputation and risk exposure can be significantly impacted by how well it handles a major security incident". Stroz Friedberg offers options including C-level security reviews of adherence to governance processes; operational, technical and physical security controls; peer benchmarking in these areas; prioritized remediation recommendations; and threat assessments. Stroz Friedberg is a proven resource in cybersecurity, having assisted in the response and remediation of eight of the ten largest cyber breaches over the last decade. More recently, Stroz Friedberg assisted a large electric utility in assessing the risk to its sensitive control centers from the internet, whether directly, or through their corporate networks.

These attacks and recent world political events have heightened the discussion around utility cyber vulnerabilities, malware virus attacks, and the potential exposures from nation state actors.

Partnering with Stroz Friedberg and Aon provides comprehensive cybersecurity analysis as well as traditional risk and non-traditional risk transfer policies, products, and services.

Until next time...

Business Interruption Exposures: Recent Developments & What Generation Owners Should Evaluate

By Alex Post and Jonathan Keller

Alex Post

Jonathan Keller

Power generation owners in the U.S. are experiencing a changing landscape based on how generating assets are being dispatched due to the growing renewables footprint, aging conventional generation assets and uncertain future environmental regulations. However, for those power generation owners with assets in deregulated power markets across the U.S. that also insure business interruption exposures the foregoing challenges are combined with a continued evolution of capacity payment arrangements and rules being implemented by certain Independent System Operators (ISO) / Regional Trading Organizations (RTO). It's important to note that these market changes can also affect coverage under a property all risk policy, and as a result certain aspects of this coverage may need to evolve to effectively address these changes.

For those owners insuring business interruption exposures, the implementation of Capacity Performance in PJM over the last few years and the upcoming implementation of Pay for Performance in ISO-NE in 2018 challenge the traditional ways we think about insuring business interruption exposures in an operational property all risk policy. This is due to the complexities involved with understanding how capacity revenues are earned and, more importantly, how more capacity payments are lost in an unplanned outage scenario. The continuing evolution of capacity payment arrangements in deregulated markets such as PJM and ISO-NE underscore that an added importance should be placed on how to properly identify and report exposures to underwriters, ensuring that the coverage needed is actually the coverage granted by the policy.

The rules regarding these capacity payments and how they can be "lost" in the event of a covered property insurance claim have become increasingly complex (as they are specific to rules of each ISO or RTO) and the impact on capacity payments can occur both during the outage period and/or well after the plant is put back into service. Conversely, the standard ways generation owners report business interruption values have generally changed very little over this time, which can often lead to disagreements at the time of a claim. Often there can be significant difference between the capacity payment value received per day under normal operations and what value is actually lost in a claim scenario, according to the rules of the applicable ISO or RTO.

Companies often discover that the various components of business interruption coverages are only discussed at the time of a claim. Aon is recommending that its clients, who wish to insure business interruption exposures, engage in a pro-active, pre-renewal discussion of their business interruption exposures and how the corresponding values are being described and laid out when reported to insurers. Additionally, we recommend clients examine how their existing policy language could be interpreted at the time of a loss given the applicable rules of the ISO or RTO. A further discussion should also be had around whether or not the reported business interruption exposures could be appropriately recovered under a conventional property all-risk policy, or if such exposures would be more adequately insured under an alternative insurance product that does not require a physical damage policy trigger or a time deductible.

Identifying and analyzing business interruption exposure can be very complicated. It often requires involvement from the insured beyond the insurance and risk management team to ensure that the exposure is identified correctly, and also appropriately covered. Aon's Power Property broking team has significant experience managing these unique and complicated exposures, as well as helping clients get bespoke coverage for their generating assets.

For more information, please contact Jonathan Keller or Alex Post.

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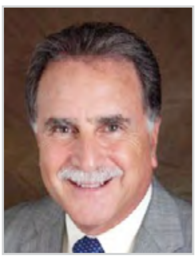
EMANI (European Mutual Association for Nuclear Insurance) Applicability for U.S. Reactor Owners

By Brian DeBruin, Marshall Nadel, and Robert Logan


Brian DeBruin


Marshall Nadel


Robert Logan

It is now to the U.S. power reactor owner's potential advantage to become a European Mutual Association for Nuclear Insurance (EMANI) member to address the 10% quota share natural catastrophe (nat/cat) coverage gap in the Nuclear Electric Insurance Limited (NEIL) primary property policy. The NEIL Board of Directors approved allowing Members, subject to underwriting approval, to retain up to 10% of the first $400 million of the NEIL Primary, effective April 1, 2016. As of today, this option is utilized by at least five (5) Member Insureds (14 policies) and multiple indications had been provided to others in advance of the April 1, 2017 renewals. Some have been approved to use EIS, some have been approved to retain net on their balance sheet, and some have been approved to use EMANI. Recently, a concern was identified by Aon that, as written, the new 10% Quota Share option may inadvertently generate an increase in the Natural Hazards deductible to 20% for the first $400 million in the case of a Natural Hazard loss. NEIL Staff and the IAC Executive Committee concurred; the concern raised was valid, and the potential outcome was inconsistent with Member intent. As such, NEIL amended the policy wording to correct the issue.

EMANI has agreed to write 10% of $400 million primary as all-risk cover, including nat/cat. In theory, the premium credit from NEIL for this risk assumption by the Insured can be used to purchase EMANI quota share coverage including nat/cat coverage that the Insured was retaining. The remaining 90% of the primary $400 million limit will continue to be insured by NEIL and would also include nat/cat. The end result being that the coverage gap for nat cat is now filled. Additionally, EMANI will provide 10% quota share options for covering nat/cat below the NEIL $10M deductible.

Historically, the credit received and the premium quoted for 10% all-risk through EMANI has been a similar premium level based on the transactions conducted to date by Aon. *This provides the member with $40 million nat/cat capacity that is otherwise self-insured or purchased in the more expensive DIC marketplace.*

Therefore, it is now to the U.S. power reactor owner's advantage to become an EMANI member to address coverage for the primary quota share. Further advantage exists for the U.S. reactor owner with multiple sites as EMANI can offer blanket limits, thus potentially offering a premium savings.

EMANI can provide a rough indication based upon basic plant details, in particular MW thermal. Deductibles are available from $2.5 million (EMANI minimum) to $10 million (threshold on NEIL nat/cat). There are several interesting aspects regarding EMANI membership:

1. EMANI doesn't compete directly with NEIL, such that any NEIL relationship isn't affected by utilizing EMANI capacity in the placement.
2. EMANI has a 6x retrospective premium that must be called in the year of the occurrence. NEIL has six years to make their 10x call. The net reduction in call liability is favorable to the member. EMANI calls can be insured for 2.75% rate on line.
3. There is a 10,000 euro entry fee to join EMANI.
4. If your company rating is not BBB- or better, the entity requires collateral or call insurance.
5. Members must stay 5 years at the capacity level they take out. After this, they can resign at any time and get back their share of surplus in the Guarantee Fund.
6. Claims adjustment will follow NEIL, with EMANI exercising their expedited payment claims philosophy. When the operator terminates its license, the operator can exit EMANI immediately.
7. EMANI engineers will rely on NEIL loss control inspections as part of the membership process.

Aon has represented U.S. reactor owners with their application for membership in EMANI and is available to offer guidance in this regard.

For more information please contact Brian DeBruin, Marshall Nadel or Robert Logan

Using Data and Analytics to Build Additional Capacity for Tough Casualty Risks

By Christine Palomba and Cindy Fee

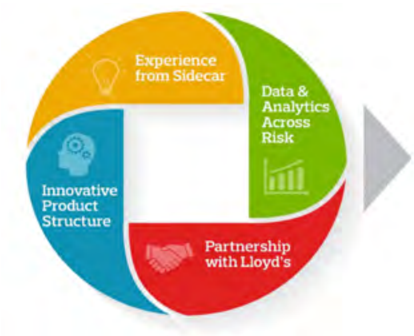

Christine Palomba


Cindy Fee

Building an excess tower for certain casualty risks can be challenging. Significant capacity is available between the US, Bermuda, and London markets but certain exposures, such as California Wildfire or risks with significant loss activity, can lead to limited capacity and/or adverse pricing. Historically brokers have had limited tools to maneuver such situations but Aon has found a way to use its extensive data and analytics capabilities to create additional capacity for our clients.

In 2015 Aon introduced its Aon Client Treaty Facility ("ACT"). This facility, exclusively available through Aon's Global Broking Center in London, allows our clients to access up to 20% additional pre-secured capacity on virtually any Casualty placement led by a pre-approved lead underwriter. While the focus of this article is on casualty, the ACT is available for other lines, including property, as well.

What does this mean for our Power Clients? Exclusive access to additional capacity for a wide range of risks. Because this capacity is automatic for risks that are in-scope for the facility, we can deploy ACT throughout our clients' programs, allowing them greater control over the placement process. This can be particularly advantageous when trying to complete a challenging placement and also is very instrumental in negotiating with markets to maintain pricing since they know we have Aon Client Treaty capacity to invoke.



Aon Client Treaty

A brand new, highly innovative solution, that brings London market capacity and expertise to global risks.

What's unique about this facility is that it was negotiated based on Aon's significant investment in, and understanding of, its portfolio data, where analysis and modeling of over 64,000 policy transactions, 120 different classes of business, and 157 countries and territories, enabled Lloyd's underwriters, led by XL Catlin, to carry out comprehensive due diligence on the risk portfolio and bring underwriting rigor to the creation of our first Client Treaty. The Aon Client Treaty solution is available to virtually every industry segment, product range, and geography underwritten in the London market.

Success Story

Wildfire liability insurance, particularly for those with assets or risks in California, can be a challenge. Recently Aon successfully built an additional $50M in California Wildfire capacity using the Aon Client Treaty to fill out sections of the tower where regular capacity was constrained. The ACT provided the leverage necessary to maintain the competitive pricing on the current program while simultaneously expanding capacity and providing superior broking results for our client. And since the ACT capacity is separate and does not impact a local underwriter's maximum capacity limitations, Aon truly created new capacity for our clients.

In 2015 Aon introduced its Aon Client Treaty Facility ("ACT"). This facility, exclusively available through Aon's Global Broking Center in London, allows our clients to access up to 20% additional pre-secured capacity on virtually any Casualty placement led by a pre-approved lead underwriter.

Characteristics of the treaty

20% unique co-insurance capacity — **Pre-secured capacity**

- Automatic pre-secured co-insurance capacity of 20% of any order placed in the London market through the GBC
- Applies to annual and most multi-year client contracts incepting on or after 1 January 2016
- Applies to business placed through the GBC in London

Extensive eligibility for clients — **Global scope**

- Every industry segment underwritten in the London market, other than nuclear risks
- Every class of insurance underwritten in the London market, other than political risk, trade credit, and certain minor exceptions
- Every geography underwritten in the London market where Lloyd's is licensed to do business

Lloyd's infrastructure — **Established process**

- Capacity secured exclusively from Lloyd's syndicates
- Highly efficient claims agreement and settlement via the Lloyd's Claims Scheme
- A+ rated paper, backed by the Lloyd's Chain of Security

Automatic follow-form — **Consistent coverage**

- Automatically follows the pricing, wording, terms and conditions of the lead underwriter for the London order

Aon Client Treaty

Commonly Asked Questions

Q.

Does Aon Client Treaty capacity reduce the capacity available from the markets who participate in the facility?

A.

No. The Aon Client Treaty is separate and does not impact a local underwriter's maximum capacity limitations. Aon truly created new and additional capacity that is not available elsewhere in the marketplace.

Q.

What kind of underwriting is required to receive access to the Aon Client Treaty capacity?

A.

Underwriting is limited to confirming that a risk meets the criteria for Aon Client Treaty.Capacity is automatic and available at the same terms, conditions, and pricing as the layer being expanded, provided certain conditions are satisfied.

Q.

Do I need to use the full 20% additional capacity?

A.

No. The client can use any amount of additional capacity up to 20%. There is no minimum amount required and the amount invoked can change from year to year.

Q.

How do I access this capacity?

A.

Capacity is available ***only*** through Aon's Global Broking Center in London.

We are excited to continue to highlight Aon's expertise, innovation, and dedication to providing solutions for the power industry. Please reach out to your Aon Service Team or Christine and Cindy if you would like any additional information.

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About Aon

Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.

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