



# RENEWABLE ENERGY EXPERTISE



With projected global population growth, rising fossil fuel prices, diminishing reserves, climate change policy, and government incentives, the renewable energy sector is anticipated to be one of the fastest growing sectors of the energy market. As a market leading innovator, Marsh is at the forefront in devising and evolving appropriate risk transfer solutions in this developing sector.

Marsh has a global network of renewable energy specialists who are experts in the provision of risk solutions for wind farms, solar, hydro, and a variety of other renewable energy operations. Marsh energy colleagues arrange for comprehensive insurance coverage at competitive rates and provide superior service to the client. We are committed to the on-going development of customised solutions that can help your business, and the industry.

## WHAT WE DO

### RISK MANAGEMENT

We take a holistic approach to risk management. Our understanding of the renewable energy sector's technological trends and challenges allows us to address specific risk issues facing our clients. We also have expert knowledge in global renewable energy support mechanisms such as Green Certificates and production tax credits, and the implications these may have on risk allocation and insurance coverage.

Our approach to risk management:

- Via due diligence we assess risk in the context of bankability of projects, and provide reliance on findings.
- Ensure that expenditure on risk management is aligned to corporate goals.
- Achieve the best balance between risk and reward.
- Reduce your costs associated with managing risk.
- Attain favourable terms from the global market.
- Engaging our team of risk engineers early for their depth of experience.

### INSURANCE SOLUTIONS

Marsh has been among the leaders in developing creative insurance solutions for the renewable energy industry. Whether on a project basis or for comprehensive programmes, Marsh is dedicated to meeting our clients' needs. Our bespoke programmes are tailored to individual clients around the following critical building blocks.

### REVIEW OF CONTRACTUAL RISKS

Achieving project milestones within budget, on schedule and in accordance with required performance and quality criteria depends on the accurate allocation of responsibilities between contractual parties. Marsh advises stakeholders on contractual provisions including protection against loss or damage and on exemptions from penalties or liabilities; in order to clearly establish the stakeholders' responsibilities.

### INTERFACE WITH LENDERS/ADVISERS


Marsh supports clients in drafting liability, indemnity and insurance clauses in the project contracts, in collaboration with lawyers, banks and other advisers. Marsh also provides due diligence advisory services focusing on the bankability of the project, which may also provide a level of comfort to equity sponsors and debt providers.

### CLAIMS

Our experience and relationships with insurance companies give us an edge when it comes to expediting the claims settlement process.

MARSH SUPPORTS A WIDE RANGE OF ORGANISATIONS FROM INVESTORS AND FINANCIERS, TO THE LARGEST WIND FARM AND SOLAR FARM OPERATORS, AS WELL AS WIND TURBINE AND SOLAR PV MANUFACTURERS

# MAJOR RISK ISSUES

 WIND	 HYDRO	 SOLAR
<ul style="list-style-type: none"> <li>Natural hazards such as storms, hail, cyclones, hurricanes etc.</li> <li>Turbine blade damage due to lightning, improper manufacturing or maintenance etc.</li> <li>Volatility in average wind speed – low wind speeds pose the risk of a fall below the threshold for economically efficient power output; higher speeds may damage the wind turbine system.</li> <li>Design and engineering risk – overall turbine design, blade dimensions, rotor speed etc.</li> <li>Machinery breakdown and subsequent business interruption.</li> <li>Electrical failure and technology issues.</li> <li>Fire damage due to lightning.</li> <li>Structural collapse and increased cost of working.</li> <li>Marine transit and delay in start-up (DSU).</li> <li>Advance loss of profit.</li> <li>Testing procedures and handing- over issues.</li> <li>Liability exposures.</li> </ul>	<ul style="list-style-type: none"> <li>Exposure to perils including earthquake, flash flooding, cyclone, bushfire, lightning etc.</li> <li>Marine transit and delay in start-up (DSU).</li> <li>Advance loss of profit including denial of access.</li> <li>Machinery breakdown and subsequent business interruptions.</li> <li>Tunnel collapse and increased cost of working.</li> <li>Liability in all its relevant form.</li> <li>Seasonal/annual resource variability.</li> <li>Testing procedures and handing – over issues.</li> <li>Business interruption analysis including availability of grid.</li> </ul>	<ul style="list-style-type: none"> <li>Damage to solar modules and substations.</li> <li>Heat exchanger fatigue or failure.</li> <li>Moisture ingress.</li> <li>Solar heat receptor fatigue failure.</li> <li>Storm damage (sand and hail), e.g. to mirrors or solar reflectors.</li> <li>Thermal oil heat exchanger failure.</li> <li>Transit loss (including breakage and theft) and delay in start-up (DSU).</li> <li>Advance loss of profit.</li> <li>Natural hazards such as hail, sandstorms etc.</li> <li>Electronic converter failure.</li> <li>Geological risks affecting the foundations of the devices.</li> <li>Performance guarantee.</li> <li>Theft from site and malicious damage.</li> </ul>

## SOLUTIONS

To cover the main risks associated with the solar, wind and hydro energy sectors, we offer the following risk transfer solutions:

- Construction/Erection All Risk
- Business Interruption
- Marine Transit
- Liability Insurance
- Marine Delay in Start-Up
- Advance Loss of Profit/ Delay in Start-Up
- Professional Indemnity
- Political Risks
- Property Insurance
- Contractors Annual Programmes
- Pollution and Environmental Risk

## OUR SPECIALISED SERVICES

### WEATHER AND ENERGY SPECIALTY PRODUCTS (WESP)

WHY	WHO	WHAT
<ul style="list-style-type: none"> <li>Weather risk is an increasing cause of concern for investors, lenders and developers of infrastructure projects.</li> <li>Equity sponsors are looking to rebalance risk/reward of an investment to fit their risk appetite.</li> <li>Lenders are not comfortable with a project's weather risk profile.</li> <li>Construction firms are not comfortable with their contractual weather risks.</li> </ul>	<p>Clients in industries whose operations are likely to be impacted by changes in weather and/or commodities, such as:</p> <ul style="list-style-type: none"> <li>Power and utilities.</li> <li>Solar farms.</li> <li>Wind farms.</li> <li>Hydro projects.</li> <li>Agriculture.</li> <li>Construction.</li> <li>Mining.</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive analysis that incorporates a full augment, but doesn't replace a company's day-to-day hedging range of platform comparisons. It utilises contemporary quantification methodologies to facilitate the decision-making process.</li> <li>A customised solution that offers the benefits of risk transfer valued by investors and the financial markets, i.e., protected earnings and more efficient use of equity.</li> <li>Combined expertise of our weather and commodity risk experts and industry specialists for service and support.</li> <li>Access to both the insurance and capital markets through our specialised Financial Risk Products' WESP analysts licensed through MMC Securities Corp.</li> </ul>

## PEMA SERVICES

All transaction consultancy services conducted by Marsh are managed exclusively by Marsh's Private Equity Mergers and Acquisitions team (PEMA). The team in Australia has over 100 years of experience working with private equity investors, infrastructure funds, corporate clients, lenders, financial advisers and government entities.

In Australia, Marsh PEMA has provided risk and insurance advice on deals representing an aggregate transaction value of over AUD50bn in the past three years.

In 2016, Marsh PEMA advised on 11 transactions in the Renewable Energy sector, with a total deal value in excess of \$3 billion.

## CONTACT US

For more information about renewable expertise and other solutions from Marsh, visit [marsh.com.au](http://marsh.com.au), or contact your local Marsh representative.

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**About Marsh:** Marsh is a global leader in insurance broking and risk management. Marsh helps clients succeed by defining, designing, and delivering innovative industry-specific solutions that help them effectively manage risk. Marsh's approximately 27,000 colleagues work together to serve clients in more than 130 countries. Marsh is 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 57,000 colleagues worldwide and annual revenue exceeding US\$13 billion, Marsh & McLennan Companies is also the parent company of Guy Carpenter, a leader in providing risk and reinsurance intermediary services; Mercer, a leader in talent, health, retirement, and investment consulting; and Oliver Wyman, a leader in management consulting. Follow Marsh on Twitter @MarshGlobal, or on LinkedIn, Facebook and YouTube.

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