MARSH JLT SPECIALTY

INSIGHTS | NOVEMBER 2020

Hydropower Projects: Insurance Market Update

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Global Hydropower Construction Insurance Market

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Introduction

The hydropower sector is undergoing steady growth and projected to represent around 28% of the world's power by 2030. Although concerns remain over its social and environmental impact in some territories, 21.8GW of installed hydropower capacity was put into operation in 2018, according to the International Hydropower Association's "2019 Hydropower Status Report," increasing total installed capacity to 1,292GW.

Marsh JLT Specialty's research suggests that 847 large (100MW+), and 2,853 smaller (1MW+), hydropower projects are planned or under construction globally, with many more projects likely in the near future.

However, a number of high-profile losses in recent years have raised questions about the suitability of available insurance. These losses coincided with an already transitioning construction insurance market, and a time when more hydropower projects are being developed in challenging locations using private finance.

Complex hydropower projects have always attracted substantial scrutiny from insurers, due to a combination of extensive civil engineering with mechanical works in remote locations, often subject to the impact of seasonal weather. The number of insurers willing to insure hydropower projects has always been limited, with many considering it too high-risk.

Following recent claims, some major lead insurers have withdrawn from the sector, reducing choice further. If insurers continue leaving the sector or significantly restrict cover, developers and contractors will face limited project protection, calling into question the financing of future projects, and perhaps their entire viability.

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Insurers' Concerns

In light of these market changes, Marsh JLT Specialty interviewed a number of leading global insurers to gauge their concerns and underwriting stance. These views are summarized below, along with our analysis of the market, and tips on how to best engage the insurance market.

Private–sector involvement

Some insurers perceive private-sector involvement to have increased the commercial drivers behind hydropower projects, resulting in contracts that can place more risk on the contractor, impose unrealistic schedules, or require significant delay in start-up (DSU)[1] sums insured. This can be exacerbated by political pressure to complete projects within promised timeframes.

Delay in Start Up (DSU)

This coverage is treated as very high-risk by insurers, because even limited physical damage can cause disproportionate project delays due to the remote locations, variable tunneling conditions, and the seasonal construction methodologies commonly associated with hydropower projects.

Contract Allocation

Insurers are always more receptive to contract agreements that demonstrate a considered approach to risk sharing. Conversely, they will be concerned by any contract that allocates a lot of unpredictable risk to a contractor under a lump-sum contract, due to the difficulties in mitigating these risks without the necessary funds. This is particularly true where ground conditions are concerned, and the funds available for the work can have a direct bearing on the type of support provided to the tunneling. Insurers hope that the recently released FIDIC Emerald contracts will put risk-sharing at the forefront of project parties' minds when negotiating future project contracts.

Tunneling Losses

Tunneling losses are under increased focus, with insurers having found they relate to around 70% of incurred physical damage losses. Insurers' concern will be influenced by tunneling length, profile, geology, ground cover, and methodology, which will vary significantly between projects. While other transportation and infrastructure tunnels may be built with longevity and safety in mind, many hydropower tunnels remain unlined and unmaintained.

A number of recent losses occurred as a direct result of the throughput of water affecting rock, which is soluble or subject to swelling. As a result, this is drawing attention from insurers. Improved insurance cover and lower rates will undoubtedly be available for projects incorporating permanent in situ or segmental concrete lining. Due to environmental concerns, many designs are also incorporating deeper and longer tunnels that bring additional challenges; the length of tunnels involved, and the perception of the geological conditions faced, will continue to be among the biggest factors affecting insurers' rating of project risks.

Seasonal Conditions

Seasonal conditions concern insurers (particularly exposure to floods), and a lack of historical data for any project site will affect their perception of the risk, as will the safety measures incorporated into any permanent or temporary works. In the drive to complete projects as quickly as possible, and at the lowest cost, some 1:10 year designs have been incorporated into the temporary works of six-year construction projects, which does not provide much margin for variation. Insurers have stressed that 1:20 year return periods are the minimum they would accept, and they would prefer to see temporary work designs factoring in 1:30 to 1:50 conditions. While some engineers may consider this excessive, questions should be raised during the design stage as to whether the cost of this is worthwhile given the impact on insurers' perception, and the resultant reduction of project risk and impact on transfer costs.

Site Quality

Insurers believe that most installed power capacity has taken the best (least challenging) project locations, so any remaining sites will inevitably bring new challenges. Insurers question whether the risk profile is getting worse, and the potential impact of climate change. These factors compound underwriters' concerns, and underline the importance of proactively approaching insurers and promoting robust risk mitigation strategies.

[1] Insuring the financial consequences of a delay in completion of the project due to insurable physical damage

Available Cover

Insurers have reported a loss ratio[2] well in excess of 100%, with some reporting ratios up to 300% (and these figures exclude some of the most significant ongoing/unresolved losses).

Some construction insurance market issues are not confined to the hydropower sector. Years of low pricing and wide cover for construction insurance — where projects take years to complete and the highest risk is towards the project's completion — means that claims are catching up with many construction insurers. Market transition is occurring for the first time in more than 10 years.

The losses experienced in the hydropower sector are exacerbating these changing market conditions. Many insurers are seeking significant premium rate increases in order for the sector to be profitable and sustainable. For the hydropower construction projects that Marsh JLT Specialty has placed in the last 10 years, average pricing has roughly halved in the last six years. As always, the question is at what point will additional capacity enter the market, potentially stabilizing or deflating pricing, and if so – when?

Insurers are also reconsidering the cover they provide, with most no longer prepared to offer the widest form of defects cover. Some insurers have indicated exclusions, restrictions, or limited cover applying to key elements such as temporary roads, landslide cover, and rock-filled dams. For nearly all insurers, specific criteria would need to be met to obtain DSU cover. And with most insurers, cover would only be available for ongoing debt service and fixed costs in order to satisfy the standard minimum requirements of lenders; cover is rarely available on a full-revenue basis.

[2] Loss ratios are the claims paid relative to the premium received and expressed as a percentage.

Engaging the Insurance Market

In order to benefit from the broadest cover possible, and the lowest prices and deductibles, contractors and developers would be advised to approach the insurance of projects even more carefully than before, and consider taking the following steps:

Engage with their broker at an early stage to review contract agreements; align aims, expectations, and information requirements; and plan the market approach together. This is especially important where commitments may be made to project parties or lenders, which might prove difficult to honur at the time of placement and could affect the project commercially.

Build flexibility into contractual insurance commitments; alternatively a conservative stance should be taken.

Engage designers, contractors, and engineers to lend assistance in preparing the necessary technical information and respond to insurers' queries.

Engage with insurers in a structured manner, presenting a detailed construction underwriting report and a well-planned marketing process that allows sufficient time for technical discussions.

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