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Data centre construction Risk and insurance considerations

UK Construction

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Contents

The rise and rise of data centres

Rocketing data usage is driving a construction boom for data centres, but contractors and developers must navigate a specialised risk and insurance landscape to ensure the success of their projects.

In July 1969, Apollo 11 made the first manned moon landing, aided by a computer with 100,000 times less processing power than a modern day iPhone.[1] Today, high spec computers and smartphones are a fact of life for 4.66 billion people — nearly 60% of the world's population.[2]

Data usage has surged during the COVID-19 pandemic due to the increase in users working and socialising remotely. This has created a need for supporting infrastructure, such as data handling and storage facilities, the construction of which raises specific risk management and construction insurance considerations.

The sector presents an interesting mix of physical and contractual risk factors that must be considered when negotiating construction contracts and finance agreements as well as when designing and placing the project insurance programme.

Footnotes

1 Independent.co.uk: Apollo 11 Anniversary: Could an iPhone Fly Me to the Moon?

2 Statista.com: Global Digital Population as of January 2021

PHYSICAL RISK FACTORS

Specialised contractor shortages

In a specialised industry undergoing a boom, insurers pay close attention to whether the selected contractors have the experience and credentials to execute the more sensitive elements of the build – particularly in light of the ongoing skills shortage in construction.

Price escalation

Increased demand, limited supply, and a shortage of experienced contractors will result in price escalation beyond that seen in the wider construction industry. Construction insurance solutions that mitigate this risk are limited in scope. However, budget-setting, commercial risk and insurance negotiations, and placement of the insurance programme will help to optimise a company's commercial position by reducing the likelihood of escalating project costs.

Demanding schedules

Aligned to the above, and some of the more speculative contractual frameworks, business models are reliant on commercial operations commencing as soon as possible. These pressures are pushed down to the contractors and subcontractors working on the project. Insurers will be concerned if "corners are cut" or operations are started earlier than is advisable in order to accelerate the ability to earn revenue.

Brownfield sites

While the supporting infrastructure and location of a brownfield site could be attractive, the remediation works may not be: Additional project risks need to be considered.

Power connections

Power supply determines capacity and therefore factors heavily in site selection criteria. Often, power connection works involve extensive disruption to public areas near the project site. Although these works might take place early in the schedule, the risk of damage or injury to third parties is significant. Furthermore, interconnection or build-over agreements to public utilities could present punitive terms for damage and disruption, and should be considered in both the project risk matrix and the insurance programme design.

Supply chain disruption

Will supply chain disruption related to the 2020 pandemic continue? It's too early to know for sure, but insurers will factor this concern into their offered terms for insuring the delay risk of a project.

Cooling facility construction

Cooling facilities are vital to data centres and many have significant works in water or heavy lifts. Insurers deem both types of works to be high-risk activities and will pay particular attention to the construction methodology in such cases.

Proto-typicality

Rapid advances in cooling facilities and data centre technology will prompt insurer questions about unproven methods, components, and systems. Potential insureds will have to provide sufficient "proven" elements to the constituent design, to provide insurers with the necessary comfort.

Fit-out phase

Data centre projects require the dovetailing of multiple insurance policies covering insured property and activities in close proximity. The process is rarely straightforward. The need to install high-tech, high-value, and sensitive equipment while shell construction is being finalised creates a physical risk factor that is reflected in many contractual risk concerns mentioned later in this report. Often, tech companies insure their own fit-out works, even when third party developers are engaged in continuing shell construction.

Contractual risk factors

CONTRACTUAL STRUCTURE

The construction contract(s) for a project typically underpin the insurance-purchasing obligations and determine caps on liability and project risk allocation; they should always be considered as a fundamental part of the insurance programme design. Marsh Specialty is the insurance adviser for some of the world's largest data centre projects (owned both by large tech and non-tech companies). We also partner on smaller developments for dedicated data centre firms. The wide range of contractual structures we encounter, present differing risk landscapes. These landscapes affect any project party's risk allocation under contract, and also the efficacy of the insurance programme.

Develop, build, operate

For most construction projects globally, the principal (generally, a tech company) appoints project managers, contractors, designers, and so on, to deliver the asset, which the principal will then own, occupy, and operate. In this case, the tech company provides the core construction insurances of construction all risks (CAR) and third party liability (TPL). Many major tech companies self-finance, and do not need to purchase delay in start up (DSU) cover, however, should they be raising external finance, they will need to comply with lenders' requirements.

Tech company as tenant

In this case, the tech company occupies the premises and pays rent to a third-party developer, who builds the asset (usually the shell, core, and supporting infrastructure/utilities). The tech company installs its own equipment (for example, hardware such as servers). Sometimes, office furnishing equipment, such as racks, forms part of the build contract. In this case, the developer provides the core build CAR and TPL insurances, due to the fact they are developing (and will own) the asset, and are retaining the development risk. In many cases the developer has lender involvement, hence the strict requirement for them to insure throughout construction and to cover the DSU risk.

As noted above, it is common for the tenant to insure their own fit-out works, and these are likely to be ongoing at the finalisation of the shell construction.

Hybrid structures

Sometimes, the tech company offers to build the asset at a prime location belonging to a third party, usually due to power supply. The agreement is that the tech company constructs the data centre, then sells it to the third party, with a long-term lease agreement included as part of the transaction.

Insurance complications can arise, including agreeing which party is responsible for risk of loss at the point of testing and commissioning, and the point at which the asset transfers to the third party owner. If project finance is being raised for the purchase, the future owners' insurance will be under scrutiny from the first day that lenders' interests could be compromised. Depending on when the first payment is made, this could make the transaction as simple as a real estate purchase of a built asset, or as complicated as a concession structure.

Each structure provides differing dynamics, all of which have an impact on which insurance classes will need to be arranged, to what extent, and by whom. Some proposed contractual structures aligned to the insurance-purchasing responsibilities can result in wasted premium, uninsurable risks, or the inability to raise finance for the project — unless handled carefully.

Design risk

Given the exacting operating conditions needed for data centres, another key consideration is who will be responsible for the specification or design risk under the relevant contracts. Developers should consider their rights of recourse against the designer in respect of the selected contractual structure and how they would prefer this potential liability insured.

The professional indemnity (PI) insurance marketplace is restricted in its limits, cover, and application, so this should always be considered in alignment with the contractual structure, to ensure that risk is insured in the way envisaged. It is also worth noting that many tech companies originate from the US, where professional liability is much more widely insured than other parts of the world, including Continental Europe.

Insolvency risk

While not specific to data centres, any construction boom in this sector will be framed by the economic aftermath of COVID-19. Company balance sheets have been impacted, some terminally, and developers will likely be more concerned about the associated project risk of their contractors, suppliers, or project partners becoming insolvent.

US-based contract forms

A high percentage of data centre construction projects involve at least one project party originating from the US. Construction professionals will be aware of the significant differences between the construction contracts used in the US and internationally. To ensure that an efficient, effective insurance programme is placed in such cases, attention should be focussed on designing the correct contract conditions. Owners and developers who take a standard contracting approach without considering future insurance requirements can find themselves with inefficient or expensive insurance programmes.

In some cases, incorrect drafting can preclude the ability to raise finance for the project.

Lender requirements and DSU cover

Lenders subject projects that raise finance on a non-recourse basis to a rigorous insurance review and approval process. It is no exaggeration to suggest that a construction contract awarded without due consideration to the future lending requirements, could preclude the project from raising the finance required to progress.

As a simple example, nearly all contracts are set up, as standard, for the contractor(s) to insure the CAR and TPL insurances, whereas lenders will expect the party raising the finance to procure these insurances themselves along with DSU insurance to mitigate the financial risk of delay caused by damage. The revenue flowing from completed data centres can be immediate and significant, and a high DSU sum insured will alter the dynamics of the insurance placement and present a higher-rated risk for insurers.

Of note in any agreement with lenders will be the requirement to commit to the scope of operational insurances for the term of the loan. Any unnecessary over-commitment will result in high premium costs for the duration of the loan and the future operational model — be it on a lease basis, co-location, or otherwise — will need to be factored in.

Insurance considerations

All of the above-referenced physical and contractual risk factors need to be included in any insurance programme design — either through the optimal presentation of the technical project insurance information, the extent of cover procured for the project, or in the detailed insurance programme design. The scope of this advisory and placement work is extensive, but a few nuances should be considered:

- **Insurance Dovetailing.** The dovetailing of insurances procured by different parties within the contractual structures can be complex where there are different parties insuring the building and the fit out works.
- **Early Works.** A number of companies risk models are predicated on preparing the base facilities to construct a data centre on behalf of a future tenant, but not embarking on the main construction work until commercial agreements are significantly advanced. In these cases, it is too early to put the main project insurances in place and so an early works placement needs to be arranged to accommodate the schedule. Insurers may have concerns if these works are completed and left dormant for some time. It is also important to approach placement strategically to ensure the premium costs are not unnecessarily inflated by this requirement having multiple stage policies.
- **Cyber.** Data centres are deemed to be particularly vulnerable to cyber-attack. The current property insurance market stance in respect of cyber risks is one of wariness and new, significant exclusions. Marsh Specialty is working with both the global construction market and insurers to navigate the increasingly risky, cyber landscape.
- **Latent Defects Insurance (LDI).** The future usage of the asset in terms of onwards sales or co-location, may also alter the insurance programme dynamics, as the developer seeks to provide additional guarantees relating to the performance of the asset. Supplementary insurances, such as LDI, might be considered to offer the future buyer or user confidence in the data centre's structural integrity.
- For most of our major clients, data centres are being constructed all around the world. Each country brings with it a different legal and insurance regulatory framework, which can have a significant impact on the type, cost, and security of insurance that will ultimately be arranged for the project. Again, this needs to be factored into all relevant project agreements at an early stage.
- **Water Damage.** In recent years, insurers' portfolios have been severely affected by increased incidences of water damage in the construction industry. For the building/real estate sector, it is mainly the frequency of these events that have caused insurance issues. However, there have been a number of more severe losses where high value equipment has been damaged in more complex developments. The technology sector has also seen such incidences, with insurers now starting to focus water damage risk management as part of the key underwriting information.
- **Multi-Storey Developments.** Looking to maximise the footprint of their development, some data centre developers are building upwards. Insurance arrangements will need to facilitate a multi-storied development, with different computing centres, within the same building during varying stages of completion. This exacerbates the complications surrounding interaction between completed infrastructure, ongoing construction, and equipment fit-out works.

HOW TO GAIN OPTIMUM CONSTRUCTION INSURANCE TERMS

Work with a broker who has expertise in both construction and in wider specialties, including the capabilities to properly respond to the challenging economic and business risks faced by developers and contractors.

With their technical expertise, market knowledge, and close relationships with underwriters, brokers come into their own during a period of tightening insurance markets. In order to gain the most effective insurance for their projects, clients should start working with their brokers as early in the process as possible, to ensure their contractual structure reflects the optimal insurance programme design and enables sufficient time for terms to be negotiated.

For more information please contact your local marsh office or visit marsh.com.

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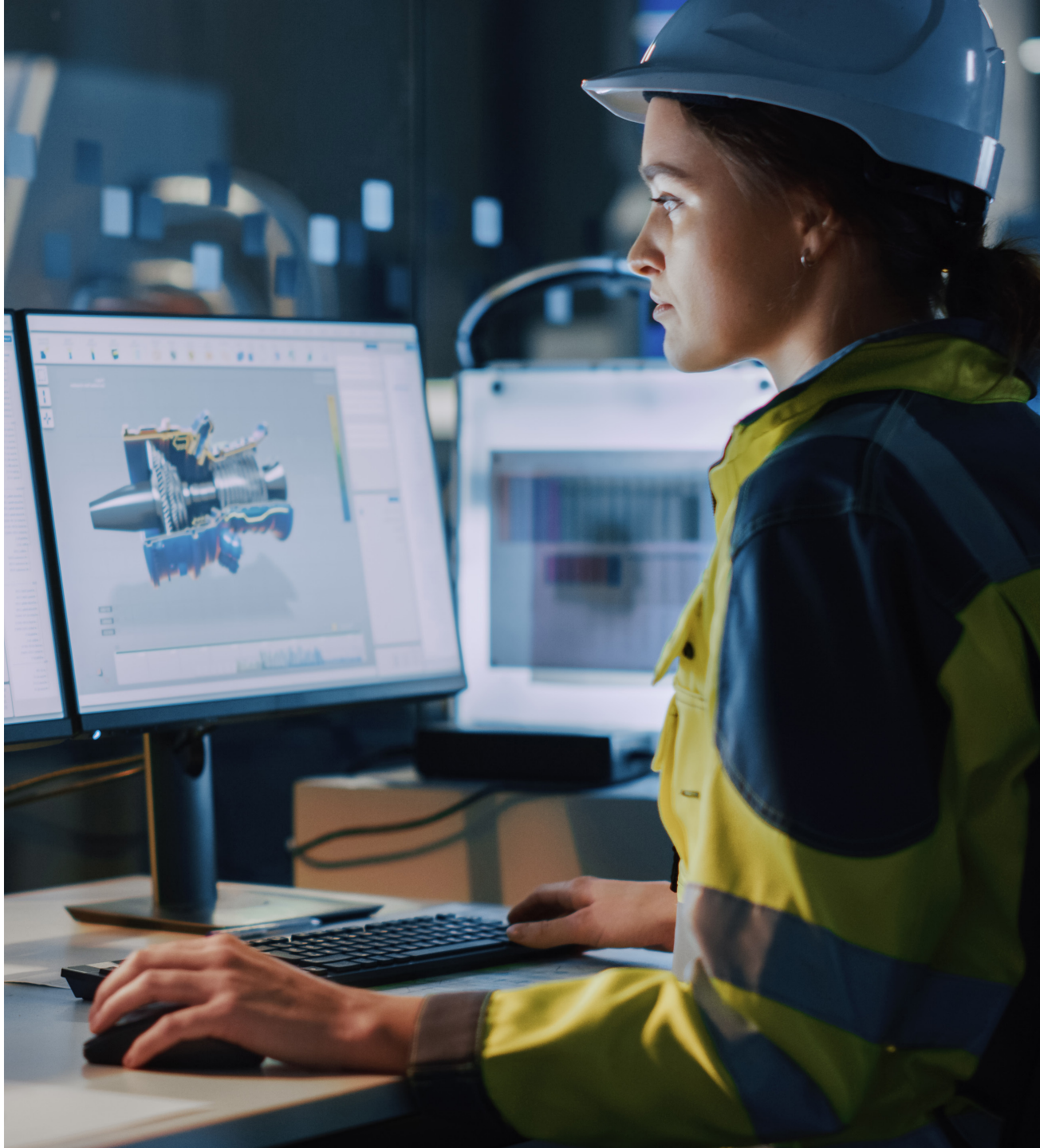

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