EPIC™ Insurance Brokers & Consultants | Construction & Design

*Insights*

# Building the AI Boom: Best Practices for Managing Data Center Construction & Risk

© 2026 Edgewood Partners Insurance Center. All rights reserved. | CA License 0B29370

CONSTRUCTION & DESIGN

# Building the AI Boom: Best Practices for Managing Data Center Construction & Risk

> *The firms best positioned to succeed in the AI-driven data center boom are those that recognize how construction risk, operational responsibility, contracts, and insurance intersect throughout project delivery.*

**Jonathan Wheat**
Risk Management

**Shirleen Laubenthal**
Environmental Practice

**Trey Moye, JD**
Risk Management

The data center boom is redefining construction risk and exposing the limits of how that risk is financed. Much of the growth is now being driven by demand for AI infrastructure, accelerating the need for increased computing capacity far faster than traditional construction and insurance models were designed to support.

In January 2026 alone, U.S. data center construction starts reached $25.2 billion — the highest monthly total on record.[1] Data center construction costs have increased as well, from roughly $183 per square foot in 2020 to $415 in 2025, with projections approaching $488 per square foot by the end of 2026.

On many projects, scale alone creates structural pressure on the insurance market, which lacks sufficient capacity to fully absorb the risk. From highly specialized equipment and teams to long-lead procurement times, tightly integrated systems and infrastructure, modern data center risk extends well beyond the building footprint. Even sophisticated builder's risk and casualty programs cannot fully transfer the scale of potential loss of a hyperscale build.

The result is a project environment where risk is increasingly shared, layered, and difficult to isolate. Large deductibles, phased delivery schedules, and overlapping scopes of responsibility create situations where losses may not fall cleanly to a single party or insurance policy.

## THE FIVE PRESSURES ESCALATING DATA CENTER RISK

The main pressures impacting data center construction do not operate in isolation. When one breaks down –– whether it's power availability, a delayed transformer, or a labor shortage on a critical trade –– cost overruns, schedule delays, and coverage disputes tend to follow in quick succession.

1. **Project Scale:** Data center developments that once would have been considered exceptionally large are now standard. Average-sized facilities now cost between $500 million and $2 billion,[2] with a growing number of projects exceeding $10 billion.[1] Phased hyperscale builds and overlapping scopes of work create exposure levels that exceed the insurance market's available capacity.

   *Key risk:* When project exposure exceeds what the insurance market can absorb, firms are left holding more risk than they realize –– often through large deductibles, coverage gaps, or disputed liability.

2. **Power and Infrastructure Limits:** The power demands of data centers are outpacing what many electrical grids can support. The International Energy Agency projects electricity demand from data centers will more than double by 2030, reaching approximately 945TWh (Terawatt-hour) annually — which is roughly equivalent to the entire electricity consumption of Japan in 2025.[3] Aging grid infrastructure, utility bottlenecks, permitting delays, and explosive AI-driven demand are already extending project timelines across major markets. Of the 110 data center projects slated to come online in 2025, 26% experienced delays, while another 10% quietly pushed back their commercial operating dates due to power, permitting, and construction constraints.[4]

   *Key risk:* Power and grid constraints can delay projects, trigger claims, and drive up costs. In more severe cases, insufficient infrastructure can push a project back indefinitely, creating contractual disputes that are difficult to resolve when the root cause is outside any party's direct control.

© 2026 Edgewood Partners Insurance Center. All rights reserved. | CA License 0B29370

3. **Supply Chain and Equipment Exposure:** More of a given data center project is being assembled, stored, tested, and transported before reaching the jobsite today, shifting critical construction exposure into factories, warehouses, and logistics networks. Procurement lead times for critical components like transformers now routinely exceed one year, while demand for cooling systems and electrical equipment continues to intensify globally. Material decisions are also changing under cost pressure.

   ***Key risk:*** Supply chain delays mid-project can drive up costs and push back timelines. Cost pressure can also lead teams to substitute less expensive or more readily available materials –– a decision that can resolve a short-term problem but introduce reliability and liability exposure down the road.

4. **Workforce and Execution Pressure:** Experienced labor pools for electrical, HVAC, mechanical, and mission-critical specialists are limited in many of the remote and emerging markets where data centers are being built. Meanwhile, projects are scaling from peak crews of roughly 750 workers to campuses requiring 4,000 to 5,000 workers.[5] As a result, owners and contractors are dividing scopes across multiple subcontractors and local teams.

   ***Key risk:*** Fragmented scopes and reliance on less experienced workers increase the likelihood of errors, rework, and safety incidents. When something goes wrong, losses can quickly become disputes between owners, general contractors, and subcontractors over who holds coverage.

5. **Community, Environmental, and Public Perception:** Data center risk is no longer limited to the project's building. These facilities are becoming so resource-intensive that they directly affect local utility capacity and surrounding communities. Community opposition can lead to delays, project redesigns, or project cancellation creating downstream contractual and financial consequences for design parties.

   ***Key risk:*** When communities resist data center development, local governments impose moratoriums, legal challenges increase, additional environmental requirements may be implemented, and developers may withdraw, resulting in the project stopping or suspending activities. This can lead to continued costs and unmet contractual obligations for AEC firms.

## BEST PRACTICES FOR MANAGING DATA CENTER BUILDING RISK

The risks surrounding modern data center construction cannot be managed through insurance alone. Many of the biggest exposures listed above either fall outside traditional insurance structures or create losses that are difficult to isolate to a single party. That shifts much of the contractual liability back to project teams themselves.

Here are four best practices to help you mitigate your exposure:

1. **Involve risk, legal, and insurance teams early**

   It's easy for firms to get blindsided when contract language, project delivery assumptions, and insurance structures are not fully aligned. Contract indemnification language determines who is financially responsible when something goes wrong, and if scopes are finalized before those obligations are reviewed, firms can unknowingly take on liability they never intended to assume. Involve brokers, internal risk managers, in-house counsel, and external legal advisors with experience in mission-critical construction delivery early on.

   ***Key Considerations:***

   - Review insurance requirements against project delivery requirements –– including phased turnover, overlapping scopes, and offsite fabrication –– beyond just the contractual language.
   - Confirm that insurance requirements in the contract are realistic and achievable given current market capacity.
   - Identify potential deductible, exclusion, and coverage gaps before project contracts are finalized.

2. **Focus on the contract**

   Insurance disputes usually start with contractual oversights. Traditional construction agreements were built around more linear project delivery structures with clear divisions of responsibility between owners, general contractors, subcontractors, and design teams. They were not designed to handle phased turnover, overlapping scopes, multiple prime and subcontractors, delegated design responsibilities, and offsite fabrication.

   The key question to ask yourself is: **Does the contract reflect how the project is being delivered?**

   ***Key Considerations:***

   - Clearly define responsibility for delegated design, phased turnover, and overlapping scopes.
   - Define how losses within large deductibles and layered insurance structures will be allocated across project teams.
   - Review indemnification language and insurance obligations alongside operational responsibilities, not in isolation.
   - Negotiate limitations of liability that reflect the realities of hyperscale execution.
   - Confirm rights for suspension and termination, including what relief your firm is entitled to if a project is delayed, suspended, or scrapped.

© 2026 Edgewood Partners Insurance Center. All rights reserved. | CA License 0B29370

3. **Align your insurance program to project delivery**

Builder's risk and casualty coverage remain foundational, but the scale and complexity of these projects create exposures that require additional layers of coverage. For example, contracts may require responsibility for equipment in transit or temporary storage, or for modular or prefabricated assembly. Environmental concerns tied to noise, runoff, vibration, water usage, or community impact may create additional liability exposure.

***Key Considerations:***

- Ensure foundational coverages — including property, general liability, workers' compensation, professional liability, and management liability (D&O and EPL) align with project scale, staffing structure, and operational complexity.
- Review cargo insurance and stock throughput limits for logistics and transportation partners to ensure coverage limits match equipment value.
- Map coverage responsibilities across the full lifecycle of equipment delivery, storage, testing, installation, and energization.
- Review professional liability, development-related E&O, and environmental policies together to identify exclusions or overlapping gaps tied to community or environmental exposure.

***Watch For:*** Contracts often push responsibility for materials in transit, staging, or storage onto on-site contractors or project teams. If your partners' cargo or stock throughput limits are insufficient, you may end up absorbing the loss yourself.

## How Insurance Carriers Influence Project Design

**Insurers are not always passive stakeholders waiting to respond after a loss. Expect your builder's risk and property insurance carriers to actively review project plans, specifications, materials, and fire protection strategies before agreeing to provide coverage. In many cases, these requests are driven by carrier-specific loss prevention standards, even when the project already meets code requirements and standard professional practice.**

4. **Prioritize safety and site control**

As labor ramps up and operations expand, safety failures can quickly turn into workers' compensation claims, auto losses, third-party bodily injury claims, environmental incidents, equipment theft, or liability disputes that affect both project costs and insurability. Project teams should establish site safety, workforce tracking, and operational control procedures at the start of the project and scale them alongside project growth.

***Key Considerations:***

- Integrate new hires, temporary labor, and specialty trades into safety programs.
- Use telematics and driver monitoring programs for employees traveling to remote jobsites.
- Establish clear site access controls, including scan-in/scan-out procedures or biometric tracking where appropriate.
- Track equipment movement with GPS and implement traffic control measures around site entrances and exits.
- Conduct daily safety checks and toolbox talks with onsite supervisors and crews.
- Incorporate appropriate erosion control methods such as perimeter silt fencing, erosion control blankets, storm drain inlet protections, check dams or diversion swales, or sediment basins to reduce environmental impacts to streams, sewers, or other vulnerable water bodies.

© 2026 Edgewood Partners Insurance Center. All rights reserved. | CA License 0B29370

## BUILDING AN INSURANCE PROGRAM FOR DATA CENTER PROJECTS

Use this table to evaluate the coverages, gaps, and exposures shaping your next data center build.

| Policy Type | Why It's Important | Key Considerations |
|---|---|---|
| **Professional Liability** | When multiple parties are involved in designing and coordinating critical systems, disputes can arise over whether a problem was caused by design, construction, coordination, or installation.<br><br>Fast-track schedules, prefabricated systems, and new technologies can also increase the risk of defects that may not surface until years after project completion. | · Align coverage with any design responsibilities your firm is assuming.<br>· Confirm coverage applies to prefabricated and modular components.<br>· Understand whether subcontractor design work is covered.<br>· Maintain documentation that supports design and quality control decisions.<br>· Given exposure and aggregation concerns, Owners may want to consider Owners Professional Protective Indemnity (OPPI) project-specific Professional Liability coverage to ensure that dedicated limits are available for a project. |
| **Builder's Risk, OCIP/ CCIP & Difference-in-Conditions (DIC)** | These policies form the backbone of most large project insurance programs. However, many data center projects include large deductibles, shared limits, phased turnover, and overlapping scopes that can leave contractors responsible for significant costs even when insurance exists.<br><br>*Consider this:* A subcontractor assumes a loss will be covered by the owner's insurance program. After a claim occurs, they learn the project carries a $35 million deductible and no one clearly defined who would pay losses below that amount. | · Understand how deductibles are allocated across project teams.<br>· Review policy limits against total project values.<br>· Confirm how excess insurance responds if limits are exhausted.<br>· Identify any major exclusions before work begins.<br>· Review offsite storage, testing, and commissioning limitations that may create coverage gaps. |
| **Cargo Insurance, Stock Throughput, Installation Floater Coverage, & Testing & Commissioning Coverage** | Millions of dollars of servers, transformers, switchgear, cooling equipment, and electrical infrastructure will move through warehouses, staging facilities, jobsites, and testing environments before a facility becomes operational.<br><br>Coverage often changes as equipment moves from transit to installation to startup, creating opportunities for gaps if responsibilities are not clearly defined.<br><br>*Consider this:* A contractor has $100 million worth of servers and cooling equipment stored in a warehouse awaiting installation. A fire breaks out, but the cargo policy only carries a $10 million limit, leaving a significant uninsured exposure. Months later, after replacement equipment arrives and installation begins, a testing failure damages a newly installed electrical system before the facility is operational. A different policy may apply to that loss — or there may be another coverage gap entirely. | · Verify coverage during each stage — transit, storage, staging, installation, testing, and commissioning.<br>· Understand ownership transfer points and care, custody, and control obligations.<br>· Compare policy limits against actual equipment values.<br>· Coordinate among the project parties to avoid gaps between the cargo, builder's risk, installation floater, and testing coverages. |

*Table continues on next page.*

© 2026 Edgewood Partners Insurance Center. All rights reserved. | CA License 0B29370

| Policy Type | Why It's Important | Key Considerations |
|---|---|---|
| **Delay in Start-Up (DSU) Coverage** | A delayed transformer, generator, cooling system, or utility connection can push back project completion and create significant financial consequences.<br><br>In many cases, replacement timelines for specialized equipment may exceed policy assumptions or restoration periods. | · Review waiting periods and coverage limits.<br>· Compare policy assumptions to actual replacement timelines.<br>· Understand utility-related exclusions.<br>· Evaluate dependence on single suppliers or custom-built equipment.<br>· Consider contractual obligations that may continue even if DSU coverage applies. |
| **Environmental Liability Coverage** | Community concerns about environmental impacts, water use, traffic, noise, emissions, and increased power usage and utility cost are becoming common around large data center developments. These issues can create liability, permitting challenges, and project delays. | · Align coverage and limits with site-specific environmental risks.<br>· Understand exclusionary language related to contractual liability, known pollution conditions, and warranty/guarantees.<br>· Incorporate environmental risk with broader project risk management efforts. |
| **Completed Operations & Operational Transition** | Risk does not end when construction is complete. As facilities move from construction into operation, responsibility can become blurred between contractors, owners, operators, and technology vendors. Warranty obligations, service agreements, and completed operations exposures can create liability long after project turnover. | · Align completed operations coverage with warranty periods and ongoing obligations.<br>· Clearly define responsibility during handoff and startup phases.<br>· Understand how operational and construction-related coverages interact.<br>· Review long-term service agreements for uninsured obligations. |

## BUILDING THROUGH COMPLEXITY

Data center construction is pushing traditional construction project insurance program structures beyond what they were designed to handle. Project teams need partners that understand how construction risk, operational responsibility, contracts, and insurance programs intersect across the full lifecycle of a build.

- The firms best positioned to navigate this environment will take a more integrated approach to risk management by:
- Aligning contracts with project delivery structures
- Clarifying operational responsibility early
- Building insurance programs around project exposure
- Planning proactively for supply chain, workforce, utility, and environmental disruption
- Treating risk management as a strategic part of project execution

EPIC Construction & Design works with contractors, design firms, developers, and project stakeholders to help structure and manage risk across complex projects, from insurance strategy and contract review to operational risk planning and project-specific coverage design.

[1] ConstructConnect "March 2026 Data Center Report: Year Begins with Record Construction Starts," March 4, 2026.
[2] Allianz Commercial, "The Data Center Construction Boom: Emerging Risk Trends in the Global Buildout," November 2025.
[3] International Energy Agency "Energy Demand from AI," Accessed on May 17, 2026.
[4] Sightline Climate "Q1 Data Center Outlook," February 2026.
[5] Quartz "A data center went from $7 billion price tag to $16 million. It's no exception," May 8, 2026.

## *Ready to be* EPIC*?*

We bring a more specialized perspective to your risk strategy.

**Jonathan Wheat**
Risk Management
Jonathan.Wheat@epicbrokers.com
Direct (510) 691-8994

© 2026 Edgewood Partners Insurance Center. All rights reserved. | CA License 0B29370