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Navigating the Data Center Construction Boom: Key Takeaways From Troutman Pepper Locke's Three-Part Webinar Series

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KEY POINTS

- Available near-term power is the most important consideration in data center site selection, with projects requiring hundreds of megawatts or even gigawatts amid growing grid congestion and interconnection delays.
- Air permitting is a critical-path issue for data centers containing emitting structures, with permit timelines ranging from months to years depending on the permit category and jurisdiction.
- Lenders require a bankable project and evaluate four key factors: power and interconnection availability, creditworthiness of all parties, project budget and capital timing, and future revenue stability — with hyperscaler tenants providing significantly more lender comfort than less established counterparties.
- Supply chain constraints on critical components — including transformers, switchgear, GPUs, and generators — are driving sourcing creativity, such as developers placing deposits and entering reimbursement agreements with hyperscaler tenants well before leases are finalized.
- With approximately 3,000 data center projects projected in the U.S. through 2030, labor shortages and schedule pressure are structural features of the current market, necessitating flexible contract pricing, phased construction strategies, and robust risk allocation and dispute resolution provisions.

Global data center investment is projected to reach $6.7 trillion by 2030, including $2.7 trillion in the U.S. Troutman Pepper Locke recently concluded a three-part series examining the legal, financial, and operational complexities of the booming data center construction industry. The series brought together practitioners from the firm's construction, real estate, energy, and environmental groups to address all aspects of data center development, including power and energy considerations, site selection, permitting, financing, construction execution, and risk allocation. We are pleased to highlight key themes and practical takeaways from the series.

POWER AS THE THRESHOLD ISSUE

The name of the data center construction game is "speed to power." The ability to source or generate near-term power is the single most important consideration for data center projects, with such projects requiring hundreds of megawatts or even gigawatts. Surging demand is colliding with structural limitations in the U.S. electricity system, driving stakeholders toward alternative power solutions to meet strict project deadlines.

- Available near-term power is the single most important consideration in data center site selection.
- The traditional model of generation, transmission, and distribution is under strain, with grid congestion, interconnection queues, and the need for significant infrastructure upgrades emerging as major bottlenecks.
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Stakeholders are turning to hybrid solutions, such as behind-the-meter generation and on-site renewables, to reduce grid dependence, with some operators pursuing fully off-grid projects to bypass interconnection delays entirely.

THE PERMITTING LANDSCAPE

Data centers present a fundamental tension between an industry requiring incredible speed to market and a complex regulatory framework. The resulting challenges are multifaceted, highly jurisdiction-specific, and capable of creating critical-path delays if not addressed at the outset.

- Many data centers contain emitting structures, requiring major or minor air permits. Obtaining the requisite air permits can take months or even years depending on the permit category, making it a critical item to build into project development and scheduling from day one.
- Recent Environmental Protection Agency (EPA) guidance and a proposed rulemaking clarify that federal rules prohibiting construction without an air permit apply only to construction of emitting activities, which may provide flexibility for data centers to proceed with the construction of nonemitting aspects of their facilities.
- Permit challenges are low-frequency but high-consequence — consequences can range from a modest delay during the pendency of a challenge to project suspension if the necessary permits are rejected or pulled.
- County-level permitting has become just as important, with local governments finding creative ways to regulate data center development (*g.*, road-use authority, special-use permits, and constitutional powers tied to water bodies, etc.).
- Most states define a public utility as any entity that owns or operates generation, transmission, or distribution assets for service to the public or for compensation. As a result, self-generating data centers risk classification as public utilities under state law if commercial arrangements are not carefully structured to fit within available exceptions.

COMMUNITY OPPOSITION

Community opposition to data center projects is growing and reshaping the development landscape. Concerns center on environmental impacts, water consumption, air quality, and the cost to ratepayers of grid upgrades required to serve large loads. Opposition extends beyond the data centers themselves to the utilities building new generation to serve them, creating multiple paths through which community resistance can derail a project.

- Federal and state policymakers have introduced legislative measures targeting rising electricity costs, grid strain, environmental impacts, and tax incentives.
- Many local governments have gone further by exploring moratoria on data center construction.
- Environmental interest groups are becoming sophisticated opponents, leveraging air quality modeling, emissions control technologies, and other tools to challenge projects.
- Proactive engagement can help prevent opposition from crystallizing and reduce permit challenge risk. Some strategies may include publicly demonstrating project benefits, voluntarily conducting air quality modeling, and building relationships with local affected communities before permit applications are filed.

BANKABILITY AND THE BESPOKE CAPITAL STACK

Bankability in data center development turns on whether the project presents a credible path to power, revenue, completion, and repayment. Because these projects require substantial upfront commitments before revenue begins, financing structures must remain flexible while preserving lender protections.

- Lenders evaluate, at minimum, four key factors to assess a project's ability to generate sufficient returns to service debt: power and interconnection availability, the creditworthiness and capabilities of all parties, the project budget and timing of capital needs (*g.*, equipment, stored materials, equity sources), and future revenue stability.
- Lenders do not just evaluate the developer or contractor — they also look through to the end-user. A reputable hyperscaler tenant provides lenders significantly more comfort than a less established counterparty, particularly where the developer has an ongoing relationship with that tenant across multiple projects.
- Capital stacks are often tailored to bridge early power, equipment, and infrastructure costs before permanent financing or project revenue is available. For example, preferred equity or private credit may fund upfront costs, senior construction debt typically becomes available once conditions precedent are met (*g.*, power and tenant commitments are in place), and a permanent takeout loan replaces the construction debt once the project is complete.
- Project documents should include financeability protections from the outset, including assignment rights, notice and cure periods, lender accommodation language, and practical step-in rights.

COMPETING STAKEHOLDER EXPECTATIONS

Data center transactions involve an unusually large number of parties with legitimate interests in project completion, producing layers of inter-creditor complexity without a clear analog in traditional commercial construction. The resulting contractual structures must balance competing step-in rights across multiple stakeholder categories while maintaining practical executability.

- Hyperscaler tenants, lenders, and generation-side lenders all require step-in rights, creating overlapping claims that must be resolved before a default scenario forces the question.
- Lender accommodations should be obtained early in the documentation process, with agreements contemplating how step-in rights will actually be executed with engineering, procurement, and construction (EPC) contractors and equipment suppliers.
- Equipment financing decisions should be explored at the letter of intent (LOI) stage — deferring them to lease negotiation risks reopening deal economics after terms have already been agreed upon.
- Lease provisions that might trigger termination rights (particularly those tied to failure of power delivery) receive the highest lender scrutiny.

SUPPLY CHAIN CONSTRAINTS

Critical components (transformers, switchgear, graphics processing units (GPU), cooling systems, and generators) face lead times often exceeding one year. Increasing demand and constant schedule pressures have spawned creative procurement strategies and risk-sharing arrangements.

- Developers are purchasing components or placing deposits on equipment and materials well before sites are confirmed or build-to-suit leases are finalized.
- To manage risk, developers are turning to reimbursement agreements with hyperscaler tenants. Under these arrangements, the tenant agrees to reimburse the developer for equipment costs if the lease does not execute, and in exchange receives the right to take the equipment and redeploy it elsewhere.
- Force majeure provisions are being drafted to account for schedule delays due to supply chain issues and other events outside of the contractor's control.

THE LABOR MARKET INFLECTION POINT

With approximately 3,000 data center projects projected in the U.S. through 2030, the demand for electricians and other skilled trades is outstripping supply at a pace that may have a dramatic near-term impact on project delivery. Data centers are drawing skilled workers from other project types, intensifying cross-sector competition.

- Trade partners command better margins for supplemental workforces than in a balanced market, and construction managers are seeking greater flexibility in contingency use to absorb labor cost escalation.
- Schedule planning and contract pricing must account for labor constraints as a structural feature of the current market rather than a temporary anomaly.

CONSTRUCTION PHASING AND EXECUTION

Phasing provides owners with flexibility to manage risk exposure, accommodate evolving tenant requirements, and align expenditures with revenue. The typical approach involves an initial contract for core and shell with subsequent phases triggered as tenant commitments materialize. The intense schedule pressure on data center projects creates a construction environment distinct from other commercial real estate sectors.

- Phasing allows developers to tie liquidated damages to components with actual rent abatement exposure and deploy multiple builders, but carries operational risk if subsequent phases fail or power delivery falls short while tenants are already in occupancy.
- Structuring each phase under separate ownership entities with standalone documents facilitates independent financeability, saleability, and valuation.
- Mid-construction design changes (*g.*, converting air-cooled suites to water-cooled for a late-signing tenant) are common and require construction partners willing to adapt without impacting completion dates. Contractors faced with in-construction changes and strict schedule obligations must remain flexible.

RISK ALLOCATION AND DEFAULT

Schedule is the number one risk across all stakeholder categories. The financial consequences of delay create enormous pressure to maintain completion dates. Contractual negotiations over force majeure, utility delay, and budget provisions are among the most intensely contested in data center agreements.

- Force majeure clauses are highly negotiated because developers seek credit for every day of delay while tenants resist minor claims that erode schedule certainty.
- Tenants typically demand guaranteed maximum prices with controls on contingency use and change order overruns.
- Contractor termination in a tight market is acutely disruptive; replacement contractors are difficult to find, and parties pushing for short cure periods to enable fast replacement face risk of wrongful termination claims.
- Interim dispute resolution provisions are being incorporated to keep projects moving through disagreements without work stoppages.

Troutman Pepper Locke attorneys continue to monitor developments across the data center industry and are well positioned to advise clients on power procurement strategies, permitting and regulatory challenges, financing structures, construction risk allocation, and the full range of legal issues shaping this rapidly evolving market.

This webinar series was made possible by the contributions of the following speakers: Jason Spang, Vaughn Morrison, Brandon Lobb, Carl Bivens, Mack McGuffey, Melissa Horne, Ben Cowan, Matt Dials, Cindy DeLisi,

and Shelli Willis. The series was moderated by Jamey Collidge. Resources from each session, including slide decks and recordings, are available below.

Session 1 – Rewriting the Rules: 2026 Data Center Contracting & Risk Allocation for AI-Driven Facilities
Access the slide deck here.
Access the recording here.

Session 2 – Rethinking Contracts, Risk, and Regulatory Strategy for 2026 and Beyond
Access the slide deck here.
Access the recording here.

Session 3 – Navigating Power, Capital, and Construction in Data Center Development
Access the slide deck here.
Access the recording here.

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