4 PILLAR FUNDING RESEARCH

FROM MEGAWATTS TO WORKING CAPITAL

The Financial Infrastructure Behind Texas' AI Data Center Buildout

THE REPORT IN ONE SENTENCE

At the market level, megawatts must be classified by what they represent. At the contractor level, working capital must be modeled by when costs are incurred, billed and collected.

Texas Infrastructure | August 2026

Prepared by 4 Pillar Funding Research

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Executive Summary

Texas is planning for prospective electricity demand far beyond the scale its current grid was built to serve. ERCOT's preliminary long-term forecast reaches approximately **367.8 GW by 2032**, compared with a preliminary all-time system peak of approximately **91.1 GW on July 22, 2026**. The peak may change slightly through settlement. The 2032 figure is a planning forecast, not a committed buildout: ERCOT is still identifying, verifying and studying large new loads.[1][2]

The distinction matters because Texas now has several different measures of data-center and large-load demand. Oncor reported approximately **282 GW of data-center-related transmission interconnection requests** at June 30, 2026. Separately, management expected approximately **44 GW of large-load requests** to be eligible for Batch Zero treatment as base or studied load, including roughly 8 GW of existing interconnected load ramping toward authorized capacity. CenterPoint reported more than **17 GW submitted into Batch Zero** and approximately **14 GW expected by management to be eligible as base or studied load**. These are differently defined system views, not conversion ratios. As of August 11, 2026, ERCOT had not published an official statewide aggregate of final Batch Zero classifications in the public materials reviewed for this report.[4][5][6]

Project evidence also varies. Vantage says construction has begun on its planned 1.4-GW Frontier campus, while Meta says its 1-GW El Paso campus is under construction. DataBank first financed three fully leased 60-MW buildings at Red Oak, then increased total construction financing to approximately $2.65 billion for a fourth building within the planned 480-MW campus. Other developments remain announcements, registered projects or construction-filed scopes. The report therefore uses an Observable Execution Evidence Framework rather than a statewide MW funnel. It measures the public record - sponsor statements, filings, financing, construction and phased operation - without converting incomplete disclosure into a probability of completion.[9][10][11][12]

The physical opportunity extends beyond the data hall. For many campuses, transmission, substations, generation, site development, equipment procurement and onsite construction proceed in parallel. Oncor says a group of endorsed North and Central Texas transmission projects is expected to require more than **$7 billion** of investment during 2026-2034. CenterPoint increased its whole-company 2026-2035 capital plan to **$66.7 billion**, citing accelerating Houston large-load demand as one driver. AEP Texas reports letters of agreement supporting up to **41 GW of potential new load through 2030**, alongside nearly 100 transmission projects spanning approximately 2,800 miles. These programs serve system reliability, manufacturing, energy development and other forms of growth as well as data centers. Their relevance is not that every dollar belongs to AI, but that large-load development is now influencing a broader power-infrastructure cycle. For contractors, that creates opportunity both inside campuses and in the transmission, substation, generation and equipment systems required to serve them.[5][6][7]

Inside the campus, an indicative Turner & Townsend benchmark assigns approximately **76% of air-cooled construction cost and 81% of liquid-cooled construction cost** to electrical and mechanical systems combined. The percentages are not universal project ratios, but they explain why the buildout is especially relevant to electrical and mechanical contractors, power-equipment suppliers, modular infrastructure businesses, utility contractors and specialty manufacturers.[17]

Public filings establish the contractor-level cash mechanics. Contractors can incur labor, equipment and subcontractor costs before collections arrive. Contract assets, receivables and retainage can hold cash at

different stages, while bonds and letters of credit can consume financial capacity. The same filings show the counterpoint: customer advances, milestone billing and favorable early billing can materially reduce the contractor-funded cash requirement.[18][19][20][21][22]

The corrected 4 Pillar Backlog-to-Liquidity Model holds constant a hypothetical **$10 million, 15-month project** awarded to a hypothetical **$25 million contractor** and changes the project and contract terms. The favorable profile produces **no modeled month-end project-cash deficit**. The balanced profile reaches approximately **$0.50 million in Month 7**, fully covered by the company's assumed **$1.40 million of usable liquidity**. Intermediate profiles produce approximately **$0.72 million to $1.38 million** of peak deficit. A deliberately combined downside stress case reaches approximately **$3.53 million**, leaving a residual external funding gap of approximately **$2.13 million** after the liquidity overlay.

The model does not show that a $10 million award inherently requires financing. It shows that contract value alone is insufficient to estimate working-capital need. Project scope, cost timing and contract terms determine how much capital is required, when and for how long. The result is a capital-planning framework, not a presumption that every award requires debt.

> Model the cash terms of the backlog before you finance the backlog.

I. Texas' Headline Megawatts Measure Different Things

The Texas data-center market is often described through very large numbers. The problem is not necessarily the numbers; it is treating unlike measures as one pipeline. A service request describes a utility process. A sponsor announcement describes intent. Gross site power, interconnection capacity and critical IT load can refer to different electrical boundaries. Construction and energization add still different forms of evidence.

Measure	What it can establish	What it does not establish
Requested or submitted load	A developer or customer has entered a utility or planning process	Construction, customer financing or eventual energization
Base/studied load	A planning classification under the applicable ERCOT process	Project completion or a guaranteed energization date
Announced campus capacity	Sponsor-stated ultimate or phased ambition	Near-term operating capacity
Construction-filed scope	Formal public evidence of a building or project scope	That work began on the scheduled date
Active construction	Physical project execution is underway	Completion of all planned phases
Energized or operating capacity	Defined infrastructure or computing capacity is in service	Completion of future expansion or conversion scope

ERCOT's preliminary **367.8-GW** forecast belongs in this taxonomy. It indicates the scale of demand planners are being asked to evaluate; it is not a project list.[2]

Oncor's Q2 disclosure provides the clearest utility example. The company reported 737 active large-commercial-and-industrial interconnection requests, including approximately 282 GW associated with

data centers. It separately expected approximately 44 GW of large-load requests to be eligible as Batch Zero base or studied load, including approximately 8 GW of existing interconnected load ramping toward authorized capacity. Oncor also held approximately $2 billion of large-load customer collateral related to Batch Zero projects, within approximately $5.9 billion of collateral across active generation and large-load point-of-interconnection requests.[5]

Those figures show different levels of planning and financial commitment. Site control, financial security and study maturity can make a load more useful for system planning, but they do not establish that 44 GW will be built on a particular schedule. Nor do they support a percentage comparison with the 282-GW data-center request universe, which is defined differently.

CenterPoint reported more than 17 GW submitted into Batch Zero and approximately 14 GW expected by management to be eligible as base or studied load. The company noted that 14 GW would equal more than 65% of its current 21-GW Houston Electric peak. That comparison illustrates planning consequence, not an ERCOT-certified construction forecast.[6]

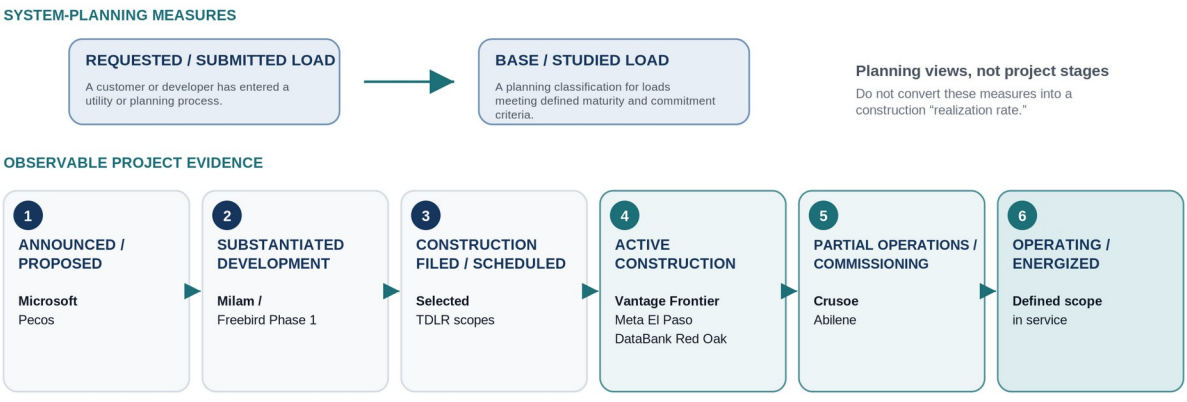
Batch Zero is designed to give ERCOT a more structured view of qualifying large loads, allocate study treatment and identify the transmission implications of serving them. It does not determine which developments ultimately obtain financing, complete construction or reach their announced capacity. ERCOT set an August 7 classification-notification deadline and said public aggregate statistics would follow as data became available. No official statewide aggregate located in the reviewed public materials had superseded the utility disclosures as of the report date.[3][4]

For operators, the implication is disciplined rather than bearish. A headline megawatt can inform market monitoring and long-range planning. It should not be treated as construction-ready demand without evidence of physical and commercial commitment.

FIGURE 1

From Market Demand to Observable Execution Evidence

System-planning measures and project-evidence stages answer different questions.



Source / methodology: 4 Pillar Observable Execution Evidence Framework using ERCOT, utility, company and TDLR records. Selected examples are illustrative, not a statewide project census.

II. From Market Demand to Observable Execution

The Observable Execution Evidence Framework classifies what an outside analyst can verify. It does not predict whether a project will succeed. A project with limited public disclosure may be more mature than the record suggests; a detailed announcement can still describe capacity delivered in phases over many years. Private power arrangements, tenant commitments and financing can remain confidential. The framework is therefore a discipline for handling evidence, not a substitute for developer diligence. Its purpose is to prevent the public record from being read more confidently than the evidence allows.

Announced or proposed. Microsoft says its Pecos campus could add approximately 2 GW over five to seven years and that it will fund onsite generation and supporting infrastructure. That is consequential sponsor and power-strategy evidence, not 2 GW of current construction or near-term contractor backlog.[13]

Substantiated development. OpenAI selected SB Energy to build and operate a previously announced 1.2-GW Milam County site. A TDLR record identifies Freebird Data Center Phase 1, OpenAI as tenant, four data halls, 548,950 square feet and a $470 million estimated construction cost. The registered filing establishes a defined development and building scope; it does not prove physical construction began on the scheduled date.[15][16]

Construction filed or scheduled. TDLR records can establish owner, location, scope, estimated cost and scheduled timing. They are stronger than unsourced project lists, but the estimated cost is not total campus investment and a scheduled date is not a site inspection. Multiple campus filings should not be added until separate buildings, revisions and overlapping phases are reconciled.[16]

Active construction. Vantage says construction has begun on its planned 1.4-GW, ten-building Frontier campus. Meta says its 1-GW El Paso campus is under construction. DataBank first secured $2.0 billion for three fully leased 60-MW buildings at Red Oak, then increased total construction financing to approximately $2.65 billion for a fourth 60-MW building. Leased phases, defined scope and construction funding provide stronger evidence than an ultimate campus announcement, while still falling short of guaranteed full-campus completion.[9][10][11][12]

Partial operations with continuing construction. At Crusoe's original Abilene campus, the first two 100-MW buildings were energized while six additional buildings remained under construction toward the original 1.2-GW scale. Site preparation then began for a separate adjacent 900-MW Microsoft campus. The entire projected 2.1 GW is not operating, but Abilene is no longer merely proposed.[14]

The report does not present a statewide MW funnel because project-level capacity disclosure is incomplete and often inconsistent. Public values may refer to gross campus power, critical IT load, interconnection capacity, associated generation, energized site capacity or ultimate site capacity. Existing mining campuses add another complication: energized site infrastructure can coexist with a much smaller contracted AI block. A quantitative funnel built from those measures would obscure more than it clarifies. The defensible output is a sourced evidence framework and a curated set of examples.

III. The Infrastructure Extends Beyond the Data Hall

The Texas AI infrastructure opportunity is often framed as campus construction. The physical system is broader.

For many projects, generation, transmission, substations, interconnection work and protection systems develop in parallel with site work, equipment procurement and onsite construction. Behind-the-meter projects can change the sequence, but not the need for generation, switching, controls and electrical construction.

Oncor says ERCOT-endorsed projects serving portions of southern DFW, the I-35 corridor and related areas are expected to require more than **$7 billion** of investment between 2026 and 2034. Those projects support system reliability and broader customer growth as well as large loads.[5]

CenterPoint increased its whole-company 2026-2035 capital plan by $1.2 billion to **$66.7 billion**, citing accelerating Houston large-load demand and revised Downtown Houston estimates. The total is not data-center capex; it shows large-load growth influencing a broader utility portfolio.[6]

AEP Texas reports letters of agreement supporting up to **41 GW of potential new load through 2030**. Its federally supported portfolio includes nearly 100 projects and approximately 2,800 miles of new or rebuilt transmission serving data centers, advanced manufacturing, generation and Permian Basin activity. Large-load development is one driver of this parallel power-infrastructure cycle.[7]

For lower-middle-market companies, the addressable ecosystem includes:

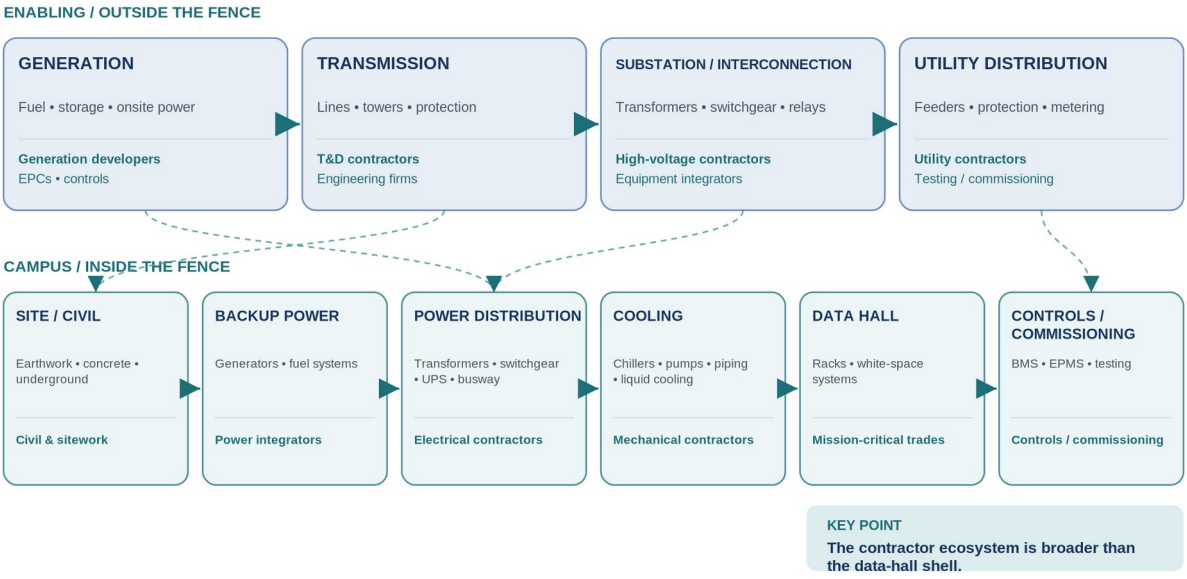
- transmission and substation contractors;
- high-voltage electrical firms;
- transformer, switchgear and controls suppliers;
- civil, underground and concrete contractors;
- backup-power and modular-infrastructure integrators;
- mechanical and cooling firms;
- commissioning and protection-system specialists;
- equipment rental, logistics and skilled-trades staffing providers.

Direct hyperscale packages often require national scale, substantial bonding, deep safety and data-center experience and the ability to manage long-lead equipment. Many lower-middle-market firms will therefore participate through utility programs, repeatable specialty packages, regional subcontracting, fabrication or distribution rather than as campus primes. Those opportunities can be substantial even when the company never contracts directly with the hyperscaler: a substation package, modular electrical assembly or regional civil scope can still represent a step-change in backlog. The more relevant question is often which companies sit beneath the prime, support infrastructure around the project or supply the equipment and labor on which larger contractors depend.

FIGURE 2

The Data Center Is Only the Center of the Infrastructure System

Enabling infrastructure and campus construction often develop in parallel.



Source / methodology: 4 Pillar synthesis based on ERCOT and utility planning disclosures, sponsor project disclosures and data-center construction benchmarks.

IV. Why Electrical and Mechanical Systems Matter

Data centers differ from ordinary commercial projects in the concentration of physical cost inside power and thermal systems.

Turner & Townsend's 2025 analysis provides an indicative U.S. comparison. Electrical systems account for approximately 54% of construction cost and mechanical systems 22% in its air-cooled benchmark; the liquid-cooled benchmark assigns 48% to electrical and 33% to mechanical. The two categories represent approximately 76% and 81%, respectively.[17]

Indicative cost category	Air-cooled	Liquid-cooled
General conditions / fees	10%	10%
Core, shell and architectural	14%	9%
Mechanical, including equipment	22%	33%
Electrical, including equipment	54%	48%

The benchmark is not a Texas project budget. It reflects the report's specified U.S. facility assumptions and excludes land, utility works and active IT equipment. Designs vary in density, redundancy and cooling architecture. The narrower conclusion is that a substantial share of physical data-center construction cost can sit in electrical and mechanical systems.[17]

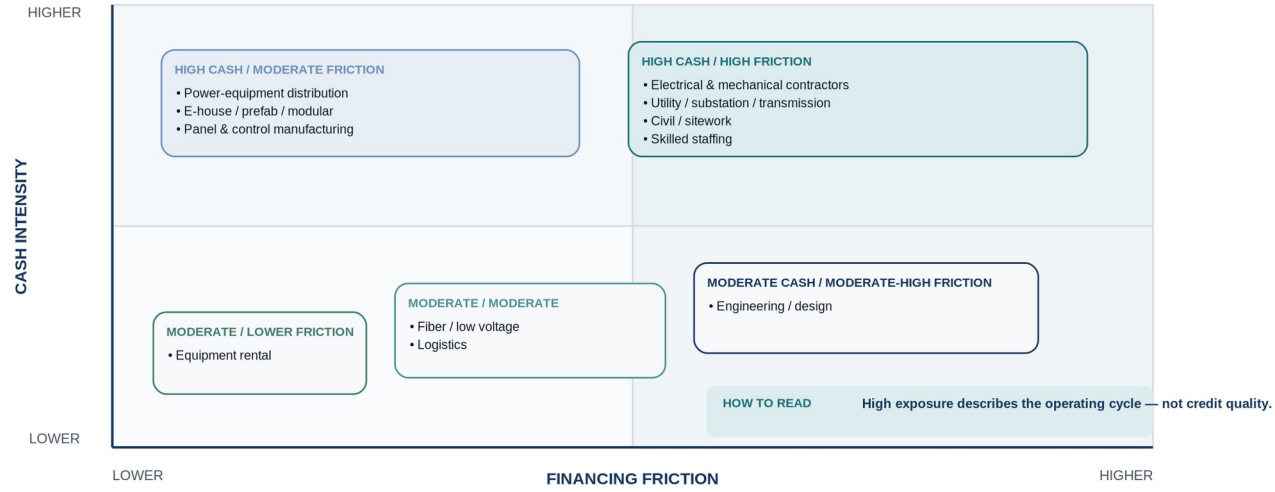
That makes the sector relevant to businesses combining skilled labor, early or long-lead equipment commitments and billing that may follow cost incurrence. It does not make every award cash intensive. Major equipment may be owner-furnished; advances and milestones may fund early costs; supplier terms may bridge procurement; and some assets may support conventional collateral financing.

The useful framework is qualitative. **Cash intensity** asks how much project cash is committed before collection. **Financing friction** asks how readily the resulting assets and obligations can support outside capital. A payroll-heavy staffing firm may have little hard collateral despite a short operating cycle. An equipment distributor may carry more inventory but also have supplier credit and financeable assets. An electrical contractor can face both project cash intensity and additional bonding, concentration and billing constraints.

FIGURE 3

Cash Intensity vs. Financing Friction

A qualitative operating framework — not a credit score or statistical ranking.



Source / methodology: 4 Pillar qualitative analysis informed by public contractor filings, equipment/manufacturing disclosures and the cash-conversion mechanics described in the report.

V. When Backlog Becomes a Balance-Sheet Event

Public filings establish the cash-conversion mechanism without treating any public company as a representative $25 million contractor.

Comfort Systems provides the clearest description. At year-end 2025, it had 8,427 projects in process, with an average duration of six to nine months. Comfort states that projects generally require working-capital funding for equipment and labor and that periodic customer payments often do not recover those costs until late in the job. It also notes that beginning large volumes of work can increase working-capital needs because labor, equipment and subcontractor costs are paid before related receivables are billed and collected.[18]

The accounting sequence matters. A **contract asset** generally represents revenue recognized for performance that is not yet unconditionally billable. Once the billing right becomes unconditional, the amount can move into **accounts receivable**. **Retainage** is an earned or billed amount withheld until later milestones, completion or acceptance. A **contract liability** generally reflects billing in excess of recognized revenue, often because the contract permits an advance or early milestone billing. None of these balances, standing alone, reveals when cash will move or whether the underlying project is profitable.

> Contract assets are not accounts receivable, contract liabilities are not necessarily collected cash, and either balance can move for reasons other than a project's underlying profitability.

Quanta reported approximately $1.52 billion of contract assets and $3.26 billion of contract liabilities at year-end 2025. It explains that some contracts permit upfront or milestone billing and that these structures can support working-capital requirements that are generally higher early in a contract. Quanta also reported approximately $994 million of retainage expected to settle within one year, another $229 million expected beyond one year and approximately $1.10 billion of unbilled receivables.[19]

EMCOR reported approximately $945 million of billed retainage receivables at year-end 2025. MYR Group explains that larger transmission and distribution projects require financial resources for cash flow, bonds and letters of credit, and that those assurances may restrict or consume bank and surety capacity.[20][21]

These balances are not magnitude benchmarks for lower-middle-market companies, and their ratios should not be transferred into the model. They establish that the categories and financing frictions exist in the same electrical, mechanical and infrastructure sectors discussed here.

The evidence is also two-sided. Powell Industries says favorable milestones often allocate a significant portion of progress billing to early contract stages, with payment generally expected within 30 days after invoice. Quanta describes upfront and milestone billing that can support early working-capital needs. Comfort's 2025 operating cash flow included an approximately $878 million benefit from changes in billings in excess of costs and deferred revenue, partly offset by an approximately $779 million decrease in accounts payable and other current liabilities.[18][19][22]

A contract liability can reflect a favorable billing position without representing collected cash. An early invoice may still face approval and collection risk. An advance may be recouped or bonded. Supplier terms can support the project without creating a funded loan, while retainage can defer cash after ordinary progress billing has been collected. Even so, the filings show that similar awards can have different cash profiles: one may require the contractor to fund substantial costs before collection, while another allows customers and suppliers to support more of the early cycle.

The cash path is:

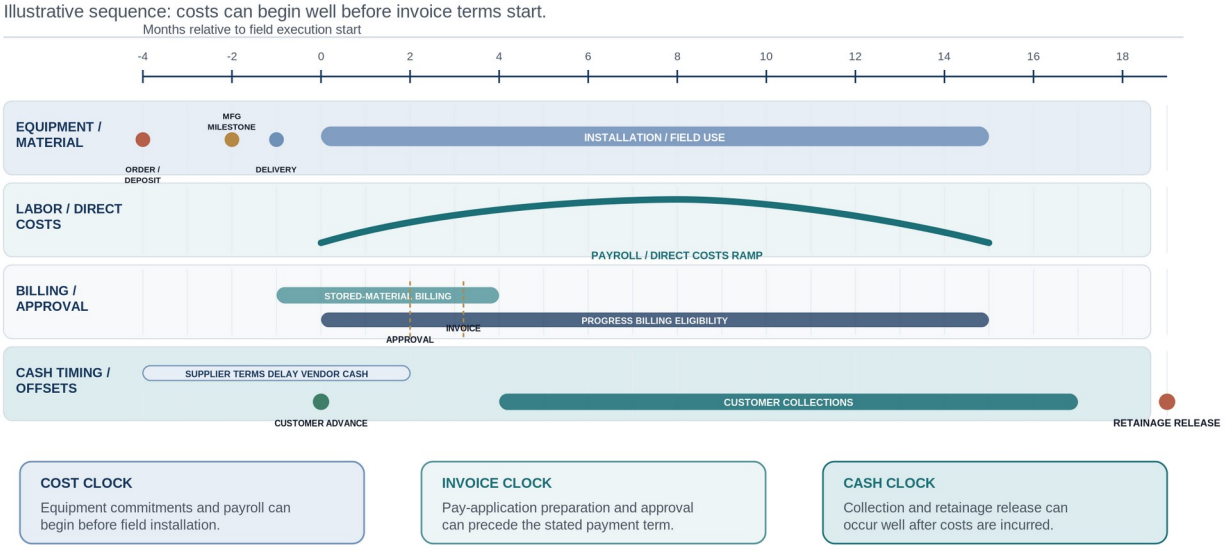
scope and award -> procurement and labor -> billing eligibility -> pay application and approval -> invoice -> cash collection -> retainage release.

Each step can create a timing gap or a contractual offset.

FIGURE 4

When Project Economics Become Cash Commitments

Illustrative sequence: costs can begin well before invoice terms start.



COST CLOCK
Equipment commitments and payroll can begin before field installation.

INVOICE CLOCK
Pay-application preparation and approval can precede the stated payment term.

CASH CLOCK
Collection and retainage release can occur well after costs are incurred.

Source / methodology: 4 Pillar framework informed by Comfort Systems, Quanta, EMCOR, MYR and Powell SEC disclosures. Timing is illustrative and not a universal project schedule.

VI. Same $10M Award, Six Different Project-Cash Profiles

The 4 Pillar Backlog-to-Liquidity Model asks one narrow question:

> For the same hypothetical $10 million project awarded to a hypothetical $25 million contractor, how can project scope, cost timing and contract terms change the timing and size of the project-level cash deficit?

The model assumes a 15-month project, $8 million of direct project cost and $2 million of gross profit. It calculates cash by month rather than applying a working-capital percentage to contract value. The timing engine separately models project progress, labor and subcontractor cash costs, equipment order and payment events, supplier terms, stored-material billing, approval, collection, customer advances, retainage and owner-furnished equipment.

Three definitions are critical:

- **Peak modeled project-cash deficit:** the largest negative cumulative month-end project-level cash position.
- **Assumed usable liquidity:** eligible cash and borrowing capacity assumed available for the incremental project after the model's liquidity overlay.
- **Residual external funding gap:** peak modeled project-cash deficit less assumed usable liquidity, floored at zero.

The peak deficit is not automatically financing required. The company may have enough internal capacity to absorb it. The liquidity overlay therefore separates the project cash trough from the cash and

borrowing capacity assumed to be genuinely usable after minimum cash, borrowing-base limits, letters of credit and other committed uses.

> **MODEL SCOPE**
>
> This is a hypothetical, monthly, project-level illustration - not an industry benchmark or company forecast. It excludes intra-month peaks, corporate overhead, taxes, debt service, base-business cash needs, concurrent projects, change-order disputes, claims, margin erosion and project losses.

The six profiles

Contract profile	Peak modeled project-cash deficit	Peak month	Assumed usable liquidity	Residual external funding gap
Favorable	No modeled month-end deficit	-	$1.40M	$0
Balanced	~$0.50M	7	$1.40M	$0
Weak supplier credit	~$0.72M	7	$1.40M	$0
Procurement heavy	~$1.27M	7	$1.40M	$0
Payment delay	~$1.38M	8	$1.40M	$0
Combined downside stress	~$3.53M	9	$1.40M	~$2.13M

The **favorable** profile combines a 10% customer advance, 60-day supplier terms, strong stored-material billing, rapid approval, 30-day customer payment and no retainage. It produces no negative month-end project-cash position. That does not establish that the contractor needs no corporate or intra-month liquidity; it shows how favorable terms can eliminate the modeled month-end deficit.

The **balanced** profile uses a 5% advance, 45-day supplier terms, partial stored-material billing, a 15-day approval lag, 45-day payment and 5% retainage. Procurement begins before the formal execution curve, the cumulative project position turns negative in Month 4 and peak modeled deficit reaches approximately **$500,000 in Month 7**. The project returns to a positive cumulative cash position in Month 11, with modeled retainage collected later. The hypothetical company's assumed $1.40 million of usable liquidity covers the deficit, so the project creates **no modeled residual external funding gap**.

Under **weak supplier credit**, shortening supplier terms to 30 days raises the peak deficit to approximately **$720,000**. Under **procurement-heavy** terms - more long-lead material, earlier orders, larger deposits and no stored-material billing - it rises to approximately **$1.27 million**.

Under **payment delay**, balanced procurement is paired with 30-day pay-application approval and another 60 days from invoice to cash. The peak reaches approximately **$1.38 million in Month 8**. A contract advertised as "Net 30" or "Net 45" can therefore have a longer cost-to-cash cycle if the invoice clock begins only after pay-application preparation and approval.

The **combined downside** profile is a stress case, not an expected or typical result. It combines procurement-heavy scope, 30-day supplier terms, no advance, no stored-material billing, 45-day approval, 75-day payment and 10% retainage. Peak modeled deficit is approximately **$3.53 million in**

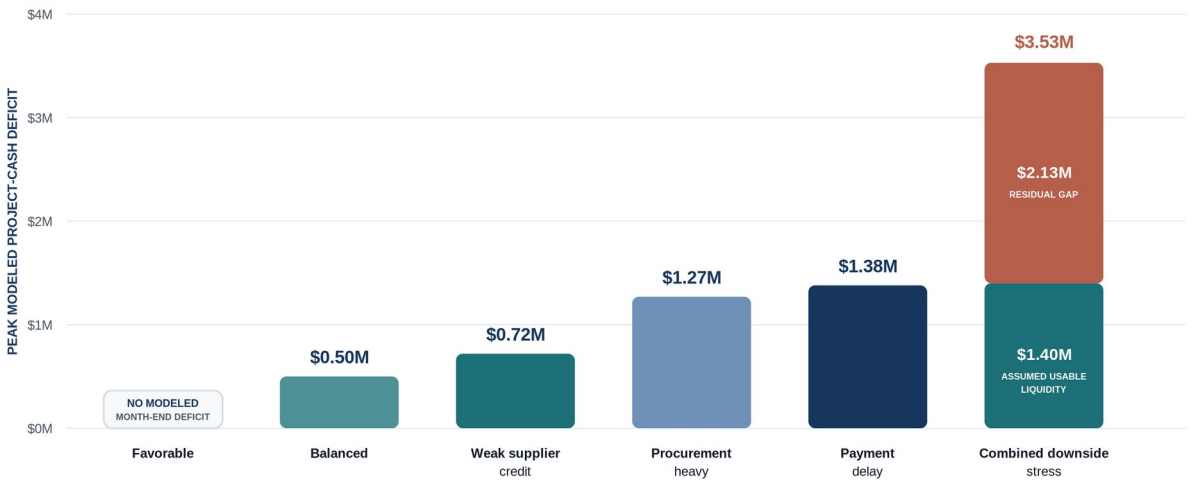
Month 9. After $1.40 million of assumed usable liquidity, the residual external funding gap is approximately **$2.13 million**.

The project value and modeled gross profit are unchanged across all six profiles. The scope and timing assumptions are not. The difference is produced by when equipment is ordered and paid for, when work becomes billable, how long approval takes, when customer cash arrives and what remains in retainage. That is why the model compares project-cash profiles rather than assigning a universal liquidity percentage to backlog.

FIGURE 5

Same $10M Award, Six Different Project-Cash Profiles

The project value is unchanged. Procurement, billing, approval, payment and retainage terms are not.



MODEL TAKEAWAY **Project value is unchanged. The project-cash profile changes by more than $3.5M.**

Illustrative project-level model for a hypothetical $25M contractor. Results are not industry averages. The model excludes intra-month peaks, corporate overhead, taxes, debt service, base-business cash needs, concurrent projects, change-order disputes, claims, margin erosion and project losses.

What moves the balanced model

Sensitivity analysis varies one input at a time around the balanced profile. The results show the **effect on peak modeled project-cash deficit across the tested ranges in this illustrative scenario**; they are not a universal contractor ranking.

Variable	Tested range	Effect across tested range
Customer payment lag	30-75 days	~$1.25M
Pay-application / approval lag	0-45 days	~$1.25M
Customer advance	0%-10%	~$0.76M
Supplier terms	30-60 days	~$0.44M
Equipment deposit	0%-30%	~$0.31M
Retainage	0%-10%	~$0.25M

Variable	Tested range	Effect across tested range
Owner-furnished material	0%-50%	~$0.21M
Stored-material billing	0%-80%	~$0.17M

Approval timing and payment timing are distinct. A stated payment term begins only after the contractor has earned the billing right, assembled the pay application and received approval. Each interval can leave similar project cost unrecovered for an additional period, and the effects compound when both are long. Owner-furnished equipment can also reduce contractor procurement exposure, although it may change contract value and revenue presentation; it is best treated as a project-scope variable rather than a headline statistic.

FIGURE 6

Effect on Peak Project-Cash Deficit Across Tested Ranges

One-variable sensitivities around the Balanced illustrative profile.

Source / methodology: Phase 9 sensitivity analysis around the Balanced illustrative profile. Ranking is scenario-specific and changes under different project structures.

> Contract value alone does not determine working-capital need. Project scope, cost timing and contract terms determine how much capital is required, when and for how long.

VII. Contract and Capital Diligence Before a Transformative Award

The financial analysis should begin before a lender term sheet. Better billing rights, procurement responsibility or approval timing can reduce the residual funding gap before debt is added.

Contract term or scope item	Why it matters	Question for the CFO
Customer advance	Reduces early contractor-funded cash; may later be recouped or bonded	How much is received, when, what may it fund and how is it recouped?
Equipment responsibility	Determines whether major procurement sits on the contractor's balance sheet	Which equipment is owner-furnished, contractor-procured or vendor financed?
Equipment milestones	Can move cash outflow months ahead of installation	When are deposits, manufacturing milestones and delivery payments due?
Stored-material billing	May create a billing right before installation	Which materials qualify, when does title transfer and when is cash collected?
Supplier terms	Can provide working-capital support	What are the actual invoice-to-payment terms and supplier credit limits?
Pay-application / approval	Can add time before the invoice term begins	How long from billing eligibility to approved invoice?
Customer payment	Determines invoice-to-cash timing	What is the realistic collection period, including historical behavior?
Retainage	Defers a portion of collection beyond ordinary progress billing	What percentage applies, to which billings and when is it released?
Change orders and claims	Can create costs before the billing right is approved	Who bears cost while scope and price are disputed?
Bonds and letters of credit	Can consume surety or bank capacity without an operating draw	What assurances are required, and what collateral or availability do they consume?

Before accepting a transformative award

1. **Build monthly project cash flow.** Model cash, not only revenue and margin.
2. **Separate owner-furnished from contractor-procured equipment.**
3. **Map procurement and supplier cash dates.** Include order, deposit, manufacturing, delivery and payment terms.
4. **Map billing eligibility.** Identify what can be billed for mobilization, engineering, stored materials, milestones, installation and approved change orders.
5. **Model pay-application and approval lag.**
6. **Model invoice-to-cash timing.** Use actual customer behavior where available.
7. **Model retainage separately from ordinary collections.**
8. **Stress unfavorable variables in combination.**
9. **Determine assumed usable corporate liquidity** after minimum cash, borrowing-base limitations, LCs, base-business needs and other project commitments.
10. **Finance only the residual timing gap.**

A project deficit and an external funding gap are different measures. The balanced model reaches an approximately $500,000 project deficit but no residual gap under its liquidity overlay. Raising capital solely because the project reaches that trough would ignore the company's existing capacity. The combined downside profile, by contrast, creates a modeled gap after the same overlay. The objective is not to eliminate every use of cash; it is to identify the portion that the existing balance sheet cannot support safely.

VIII. When Outside Capital Is Actually Needed

Once the residual gap is defined, the financing question becomes specific:

> Which part of the project's cash cycle needs to be financed, for how long, against what collateral and from what ultimate repayment source?

FIGURE 7

Match the Financing Structure to the Cash-Conversion Problem

No single product solves every stage of the project cycle.

CASH-CONVERSION PROBLEM	POTENTIAL CAPITAL STRUCTURE	KEY ELIGIBILITY LIMITATION	WHAT IT DOES NOT SOLVE
Slow collection of eligible billed receivables	Bank revolver • ABL • AR facility • selective factoring	Assignment restrictions • disputes • offsets • concentration • bonded receivables • progress-billing eligibility	Pre-invoice procurement or unapproved WIP
Long-lead supplier deposits	Working-capital line • structured facility • supplier finance • limited qualifying PO structures	Custom equipment • cancellation risk • performance obligations • limited financeable collateral	Permanent equipment ownership or poor contract economics
Eligible inventory or standardized WIP	ABL or inventory-backed facility	Advance rates • customization • obsolescence • ownership • borrowing-base exclusions	Non-eligible contract assets or payroll
Owned fleet and machinery	Equipment loan or lease	Appraised value • useful life • lien position • equipment eligibility	General operating liquidity
Payroll and mobilization	Revolver or growth working-capital facility	Corporate cash flow • covenants • repayment capacity	Long-term structural undercapitalization
Transformative award requiring multiple forms of capital	Layered revolver / ABL • equipment finance • supplier arrangements • selective term or private credit	Scale • cost • collateral overlap • intercreditor and covenant capacity	Weak margin • poor execution • speculative backlog
Restrictive or expensive existing debt	Refinancing or recapitalization	Payoff costs • collateral • leverage • lender appetite	An unprofitable project or unresolved operating weakness

STRUCTURING PRINCIPLE **Finance the timing gap with capital whose collateral, duration and repayment source match the underlying operating problem.**

Source / methodology: 4 Pillar capital-structure analysis. Actual availability depends on the borrower, contract terms, collateral, legal eligibility, concentration and lender criteria.

A new backlog award does not automatically expand a bank line. Backlog can support the credit case, but borrowing remains subject to collateral, covenants, concentration, lender approval, existing utilization and other obligations. In ABL, eligibility - not book value - drives availability; contract assets, retainage, progress billings, concentrated receivables, custom WIP and disputed amounts may be excluded, capped or specially conditioned. The legal right to assign receivables, customer offsets and bonding arrangements can matter as much as the receivable balance itself.

AR finance or factoring can address valid, assignable and undisputed billed receivables, but not necessarily pre-billing deposits or receivables affected by offsets, contingent payment, bonding or assignment restrictions. Retainage and contract assets may receive different or no borrowing-base

treatment. Purchase-order finance applies only in limited qualifying procurement situations and is often poorly matched to labor-intensive custom construction in which the lender cannot isolate a readily saleable finished good.

Private credit can provide flexibility, duration or additional leverage for a genuinely transformative event, but it is not the automatic answer after a bank. It may carry a higher cost, stronger covenants or transaction-size requirements that are disproportionate to the need. Some awards require a layered structure: a revolver for recurring project cash, equipment finance for owned assets and supplier arrangements for specific procurement. A conventional structure may solve the problem at lower cost and complexity. Capital should bridge a viable timing gap, not compensate for weak margin or poor execution.

IX. Risks to the Texas Buildout

Texas' infrastructure opportunity warrants disciplined skepticism. The risks differ for projects and for the companies executing them.

Risks to developers and project timing

Power and interconnection. Transmission studies, generation strategy, cost allocation and regulatory requirements can alter sequence and timing even when the sponsor remains credible. A delay can move equipment, labor and billing milestones without eliminating the eventual project. Contractors should understand who bears the cost of a delayed notice to proceed, stored equipment or deferred commissioning.

Phasing and resizing. Ultimate campus capacity is often delivered through multiple buildings and infrastructure phases. Later phases can be accelerated, deferred or redesigned. Awarded near-term scope should be separated from an owner's ultimate campus target.

Equipment, labor and design. Power-equipment constraints can pull procurement forward or delay milestones. A contractor may have committed deposits or production slots before the owner's schedule moves, making cancellation, storage and rescheduling terms financially important. Skilled-labor pressure can raise overtime, travel, housing and supervision costs. Changing rack density, cooling and modularization can also redistribute scope between field contractors and manufacturers.

Localized permitting and infrastructure. Water, generation emissions and community infrastructure can affect cooling design, permitting and timing, but do not support one statewide conclusion.

Risks to contractors and suppliers

Backlog quality and concentration. MYR cautions that backlog may be reduced by cancellation or scope adjustment and should not stand alone as a performance indicator. A strong counterparty may improve receivable quality while still concentrating payroll, procurement and approval risk. One delayed approval, disputed change order or design revision can affect a disproportionate share of the contractor's cash cycle.[21]

Margin and operating capacity. The model assumes its planned $8 million direct-cost budget is achieved. Labor inefficiency, rework, escalation and unapproved change orders can turn a timing problem into an economic loss. A contractor may also lack the supervisors, safety systems, labor pipeline

or procurement controls required for a step-change in scale. Liquidity cannot cure an unprofitable or operationally unmanageable contract.

Bonding and letters of credit. Project assurances can consume bank or surety capacity before cash is drawn. A stated revolver commitment may therefore overstate capacity available for working capital.[21]

Existing digital infrastructure. Riot, Cipher and Fermi illustrate why energized site power is not the same as operating AI critical IT load. Riot's Rockdale site has 700 MW of developed capacity, but its AMD deployment is a smaller defined critical-IT block; Corsicana similarly separates developed mining infrastructure from a new data-center build. Cipher's Black Pearl and Barber Lake combine energized electrical infrastructure with AI/HPC construction, contracted critical IT and phased future delivery. Fermi describes an ultimate 17-GW private-power concept while separately reporting early civil and power work, permits, equipment activity and financing. These are not interchangeable measurements. Each project must be tracked by the scope actually contracted, constructed and operating.[25][26][27]

> Finance defined, executable scope - not an undifferentiated headline pipeline.

X. Conclusion

Texas' AI infrastructure market is large enough that neither enthusiasm nor skepticism should substitute for classification.

At the market level, a requested megawatt, a planning-classified load, a construction-stage project and energized capacity are different things.

At the contractor level, contract value, backlog, peak project-cash deficit and available corporate liquidity are different things.

The same discipline applies to both: measure the evidence behind the demand, then measure how the contract converts costs into cash.

That is how an operator can pursue a major infrastructure cycle without confusing revenue opportunity with balance-sheet capacity.

> Model the cash terms of the backlog before you finance the backlog.

About 4 Pillar Funding

4 Pillar Funding works with established operating companies evaluating capital requirements around major growth events. It helps management teams model the timing and size of the cash requirement, assess existing liquidity and determine whether an appropriately matched capital structure is warranted.

Appendix A - Methodology

Public-source research

This report uses public primary sources wherever available, including ERCOT, Texas utilities, the Texas Comptroller, TDLR, company disclosures and SEC filings. High-quality industry benchmarking is used where no comparable public regulatory dataset exists.

The broader Texas project database was assembled from qualifying-data-center registrations and supplemented with project-specific company, utility, permitting, financing and construction records. It is not a comprehensive census of all Texas data centers and should not be used to estimate statewide installed or planned capacity.

Observable Execution Evidence Framework

The framework classifies public evidence rather than project quality or probability.

Category	Required public evidence	Permitted inference	Prohibited inference
Announced / proposed	Direct sponsor, developer or government announcement	A project concept has been publicly identified	Financing, physical start or ultimate completion
Substantiated development	Formal evidence beyond publicity, such as tax registration, site/development record or direct power/developer evidence	Development has advanced beyond a general concept	Construction or committed full-campus spend
Construction filed / scheduled	Project-specific TDLR or comparable permit/construction record	Defined building scope and scheduled timing exist	Physical work began as scheduled
Active construction	Direct primary-source confirmation of physical work underway	The defined scope is in physical execution	All planned phases will complete on schedule
Partial operations / commissioning	Direct evidence that a material phase is live or commissioning while broader build continues	Some capacity is operating	Ultimate campus capacity is operating
Operating / energized	Direct evidence that the defined scope is operational	The stated scope is in service	Future expansion is complete

The stages are not necessarily linear in public records. Utility and financial arrangements may remain confidential, and some equipment procurement may precede public construction filings.

Why no statewide MW funnel is presented

The research universe does not contain sufficiently complete, consistently defined project-level MW to calculate a defensible statewide stage funnel. Public values may refer to:

- utility service requests;
- interconnection capacity;
- gross campus power;
- critical IT load;

- associated generation;
- energized site capacity;
- or operating AI capacity.

These measures should not be added without reconciliation. The report therefore uses selected project examples and a qualitative evidence framework rather than manufacturing an apparently precise statewide result.

Construction-cost benchmark

The Turner & Townsend allocation is presented as an indicative U.S. benchmark under its stated assumptions and exclusions. It is not used as a project-level budget or contractor working-capital ratio.

Public-company evidence

SEC filings are used to establish that specific cash, accounting and financing mechanisms exist. Public-company balances and ratios are not treated as expected values for a $25 million contractor.

Appendix B - Phase 9 Model Assumptions and Methodology

Core model purpose

The model tests how the same hypothetical project can produce different project-level cash profiles under different scope, timing and contract assumptions. It is not an industry average, a lender underwriting model or a corporate forecast.

Central project

Input	Balanced assumption
Historical contractor revenue	$25.0M
Project value	$10.0M
Modeled direct project cost	$8.0M
Modeled gross profit	$2.0M
Project duration	15 months
Labor share	25% of project value
Material/equipment share	45%
Subcontractor share	7%
Other direct cost	3%

Balanced procurement and billing assumptions

Input	Balanced assumption
Long-lead share of contractor-procured material	50%
Procurement order lead	4 months before installation

Input	Balanced assumption
Manufacturing milestone lead	2 months before installation
Delivery lead	1 month before installation
Equipment deposit	10% of long-lead cost
Manufacturing milestone invoice	30% of long-lead cost
Supplier terms	45 days
Stored-material billing eligibility	40% of long-lead cost
Stored-material billing lead	1 month before installation
Pay-application / approval lag	15 days
Customer payment lag	45 days after approved invoice
Customer advance	5% of contractor cash contract
Retainage	5%
Retainage release	3 months after modeled completion/approval period

Balanced liquidity overlay

Input	Assumption
Cash balance	$700K
Minimum operating cash	$300K
Revolver commitment	$2.0M
Current revolver draw	$1.0M
Incremental borrowing-base availability	$1.0M
LCs / lender reserves	$0
Base-business liquidity reserve	$0
Other-project commitments	$0
Assumed usable liquidity	$1.40M

A real company should replace the zero base-business and other-project reserves with its actual requirements.

Timing engine

The active monthly progress curve is generated using normalized sine-based weights:

`weight(m) = sin(pi * m / (duration + 1)) ^ exponent`

The balanced model uses a 1.5 exponent. The weights are normalized to 100%, so changing duration reshapes the execution schedule.

Day-based supplier, approval and customer-payment lags are converted into fractional months using 30.4375 days per month. Cash is distributed between the two adjacent months according to the fractional result rather than through a fixed hard-coded split.

Long-lead procurement is modeled through order/deposit, manufacturing milestone, delivery and installation. Deposits are credited against later supplier obligations. Stored-material billings are subtracted from later progress billings to prevent double counting. Customer advances are received at Month 0 and recouped from subsequent progress billings.

Output definitions

Peak modeled project-cash deficit: largest negative cumulative month-end project-level cash position.

Assumed usable liquidity: modeled eligible cash and borrowing capacity available to support the incremental project after the liquidity overlay.

Residual external funding gap: peak modeled project-cash deficit less assumed usable liquidity, floored at zero.

Model limitations

The model excludes intra-month peaks, SG&A, taxes, debt service, corporate capex, acquisition commitments, base-business cash needs except through the simple overlay, simultaneous project cash requirements, change-order disputes, claims, margin erosion, project losses, financing fees and interest.

Appendix C - Selected Core Texas Project Table

This table is illustrative and not a statewide census.

Project	Location	Publicly disclosed scale	Observable evidence	What the evidence does not establish	Sources
Microsoft Pecos	Pecos / Reeves County	Approx. 2 GW capacity addition over 5-7 years	Direct sponsor announcement; behind-the-meter power plan	Current constructed or near-term energized capacity	[13]
OpenAI / SB Energy Milam - Freebird Phase 1	Milam County	1.2-GW site; TDLR Phase 1 building 548,950 sf	Sponsor/developer relationship plus registered $470M TDLR scope	Public proof of physical start or final campus cost	[15][16]
Vantage Frontier	Shackelford County	1.4 GW, 10 buildings	Company says construction has begun	Ultimate phase delivery and final spend	[9]
Meta El Paso	El Paso	1 GW compute; >$10B Meta investment; ~$14B total development cost	Company says campus is under construction	Full delivery schedule beyond initial 2028 capacity	[10]
DataBank Red Oak	Ellis County	480 MW planned; first four buildings 240 MW	Leased first three buildings; $2.0B initial financing; $2.65B after fourth-building upsize	Full eight-building completion	[11][12]
Crusoe Abilene original campus	Taylor County	1.2 GW planned	First two 100-MW buildings energized; six additional buildings under construction	Full 1.2-GW operation before completion	[14]
Crusoe / Microsoft Abilene expansion	Taylor County	900 MW; two buildings	Land clearing and site preparation underway	Mid-2027 energization or full 900-MW delivery	[14]
Crusoe / Lancium Childress	Childress County	1 GW announced	Direct developer announcement and interconnection claim; construction targeted Q3 2026	Physical construction start as of report date	[32]
Microsoft SAT82	Medina County	MW not public	Multiple TDLR building/scope filings	Whether filings are additive, revised or physically underway	[29]
Amazon Project Eagle	Wharton County	MW not public	Multiple owner-identified TDLR scopes with scheduled starts	Physical start, total campus cost or MW	[30]
Riot Rockdale / Corsicana	Milam and Navarro Counties	700 MW and 400 MW developed site capacity; smaller defined AI/HPC scopes	Existing mining infrastructure; 50 MW contracted AMD critical IT at Rockdale; Corsicana core/shell development initiated	Conversion of all site capacity into AI operating load	[25]
Cipher Black Pearl / Barber Lake	Texas	300 MW gross at each project; 216 MW and 207 MW contracted critical IT, respectively	Energized electrical sites plus active AI/HPC construction and future delivery schedules	Current operation of the full contracted AI load	[26]
Fermi Project Matador	Texas Panhandle	Company-stated 17-GW ultimate private-power concept; ~6 GW permitted	Early civil/power work, permits, equipment and financing activity	Near-term 17-GW compute capacity or full tenant commitment	[27]

Appendix D - Primary Source Notes

1. ERCOT, "2026 Peak Demand Records," last updated July 27, 2026. https://www.ercot.com/static-assets/data/news/content/a-peak-demand/2026/all-time-records.htm
2. ERCOT, "ERCOT Releases Preliminary Long-Term Load Forecast for Years 2026-2032 for PUCT Discussion," April 15, 2026. https://www.ercot.com/news/release/04152026-ercot-releases-preliminary
3. ERCOT, "PUCT Approves ERCOT's Batch Zero Process for Large Loads," June 18, 2026. https://www.ercot.com/news/release/06182026-puct-approves-ercots
4. ERCOT, Market Notice M-B062326-04, Batch Zero implementation dates and public-statistics notice, July 2026. https://www.ercot.com/services/comm/mkt_notices/M-B062326-04
5. Oncor, "Oncor Reports Second Quarter 2026 Results," August 6, 2026. https://www.oncor.com/content/oncorwww/wire/en/home/newsroom/oncor-reports-second-quarter-2026-results.html
6. CenterPoint Energy, "CenterPoint Energy Reports Strong Q2 2026 Results; Provides Update on ERCOT's Batch Zero Process," July 28, 2026. https://investors.centerpointenergy.com/news-releases/news-release-details/centerpoint-energy-reports-strong-q2-2026-results-provides
7. AEP, "AEP Texas Advances Reliability and Growth with Federal Funding Expected to Save Customers $685 Million," July 8, 2026. https://www.aep.com/news/stories/view/12063/
8. Texas Comptroller, "Data Centers" and registered qualifying data-center records. https://comptroller.texas.gov/taxes/data-centers/
9. Vantage Data Centers, "Vantage Data Centers Unveils Plans for Frontier," August 19, 2025. https://vantage-dc.com/news/vantage-data-centers-unveils-plans-for-frontier-a-25b-mega-campus-in-texas-to-meet-unprecedented-ai-demand/
10. Meta, "Meta Announces New Strategic Venture With BlackRock to Develop Data Center in El Paso," July 2026. https://about.fb.com/news/2026/07/meta-announces-new-venture-with-blackrock-to-develop-data-center-in-el-paso/
11. DataBank, "$2.0B Construction Financing for First Three Data Centers on New South Dallas Campus," April 21, 2026. https://www.databank.com/resources/press-releases/databank-secures-2-0b-of-construction-financing-for-first-three-data-centers-on-new-south-dallas-campus/
12. DataBank, "$1.45 Billion in New Financing Across Two Transactions," June 15, 2026. https://www.databank.com/resources/press-releases/databank-closes-1-45-billion-in-new-financing-across-two-transactions/
13. Microsoft, "Powering the Next Wave of AI: Expanding Capacity With Our New Datacenter in Pecos," June 22, 2026. https://blogs.microsoft.com/blog/2026/06/22/powering-the-next-wave-of-ai-expanding-capacity-with-our-new-datacenter-in-pecos/
14. Crusoe, "New 900 MW AI Factory Campus in Abilene," March 27, 2026. https://www.crusoe.ai/resources/newsroom/crusoe-announces-new-900-mw-ai-factory-campus-in-abilene-texas-to-support-microsoft-ai-infrastructure
15. OpenAI, "OpenAI and SoftBank Group Partner With SB Energy," January 9, 2026. https://openai.com/index/stargate-sb-energy-partnership/
16. Texas Department of Licensing and Regulation, Freebird Data Center Phase 1, TABS2026017746, registered April 15, 2026. https://www.tdlr.texas.gov/TABS/Search/Project/TABS2026017746
17. Turner & Townsend, "Data Centre Construction Cost Index 2025 - Data Centre Cost Trends." https://reports.turnerandtownsend.com/data-centre-construction-cost-index-2025/data-centre-cost-trends
18. Comfort Systems USA, Form 10-K for year ended December 31, 2025. https://www.sec.gov/Archives/edgar/data/1035983/000110465926017530/fix-20251231x10k.htm

19. Quanta Services, Form 10-K for year ended December 31, 2025. https://www.sec.gov/Archives/edgar/data/1050915/000105091526000006/pwr-20251231.htm
20. EMCOR Group, Form 10-K for year ended December 31, 2025. https://www.sec.gov/Archives/edgar/data/105634/000010563426000025/eme-20251231.htm
21. MYR Group, Form 10-K for year ended December 31, 2025. https://www.sec.gov/Archives/edgar/data/700923/000070092326000007/myrg-20251231.htm
22. Powell Industries, Form 10-K for year ended September 30, 2025, and Form 10-Q for quarter ended December 31, 2025. https://www.sec.gov/Archives/edgar/data/80420/000008042025000152/powl-20250930.htm and https://www.sec.gov/Archives/edgar/data/80420/000008042026000015/powl-20251231.htm
23. Sterling Infrastructure, Form 10-K for year ended December 31, 2025. https://www.sec.gov/Archives/edgar/data/874238/000087423826000024/strl-20251231.htm
24. IES Holdings, Form 10-K for year ended September 30, 2025. https://www.sec.gov/Archives/edgar/data/1048268/000104826825000174/iesc-20250930.htm
25. Riot Platforms, Form 10-Q for quarter ended March 31, 2026. https://www.sec.gov/Archives/edgar/data/1167419/000110465926053120/riot-20260331x10q.htm
26. Cipher Mining, Form 10-K for year ended December 31, 2025, and Form 10-Q for quarter ended March 31, 2026. https://www.sec.gov/Archives/edgar/data/1819989/000181998926000009/cifr-20251231.htm and https://www.sec.gov/Archives/edgar/data/1819989/000181998926000028/cifr-20260331.htm
27. Fermi America, Project Matador disclosures and fiscal-year 2025 shareholder materials. https://fermiamerica.com/ and https://www.sec.gov/Archives/edgar/data/2071778/000207177826000007/frmiex991fy2025shletter.htm
28. U.S. Department of Energy, distribution-transformer supply-chain materials. https://www.energy.gov/oe/distribution-transformers
29. TDLR, Microsoft SAT82 filing, TABS2026008231. https://www.tdlr.texas.gov/TABS/Search/Project/TABS2026008231
30. TDLR, Amazon Project Eagle building filing, TABS2026023832. https://www.tdlr.texas.gov/TABS/Search/Project/TABS2026023832
31. TDLR, BT Gateway filing, TABS2026023619. https://www.tdlr.texas.gov/TABS/Search/Project/TABS2026023619
32. Crusoe and Lancium, "1.0 Gigawatt AI Data Center Campus in Childress, Texas," July 15, 2026. https://www.crusoe.ai/resources/newsroom/crusoe-and-lancium-announce-1-gigawatt-ai-data-center-campus-in-childress-texas

All web sources were retrieved or revalidated for this report on August 11, 2026.

Appendix E - Final Publication-Day Freshness Checks

Immediately before publication, recheck:

1. ERCOT's 2026 all-time peak after additional settlement passes.
2. Whether ERCOT has published an official statewide Batch Zero aggregate or revised classification statistics.
3. Oncor's latest request, Batch Zero expectation and collateral definitions.
4. CenterPoint's submitted and expected-eligible Batch Zero figures.
5. AEP Texas' current potential-load and transmission-program figures.
6. Whether Vantage Frontier's first building has reached its stated H2 2026 delivery milestone.
7. Meta El Paso construction status and venture close.
8. DataBank Red Oak building delivery and financing scope.
9. Physical status of Milam County Freebird Phase 1 and Childress.
10. Abilene building energization and construction status.
11. Cipher Black Pearl and Barber Lake delivery status.
12. Riot's delivered and contracted AMD critical IT load and Corsicana core-and-shell progress.
13. Fermi's permit, tenant, financing and first-power status.
14. Any project-specific statement that uses "under construction," "energized" or "operating."