

ERCOT could hit ~150 GW by 2030 — nearly double its record peak. Your capital plan is where that gets built.

Data centers, AI, crypto, LNG, Permian electrification, and new manufacturing are stacking gigawatts onto a grid that already set an 85,931 MW record and lived through Winter Storm Uri. Each new load, loan, and reliability rule reshuffles the projects on your list. Invizion helps electric utilities re-sequence a capital portfolio in a click — and defend every decision to the PUCT, a board, or the market.

~150 GW¹ ERCOT's projected peak demand by 2030 — up from an 85,931 MW record.	85,931 MW¹ ERCOT's all-time peak demand, set August 20, 2024.	\$47.5B² Oncor's base capital plan for 2026–2030.	\$66.7B³ CenterPoint Energy's 10-year capital plan, 2026–2035.
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THE TEXAS LANDSCAPE

Four forces are moving your project list at once

None of these is theoretical, and none of them waits for the next legislative session or rate case. Together they mean the capital plan you approved last year may already be the wrong plan.

DEMAND — LOAD GROWTH**Gigawatts of new load, arriving fast**

ERCOT projects peak demand could reach roughly 150 GW by 2030 — close to double its 85,931 MW record — driven by data centers and AI, crypto mining, LNG export terminals, hydrogen, and Permian Basin oil-and-gas electrification¹

The pipeline is concrete, not hypothetical: AEP Texas alone holds letters of agreement backing up to 41 GW of potential new load through 2030,⁴ and CenterPoint reports 12.2 GW of firmly committed industrial load in Greater Houston with roughly 8 GW of data-center load expected energized by 2029.³ Every large new customer is a capacity commitment competing for the same capital.

RELIABILITY — PEAKS & STORMS**The bar was set by Uri — and the peaks keep climbing**

ERCOT set an all-time peak of 85,931 MW on August 20, 2024, and manages about 90% of the state's electric load for more than 25 million customers.¹

February 2021's Winter Storm Uri is the reason reliability is now a capital question: more than 4.5 million homes and businesses lost power, at least 246 people died, and damages ran to \$26.5 billion or more.⁶ Storage is one answer — ERCOT grid batteries reached about 11 GW in 2025, up from 2 GW in 2022 — but each addition is another project on the list¹

GENERATION — THE TRANSITION

A mixed fleet, rebalancing on a capital clock

By 2025 Texas generated about 40.5% of its electricity from natural gas, 23.2% from wind, 13.7% from solar, 12.7% from coal, and 8.5% from nuclear.⁷ Texas leads the nation in wind, with more than 40,000 MW installed supplying 22.4% of ERCOT electricity in 2025,⁸ and is the fastest-growing solar market, at 22,872 MW of PV by 2023.⁹

The state is also pulling new dispatchable gas onto the grid: NRG's 415 MW T.H. Wharton plant came online under the Texas Energy Fund, with more projects in progress.⁵ Renewables, storage, and firm gas all land on the same capital plan at the same time.

CAPITAL — GRID & HARDENING

Build transmission and harden it, at the same time

The transmission bill is enormous. Oncor plans \$47.5 billion of base capital over 2026–2030² and is responsible for most of more than \$7 billion of ERCOT-endorsed transmission expected 2026–2034, much of it serving the Permian Basin and West Texas.

¹⁰ AEP Texas secured a U.S. Department of Energy loan of up to \$3.26 billion to rebuild and expand roughly 2,800 miles of transmission.⁴

Hardening stacks on top of growth: after Hurricane Beryl left about 2.2 million CenterPoint customers without power in July 2024,¹¹ resiliency became a funded program inside a \$66.7 billion capital plan.³ New obligations don't replace the backlog — they stack on it, and something has to move.

WHO RUNS TEXAS'S GRID

Competitive by design: T&D wires companies, municipals, and a vast co-op footprint

Most of Texas sits inside ERCOT and its deregulated market: PUCT-regulated transmission & distribution utilities own the wires, while generation and retail are competitive. Municipal utilities and electric cooperatives govern themselves. The load pressure is shared; the accountability path differs.

Investor-owned T&D utilities

Wires & capital recovery regulated by the PUCT

Oncor Electric Delivery Largest T&D utility in Texas · north, central & west TX²

CenterPoint Energy Greater Houston · ~2.2M+ metered customers¹¹

Houston Electric

AEP Texas West & south Texas (AEP Texas North + Central)¹²

Texas-New Mexico Power (TNMP) Pockets of north, central, west & Gulf-coast Texas

El Paso Electric Far west Texas · outside ERCOT

Oncor and CenterPoint alone plan roughly \$47.5 billion and \$66.7 billion of capital over their current multi-year programs²³

Municipals & cooperatives

Governed by city councils & member boards, not PUCT rates

CPS Energy (San Antonio) Municipally owned · generation, transmission & distribution

Austin Energy City of Austin municipal utility

Pedernales Electric Cooperative Nation's largest distribution co-op · 410,000+ members¹³

Brazos, Bluebonnet, CoServ & others G&T and distribution co-ops statewide

ERCOT covers about 90% of Texas load for more than 25 million customers across 46,500+ miles of transmission — and co-ops carry the wires across much of rural Texas.¹

Every capital dollar has to be defensible

Whether you answer to the Public Utility Commission, a city council, or a member board, the question is the same: why this project, why now, why at this cost?

Public Utility Commission of Texas (PUCT) regulates the rates and capital recovery of the transmission & distribution utilities in ERCOT's competitive market — generation and retail electric service are competitive, not rate-regulated.¹⁴

ERCOT runs the grid and market for about 90% of the state's load and sets the interconnection and transmission-planning process that governs when large new loads and generators can connect¹

The Texas Energy Fund, administered by the PUCT, provides low-interest loans for new dispatchable generation inside ERCOT — the vehicle behind projects such as NRG's 415 MW T.H. Wharton plants⁵

Municipals and cooperatives — CPS Energy, Austin Energy, and co-ops like Pedernales — set their own rates through councils and member boards, making capital trade-offs in front of the customers who own them.¹³

The money is moving — can your plan absorb it?

Texas utilities have more grid and generation capital available than they've had in a generation — state loans, federal loans, and record utility capex. The constraint is readiness: which projects qualify, which are shovel-ready, and how the timing lines up.

Texas Energy Fund — dispatchable generation loans (PUCT). NRG's 415 MW T.H. Wharton plant came online under the program with a completion-bonus grant valued at up to \$54.72 million over 10 years, with additional TEF projects on track.⁵

DOE loan up to \$3.26 billion to AEP Texas to rebuild, reconductor, and build roughly 2,800 miles of transmission across west and south Texas.⁴

Oncor: \$47.5B capital plan (2026–2030) plus responsibility for most of \$7B+ of ERCOT-endorsed transmission through 2034, largely for the Permian Basin and West Texas²¹⁰

CenterPoint: \$66.7B capital plan (2026–2035) with a Greater Houston Resiliency Initiative launched after Hurricane Beryl's 2.2 million-customer outage.³¹¹

IRA direct-pay tax credits put utility-scale solar and storage within reach for public power and cooperatives — CPS Energy, Austin Energy, and co-ops like Pedernales — that cannot use tax equity.

TEXAS'S GRID, IN BRIEF

Questions Texas utility leaders are asking

Short, sourced answers — the same facts we dig into with utilities looking at their capital programs.

How fast is Texas's electricity demand growing?

ERCOT projects peak demand could reach roughly 150 GW by 2030, close to double its 85,931 MW record, driven by data centers, AI, crypto, LNG, hydrogen, and Permian electrification. AEP Texas alone holds letters of agreement backing up to 41 GW of potential new load through 2030.⁴

What changed after Winter Storm Uri?

Uri knocked out power to more than 4.5 million homes and businesses in February 2021, killed at least 246 people, and caused \$26.5 billion or more in damage — making reliability a capital priority. Since then the state stood up the Texas Energy Fund for new dispatchable generation, and ERCOT battery storage grew to about 11 GW in 2025 from 2 GW in 2022.⁶¹

Does the PUCT set my utility's rates?

The PUCT regulates the rates and capital recovery of the transmission & distribution wires companies — Oncor, CenterPoint, AEP Texas — while generation and retail are competitive. Municipals like CPS Energy and Austin Energy and co-ops like Pedernales set their own rates through councils and member boards.¹⁴¹³

How much are Texas utilities spending on the grid?

Oncor plans \$47.5 billion of base capital over 2026–2030 and CenterPoint \$66.7 billion over 2026–2035, while AEP secured a DOE loan of up to \$3.26 billion to expand about 2,800 miles of Texas transmission.²³⁴

What is the Texas Energy Fund?

It is a PUCT-administered program that provides low-interest loans to build new dispatchable (mostly natural-gas) generation inside ERCOT, created to add firm capacity after Uri. NRG's 415 MW T.H. Wharton plant is one of the first to come online under it, with a completion bonus of up to \$54.72 million over 10 years.⁵

How does Invizion help Texas electric utilities plan capital?

Invizion is scenario-based capital portfolio optimization for utilities. It lets you model how a data-center load surge, a Texas Energy Fund or DOE loan, or a new ERCOT transmission obligation reshuffles your whole project list, re-sequence the portfolio automatically, and keep a defensible record of every decision for the PUCT, your board, or the market.

REFERENCES

Sources

Every figure in this briefing is tied to a primary or authoritative source.

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ABOUT INVIZION

Capital program optimization for utilities

Invizion is a purpose-built capital lifecycle management platform for utilities. It integrates budgeting, CIP, scenario analysis, and funding-source tracking in one system — so utilities can re-sequence a capital portfolio in a click and demonstrate audit-ready, defensible decisions to regulators, boards, and rating agencies.

See how utilities keep capital plans current and defensible with Invizion.

Explore Invizion →