

COLORADO · ELECTRIC UTILITIES · CAPITAL BRIEFING

Colorado is wiring in 5,500 MW of clean power and \$1.7B of new transmission by 2030. Your capital plan is where it lands.

Coal is retiring on a fixed clock, data-center load is arriving faster than the queue can absorb, and a sparking power line already cost the state its most destructive fire. Every one of those forces reshuffles the projects on your list. Invizion helps electric utilities re-sequence a capital portfolio in a click — and defend every decision to the PUC or a board.

5,500 MW¹ New wind, solar and other resources Xcel plans to add in Colorado through 2030.	\$1.7B¹ Colorado's Power Pathway — about 550 miles of new double-circuit 345 kV transmission.	~85%² Carbon cut Xcel targets by 2030 (from 2005) as its remaining Colorado coal retires.	\$685M³ High Plains project: 250 MW of solar plus a 200 MW battery, online December 2027.
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Last updated September 2026 · 18 sourced references

THE COLORADO LANDSCAPE

Four forces are moving your project list at once

None of these is theoretical, and none of them waits for your next budget cycle. Together they mean the capital plan you approved last year may already be the wrong plan.

DEMAND — LOAD GROWTH

Large loads, arriving faster than the queue

WECC projects Western electricity demand rising about 25% over the next decade, with peak demand climbing from roughly 160 GW in 2026 to 191 GW by 2035 — driven heavily by data centers and AI.⁴

Colorado is feeling it directly: in April 2026 Xcel asked the PUC for a large-load tariff so new customers of 50 MW or more — and some as small as 20 MW — pay for the transmission, substations, and new generation they trigger, with 15-year-plus commitments, rather than shifting those costs onto existing ratepayers.⁵

RELIABILITY — RESOURCE ADEQUACY

Thin margins on a weather-dependent fleet

WECC warns the West could face energy shortfalls as early as 2028, and roughly 90% of planned additions are inverter-based — solar, wind, storage — with about half still classed as speculative.

⁴ The reliability margin now depends on projects landing on schedule.

Colorado generated about 58.8 million MWh in 2024 — natural gas is now its leading source — against roughly 19,817 MW of summer capacity.⁶ Every retirement and every delayed interconnection tightens that balance.

GENERATION — THE TRANSITION

Coal out, clean in — on a capital clock

Xcel plans to retire its remaining Colorado coal at Comanche (Pueblo) by the end of 2030 and Hayden by 2028, targeting nearly an 85% carbon cut from 2005 levels by 2030 — up from 53% already achieved by 2023.²

Replacing that firm capacity is a build program, not a switch: the \$685 million High Plains project alone adds 250 MW of solar and a 200 MW battery in Morgan County by December 2027, part of a plan for about 80% renewable electricity by the end of the decade.³

CAPITAL — GRID & WILDFIRE

Build out and harden, at the same time

Colorado's Power Pathway is a \$1.7 billion, ~550-mile 345 kV backbone built to carry the roughly 5,500 MW of new resources Xcel is adding through 2030, with segments phasing in from 2025 to 2027.¹

On top of growth, wildfire is now a funded obligation. The Marshall Fire — Colorado's most destructive, with about 1,084 structures lost and more than \$2 billion in damage — was traced in part to a sparking Xcel power line.⁷ Xcel's 2025–2027 Wildfire Mitigation Plan, approved by the PUC in June 2025, layers public-safety power shutoffs, AI smoke detection, and hardening onto the same capital budget.⁸

WHO RUNS COLORADO'S GRID

Two investor-owned utilities, big municipal and public power, and a wide co-op footprint

Colorado has only two PUC-regulated electric investor-owned utilities. The rest of the state is served by municipal utilities, a public-power wholesaler, and generation-and-transmission and distribution cooperatives — the pressures are shared; the accountability path differs.

Investor-owned utilities

Rates & capital recovery regulated by the Colorado PUC

Xcel Energy (Public Service Co. of Colorado) Colorado's largest electric utility; Xcel serves ~3.9M electric customers across 8 states⁹

Black Hills Energy — Colorado Electric Serves the Pueblo area and southern Colorado¹⁰

Colorado has just two investor-owned electric utilities — so Xcel's build-out, from the \$1.7B Power Pathway to the \$685M High Plains project, sets much of the state's grid-capital agenda¹³

Municipal, public power & cooperatives

Governed by city councils, boards & members, not PUC rates

Colorado Springs Utilities Municipal four-service utility; expanding battery storage¹¹

Platte River Power Authority Wholesale power for Estes Park, Fort Collins, Longmont & Loveland; working toward a noncarbon future¹²

Tri-State G&T Wholesale to member co-ops across CO, NE, NM & WY; ~200,000 sq. mi.¹³

Holy Cross, United Power, CORE Electric Distribution cooperatives

Every capital dollar has to be defensible

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

Colorado Public Utilities Commission (PUC) regulates rates, cost recovery, and Electric Resource / Clean Energy Plans for the investor-owned utilities — Xcel (Public Service) and Black Hills¹⁴

The Electric Resource Plan is a two-phase process. Xcel's plan to replace its remaining coal moves through PUC review with a decision expected in fall 2026 — approvals are not a formality²

Xcel's Colorado electric rate request sought a net revenue increase of about \$312.2 million, following more than \$2.1 billion invested in generation, transmission, and distribution — including roughly \$310.3 million on wildfire mitigation.¹⁵

Wildfire cost recovery via securitization. Xcel is financing its PUC-approved 2025–2027 Wildfire Mitigation Plan through securitization to hold down bill impact — a structure the Commission must sign off on.⁸

The money is moving — can your plan absorb it?

Colorado utilities have more grid and clean-energy capital available than they've had in a generation. The constraint is readiness: which projects qualify, which are shovel-ready, and how the timing lines up.

\$25.6M in DOE grid-resilience formula funding awarded to Colorado (via the Energy Office and DOLA) for microgrids, grid hardening for small communities, and advanced grid monitoring¹⁶

\$156M to expand solar for Colorado — federal Solar for All funding to bring distributed clean power to more customers and lower bills¹⁷

DOE's GRIP program — \$7.6B nationally across 105 projects in all 50 states — is competitive money for transmission, resilience, and smart-grid work that Colorado utilities compete for¹⁸

IRA elective-pay (direct-pay) credits put utility-scale solar and storage in reach for public power, munis, and co-ops like Platte River, Colorado Springs Utilities, and Tri-State — entities that historically could not use tax credits.

COLORADO'S GRID, IN BRIEF

Questions Colorado utility leaders are asking

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

How fast is electricity demand growing in Colorado and the West?

WECC projects Western demand up about 25% over the next decade, with peak load rising from roughly 160 GW in 2026 to 191 GW by 2035, largely from data centers and AI. Colorado has proposed a large-load tariff so new 50 MW-plus customers cover the infrastructure they trigger⁴⁵

What's happening to Colorado's coal plants?

Xcel plans to retire its Hayden units by 2028 and its remaining coal at Comanche in Pueblo by the end of 2030, targeting nearly an 85% carbon reduction from 2005 levels by 2030²

What is Colorado's Power Pathway?

It is a roughly \$1.7 billion, ~550-mile double-circuit 345 kV transmission backbone Xcel is building, with segments phasing in from 2025 to 2027, to carry about 5,500 MW of new wind, solar, and other resources by 2030¹

Does the PUC set my utility's rates?

The Colorado Public Utilities Commission regulates rates and resource plans for the investor-owned utilities — Xcel and Black Hills. Municipal utilities like Colorado Springs Utilities and public-power and cooperative systems set their own rates through councils, boards, and members³⁴

How is wildfire risk changing utility capital plans?

The Marshall Fire — Colorado's most destructive, over \$2 billion in damage and about 1,084 structures — was traced in part to an Xcel power line. Xcel's PUC-approved 2025–2027 Wildfire Mitigation Plan now layers shutoffs, AI detection, and hardening onto the capital budget⁷⁸

How does Invizion help Colorado electric utilities plan capital?

Invizion is scenario-based capital portfolio optimization for utilities. It lets you model how a load surge, a grant, a coal-retirement date, or a wildfire-mitigation mandate reshuffles your whole project list, re-sequence the portfolio automatically, and keep a defensible record of every decision for the PUC or your board.

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 →