

America's #1 electricity exporter is being contracted, plant by plant, to feed AI.

Pennsylvania is the largest net supplier of power to other states, and hyperscalers are now buying its nuclear and gas fleet directly while PJM capacity costs spike and load climbs after 15 flat years. Every one of those forces moves the projects on your list. Invizion helps electric utilities re-sequence a capital portfolio in a click — and defend every decision.

#1¹ Pennsylvania is the largest net exporter of electricity to other states, and the nation's #2 nuclear generator.	~\$16B² PJM's 2025/2026 capacity auction cleared near \$16 billion — roughly eight times the prior year's \$2.2 billion.	819 MW³ Three Mile Island Unit 1 is restarting as the Crane Clean Energy Center under a 20-year Microsoft power deal.	\$15B⁴ Redevelopment of the former Homer City coal plant into a natural-gas-and-data-center campus.
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THE PENNSYLVANIA 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

Fifteen flat years, then a data-center surge

PJM — the grid Pennsylvania anchors — now forecasts roughly 5% annual demand growth after essentially no growth from 2005 to 2020, driven overwhelmingly by data centers²

The state's nuclear fleet is being contracted straight to the hyperscalers: Constellation is restarting the 819 MW Three Mile Island Unit 1 as the Crane Clean Energy Center under a 20-year Microsoft deal,³ and Talen sold its Susquehanna data-center campus to Amazon for \$650 million, with up to roughly 1,920 MW of output dedicated to AWS by 2032.⁵

RELIABILITY — MARGINS & PEAKS

Load stacking faster than supply

PJM's peak load has reached about 147,820 MW and is forecast to climb toward 160,971 MW by 2033 as new demand arrives faster than generation is added²

The capacity market is the warning light: the 2025/2026 auction cleared near \$16 billion — roughly eight times the prior year's \$2.2 billion — a signal that reserve margins are tightening across the Pennsylvania-anchored footprint²

GENERATION — THE TRANSITION

Coal out, gas and nuclear back in

Pennsylvania is the largest net electricity exporter and the #2 nuclear generator in the country, with natural gas now its single largest source.¹ It generated about 241.5 million MWh in 2024 — third-most of any state.⁶

The transition runs both directions: the 2,022 MW Homer City plant, once the state's largest coal station, is being redeveloped into a \$15 billion gas-and-data-center campus,⁴ while retired nuclear at Three Mile Island is brought back for tech loads³

CAPITAL — GRID & TRANSMISSION

The pressure lands on the wires

With generation being contracted directly to hyperscalers, the burden shifts to transmission and distribution. Pennsylvania's investor-owned utilities must interconnect gigawatts of new load while the PUC scrutinizes every dollar and the Distribution System Improvement Charge funds accelerated replacement between rate cases.⁷

Federal grid money is moving to meet it — DOE's GRIP program alone is deploying \$7.6 billion across 105 projects nationwide⁸ New obligations don't replace the backlog; they stack on top of it, and something on the list has to move.

WHO RUNS PENNSYLVANIA'S GRID

Five large investor-owned utilities, plus co-ops and municipals

Pennsylvania restructured its electric market in the 1990s: distribution stays regulated by the PUC while supply is competitive. The wires are carried by big investor-owned utilities, member-owned cooperatives, and borough electric systems. The pressures are shared; the accountability path differs.

Investor-owned utilities

Rates & capital recovery regulated by the PA PUC

PECO (Exelon) 1.6M+ electric customers · southeastern PA / Philadelphia⁹

PPL Electric Utilities ~1.4M customers · 29 counties, central & eastern PA¹⁰

FirstEnergy PA (Met-Ed, Penelec, Penn Power, West Penn Power) Four utilities within FirstEnergy's ~6M-customer, five-state footprint¹²

Duquesne Light 588,000+ customers · Pittsburgh region¹¹

UGI Utilities (Electric) Small electric division in northeastern PA

PECO, PPL, Duquesne Light and FirstEnergy's four Pennsylvania companies each answer to the PUC for how — and how fast — they recover grid capital.⁷

Cooperatives & public power

Governed by members & local boards, not PUC rates

Allegheny Electric Cooperative Statewide generation & transmission co-op for PA's rural distribution co-ops¹³

Pennsylvania's rural electric distribution cooperatives Member-owned systems serving rural counties¹³

Borough / municipal electric systems Locally governed community-owned utilities

Every capital dollar has to be defensible

Whether you answer to the Public Utility Commission or a co-op board, the question is the same: why this project, why now, why at this cost?

Pennsylvania Public Utility Commission (PUC) regulates rates, capital recovery, and resource planning for the state's investor-owned electric utilities — PECO, PPL, Duquesne Light, and FirstEnergy's Met-Ed, Penelec, Penn Power and West Penn Power⁷

Distribution System Improvement Charge (DSIC) — under Act 11 of 2012, the PUC lets utilities recover accelerated infrastructure replacement through a surcharge between base rate cases, tying capital sequencing directly to cost recovery⁷

Default-supply rates jumped in 2025. Because Pennsylvania is a retail-choice state, default “Price to Compare” supply rates reset periodically — and the roughly eightfold rise in PJM capacity costs to about \$16 billion pushed those rates up across PA utilities²

Restructured market. Since 1990s deregulation, distribution stays PUC-regulated while generation supply is competitive — so utilities' capital cases center on the wires, not the power plants⁷

The money is moving — can your plan absorb it?

Pennsylvania's grid and generation are drawing federal and private capital at a scale not seen in a generation. The constraint is readiness: which projects qualify, which are shovel-ready, and how the timing lines up.

DOE GRIP: \$7.6B, 105 projects nationwide across all 50 states and D.C. — grid-resilience and innovation funding that PA transmission and distribution utilities compete for⁸

\$1B DOE loan to Constellation (Nov 2025) toward the \$1.6 billion Three Mile Island / Crane restart — federal capital re-entering Pennsylvania generation³

\$650M Amazon acquisition of Talen's Susquehanna data-center campus, plus the **\$15B Homer City** gas-and-data-center redevelopment — private capital chasing PA power directly⁵⁴

Inflation Reduction Act credits — the nuclear production credit and transferable/direct-pay credits for solar and storage improve project economics for Pennsylvania generators, co-ops and municipals.

PENNSYLVANIA'S GRID, IN BRIEF

Questions Pennsylvania utility leaders are asking

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

Is Pennsylvania really a net electricity exporter?

Yes. Federal data ranks Pennsylvania the largest net supplier of electricity to other states and the nation's #2 nuclear generator, with natural gas its largest source.¹ The state generated about 241.5 million MWh in 2024 — third-most of any states⁶

Why did Pennsylvania electric bills jump in 2025?

PJM's capacity auction cleared near \$16 billion — roughly eight times the prior year's \$2.2 billion — and those capacity costs flow through into default supply rates for Pennsylvania customers²

What's happening at Three Mile Island?

Constellation is restarting Three Mile Island Unit 1 as the Crane Clean Energy Center — 819 MW under a 20-year Microsoft power deal, a \$1.6 billion refurbishment backed by a \$1 billion DOE loan, targeting a 2027–2028 return³

Are data centers buying Pennsylvania's power plants?

Directly. Amazon bought Talen's Susquehanna data-center campus for \$650 million, with up to roughly 1,920 MW of nuclear output dedicated to AWS by 2032,⁵ and the former Homer City coal site is being redeveloped into a \$15 billion gas-and-data-center campus⁴

Who regulates Pennsylvania electric utilities?

The Public Utility Commission regulates rates, capital recovery and resource planning for the investor-owned utilities — PECO, PPL, Duquesne Light and FirstEnergy's four PA companies⁷ Cooperatives and municipal systems are governed by their own members and boards¹³

How does Invizion help Pennsylvania electric utilities plan capital?

Invizion is scenario-based capital portfolio optimization for utilities. It lets you model how a data-center interconnection, a capacity-price spike, or a generation retirement 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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13. Allegheny Electric Cooperative / Pennsylvania Rural Electric Association — statewide generation-and-transmission cooperative serving Pennsylvania's member-owned rural electric distribution cooperatives. www.prea.com

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 →